

## power supplies

by the thousands are available on the market today. Save time and effort the next time you

buy one by first consulting this special reference issue. Here are up-to-date specifications, prices and technical articles to simplify your next selection.



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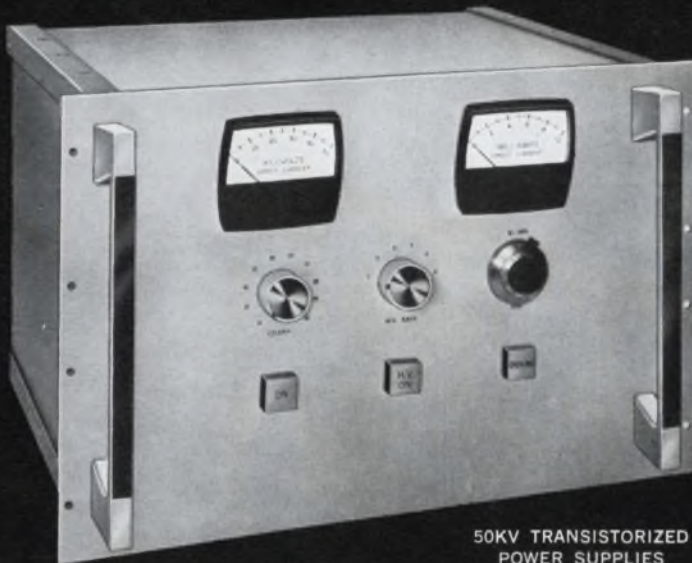
No specs are too tough for SOLA design engineers. Proof? SOLA has custom-designed power supplies for the most sophisticated applications. Electron probe microanalysis equipment, nucleonic liquid gages for supersonic aircraft, precipitators, CRT devices, for instance.

The SOLA power supply used in liquid gages, for example, contains 120 parts, four etched circuit boards, yet measures only 1.86" in diameter, and .9" high. What's more, it provides regulation of  $\pm 0.25\%$  for all conditions of line, load, and temperature. It operates in a temperature range of  $-55^{\circ}\text{C}$  to  $72^{\circ}\text{C}$ , at thirty times the pull of gravity.

This is one of the many "tough spec" custom power supplies SOLA has engineered over the years. Whatever your requirements might be . . . extreme temperatures, tight regulation, low ripple, compactness, stability . . . remember, SOLA can custom-build your power supplies in OEM quantities. And at a price that's realistic.

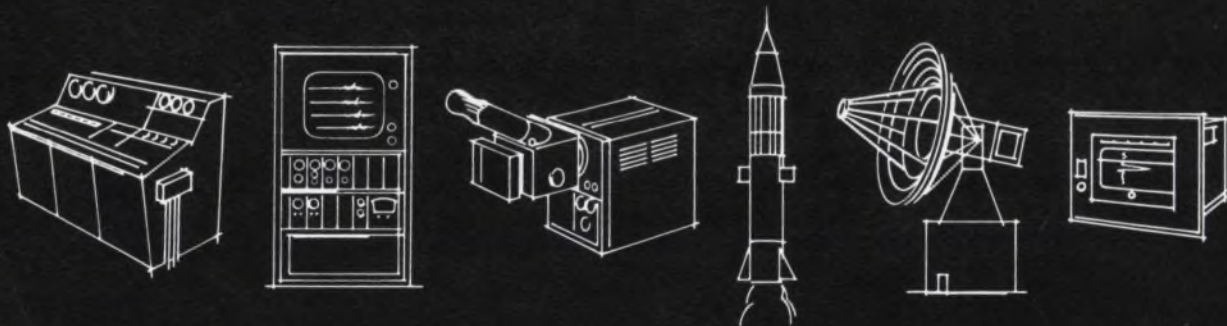
Try us. We haven't been stumped yet. Send us your specifications, or a description of the end result required.

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120 parts, 1.86" dia., 0.9" h.



**SOLA ELECTRIC** **SB**

DIVISION OF SOLA BASIC INDUSTRIES

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Cover: Sorensen's all-silicon DCR series  
with output capability to 20 kw.  
(photographed by S. H. Benham)

## Table locator

High-current dc

Constant-current dc

Laboratory-type dc

High-voltage dc

Special-purpose dc

Regulated ac

Modular dc



# in meters



SPRING-BACKED



CUSHION-BACKED



FIXED

look for this

watch out for this



**SPRING-BACKED JEWELS** (left above) dissipate much of the shock energy on a movement's moving part. This prevents damage to the jewel and avoids subsequent "stickiness" or inaccuracy. In contrast are the two constructions shown above right... so-called cushion-backed and fixed jewels. The fixed absorbs no shock at all. The cushion-backed protects a little, but still won't do the job under the rugged use to which most of us put meters and test equipment. ■ On the other hand, a spring-backed jewel permits full deflection with less than 20% increase in pivot pressure. Simpson makes a complete selection of spring-backed meter movements as well as fixed. The spring-backed type costs only about 20¢ more than a cushion-back, and 40¢ more than a fixed jewel. Is the spring-backed jewel worth the small extra amount? You bet it is, say most of our customers. ■ Write for Stock Catalog No. 2073 which lists 1400 sizes and types. It may well be the cure for meter headaches and complaints in your equipment.



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# ELECTRONIC DESIGN'S Power Supply Reference Issue 1966

Frank Egan  
Technical Editor

Here is your comprehensive, applications-oriented guide to power supplies and their selection. Specifications, prices and other pertinent data are all included to help simplify your next purchase. In addition, three technical articles bring you up-to-date on power supply technology and the factors to consider when selecting a power supply.

Specifications for approximately 5000 power supplies made by 145 manufacturers are presented in convenient tabular form. The data for the tables was supplied by Technical Information Corporation, of Smithtown, N. Y., from its two-volume directory of power supply specifications. T.I.C. also publishes a six-volume directory of equipment specifications, whose contents are as shown. Two volumes of this directory were published in ELECTRONIC DESIGN'S 1965 Test Equipment Reference Issue (May 3, 1965).

To expedite the location of a power supply having particular characteristics, the power supplies listed in this issue are divided into seven categories:

- **High-current dc power supplies**  
(output currents greater than 3 amperes)
- **Constant-current dc power supplies**

- **Laboratory-type dc power supplies**  
(output voltages up to 1000 volts and output currents up to 3 amperes)
- **High-voltage dc power supplies**  
(output voltages greater than 1000 volts)
- **Special-purpose dc power supplies**  
(voltage reference, klystron and microwave)
- **Regulated ac power supplies**
- **Modular dc power supplies**

All of the supplies listed incorporate both line and load regulation, and are available from the manufacturer as standard off-the-shelf units.

#### Technical Information Corp. directory

- Volume 1. Power supplies
- Volume 2. Signal generators
- Volume 3. Amplifiers and filters
- Volume 4. Passive components
- Volume 5. Test instruments (part I)
- Volume 6. Test instruments (part II)

(for information circle Reader Service number 399).

# Master Cross Index

Types of power supplies listed in the issue for each manufacturer are indicated by stars. For supplementary literature from a manufacturer, circle the appropriate number on the Reader Service Card.

Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
Abbey Electronics Corp 2 Sixth St New Hyde Park, NY	Abbey					★ 100		
Abbott Transistor Laboratories, Inc 3055 Buckingham Rd Los Angeles 16, Calif	Abbott							★ 101
ACDC Electronics, Inc 2979 North Ontario St Burbank, Calif 91504	ACDC							★ 102
Acme Electric Corp Cuba, NY	Acme	★ 103		★ 104				★ 105
Acopian Corp Easton, Pa	Acopian							★ 106
Advanced Electronics Corp 2 Commercial St Hicksville, NY	Advanced						★ 107	
Alfred Electronics Corp 3176 Porter Drive Palo Alto, Calif	Alfred		★ 108	★ 109	★ 110	★ 111		
Allison Laboratories, Inc P.O. Box 515 La Habra, Calif	Allison							★ 112
Alpha Scientific Labs, Inc 940 Dwight Way Berkeley, Calif	Alpha		★ 113					
Altair Corp Behlman-Invar Electronics Corp 1723 Cloverfield Blvd Santa Monica, Calif	Altair		★					
Arnold Magnetics Corp 6050 West Jefferson Blvd Los Angeles 16, Calif	Arnold							★ 115
Associated Specialties Co 1751 Main St Orefield, Pa	Assoc Spec			★ 116				★ 117
Atlas Controls, Inc 10 Cheney St Dorchester, Mass	Atlas							★



Manufacturers		High-Current DC	Constant Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
<b>Avtel Corp</b> 1130 East Cyprus St Covina, Calif	<b>Avtel</b>	★ 119						
<b>Ballantine Laboratories, Inc</b> Box 97 Boonton, NJ	<b>Ballantine</b>					★ 121		
<b>Basler Electric Co</b> Highland, Ill	<b>Basler</b>	★ 122						
<b>Behlman-Invar Electronics Corp</b> 1723 Cloverfield Blvd Santa Monica, Calif	<b>Behl-Invar</b>	★ 123		★ 124			★ 125	★ 126
<b>F. W. Bell Inc</b> 1356 Norton Ave Columbus, Ohio	<b>F. W. Bell</b>		★					
<b>Bogue Electric Mfg Co</b> 100 Pennsylvania Ave Paterson, NJ	<b>Bogue</b>	★ 128						
<b>Buchler Instruments, Inc</b> 1327 16th St Fort Lee, NJ	<b>Buchler</b>		★ 129	★ 130				
<b>Burr-Brown Research Corp</b> P.O. Box 6444 Tuscon, Ariz 85706	<b>B-B</b>			★ 131				★ 132
<b>Burton Manufacturing Co Electronics Div</b> 7922 Haskell Ave Van Nuys, Calif 91406	<b>Burton</b>							★
<b>CEA, Div of Berkleonics Corp</b> 1221 South Shamrock Monrovia, Calif	<b>CEA</b>			★				★
<b>CML, Inc</b> 350 Leland Ave Plainfield, NJ	<b>CML</b>						★ 136	
<b>Calibration Standards Now: Electro Instruments, Inc</b> 8611 Balboa Ave San Diego, Calif	<b>Cali Stand</b>					★ 137		
<b>Calmag Division California Magnetic Controls Corp</b> 11922 Valerio St North Hollywood, Calif	<b>Calmag</b>				★			
<b>Chalco Engineering Corp</b> 15126 South Broadway Gardena, Calif	<b>Chalco</b>	★ 139		★ 140				★ 141

Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
Chatham Electronics 630 West Mt Pleasant Ave Livingston, NJ	Chatham	★ 142						
Christie Electric Corp 3410 West 67th St Los Angeles, Calif	Christie	★ 143						
Cohu Electronics P.O. Box 623 San Diego, Calif	Cohu		★ 144	★ 145		★ 146		
Consolidated Avionics Corp 800 Shames Drive Westbury, NY	Con Av	★ 147						★ 148
Control Circuits, Inc Portland, Conn 06480	Con Cir							★
Cubic Corp 9233 Balboa Ave San Diego, Calif	Cubic					★		
Del Electronics Corp 250 East Sandford Blvd Mount Vernon, NY	Del				★ 151		★ 152	★ 153
Deltron Inc Wissahickon Ave North Wales, Pa	Deltron	★ 154	★ 155	★ 156				★ 157
Dressen-Barnes Electronics Corp 250 North Vinedo Ave Pasadena, Calif	D-B							★ 158
Duffers Associates, Inc P.O. Box 296 Troy, NY	Duffers			★ 159				
Dynage, Inc 390 Capital Ave Hartford, Conn	Dynage			★				★
Dynamic Controls Co 2229 Massachusetts Ave Cambridge, Mass 02140	Dy Con	★ 162	★ 163					
Elasco, Inc 33 Simmons St Boston, Mass 02120	Elasco							★ 164
Elcor Div of Halliburton Co 2431 Linden Lane Silver Spring, Md 20910	Elcor							★
Electro Products Laboratories Inc 6125 West Howard St Chicago, Ill	El Prod			★ 166				
Electronic Development Corp 423 West Broadway Boston, Mass	El Dev					★ 167		



Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
Electronic Measurements Co Div of Rowan Controller Corp Lewis St & Maple Ave Eatontown, NJ	EI Meas	★ 168	169	★ 170	★ 171		★ 172	
Electronic Modules Corp 1949 Greespring Drive Timonium, Md	EI Mod	★						
Electronic Research Associates, Inc 67 Sand Park Rd Cedar Grove, NJ	ERA	★ 174	★ 175	★ 176		★ 177		★ 178
Empire Products Singer Metrics Div 915 Pembroke St Bridgeport, Conn	Singer/Empire						★	
Endevco Corp 161 East California Blvd Pasadena, Calif	Endevco			★ 180				★ 181
Engineered Electronics Co 1441 East Chestnut Ave Santa Ana, Calif	Eng Elect	★ 182		★ 183				★ 184
Epsco, Inc 411 Providence Hgwy Westwood, Mass	Epsco					★ 185		
Fairlane Electronics P.O. Box 443 Orange, NJ	Fairlane	★ 186		★ 187				
Ferrotran Electronics Co, Inc 693 Broadway New York, NY 10012	Ferro							188
John Fluke Mfg Co, Inc P.O. Box 7428 Seattle, Wash	Fluke		★ 189	★ 190	★ 191	★ 192		
Freed Transformer Co 1718 Weirfield St Brooklyn, NY	Freed			★				
General Electric Co Specialty Transformer Dept Fort Wayne, Ind	GE						★ 194	★ 195
General Radio Co 22 Baker Ave West Concord, Mass	Gen Radio	★ 196	★ 197	★ 198			★ 199	
Geo Space Corp 5803 Glenmont Drive Houston, Texas	Geo Space	★ 288						
Glentronics, Inc 748 East Alosta Ave Glendora, Calif	Glentron	★ 201		★ 202				★ 203

Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
<b>Grafix, Inc</b> P.O. Box 3296 Albuquerque, NM 87110	<b>Grafix</b>							★ 204
<b>Grundig</b> 150 Nassau St New York, NY	<b>Grundig</b>			★				
<b>Gyra Electronics Corp</b> P.O. Box 184 La Grange, Ill	<b>Gyra</b>				★ 206			
<b>Hamner Electronics Co, Inc</b> P.O. Box 531 Princeton, NJ	<b>Hamner</b>				★			
<b>Harrison Division Hewlett-Packard Co</b> 100 Locust Ave Berkeley Heights, NJ	<b>Harrison</b>	★ 208	★ 209	★ 210	★ 211	★ 212		★ 213
<b>Heath Co</b> Hilltop Rd Benton Harbor, Mich	<b>Heath</b>	★ 214		★ 215				
<b>Hevi-Duty Electric Co</b> Division Sola Basic Industries P.O. Box 563 Milwaukee, Wisc	<b>Hevi-Duty</b>	★ 216				★ 217		
<b>Hipotronics</b> P.O. Box 1 Brewster, NY	<b>Hipotron</b>				★ 218			
<b>Holt Instrument Laboratories</b> P.O. Box 230 Oconto, Wisc	<b>Holt</b>		★ 219					
<b>William I. Horlick Co, Inc</b> 266 Summer St Boston 10, Mass	<b>Horlick</b>						★	
<b>Hyperion Industries Corp</b> 134 Coolidge Ave Watertown, Mass	<b>Hyperion</b>	★	★	★				
<b>ITI Electronics, Inc</b> 369 Lexington Ave Clifton, NJ	<b>ITI</b>	★ 224	★ 225					★ 226
<b>Industrial Test Equipment Co</b> 20 Beechwood Ave Port Washington, NY	<b>Ind Test</b>						★	
<b>International Electronic Research Corp</b> 135 West Magnolia Blvd Burbank, Calif	<b>IERC</b>						★ 228	
<b>Keithley Instruments, Inc</b> 12415 Euclid Ave Cleveland, Ohio	<b>Keithley</b>			★ 229	★ 230	★ 231		



Manufacturers		High-Current .DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
Kepeco, Inc 131-38 Sanford Ave Flushing 52, NY	Kepeco	★ 232	★ 233	★ 234	★ 235			★ 236
Key Instrument Co 1110 West Magnolia Blvd Burbank, Calif	Key Inst					★		
Kilovolt Corp 238 High St Hackensack, NJ	Kilovolt				★ 238			
Krohn-Hite Corp 580 Massachusetts Ave Cambridge, Mass	Krohn-Hite			★ 239				
Lambda Electronics Corp 515 Broad Hollow Rd Melville, NY	Lambda	★	★	★				★
Lear Siegler Data and Control Div 34-01 38th Ave Long Island City, NY	L-S	★ 244						
Litton Industries Electron Tube Div 960 Industrial Rd San Carlos, Calif	Litton					★ 245		
Magnetic Research Corp 3160 West El Segundo Blvd Hawthorne, Calif	Mag Res	★						★
Micro-Power, Inc 20-21 Steinway St Long Island City, NY	Micro-Power					★ 248		
Microdot Magnetics, Inc 5960 Bowcroft St Los Angeles, Calif	Microdot						★ 249	★ 250
Mid-Eastern Electronics, Inc 32 Commerce St Springfield, NJ	Mid-East	★ 251		★ 252				★ 253
Monroe Electronics, Inc 5 Vernon St Middleport, NY	Monroe				★ 254			
Moran Instrument Corp 170 East Orange Grove Ave Pasadena, Calif	Moran				★ 255			
NJE Corp 20 Boright Ave Kenilworth, NJ	NJE	★	★	★	★		★	
Narda Microwave Corp Commercial St Plainview, NY	Narda					★ 261		

Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
<b>Neutronic Associates</b> 4 Hawthorne St Farmingdale, NY	<b>Neutronic</b>				★			
<b>North Hills Electronics, Inc</b> Glen Cove, NY	<b>North Hills</b>		★ 263			★ 264	★ 265	
<b>Nuclear Corp of America</b> <b>Nuclear Div</b> 2 Richwood Pl Denville, NJ	<b>Nucor</b>							★ 266
<b>Numec Instruments &amp; Controls Corp</b> 300 Seco Road Monroeville, Pa	<b>Numec</b>							★ 267
<b>Oregon Electronics Corp</b> 2105 Southeast 6th Ave Portland 15, Oregon	<b>Oregon</b>			★				
<b>Owen Laboratories</b> 55 Beacon Place Pasadena, Calif	<b>Owen</b>		★	★				
<b>PRD Electronics, Inc</b> 1200 Prospect Ave Westbury, LI	<b>PRD Elec</b>					★ 271		
<b>Peerless Electrical Products</b> <b>Div of Altec Lansing Corp</b> 1515 South Manchester Ave Anaheim, Calif	<b>Peerless</b>							272
<b>Perkin Electronics Corp</b> 345 Kansas St El Segundo, Calif	<b>Perkin</b>	★ 273	★ 274	★ 275			★ 276	★ 277
<b>Philbrick Researches, Inc</b> Allied Drive at Route 128 Nedham, Mass	<b>Philbrick</b>							★ 278
<b>Pioneer Magnetics, Inc</b> 1745 Berkeley St Santa Monica, Calif	<b>Pioneer</b>	★ 279		★ 280				
<b>Plastic Capacitors</b> 2620 North Clybourn Ave Chicago, Ill	<b>PI Capac</b>				★			
<b>Plug-In Instruments, Inc</b> 1416 Lebanon Road Nashville, Tenn	<b>Plug-In</b>							★ 282
<b>Power Designs, Inc</b> 1700 Shames Drive Westbury, NY	<b>Pwr Des</b>	★ 283	★ 284	★ 285				★ 286
<b>Power Designs Pacific, Inc</b> 3381 Junipero Serro Palo Alto, Calif	<b>Power Designs</b>					★		



Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
Power Instruments Corp 140 Kansas St El Segundo, Calif	Pwr Inst	★		★				
Power Mate Corp 22 Walter St Pearl River, NY	PMC							★ 291
Power Sources, Inc South Ave Burlington, Mass	Pwr Srce	★		★			★	
Precise Electronics & Development Div of Designatronics, Inc 76 East 2nd St Mineola, NY	Precise			★ 295				
Precise Measurements Div Now: Beckman Instruments, Inc Cedar Grove Operation 89 Commerce Rd Cedar Grove, NJ	Precise M				★ 296			
Princeton Applied Research Corp P.O. Box 565 Princeton, NJ	Princeton		★ 297	★ 298		★ 299		
Radiation Instrument Development Labs 4501 West North Ave Melrose Park, Ill	RIDL				★			
Radio Frequency Laboratories, Inc Powerville Rd Boonton, NJ	RFL						★ 301	
Rapid Electric Co 2881 Middletown Rd Bronx, NY	Rapid	★						
Ratelco, Inc 610 Pontius Ave North Seattle 9, Wash 98109	Ratelco	★ 303						
Rohde & Schwarz Sales Co, Inc 111 Lexington Ave Passaic, NJ	R & S			★ 304				
Sames USA, Inc 269 Commercial Ave Palisades Park, NJ	Sames				★			
Scintillonics, Inc 221 North College Ave Fort Collins, Colo	Scint	★ 306						★ 307
Semiconductor Circuits 15 Williams Road North Reading, Mass	Semi Cir			★ 308				
Sensitive Research Instruments Dept Singer-Metrics Div 915 Pembroke St Bridgeport, Conn	Singer/Sensitive		★ 309					

Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
Servodynamics, Inc 111 New South Rd Hicksville, NY	Servodynamics					★		
	Singer/Empire (See Empire Products)							
Sola Electric Co Div of Basic Products Corp 1717 Busse Rd Elk Grove Village, Ill	Sola	★ 311	★ 312	★ 313			★ 314	
Sorensen A Unit of Raytheon Co Richards Ave South Norwalk, Conn	Sorensen	★ 315	★ 316	★ 317	★ 318		★ 319	★ 320
Specific Products 21051 Constanso St Woodland Hills, Calif	Specific			★ 321				
Spectromagnetic Industries 25377 Huntwood Ave Hayward, Calif	Spec Ind	★ 322	★ 323					
Spellman High Voltage Co 1930 Adeo Ave Bronx 69, NY	Spellman				★			
Superior Electric Co 383 Middle St Bristol, Conn	Superior						★ 325	
TRG, Inc Route 110 Melville, NY	TRG					★ 326		
Technical Apparatus Builders 109 Liberty St New York, NY	Tabtron	★ 327						★ 328
Technical Associates 140 West Providencia Ave Burbank, Calif	Tech Assoc				★			
Technipower, Inc Subsidiary Benrus Watch Co 18 Marshall St Norwalk, Conn	Tech Pwr	★ 330		★ 331				★ 332
Tel-Instrument Electronics Corp 728 Garden St Carlstadt, NJ	Tel-Inst						★ 333	
Topaz, Inc 3802 Houston St San Diego, Calif	Topaz			★ 334				
Transistor Devices, Inc Route 53 Mt. Tabor, NJ 07878	Trans Dev	★ 335		★ 336				★ 337



Manufacturers		High-Current DC	Constant-Current DC	Lab-Type DC	High-Voltage DC	Special-Purpose DC	Regulated AC	Modular DC
Addresses	Abbreviations							
<b>Trygon Electronics, Inc</b> 111 Pleasant Ave Roosevelt, NY	Trygon	★ 338	★ 339	★ 340				★ 341
<b>Twinco, Inc</b> 9 Erie Drive Natick, Mass	Twinco						★ 342	
<b>Universal Electronics</b> 1720 22nd St Santa Monica, Calif	Un Elect	★ 343	★ 344	★ 345				346
<b>Universal Voltronics Corp</b> 17 South Lexington Ave White Plains, NY	Un Volt				★ 347			★ 348
<b>Utronics, Inc</b> 805 Court St Utica, NY	Utronics	★						
<b>Valor Instruments, Inc</b> 13214 Chrenshaw Blvd Gardena, Calif	Valor	★ 350						
<b>Vector Engineering</b> 58 Brown Ave Springfield, NJ	Vector	★	★	★	★			
<b>Veritron Corp</b> P.O. Box 517 Ardsley, NY	Veritron				★ 355			
<b>Voltex Co, Inc</b> 115 Marine St Farmingdale, NY	Voltex	★ 356	★ 357	★ 358				
<b>Wabash Magnetics, Inc</b> <b>Hi-Voltage Div</b> 1375 Swan St Huntington, Ind	Wab Mag							★ 359
<b>Walden Electronics Corp</b> 223 Crescent St Waltham, Mass	Walden				★ 360			
<b>Weston Instruments</b> Div of Rotek 11 Galen St Watertown, Mass	Weston-Rotek					★ 361		
<b>Carl Zeiss, Inc</b> 444 Fifth Ave New York, NY	Zeiss				★ 362			

# Buying a power supply? Don't make your choice haphazardly. Use a three-step approach to get the maximum in performance at the minimum price.

If you are buying a power supply and want to get the most for your dollar, use a systematic approach. Three elements are involved:

- **Specifying** the required characteristics.
- **Selecting** a supply with these characteristics.
- **Evaluating**, or testing, the supply.

## Determine specifications first

The first step is to analyze the requirements of the application and, from these, draw up a list of specifications that the supply must meet. Specifications to be considered include the following:

**1. Input voltage and frequency:** This is, of course, the voltage that will be available to operate the power supply. In some cases input frequency stability is not guaranteed, and this must then be taken into account.

**2. Output voltage and current:** This is what the system requires. Both voltage and current may be either fixed or variable, depending on system requirements.

**3. Line and load regulation:** Line regulation is the variation in load voltage due to a variation in input voltage when the load impedance is held constant. It is generally specified as a load-voltage variation for a given change in line voltage—for example, 50 mv for a  $\pm 10$  v line variation. It can also be specified as a percentage-voltage variation of the load voltage—for example,  $\pm 0.01\%$  or 10 mv, whichever is greater.

Load regulation is the change in load voltage caused by a change in load impedance, with the line voltage held constant. It is normally specified as a percentage or a maximum voltage variation—such as 0.05% or 2 mv, whichever is greater.

**4. Stability:** This is specified as a percentage of load-voltage variation during a given period of time at constant temperature and under constant line and load conditions. To be meaningful, a stability rating should include a warm-up time—for example,  $\pm 0.25\%$  for 8 hours, after a 15-minute warm-up.

**5. Ambient temperature variation:** This indicates the temperature range over which the power supply may be either operated or stored—for example, operation from 0 to 75°C, storage from -55 to +75°C.

**6. Temperature coefficient:** This is given as a percentage of load-voltage variation per degree of temperature variation, with constant line and load conditions—for example, 0.01% per degree C.

**7. Ripple:** This is generally given as an rms voltage at the load, such as 35 mv. The rms value includes filter ripple and all unclassified noise and is not a sine-wave quantity. It therefore cannot be used to calculate the peak ripple. If the peak ripple is a critical value for the system, this should be made known to the vendor.

**8. Recovery time:** This is the time required for a load-voltage variation, due to an abrupt load-current variation, to return to the regulation band—for example, less than 100  $\mu$ sec for a 50% load transient. When specifying recovery time for a vendor, it is important to give the rise time of the load transient rather than merely specifying a step-load change. A step change is a variation that occurs in zero time. This is not as useful as stating the permissible rise time.

**9. Response time:** This is similar to, but not the same as, recovery time. Response time is the time required for a voltage, or current transient due to

## Basic regulation methods

An **analog voltage regulator** operates by sampling a portion of the load voltage. This sample voltage is compared with a fixed reference voltage, and the difference is used to control the bias of a series-pass element, usually a transistor, operating in its linear region.

An **SCR pre-regulator** operates by varying the firing angle of SCR rectifiers. Regulation is accomplished by sensing a portion of the load voltage and using this to control the firing angle of the SCRs. Because of the rapid firing time of the SCRs, generation of RFI may be a problem.

A **switching, or chopper, regulator** operates by controlling the ON-OFF time of a pass-element in series with the source voltage. The ratio of ON to OFF time is controlled by sampling a portion of the output voltage.

A **constant-voltage transformer regulator** operates by resonating a secondary winding of the transformer, so that the transformer core remains in saturation over the range of input-voltage variation. Load regulation depends on the transformer impedance.



a load change, to return to 37% of its maximum overshoot. It is important to remember the distinction between recovery time and response time when comparing data from different vendors.

10. **Output impedance:** This is generally specified over frequency bands—for example:  $Z_o$  (dc-1 Kc) = 0.02 ohm, or  $Z_o$  (1 Kc-100 Mc) = 0.05 ohm.

11. **Military specifications:** If the power supply is to be used in a military system, certain MIL Specs will have to be adhered to.

12. **Remote sensing and programing:** Remote sensing is required if tight voltage regulation is needed and the load is a considerable distance from the power supply. Data on the length and the size of the wire used to connect the power supply to the load should be furnished to the vendor.

Remote programing allows the load voltage to be controlled from the load rather than from the power supply. The recovery time then depends on other factors in addition to the power supply itself. If remote programing is required, data on the range and volt/ohm requirements should be furnished to the vendor.

13. **Series and parallel operation:** In the event that either series or parallel use of power supplies is planned, tell the vendor. Both series and parallel operation place constraints on power supplies, and these must be allowed for in the design.

14. **Mean time between failure (MTBF):** This is determined according to conditions established by the Government (Mil Handbook 217). It is an indication of the frequency of maintenance. MTBF is specified in continuous hours of operation between failures—for example, MTBF = 30,000 hours (one year = 8740 hours).

15. **Size and weight:** Packaging requirements

can be of critical importance and must be considered with the other specifications.

### Selection comes next

Once the power-supply specifications have been compiled, they can form the basis for a checklist, like that shown in Table 1. Such a checklist makes it easy to compare the established requirements with the performance of available supplies.

Very often the specifications dictate the type of power supply to be selected, since various types can meet different ranges of regulation, temperature coefficient, etc., with various amounts of circuit complexity. A comparison of the performance capabilities of the basic types of regulated supplies is given in Table 2. These types include analog series- or shunt-regulated supplies, SCR pre-regulated supplies, switching or chopper type supplies and ferro-resonant supplies. For each type, representative capabilities are given for three levels of design complexity.

You can see from the table that the more complex the design, the more exacting the specifications that can be expected. However, increased complexity is accompanied not only by increased cost but usually also by a lowered MTBF. This brings up an important point: There are factors besides specifications that should be considered before a power supply is finally selected. These factors include custom vs off-the-shelf supplies, reliability vs cost and the tendency to overspecify.

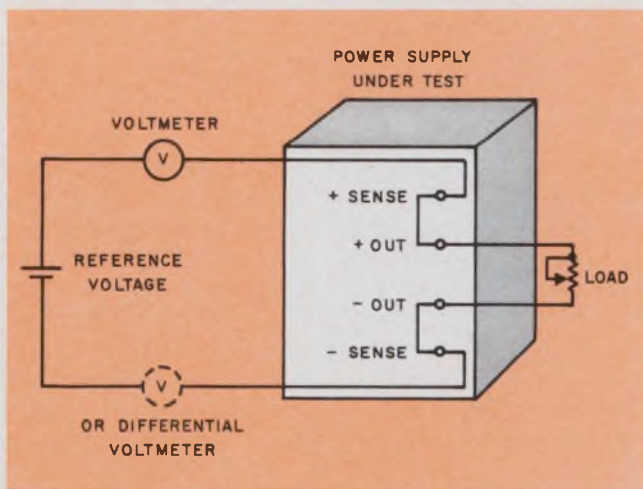
The problem of an off-the-shelf vs a custom-designed power supply involves per-unit costs, delivery date and required characteristics. (This subject is covered in detail in the next article).

Table 1. Checklist for comparing power supply specifications

Significant Characteristics	System Requirements	Power Supplies Being Considered			
		A	B	C	D
Input voltage	115 v ±10 v 57-63 cps	115 v ±10 v 47-63 cps	115 v ±10 v 57-63 cps	115 v ±10 v 47-63 cps	115 v ±10 v 47-63 cps
Load voltage/current	20-30 v/20-25 amps	20-40 v/10-50 amps	20-50 v/10-30 amps	20-40 v/15-40 amps	20-30 v/10-35 amps
Line regulation	20 mv	20 mv	20 mv	15 mv	20 mv
Load regulation	10 mv	10 mv	10 mv	5 mv	10 mv
Temperature variation	10°C-60°C	0-70°C	0-70°C	0-70°C	0-70°C
Temperature coefficient	0.05%/°C	0.01%/°C	0.05%/°C	0.5%/°C	0.001%/°C
Ripple*	5 mv peak spikes	2 mv rms	2 mv rms	1 mv rms	1 mv rms
Response time	10 μsec	10 μsec	5 μsec	10 μsec	10 μsec
MTBF	30,000 hrs	30,000 hrs	not given	40,000 hrs	not given

\* Ripple requirements cannot be related to vendor specifications. Vendors should be contacted.

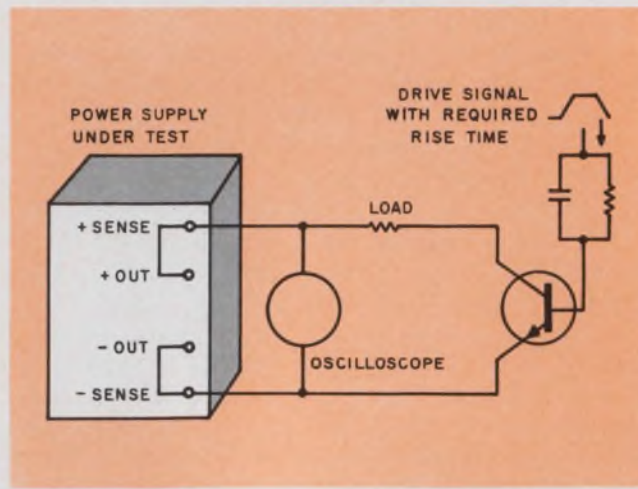




1. Load regulation is measured by adjusting the supply output voltage to produce a zero reading on the voltmeter. The load is then varied to full-load change, and the voltmeter reading is the load regulation.

The matter of reliability vs cost involves the weighing of two often-conflicting requirements. However, a trade-off in one does not always result in an enhancement of the other. For example, it may appear in a particular instance that a power supply with a lower cost and lower MTBF is preferable to a more expensive unit with a higher MTBF. But it is possible that the initial lower-cost unit may become the more expensive one, since lower MTBF means more frequent maintenance.

The tendency to overspecify involves asking for unnecessary options and tighter limits than a system requires. Although this is intended to insure that the required specifications will be met, it is a poor policy. Not only does overspecifying needlessly increase the cost of a supply, but it can also actually decrease reliability. This is because tighter specifications may require the use of additional circuits, and this can decrease MTBF.



2. Transient-response measurements are made by switching a signal with the required rise-time into the load. The effect on the power supply is then observed on the oscilloscope.

### Testing requires care

Final evaluation of any power supply requires that it be tested under use. However, testing the characteristics of high-performance power supplies can cause difficulties and certain precautions must be observed.

**Regulation:** Line-regulation measurements should usually be made first, since these are easier than load-regulation measurements. To measure line regulation, the load impedance is held constant while the line voltage is varied. If the line regulation is within specification, the load regulation should then be measured.

In measuring load regulation, the line voltage is held constant while the load impedance is varied. The resistance of load leads and alligator clips is often sufficient to negate completely the load-regulation measurements, unless proper precautions

Table 2. Typical specifications of average regulated power supplies

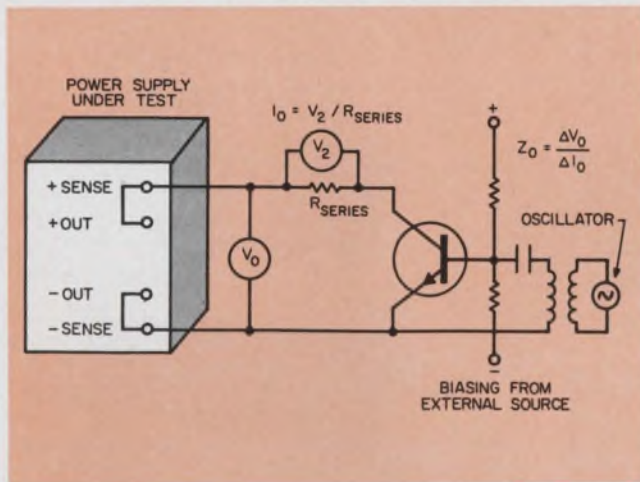
Type of Regulation	Load Regulation %			Line Regulation %			Response Time			Efficiency %			Ripple mv rms, or %		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Analog (series or shunt)	0.5	0.05	0.001	0.5	0.01	0.001	100 $\mu$ sec	10 $\mu$ sec	1 $\mu$ sec	30	35	50	10	1.0	0.1
SCR	5.0	2.5	1.0	2.5	1.0	0.5	50 msec	25 msec	10 msec	60	70	80	2%	1%	0.5%
Switching	5.0	1.0	0.5	2.5	1.0	0.5	50 msec	25 msec	2 msec	60	70	80	2%	1%	0.5%
Ferro-resonant	10.0	5.0	2.0	5.0	1.0	0.5	100 msec	100 msec	100 msec	70	70	70	2%	1%	0.5%

A = Simple, least costly design

B = Moderately complex, moderately costly design

C = Complex, very costly design





3. **Output impedance** is determined by measuring the change in output voltage produced by a change in output current. When making output impedance measurements, the output voltage is measured at the sense terminals.

are observed. For example, consider a 25-v, 10-amp power supply with 0.01% load regulation. The maximum permissible load voltage variation is 2.5 mv. This is 40 times greater than the permissible load regulation, and it completely masks the desired measurement.

Accurate load regulation measurements should be made at the sense terminals of a supply, with the use of either a differential voltmeter or a precision voltmeter and an accurate reference voltage source, such as a mercury battery. A test set-up for such measurements that cancels the effects of the load leads is shown in Fig. 1.

**Ripple:** In ripple measurements a major problem is that of stray current paths caused by multiple grounds. These can be avoided by using a single ground point. If peak-to-peak measurements are required, they should be made with an oscilloscope rather than a voltmeter.

**Temperature coefficient:** Measurements of temperature coefficient are made by sequentially allowing the power supply to stabilize at two or more controlled temperatures, which can be provided by an environmental chamber. Voltage measurements at these temperatures are then used to calculate the temperature coefficient.

**Transient response:** Transient response measurements are made by switching a pulse having the desired rise time into the load from an external source. The response is then viewed on an oscilloscope. A test set-up for measuring transient response is shown in Fig. 2.

**Output impedance:** The output impedance of a power supply is the ratio of the change in output voltage to the change in output current. Output current can be determined by measuring the voltage across a small resistance placed in series with the load. The output voltage is measured at the sense terminals. By modulating the supply output with a signal from an external source, the power-supply impedance as a function of frequency can be determined. A set-up for measuring output impedance is shown in Fig. 3. ■ ■

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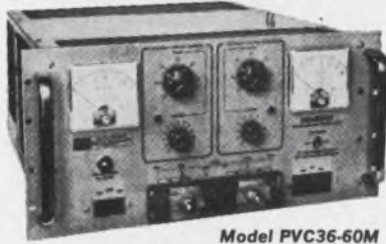
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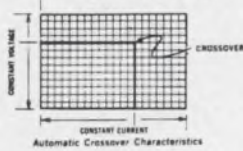
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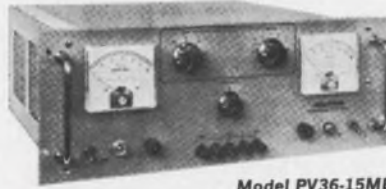


Model PVC36-60M

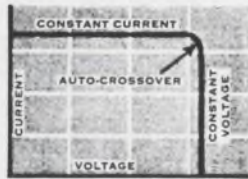


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Model HV150-3M

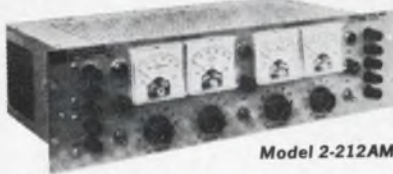


Model HV150-2M

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- Automatic E/I Crossover
- All Solid-State
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- 3½" and 5¼" Panel Heights
- Up to 400 V at 1 A
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Regatron HV Power Supplies are extremely compact. The 330 V, 1A model and the 150 V, 2A model (shown at left) take only 3½" of panel height.

### Regatron® "200" Power Supplies



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- Programmable
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#### Operation Above Maximum Rating

When the output voltage of a Regatron Programmable Power Supply is controlled by means of an external resistor, it is possible to obtain greater voltages than the listed maximum. For example, in a Model such as the 212A, rated at 0-100 V, voltages approaching 300 V may be obtained. At these above-rating outputs, the available maximum current will be less than listed.

### Regatron® Precision-Calibrated Power Supplies



Model 219B

#### ELECTRICAL SPECIFICATIONS REGULATION:

**Load:** Voltage regulation measured for a no-load to full-load or full-load to no-load step change anywhere within range.

**Line:** Voltage regulation measured for an input voltage step change of 105 to 125 V ac or 198 to 242 V ac.

**RIPPLE:** Maximum rms value with either positive or negative ground.

**TRANSIENT RESPONSE:** (See table.) For a step change from no-load to full-load or full-load to no-load, output recovers within regulation limits within specified time.

**AC INPUT:** Either 105 to 125 V or 198 to 242 V, 50 to 63 cps, single phase. Unless specified, the 105 to 125 V version is supplied.

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- Super-Regulated
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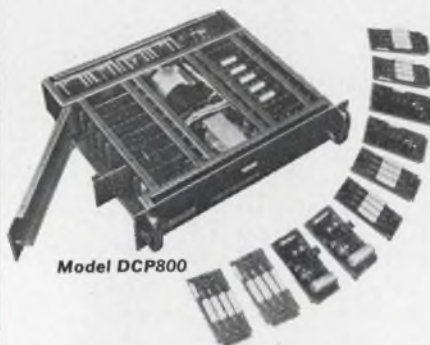
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- Current range—0.001 milliamps to 1000 milliamps in 1 microamp increments
- Constant voltage with current limiting
- Constant current with voltage limiting

### KL-Series Klystron Power System

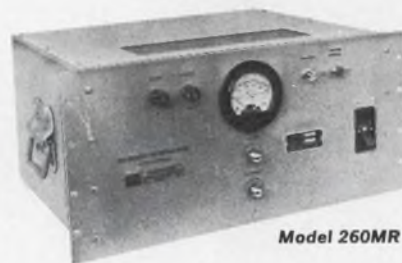


Model KL-Series

Standard features include a single, sequential, 3-position switch for logical turn-on; a 60-second thermal time delay relay for klystron circuit protection; internal current limiting adjustments on beam and reflector supplies and individual fuses on all supplies for input/output circuit protection; front panel test-jacks; indicator lights on each supply; and 10-turn calibrated voltage controls on the beam and reflector supplies.

A wide variety of Electronic Measurements' new Klystron Power Supply Systems is available to meet most any klystron power requirements.

### AC Line-Voltage Regulator 115 V or 230 V operation... 6 kva capacity



Model 260MR

#### ELECTRICAL SPECIFICATIONS

**NOMINAL INPUT:** 115 or 230 V, 47 to 63 cps, single phase. Swinging links used to set unit for desired input.

**OUTPUT:** 110 to 120 V when connected for 115 V input. 220 to 240 V when connected for 230 V input.

**POWER RATING:** 6 kva for either input voltage and at any power factor. For 115 V use, unit can be re-connected to provide correction over input range of 90 to 140 V. In this case, power rating is 3 kva.

#### CONTROL RANGE:

115 V operation: Corrects for input varying  $\pm 15$  V.

230 V operation: Corrects for input varying  $\pm 30$  V.



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# Custom vs off-the-shelf unit –Which will be best for the job? Consider these cost and spec guidelines before you make up your mind.

Thousands of off-the-shelf power supplies are available today. Yet there are times when not one is completely suitable for a particular application. In such cases a custom power supply, tailored to the engineer's requirements, should be considered.

From the standpoint of technical considerations, a custom-built unit is often attractive when the specifications are beyond the state of the art of off-the-shelf supplies. However, the custom development of such advanced supplies is costly.

At other times a custom power supply is often attractive for the simple reason that it can do the job cheaper than any available off-the-shelf model. This may occur when the off-the-shelf units have extra features that are not needed for your application; they increase the cost but serve no useful purpose.

But, in any case, it should be emphasized that the cost of custom supplies is largely dependent on the number of units required. When the number is small, off-the-shelf supplies—even with extra nonessential features—are often cheaper.

It may seem self-evident, but engineers frequently overlook the fact that the degree of modification also has a marked effect on the cost of a custom power supply. If the modification is relatively simple, so that standard units can be removed from stock and reworked, the cost is generally little more than that of the standard supply. But as the modifications become extensive, it becomes impractical to rework standards, and a clean start has to be made. This involves considerable engineering and drafting time, and therefore relatively high cost, even though the end product may look like a standard unit.

Frequently the size or configuration requirements of a system dictate the choice of a custom supply. In these cases cost considerations are secondary. Somewhat the same situation exists when a supply must meet certain combinations of MIL specs. If no off-the-shelf supply can meet them satisfactorily, a custom unit is required.

## Specifications should be realistic

If you decide to use a custom power supply, you must set up the required specifications and give them to the power-supply manufacturer. Axiom No. 1 is: Don't overspecify. If an off-the-shelf sup-

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James S. Comins, Engineering Manager, Custom Products, and Donald V. Frandsen, Chief Applications Engineer, Sorensen, div of Raytheon Co., South Norwalk Conn.

ply has characteristics that approximate those desired in the custom unit, the specifications of the off-the-shelf model can be used as a guide. However, even this approach can result in overspecification, if the custom application does not require the full capability of the off-the-shelf model.

Probably the best way to avoid overspecification is to consult with the power-supply manufacturer at this time. Not only can he help you establish a reasonable set of specifications but he also can offer advice on the types of circuits that can meet the specifications. This is particularly important for regulating circuits, since the specifications largely determine the type of regulation to be used, which in turn greatly affects the cost.

The accompanying table shows the specification-regulation-cost relationship for several common methods of regulation. The values shown are based on nominal voltage and current ranges. Cost figures for the types of regulation are relative and are given in dollars/watt. The cost per watt decreases as wattage increases; so for meaningful comparisons the relative cost figures must be applied within the output power range shown. For example, a 5-watt transistor series regulator unit cannot be compared with any other system, since the cost/watt figures of the others are for outputs greater than 5 watts. Actually the cost of a 5-watt SCR design would exceed the \$10 per watt of the series transistor unit.

## Minor modifications may suffice

Frequently a custom requirement may be satisfied by making minor modifications to an off-the-shelf power supply. Examples of this are:

- Special output voltages. Very high or very low voltages may present major problems.
- Special current ratings. Very high currents may present major design problems.
- Finer resolution of output voltage control. Resolution to 0.05% is practical by ten-turn potentiometers.
- Low-temperature coefficient. On transistorized supplies, values to 0.005%/°C are feasible with minor modifications.
- Over-voltage and over-current protection.
- Addition of locking controls or relocation of panel controls to rear, etc.
- Special paint or special metering.

## Which approach for multiple outputs?

For applications requiring two, three or four



If your power supply requirement is not here, don't pass up finding out what Chatham can do for you!



Weatherproof communications trailer power supply. Output: 28 VDC @ 45A.



Conduction cooled, high voltage regulated power supply. Output: 10 KV. Regulation: 1%. Weight: 7.5 lbs. Meets MIL-E-16400.



Three phase line regulator and power supply. Multiple AC-DC regulated outputs at 13.5 and 25A. Meets MIL-T-21200C.



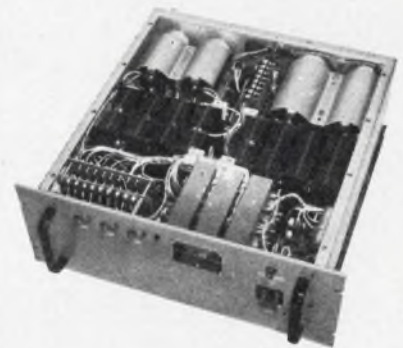
High voltage, remotely programmable. Output: 500 VDC @ 1A. Meets MIL-T-21200.



Laser exciter power supply. 250 Joule energy output @ 1500 VDC. Input: 19.2 to 28.8 VDC. Meets MIL-E-16400.



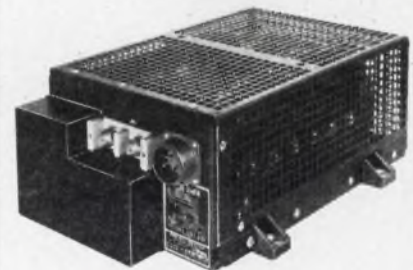
Transmitter-receiver power supply. Eleven different outputs, remotely controllable. Meets MIL-E-16400.



Highly regulated, multiple output: -24 VDC @ 10A; -10 VDC @ 10A and +10 VDC @ 6A. Meets MIL-E-16400.



Dual output, regulated power supply. Outputs: +11 to 13 VDC @ 1.5A and -11 VDC @ 0.1A. Meets MIL-T-21200.



Convection cooled, high voltage regulated airborne power supply. Output: 200A at 28 VDC. Regulation: 8% at 200V.

There's never any need to settle for an off-the-shelf power supply that only generally meets the requirements of your application. Intensive experience with the varied circuit concepts and competent production techniques have enabled Chatham to produce custom-performance designs at less than custom prices. Describe your requirements. We'll take it from there and give you our recommendations.

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## Typical specifications and cost of some regulation methods

Specifications	Unregulated	Ferro-Resonant Regulation	SCR Regulation	Transistor Series-Regulation	Transistor + Pre-Regulation
Input Voltage Tolerance (%)	Fixed	± 20	± 20	± 10	± 20
Input Phase (1 or 3) <sup>1</sup>	1 or 3	1 preferred	1 or 3	1 or 3	1 or 3
Input Frequency Range (cps)	47-440 <sup>2</sup>	50 or 60, ± ½%	47-63, or 360-440	47-440 <sup>2</sup>	47-63, or 360-440
Output Voltage (volts)	0-1000	5-1000	5-1000	3-300	3-300
Output Power (watts)	50w-2kw (1φ) 2-30kw (3φ)	200-900	400w-2kw (1φ) 2-30kw (3φ)	5-400	400-1500
Output Ripple (%)	1-10	0.5-5	0.5-2	0.01-0.1	0.01-0.1
Output Adjustable Range (%)	0-100 (Variac)	Fixed	± 20	± 10	± 20
Line Regulation (± %)	—	± 1	0.1-0.5	0.01-0.1	0.01-0.1
Load Regulation (± %)	5-20	5-15	0.1-0.5	0.01-0.1	0.01-0.1
Temperature Coeff (%/°C)	—	0.05	0.03	0.015	0.015
Typical Efficiency (%)	70-90	65-85	60-80	30-50	50-65
Response Time	—	30 msec	30 msec	20-50 μsec	50 μsec
Current Limiting	Fuse or circuit breaker	Self-limited, 125-200%	Electronic	Fuse or electronic (added cost for electronic)	Electronic (added cost)
Adaptable for Constant-Current Regulation	No	No	Yes (added cost)	Yes (added cost)	Yes (added cost)
Relative Cost, Single Output Unit (\$/watt)	0.15-0.75	0.40-2.00	0.20-0.75	1.20-10.00 <sup>3</sup>	0.65-1.40

<sup>1</sup> 3φ for power above 2kw.    <sup>2</sup> May be restricted if fan-cooling is used.    <sup>3</sup> High cost based on 5-watt output.

separate power supply outputs, individual off-the-shelf supplies can often be grouped together to satisfy the requirement. This approach is excellent when available space permits and is generally recommended when quantities are low.

However, when space or configuration problems arise, a custom supply is often mandatory. The custom-designed multiple-output supply not only offers a size reduction but frequently can yield a cost savings as well. This results from the fact that certain parts can be made common to more than one circuit. Such parts include the power transformer, meters and fan.

### The problem of narrow-range supplies

Suppose you need a power supply with a nar-

row, adjustable output-voltage range but all that is available off-the-shelf are wide-range supplies, with outputs adjustable from zero to full-rated voltage? Will a custom supply be cheaper?

Ordinarily a narrow-range supply is always cheaper than a wide-range unit. But since the narrow-range supply is a custom design, the cost will be influenced by the number of units required. The fewer the units, the more economical the off-the-shelf supply is. Another factor to consider, though, is the output voltage at which the off-the-shelf unit is to be used. If this is less than 75% of its maximum output rating, the economic position of the custom unit improves. In essence, this is because a great deal of the capability of the off-the-shelf unit would not be used, although it nevertheless had to be paid for. ■ ■



# Does your present custom power supply give you...

70% to 90% efficiency?

?

Instant fault repair by plug-in module replacement?

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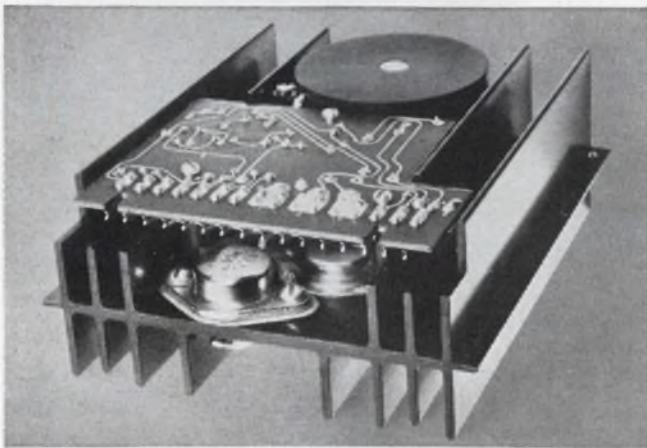
Add-on power capability by using more modules?

?

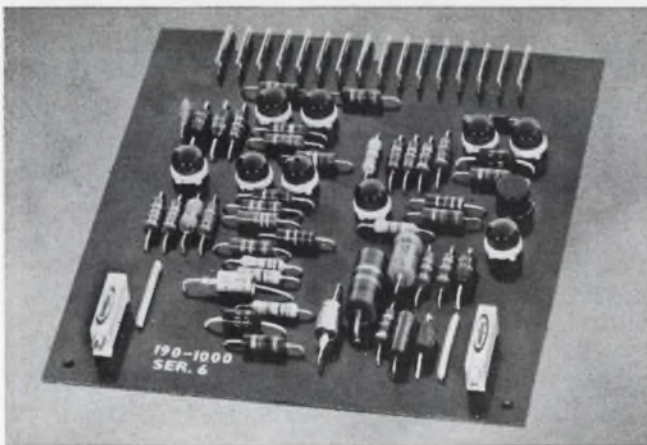
Ability to handle full load steps while maintaining output in regulation band?

?

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Omnimod power control module.



Omnimod control amplifier.

OMNIMOD gives you all these features—and more—and at a lower price! Want to know more?

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Output can be regulated between  $\pm 2$  and  $\pm 60$  dc at up to 20 amperes using the OMNIMOD family of modules WITHOUT MODIFICATION OR ADJUSTMENT. Higher current ratings are obtained by paralleling power control modules.

Any number of power controller modules can be controlled by one amplifier. OMNIMOD has a current limiting parameter, over voltage protection, voltage sequencing, and remote sensing.

To design a custom power supply, one must simply

1. design one input power converter to change unregulated line ac power to unregulated dc power

2. select the number of plug-in OMNIMOD power control modules to supply the power needed for each output

3. package these elements with filter capacitors and a plug-in amplifier module for each output

All the power used by every element in a typical data processing system could be supplied by custom power supplies constructed with interchangeable OMNIMOD modules.

Isn't this enough to consider OMNIMOD for your custom requirement? We will design an OMNIMOD custom power supply to your specs, or will help you design your own system using our plug-in OMNIMOD modules.

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ON READER-SERVICE CARD CIRCLE 7



# Emerging dc power supplies

are a far cry from pioneering units, but their designers aren't resting. Here's a rundown of interest to all users.

Today's dc power supplies have capabilities that would have satisfied even the most demanding users not too many years ago. But these capabilities are constantly under challenge. Equipment and systems designers are generating new demands almost as fast as power-supply designers can satisfy the old ones.

Where do we stand in power-supply design? How far have we progressed since the battery was the mainstay of dc power? And, more important, where are we headed?

Among the emerging trends are these:

- Power supplies with faster ON-OFF programming times.
- Power units that give both constant voltage and constant current.
- Digital-controlled power supplies.
- Power units that use silicon-controlled rectifiers (SCRs).
- Modular power packages, with an almost limitless number of sizes and shapes and with a wide variety of electrical characteristics.

And with improvements beyond these stages already envisioned, it's apparent that we've come a long way along the expressway to greater, more refined dc power. Let's look at some of the milestones.

## Early improvements made

The earliest dc power supplies consisted of batteries, or transformers and vacuum-tube rectifiers. In the case of the batteries, the users were at the mercy of battery life, which at best was rarely satisfactory. The transformer and rectifier supplies, on the other hand, were subject to both line fluctuations and load-induced output voltage fluctuations.

Eventually the regulated supply was developed. The first was crude by today's standards, but as a result of improvements, a wide variety of regulation methods came into being. Of all, the one that

has become the most popular makes use of series regulation. Early series-regulated supplies looked like the circuit of Fig. 1. These units worked quite well, and are still in extensive use today when it is not necessary for the output of the supply to go to zero.

In time, improvements were made in the error-detector portion of the circuit. These included, as shown in Fig. 2, the use of a difference amplifier for error detection and, sometimes, the addition of a mechanical chopper to improve the stability and regulation. Other improvements were made in the reference voltage portion of the circuit. Some of these are shown in Fig. 3.

## Bridge circuits allowed programing

A major improvement in the series-regulated supply was the introduction of the bridge type of circuit (Fig. 4). With this configuration, the supply output voltage became a direct function of the control resistor, and the supply output could be made to go to zero.

Another advantage was that the bridge arrangement was adaptable to programing. This is important when several different voltages are required in sequence. Without programing, it is necessary to have a power supply for each required voltage. With a programmable supply, though, different output voltages can be produced merely by switching programing resistors (Fig. 5). The programing capability of power supplies is probably the most important development in the power-supply field since the introduction of the regulated supply.

Another significant development was the introduction of constant-current power supplies. Two general philosophies used to accomplish this are shown in Fig. 6. In both the voltage across sample resistor  $R_s$  is constant, and so is the current through it. Therefore the load current is also constant.

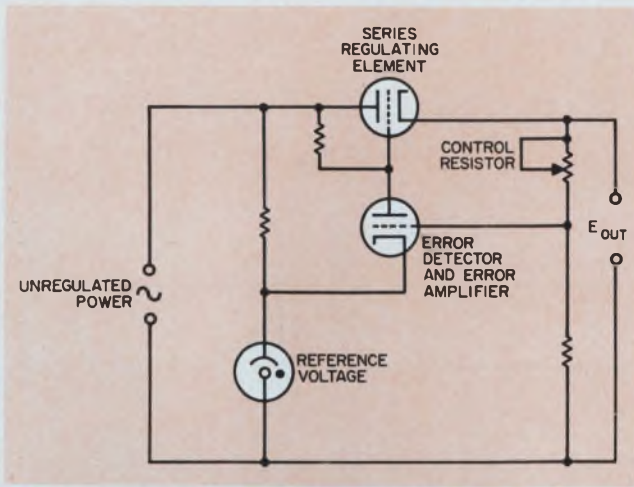
## Programing improvements being made

Turning to the emerging trends, we note that

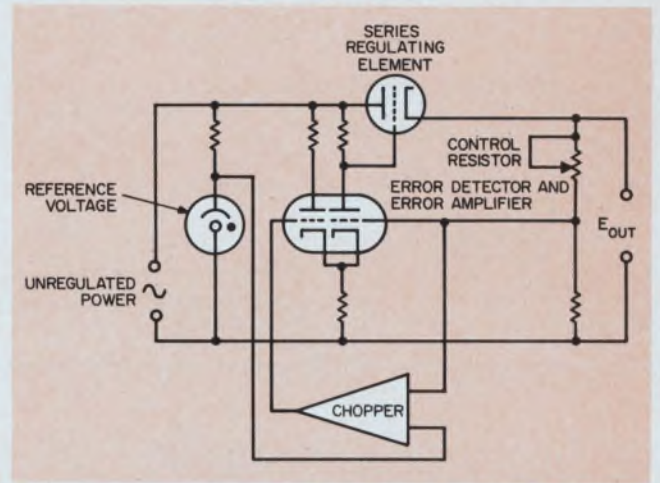
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John Baugher, Chief Engineer, Electronic Measurements, Div. of Rowan Controller Co., Eatontown, N. J.

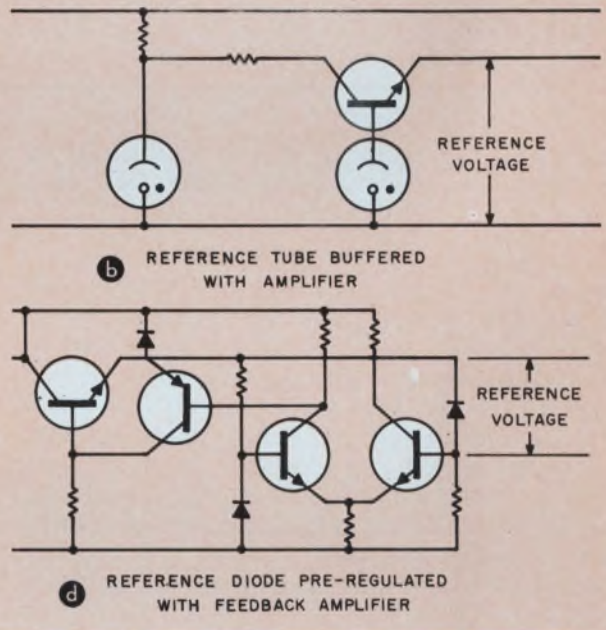
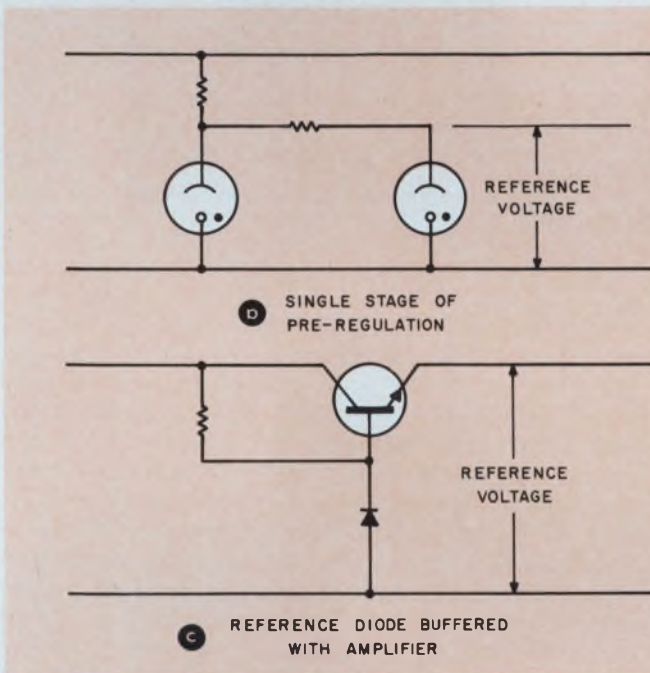




1. Early series-regulated supplies like this are still in widespread use, although the tubes have been replaced to a large extent by solid-state devices.

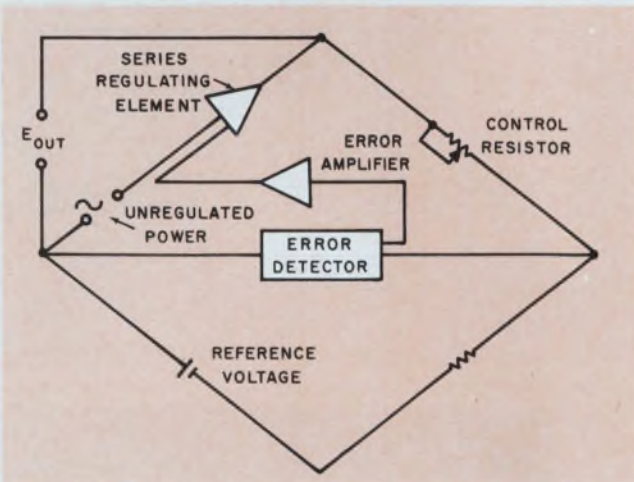


2. Difference amplifier and chopper provide the series-regulated supply with better error detection and improved stability and regulation.

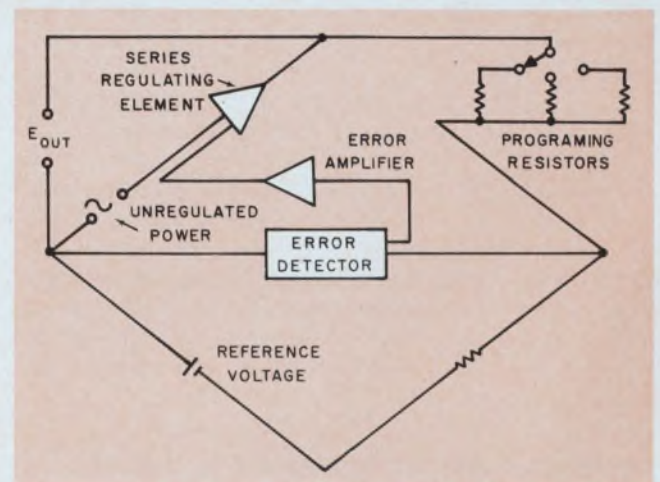


3. Reference-voltage circuits have undergone progressive improvement from a simple, single stage of pre-regulation

(a) to a reference diode pre-regulated with a feedback amplifier (d), which is actually a full-scale power supply.

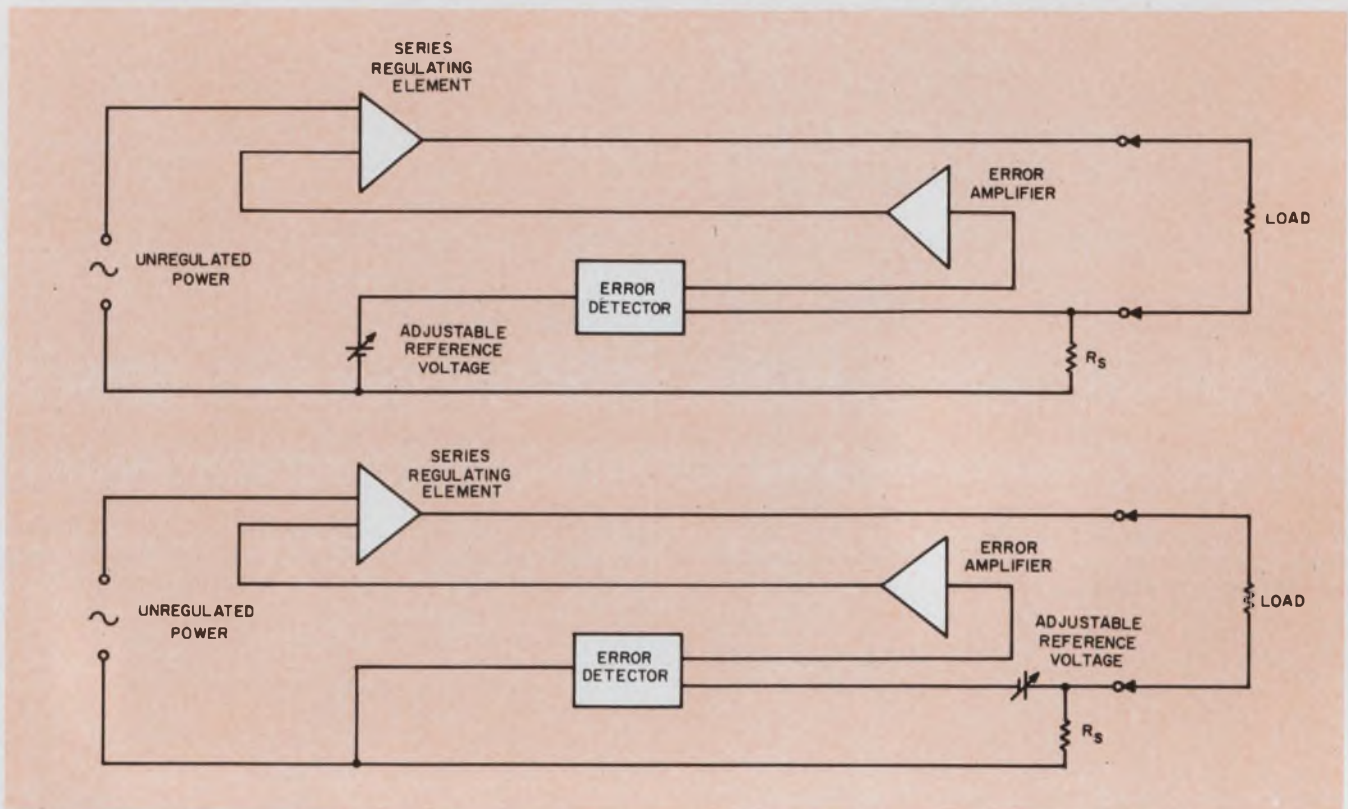


4. Bridge-type series-regulated supply was a major development in the progression of power supply design.



5. Programming of a power-supply output became possible with the development of bridge-type supplies.





6. Constant-current supplies became increasingly important with the advent of transistor circuits. Two types of

constant-current configurations are shown here. In both, the current through  $R_s$  is constant.

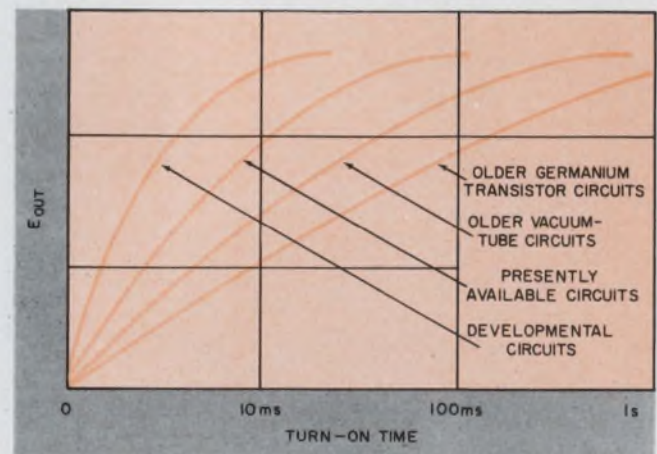
much development work is being done today to decrease the programming times of programmable supplies. This includes both the turn-on time for going from zero to normal output voltage, and the turn-off time required for the output to drop to zero. The curves of Fig. 7 show how ON programming times have constantly been improved. The speed represented by the steepest curve is being worked on, and further improvements in circuitry and components are expected to make speeds of 1 microsecond/volt possible.

Present efforts at improving the OFF programming time are centered on the capacitor used across the output of most constant-voltage supplies. For the output voltage to drop quickly, this capacitor must discharge rapidly. So for quick turn-off time, the value of the capacitor must be reduced to a bare minimum—zero, if possible. However, elimination of the capacitor can produce undesirable results, one being an increase in the magnitude of the transients that occur during loading and unloading. In addition, without the capacitor, the loop stability of the amplifier/power supply circuit would be impaired. This is because the capacitor acts as a large damper on any oscillations that occur. One of the major aims, therefore, of present high-speed programmable power-supply development is to reduce the value of the output capacitor without at the same time causing other undesirable effects.

#### Constant-voltage/constant-current is desirable

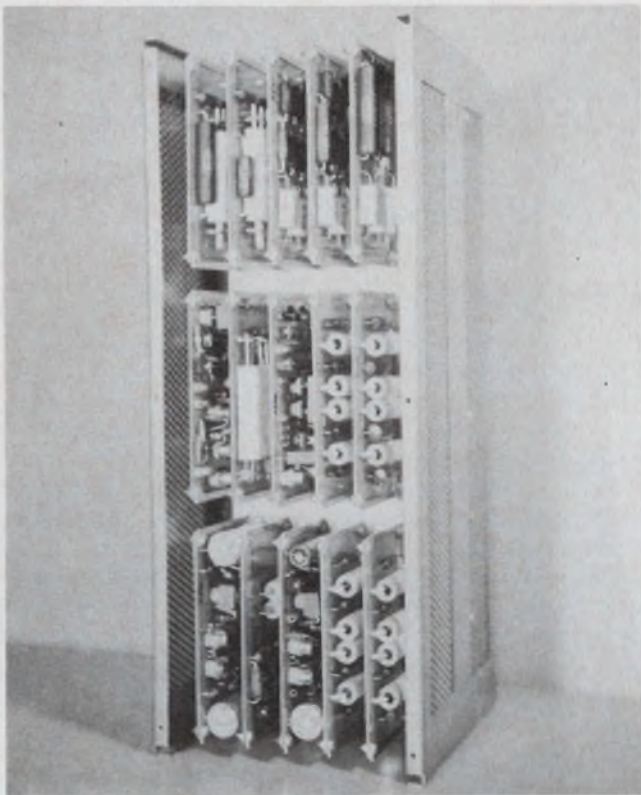
Another fairly new design development is the power supply that provides both constant voltage

and constant current. Most of such types now available consist of a basic power supply and two amplifier chains. One amplifier senses voltage and the other current. The load resistance determines which amplifier is in control. For example, if the constant-current amplifier is set to limit the output current to 1 ma and the constant-voltage amplifier to hold the voltage at 10 v—and there is no load on the supply—the output voltage will rise to 10 v and be held at that level by the voltage amplifier. Then, if a load is applied, the load resistance will decrease and the current will rise. Eventually the current will approach the setting of the current amplifier, and it will take over control of the supply from the voltage amplifier. As the load resistance decreases towards zero, the output



7. Turn-on time for programmable supplies has been continually improved, as shown by these typical curves.



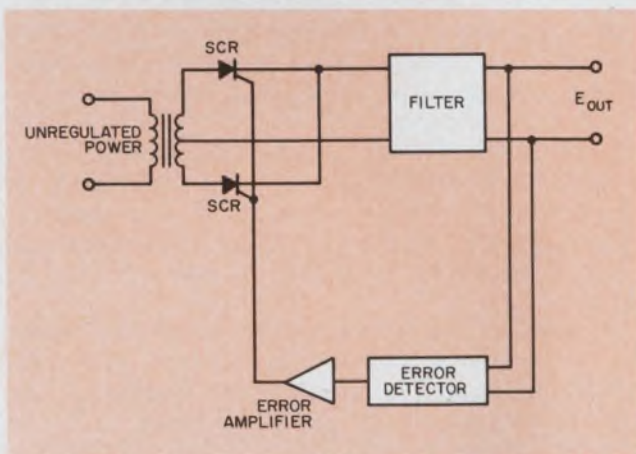


8. Digital-controlled power supply bears little physical resemblance to traditional power supplies.

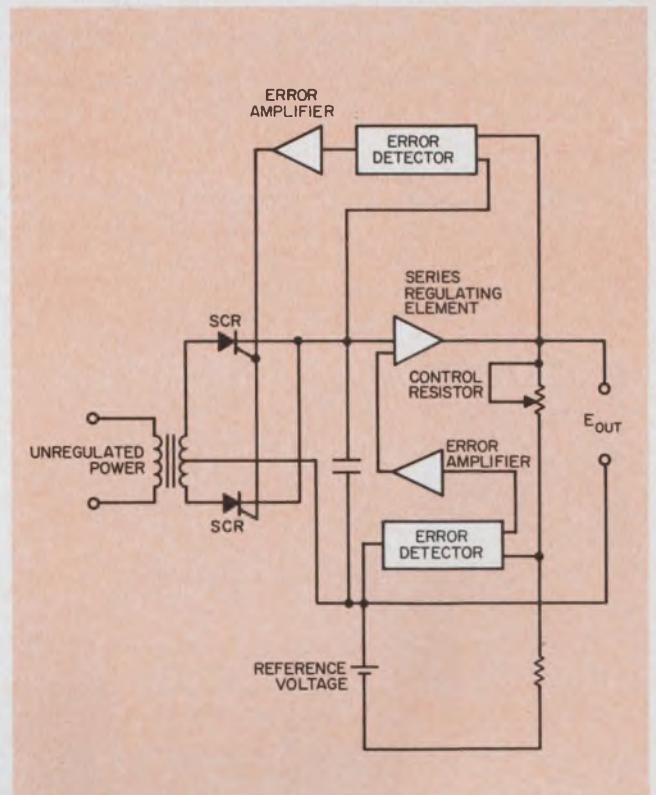
voltage of the supply will drop to hold the current constant.

The constant-voltage/constant-current supply can take various forms, depending on the desired characteristics. One is to have a good constant-voltage amplifier and a poor constant-current amplifier. The current regulation is then much poorer than the voltage regulation, with the current-control section effectively functioning as an adjustable fuse. The opposite arrangement is also possible.

A third type of constant-voltage/constant-current supply, in which there are two quality amplifiers, is also possible. This type is of necessity much more complicated than the two others and is therefore much more expensive.



9. SCR-controlled power supply uses firing-point control of the SCRs as a means of controlling the output voltage.



10. SCR-regulated power supply uses SCRs to maintain a constant voltage across a series-regulating element.

### Digital control is growing

Digital-controlled power supplies (Fig. 8) have been discussed for some time but are just now becoming available commercially. Essentially they are digital-to-analog converters with power-output capabilities.

Digital supplies were developed for computer-controlled test facilities, where a single power-supply type of test set was designed to make many tests. The computer was programmed to sense the type of device being tested and then, by means of digital signals, to set up the test set for that particular device. In this way several different devices could be tested automatically by the same test set.

A further application for these supplies is where one test determines what the parameters for the next test will be. In these cases each time a test is performed, the results are fed into a computer. The computer then resets the test set, based on the results of the previous test.

### SCRs are widely used

A whole new class of power supplies has been brought about by the introduction and subsequent improvement of the silicon-controlled rectifier (SCR). Two distinct types have so far become popular. In one the SCRs control the supply output voltage. A typical such supply is shown in Fig. 9, where the SCRs act as rectifiers and controllers. Any variation of the output voltage is sensed by the error detector, amplified, and used to adjust the firing point of the SCRs.

In the other type of SCR power supply (Fig.



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Continuously variable 5-35KV regulated DC power supply with regulated focus voltage tap 4-9 KV. A continuous duty DC supply with highly filtered outputs and regulated against line and load better than 0.05% at 1 ma. Ripple less than 0.05%. Input: 117V 60 cycles. Dimensions: 19" W x 8¾" H x 15" D.

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## **TRANSISTORIZED HIGH VOLTAGE RF STEP-UP COIL OUTPUT 15KV @ 2 ma.**

- Coil driven by pair of transistors in push-pull
- Coil Height—4¼"
- Diameter—2⅝"
- Secondary Output Voltage—15 KV

- Secondary Current—5 milliamperes
- Approx. Frequency with Single Rectifier—120 KC
- In tripler circuit—78 KC



**MODEL TRF-15** Complete with operational circuit diagram and data \$15.00 net Dept. ED

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10), the SCRs are used to rectify, as well as to maintain a constant voltage drop across the series regulating element. The output voltage is controlled by the series element. This arrangement allows the use of considerably fewer series-regulating transistors than do other types of series-subsequent widespread acceptance of modular power supplies.

## **Modular supplies treated as components**

For many years power supplies were made in a relatively few standard sizes, as dictated by available equipment racks. Special sizes and shapes could be obtained, but usually only at a considerable increase in cost. This size roadblock was to a great extent removed with the introduction and subsequent widespread acceptance of modular power supplies.

The sizes and shapes of modular supplies are now virtually limitless, and they can be obtained with an extensive variety of electrical characteristics. They are available as plug-in devices, with terminal blocks or built on printed-circuit boards. The characteristic common to all of the many types, though, is that they can be treated as components (which is difficult to do with a 19-inch rack model).

Although the modular philosophy is highly suitable for low-power supplies, weight problems arise when the power requirements begin to exceed 200 to 300 watts. Above this power level, the modular supply becomes so heavy that the most convenient mounting is a rack. Hence, one of the most important advantages of the modular supply is lost.

## **What about the future?**

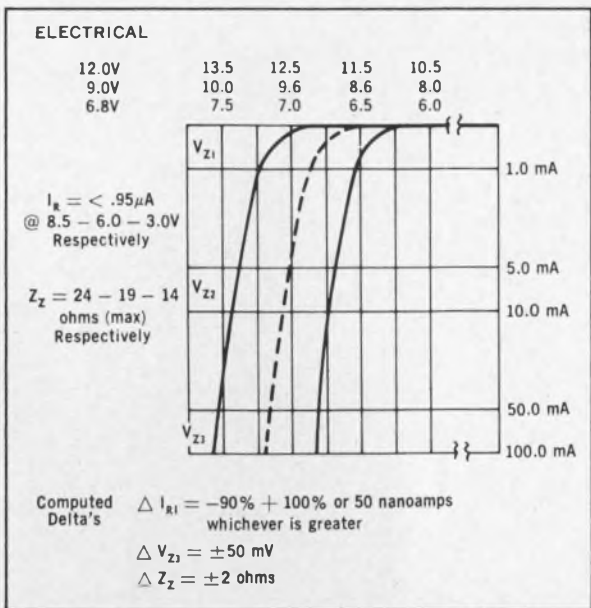
Although a far cry from earlier types, today's power supplies are not the end of the road.

One area of improvement that is constantly being requested by users is the reduction of transients. It can be expected, therefore, that future designs will have better and better transient characteristics, both in terms of amplitude and duration.

Tighter regulation is another area where future improvement will be made. However, in this case the improvement will come not so much from changes in the design of the power supplies themselves as from better methods of using them. For example, even today supplies with open-loop gains of 100,000 to 500,000 are not uncommon. These values can theoretically result in regulations on the order of 0.0001%. However, the presence of line drops and improper sensing connections can reduce the usable regulation to just 0.1% at the load.

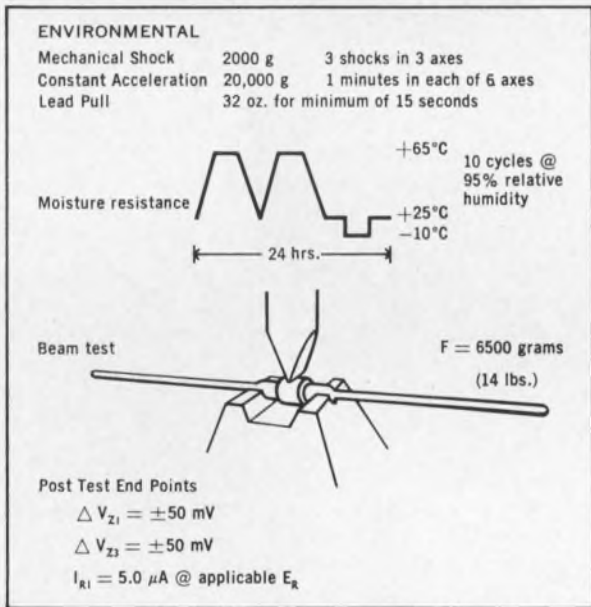
Improved long-term stability can also be expected in the future. This will probably be the result of improvements in circuits and components for the three sections of power supplies that contribute most to stability (or a lack of it): voltage reference, the input amplifier and the sensing resistors. ■ ■





**PERFORMANCE UNDER TEST**

Allowable Change	Our Average Change
$\Delta I_{R1} = -90\% + 100\%$ or 50 nanoamps	-10% + 65%
$\Delta V_{Z1} = \pm 50$ mV	-34 + 19 mV
$\Delta Z_Z = \pm 2$ ohms	-1.1 ohms



**PERFORMANCE UNDER TEST**

Allowable Change	Our Average Change
$\Delta V_{Z1} = \pm 50$ mV	-4 + 15 mV
$\Delta V_{Z3} = \pm 50$ mV	-6 + 22 mV
$I_{R1} < 5 \mu A$	< 0.1 $\mu A$

**PHYSICAL**

Maximum length - .160"  
 Maximum diameter - .075"  
 Weight - .2618 grams

# Hoffman Microglass Zeners Types 1N4460- 1N4496



These 1.5 watt silicon zeners are designed for application wherever high performance electrical requirements are a necessity and for maximum packaging density. The hard glass sleeve construction hermetically seals the passivated silicon wafer. This means there is no large cavity to trap and contain contaminants that adversely affect the performance and reliability of the device. A unique method of bonding the silicon wafer between the heat sinking terminal pins provides low thermal resistance and eliminates the troublesome "S" spring as well as solder or epoxy pastes. The reduction of piece part components means a higher degree of reliability than previously obtainable and a diode highly resistant to extreme levels of mechanical shock and vibration. Most major military and aerospace programs depend on its continuous reliability.



For additional information regarding Hoffman products write Hoffman Electronics, Dept. A, El Monte, California.

# SEMICONDUCTORS

ON READER-SERVICE CARD CIRCLE 10

# High-Current DC Power Supplies

Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
		Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
Geo Space	1.5/15	1.1	1.8	10	ina	0.2	ina	0.1%	yes	C or R	ina	
Kepeco	Ck2-8M	0	2	8	0.01	0.01	50	0.5	yes	C	345	a,b,d,e,h,i
Ultronic	BR3/5	0	3	5	$\pm 0.01$	$\pm 0.01$	50	1	yes	R	339	b,d,e,g
Trans Dev	RS 3-10	3	3	10	3 mv	5 mv	50	0.2	yes	R	ina	b,h
HC 1	Bogue 5	0	4 <sup>2</sup>	10 <sup>3</sup>	$\pm 0.05$	$\pm 0.05$	50	1	yes	R	ina	e,g
Bogue	A-4-20	0	4 <sup>4</sup>	20	$\pm 0.05$	$\pm 0.05$	50	1	yes	R	ina	e,g
Behl-Invar	QS-5	0	5	6.5	$\pm 0.01$	$\pm 0.01$	25	1	yes	$\frac{1}{2}$ R	214	a,b,d,e,h
Hyperion	Hy-Si-5-50	0	5	50	0.01	0.01	50	2	yes	R	499	a,b,d,e,g
Con Av	HSS-205	0	5.5	20.5	0.025	0.025	25	1	yes	R	380	a,b,e,g
Con Av	FSS-400	0	5.5	40	0.025	0.025	25	1	yes	R	555	a,b,e,g
Sola	281513-1	6	6	10	$\pm 1$	$\pm 1$	ina	1%	none	R	150	
Trans Dev	RS 6-10	6	6	10	1.5 mv	1.5 mv	50	0.15	yes	R	ina	b,h

The table in this section lists the specifications for high-current dc power supplies. These supplies have maximum output currents greater than 3 amperes, and they cover the voltage range from 0 to 450 volts.

Unless otherwise noted in the table, the following conditions apply to all of the supplies listed:

- Input voltage: 105 vac, 60 cps, 1 phase.
- Polarity: positive or negative.
- Rated current may be drawn at any setting of the output voltage.

Prices indicated in the table are subject to change by the manufacturer.

An index of manufacturers and models is included at the end of the table. The index is alphabetical, by manufacturer, and it lists the various high-current dc power supplies of each manufacturer. A location key is included after each model. This permits easy spotting in the table of the specifications for that supply, by means of the location-key column (1 above).

## How the table is arranged

Specifications for the high-current dc power supplies are given in separate, appropriately headed columns. The complete specifications for any one supply can thus be read across the page.

Within the table, the supplies are listed in ascending order of maximum output voltage (2 above). Where the maximum output voltage of several supplies is the same, the units are listed in order of increasing maximum output current (3 above). If both of these characteristics are identical for several supplies, they are then listed in order of increasing output voltage swing (4 above). This arrangement allows for a rapid across-the-market comparison of all the high-

current dc power supplies with similar application capability.

Manufacturers are identified in the *Mfr* column by an abbreviation (5 above). The complete name of each manufacturer can be found in the index at the end of the section. For manufacturers' addresses and Reader Service literature offerings, see the master index at the front of the issue.

All notes and symbols used in the table are defined at the end of the section.

At the top of each page of the table, reference is made to the output voltage range covered by the supplies on that page. This is to expedite the location of a supply with particular characteristics.

## Additional entries

A supplementary table is included at the end of the basic table. It lists additional high-current dc power supplies that could not be fitted into the basic table because of editorial make-up limitations. The arrangement of this supplementary table is identical with that of the basic table.

## How to use the table

- Note how the supplies are listed. They are in ascending order of maximum output voltage. Where this is the same, they are in order of increasing maximum output current.
- Select the most likely candidates.
- Obtain supplementary data from the manufacturer. Manufacturers' addresses, together with Reader Service numbers for specific power supply types, are given in the master cross-index at the front of the issue.



# High-current dc. supplies

1.8-8 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time (μ sec)	Ripple mv				
HC 1	Geo Space	1.5/15	1.1	1.8	10	ina	0.2	ina	0.1%	yes	C or R	ina	
	Kepeco	Ck2-8M	0	2	8	0.01	0.01	50	0.5	yes	C	345	a,b,d,e,h,i
	Utronics	BR3/5	0	3	5	±0.01	±0.01	50	1	yes	R	339	b,d,e,g
	Trans Dev	RS 3-10	3	3	10	3 mv	5 mv	50	0.2	yes	R	ina	b,h
	Bogue	A-4-10	0	4	10	±0.05	±0.05	50	1	yes	R	ina	e,g
	Bogue	A-4-20	0	4	20	±0.05	±0.05	50	1	yes	R	ina	e,g
	Behl-Invar	QS-5	0	5	6.5	±0.01	±0.01	25	1	yes	¼R	214	a,b,d,e,h
	Hyperion	Hy-Si-5-50	0	5	50	0.01	0.01	50	2	yes	R	499	a,b,d,e,g
	Con Av	HSS-205	0	5.5	20.5	0.025	0.025	25	1	yes	R	380	a,b,e,g
	Con Av	FSS-400	0	5.5	40	0.025	0.025	25	1	yes	R	555	a,b,e,g
HC 2	Sola	281513-1	6	6	10	±1	±1	ina	1%	none	R	150	
	Trans Dev	RS 6-10	6	6	10	1.5 mv	1.5 mv	50	0.15	yes	R	ina	b,h
	Heath	IP-12	0	6	10	ina	ina	ina	0.3%	yes	C	60	d
	Sorensen	MD6.3-15.9	6.3	6.3	15.9	±1	10	ina	1%	none	R	130	
	Trygon	FT-FTR6-25	6.3	6.3	25	±1	0.6	ina	500	none	¼R	149	
	Sorensen	MD6.3-31.8	6.3	6.3	31.8	±1	10	ina	1%	none	R	160	
	Valor	AV6.3-60	5.7	6.3	60	6 mv	10 mv	ina	3	none	R	ina	a,b
	Sorensen	MD6.3-63.5	6.3	6.3	63.5	±1	10	ina	1%	none	R	200	
	Deltron	DPG-411	5.5	6.5	4-50	±1	±1	100 ms	0.8%	yes	R	165	a,b,d,g
	NJE	SR-6-20M	5.5	6.5	20	0.005	0.01	30	1	yes	R	380	a,b,d,e,g
HC 3	Con Av	HS6-24.5	5.5	6.5	24.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Con Av	FSG-46.0	5.5	6.5	46	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Rapid	6AMA	5.4	6.6	5	±1	±1	ina	1%	yes	C	325	
	Rapid	15AMA	5.4	6.6	15	±1	±1	ina	1%	yes	C	350	d
	Rapid	40AMA	5.4	6.6	40	±1	±1	ina	1%	yes	C	500	d
	Trygon	HH7-4	0	7	4	0.01	0.01	25	0.5	yes	¼R	189	a,b,d,e,h,i
	Scint	56F2	5	7	5	±10 mv	±20 mv	50	1	yes	R	215	b,d,g
	Chalco	7V-5A	3	7	5	±0.1	±0.1	25	1	yes	R <sup>10</sup>	165	a,b,e,g
	Deltron	RS6-6M <sup>11</sup>	5	7	6-50	0.01	0.01	50	0.5 <sup>12</sup>	yes	½R <sup>13</sup>	260	a,b,d,e,h
	Chalco	7V-10A	3	7	10	±0.1	±0.1	25	1	yes	R <sup>10</sup>	235	a,b,e,g
HC 4	Chalco	7V-15A	3	7	15	±0.1	±0.1	25	1	yes	R <sup>10</sup>	265	a,b,e,g
	Chalco	7V-20A	3	7	20	±0.1	±0.1	25	1	yes	R <sup>10</sup>	300	a,b,e,g
	Voltex	82-192	5	7	25	0.2	0.2	50	ina	none	R	ina	e
	Chalco	7V-25A	3	7	25	±0.1	±0.1	25	1	yes	R <sup>10</sup>	330	a,b,e,g
	Chalco	7V-40A	3	7	40	±0.1	±0.1	25	1	yes	R <sup>10</sup>	435	a,b,e,g
	Chalco	7V-50A	3	7	50	±0.1	±0.1	25	1	yes	R <sup>10</sup>	490	a,b,e,g
	Chalco	7V-75A	3	7	75	±0.1	±0.1	25	1	yes	R <sup>10</sup>	565	a,b,e,g
	Chalco	7V-100A	3	7	100	±0.1	±0.1	25	1	yes	R <sup>10</sup>	725	a,b,e,g
	Deltron	L Series	0.5 <sup>5</sup>	7.5 <sup>5</sup>	4-72 <sup>11</sup>	0.01	0.01	50	0.5	yes	R	220	a,b,d,e,h
	Hevi-Duty	LR7.5-5M	4.5	7.5	5	±0.03	±0.03	100	1	yes	R	510	a,b,d,e,g
HC 5	Harrison	6251A	0	7.5	5	0.01	0.01	50	0.2	yes	C	395	a,b,c,d,e,h,i
	Harrison	6281A	0	7.5	5	0.01	5 mv	50	0.2	yes	C	210	a,b,c,d,e,h,i
	Hevi-Duty	LR7.5-10M	4.5	7.5	10	±0.03	±0.03	100	1	yes	R	510	a,b,d,e,g
	Hevi-Duty	LR7.5-15M	4.5	7.5	15	±0.03	±0.03	100	1	yes	R	580	a,b,d,e,g
	Hevi-Duty	LR7.5-20M	4.5	7.5	20	±0.03	±0.03	100	1	yes	R	825	a,b,d,e,g
	Hevi-Duty	LR7.5-30M	4.5	7.5	30	±0.03	±0.03	100	1	yes	R	920	a,b,d,e,g
	Geo Space	6/300	4.5	7.5	50	ina	0.2	ina	0.1%	yes	C or R	ina	
	Un Elect	Q-5-8-4A	5	8	4	5 mv	5 mv	50	1	yes	R	290	b,d,e,g
	Deltron	LH84 <sup>11</sup>	0	8	4-20	±0.1 <sup>14</sup>	±0.1 <sup>14</sup>	50	1	yes	R	223	b,e,h <sup>15,16</sup>
	Kepeco	Ck8-5M	0	8	5	0.01	0.01	50	0.5	yes	C	345	a,b,d,e,h,i
HC 6	Un Elect	Q5-8-6A	5	8	6	5 mv	5 mv	50	1	yes	R	325	b,d,e,g
	Un Elect	Q5-8-10A	5	8	10	5 mv	5 mv	50	1	yes	R	425	b,d,e,g
	Un Elect	Q5-8-15A	5	8	15	5 mv	5 mv	50	1	yes	R	495	b,d,e,g
	Kepeco	KS8-15M	0	8	15	0.01	0.01	50	1	yes	R	625	a,b,d,e,h,i
	Mag Res	DMR6-20	4	8	20	30 mv	30 mv	100 ms	30	yes	R	ina	e,g
	Un Elect	Q5-8-25A	5	8	25	5 mv	5 mv	50	1	yes	R	625	b,d,e,g
	Kepeco	KS8-25M	0	8	25	0.01	0.01	50	1	yes	R	760	a,b,d,e,h,i
	Kepeco	KS8-50M	0	8	50	0.01	0.01	50	1	yes	R	1050	a,b,d,e,h,i
	Mag Res	DMR6-100	4	8	100	0.2	0.2	100 ms	30	yes	R	ina	e,g
	Kepeco	KS8-100M	0	8	100	0.01	0.01	50	1	yes	R	1450	b,d,e,h,i

Notes, abbreviations and manufacturers' index at end of this section.



# High-current dc supplies

8.5-12 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 7	NJE	SR8-20M	7.5	8.5	20	0.005	0.01	30	1	yes	R	380	a,b,d,e,g
	Sorensen	QB6-4	5	9	4	$\pm 0.02^4$	$\pm 0.02^4$	25	0.3	none	C <sup>24</sup>	108	a,b,e,g,i
	Sorensen	QB6-8	5	9	8	$\pm 0.02^4$	$\pm 0.02^4$	25	0.3	yes	R	190	a,b,d,e,g,i
	Lambda	LE109FM	0	9	10	0.05	0.05	50	0.5	yes	R	480	a,b,d,e,g,i
	Sorensen	QB6-15	5	9	15	$\pm 0.02^4$	$\pm 0.02^4$	35	0.3	yes	C or R	245	a,b,d,e,g,i
	Lambda	LE110FM	0	9	20	0.05	0.05	50	0.5	yes	R	725	a,b,d,e,g,i
	Con Av	HS8-22.5	7	9	22.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Sorensen	QB6-30	5	9	30	$\pm 0.02^4$	$\pm 0.02^4$	50	0.3	yes	C or R	315	a,b,d,e,g,i
	Con Av	FS8-43.0	7	9	43	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Lambda	LH118FM	0	10	4	0.015	0.015	ina	0.25	yes	$\frac{1}{2}$ R	200	a,b,d,e,i
HC 8	Behl-Invar	QS-10	0	10	4.2	$\pm 0.01$	$\pm 0.01$	25	1	yes	$\frac{1}{2}$ R	200	a,b,d,e,h
	Scint	59F2	8	10	5	$\pm 10$ mv	$\pm 20$ mv	50	1	yes	R	245	b,d,g
	Bogue	A-10-5	0	10	5	$\pm 0.05$	$\pm 0.05$	50	1	yes	ina	request	e,g
	Deltron	SP10-5 <sup>11</sup>	0	10	5-100	0.01 <sup>17</sup>	0.01 <sup>17</sup>	50	0.5 <sup>18</sup>	yes	$\frac{1}{2}$ R <sup>13</sup>	220	a,b,d,e,h,i
	Pioneer	RR10-5-A	0	10	5	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR10-5-B	0	10	5	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Ultronics	BR10/5	0	10	5	$\pm 0.01$	$\pm 0.01$	50	1	yes	R	359	b,d,e,g
	Lambda	LH119FM	0	10	9	0.015	0.015	ina	0.25	yes	$\frac{1}{2}$ R	314	a,b,d,e,i
	Bogue	A-10-10	0	10	10	$\pm 0.05$	$\pm 0.05$	50	1	yes	ina	request	e,g
	Harrison	6282A	0	10	10	0.01	0.01	50	0.5	yes	C	350	a,b,c,d,e,h,i
HC 9	Hevi-Duty	HC15-10M	0	10	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	595	a,b,d,e,g
	Hyperion	HY-ZS-10-10	0	10	10	0.01	0.01	50	0.5	yes	$\frac{1}{2}$ R	279	a,b,c,d,e,g,i
	NJE	QR-10-10	0	10	10	$\pm 0.02$	$\pm 0.005$	50	3	yes	C or R	380	a,b,d,e,h
	Pioneer	RR10-10A	0	10	10	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Pioneer	RR10-10B	0	10	10	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Tech Pwr	L10-12.0M	0	10	12	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	245	a,b,d,e
	Hyperion	HY-Si-10-12.5	0	10	12.5	0.01	0.01	50	0.5	yes	$\frac{1}{2}$ R	299	a,b,d,e,g
	Glentron	20588-1	10	10	15	0.1 <sup>4</sup>	0.1	ina	1	ina	C	ina	request
	Hyperion	HY-T1-10-15	0	10	15	0.02	0.02	50	1	yes	R	440	a,b,d,g,i
	Pioneer	RR10-20A	0	10	20	0.1	0.1	50	1	yes	R	request	b,e,h,i
HC 10	Pioneer	RR10-20-B	0	10	20	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Tech Pwr	LS-10.0-12.0M	0	10	20	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	450	a,b,d,e
	Hyperion	HY-Si-10-25	0	10	25	0.01	0.01	50	0.5	yes	R	499	a,b,d,e,g
	Tech Pwr	L10-25.0M	0	10	25	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	310	a,b,d,e
	Tech Pwr	LS-10.0-25.0M	0	10	25	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	595	a,b,d,e
	Pioneer	RR10-30-A	0	10	30	0.1	0.1	50	1	yes	R	request	t,e,h,i
	Pioneer	RR10-30-B	0	10	30	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Hyperion	HY-T1-10-40	0	10	40	0.02	0.02	50	1	yes	R	695	a,b,d,g,i
	Hyperion	HY-T1-10-60	0	10	60	0.02	0.02	50	1	yes	R	975	a,b,d,g,i
	EI Meas	TO10-100M	0	10	100	10 mv	10 mv	ina	2	yes	R	1175	a,b,d
HC 11	Harrison	6260A	0	10	100	0.01	0.01	50	0.5	yes	R	775	a,b,d,e,h,i
	Hyperion	HY-Si-10-100	0	10	100	0.01	0.01	50	0.5	yes	R	1240	a,b,d,e,g
	Chalco	11V-5A	5	11	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	205	a,b,e,g
	NJE	SR-10-7.5M	9	11	7.5	0.005	0.01	15	1	yes	R	285	a,b,d,e,g
	Chalco	11V-10A	5	11	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	250	a,b,e,g
	NJE	SR-10-15M	9	11	15	0.005	0.01	30	1	yes	R	360	a,b,d,e,g
	Chalco	11V-15A	5	11	15	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	275	a,b,e,g
	Chalco	11V-20A	5	11	20	$\pm 0.1$	$\pm 0.1$	25	1	yes	R	325	a,b,e,g
	Con Av	HS10-21.0	9	11	21.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Chalco	11V-25A	5	11	25	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	405	a,b,e,g
HC 12	Chalco	11V-40A	5	11	40	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	515	a,b,e,g
	Con Av	FS10-41.0	9	11	41	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Chalco	11V-50A	5	11	50	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	560	a,b,e,g
	Chalco	11V-75A	5	11	75	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	630	a,b,e,g
	Chalco	11V-100A	5	11	100	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	885	a,b,e,g
	EI Mod	PSO31.57	-12	-12	3	$\pm 0.03$	ina	40	1	yes	R	ina	d,e,g
	Sola	281514-1	12	12	5	$\pm 1$	5	ina	1%	none	R	115	
	Hevi-Duty	LR12-5M	7.5	12	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	430	a,b,d,e,g
	Heath	IP12	0	12	5	ina	ina	ina	0.3%	yes	C	59.95	d
	Engr Elect	ZA742	12	12	6	0.5	0.1	ina	1.5	yes	R	ina	e,f

Notes, abbreviations and manufacturers' index at end of this section.



# High-current dc supplies

12-15 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 13	EI Mod	PS0631.5	-12	-12	6	$\pm 0.03$	ina	40	1	yes	R	619	d,e,g
	Sorensen	MD12.0-8.4	12	12	8.4	$\pm 1$	5	ina	1%	none	R	125	
	GlenTron	20588-2	12	12	10	0.14	0.14	ina	1	ina	C	ina	
	Hevi-Duty	LR12-10M	7.5	12	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	510	a,b,d,e,g
	Pwr Des	1210S	0	12	10	0.05 <sup>4</sup>	0.05 <sup>4</sup>	50	1	yes	C	329	c,d,e,g
	Deltron	HP12-10 <sup>11</sup>	0	12	10	0.05 <sup>20</sup>	0.05 <sup>20</sup>	50	1	yes	C	310	e,h
	EI Mod	PS1263	-12	-12	12	$\pm 0.03$	ina	40	1	yes	R	790	d,e,g
	Trygon	FT-FTR-12-15	12	12	15	$\pm 1$	1 v	ina	400	none	1/4R	149	
	Hevi-Duty	LR12-15M	7.5	12	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	580	a,b,d,e,g
	Tabltron	T12V15ARM	0	12	15	$\pm 5$	$\pm 5$	ina	1%	yes	C	198	d
HC 14	Sorensen	MD12.0-16.7	12	12	16.7	$\pm 1$	5	ina	1%	none	R	150	
	Trans Dev	RS12-20	12	12	20	1.5 mv	2 mv	50	0.15	yes	R	ina	b,h
	Hevi-Duty	LR12-20M	7.5	12	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	890	a,b,d,e,g
	Hevi-Duty	LR12-30M	7.5	12	30	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	940	a,b,d,e,g
	Sorensen	MD12.0-33.4	12	12	33.4	$\pm 1$	5	ina	1%	none	R	190	
	Kepeco	KO12-100M	0	12	100	1	1	500 ms	30	yes	R	1095	b,d,e,h,i
	Deltron	L Series	6.5 <sup>5</sup>	13 <sup>5</sup>	3.5-63	0.01	0.01	50	0.5	yes	R	220	a,b,d,e,h
	Deltron	DP12-4 <sup>11</sup>	11	13	4-60	$\pm 1$ <sup>20</sup>	$\pm 1$ <sup>20</sup>	100 ms <sup>21</sup>	0.8% <sup>18</sup>	yes	R	165	a,b,d,h
	Engr Elect	ZA 720	11	13	5	0.1	0.1	ina	1	yes	C or R	ina	e,f
	NJE	SR-12-7.5M	11	13	7.5	0.005	0.01	15	1	yes	R	285	a,b,d,e,g
HC 15	NJE	SR-12-15M	11	13	15	0.005	0.01	30	1	yes	R	360	a,b,d,e,g
	Con Av	HS12-20.5	11	13	20.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Voltex	82-193	11	13	25	0.2	0.2	50	ina	none	R	ina	e
	Dy Con	20V	11	13	50	5 mv	5 mv	100	2	yes	C or R	1430	d,e,g
	Dy Con	19V	11	13	100	15 mv	15 mv	100	2	yes	C or R	1950	d,e,g
	Mid-East	MS12-12	10.8	13.2	12	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Rapid	15BMA	10.8	13.2	15	$\pm 1$	$\pm 1$	ina	1%	yes	C	430	d
	Mid-East	MS12-40	10.8	13.2	40	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS12-60	10.8	13.2	60	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS12-100	10.8	13.2	100	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
HC 16	Mag Res	63-103-0	12	13.5	4.5	0.2	0.2	ina	1%	yes	C	327	d,e
	Deltron	RS12-4M <sup>11</sup>	10	14	4-16	0.01	0.01	50	0.5	yes	1/2R	230	a,b,d,e,h
	Un Elect	Q10-14-4A	10	14	4	5 mv	5 mv	50	1	yes	R	325	b,d,e,g
	Scint	514F2	12	14	5	$\pm 10$ mv	$\pm 20$ mv	50	1	yes	R	325	b,d,g
	EI Meas	TO14-5M	0	14	5	10 mv	10 mv	80	1	yes	R	390	a,b,d,e,h
	Un Elect	Q10-14-6A	10	14	6	5 mv	5 mv	50	1	yes	R	405	b,d,e,g
	Kepeco	SM14-7M	0	14	7	0.01	0.05	50	1	yes	R	405	b,d,e,h,i
	EI Meas	TO14-7.5M	0	14	7.5	10 mv	10 mv	100	1	yes	R	420	a,b,d,e,h
	Un Elect	Q10-14-10A	10	14	10	5 mv	5 mv	50	1	yes	R	455	b,d,e,g
	EI Meas	TO14-10M	0	14	10	10 mv	10 mv	80	1	yes	R	475	a,b,e,h
HC 17	Un Elect	Q10-14-15A	10	14	15	5 mv	5 mv	50	1	yes	R	545	b,d,e,g
	NJE	TC-14-15	5	14	15	0.5	0.5	30 ms	1%	yes	R	330	a,b,d,e,h
	Kepeco	SM14-15M	0	14	15	0.01	0.05	50	1	yes	R	525	b,d,e,h,i
	Un Elect	Q10-14-25A	10	14	25	5 mv	5 mv	100	1	yes	R	655	b,d,e,g
	NJE	TC-14-30	5	14	30	$\pm 0.5$	$\pm 0.25$	30 ms	1%	yes	C or R	450	a,b,d,e,h
	Kepeco	SM14-30M	0	14	30	0.01	0.05	50	1	yes	R	725	b,d,e,h,i
	Tabltron	T14V30ARM	0	14	30	$\pm 5$	$\pm 5$	ina	1%	yes	C	354	d
	Valor	AV14-50	11	14	50	6 mv	10 mv	ina	3	none	R	ina	a,b
	Geo Space	Type BE-1	10	14	50	ina	0.1	ina	1	yes	C or R	ina	
	Hevi-Duty	HC15-5M	0	15	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	465	a,b,d,e,g
HC 18	Mid-East	ST150-5	0	15	5	0.01	0.01	50	3	yes	R	1595	a,b,d,e,h
	Deltron	HP15-8 <sup>11</sup>	0	15	8	0.05 <sup>20</sup>	0.05 <sup>20</sup>	50	1	yes	C or R	305	d,h <sup>22</sup>
	Trygon	FT-FTR15-10	15	15	10	$\pm 1$ %	0.9 v	ina	400	none	1/4R	149	
	Mag Res	DMR12-10	9	15	10	0.2	0.2	100 ms	2%	yes	R	ina	e,g
	Hyperion	HY-Si-15-10	0	15	10	0.01	0.01	50	0.5	yes	1/2R	299	a,b,d,e,g
	Kepeco	PR15-10M	0	15	10	$\pm 1$	5	ina	2%	yes	R	360	d,i
	Utronics	QCR15/10	0	15	10	$\pm 0.01$	$\pm 0.01$	50	1	yes	R	495	a,b,d,e,g
	Mid-East	MS13.5-12	12	15	12	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Hevi-Duty	HC15-15M	0	15	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	695	a,b,d,e,g
	Utronics	QCR15/15	0	15	15	$\pm 0.01$	$\pm 0.01$	50	1	yes	R	610	a,b,d,e,g

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 19	Hevi-Duty	HC15-20M	0	15	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1005	a,b,d,e,g
	NJE	QR-15-20	0	15	20	$\pm 0.02$	$\pm 0.01$	50	3	yes	C or R	490	a,b,d,e,h
	Kepeco	PR15-30M	0	15	30	$\pm 1$	5	ina	5%	yes	R	525	d,i
	Ralelco	PS-3	0	15	30	$2v^4$	$2v^4$	ina	0.7%	yes	C	195	d
	Trygon	M15-30A	0	15	30	0.01	0.01	50	1	yes	R	695	a,b,d,e,h,i
	Mid-East	MS13.5-40	12	15	40	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Geo Space	12/600	9	15	50	ina	0.1	ina	0.1%	yes	C or R	ina	
	Trygon	M15-50A	0	15	50	0.01	0.01	50	1	yes	R	945	a,b,d,e,h,i
	Mid-East	MS13.5-60	12	15	60	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Trygon	C15-80	0	15	80	0.01	0.01	100	1	yes	R	1250	a,b,d,e,h,i
HC 20	Mid-East	MS13.5-100	12	15	100	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Hevi-Duty	LR16-5M	12	16	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	450	a,b,d,e,g
	Chalco	16V-5A	8	16	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	230	a,b,e,g
	NJE	SR-5-6M	14	16	6	0.005	0.01	15	1	yes	R	285	a,b,d,e,g
	Hevi-Duty	LR16-10M	12	16	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	530	a,b,d,e,g
	Chalco	16V-10A	8	16	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	305	a,b,e,g
	NJE	SR-15-12M	14	16	12	0.005	0.01	15	1	yes	R	360	a,b,d,e,g
	Hevi-Duty	LR16-15M	12	16	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	595	a,b,d,e,g
	Chalco	16V-15A	8	16	15	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	350	a,b,e,g
	Con Av	HS15-17.5	14	16	17.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
HC 21	Hevi-Duty	LR16-20M	12	16	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	905	a,b,d,e,g
	Chalco	16V-20A	8	16	20	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	395	a,b,e,g
	Chalco	16V-25A	8	16	25	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	430	a,b,e,g
	Hevi-Duty	LR16-30M	12	16	30	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	960	a,b,d,e,g
	Con Av	FS15-35.0	14	16	35	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Chalco	16V-40A	8	16	40	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	525	a,b,e,g
	Chalco	16V-50A	8	16	50	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	600	a,b,e,g
	El Meas	TO16-6M	0	16	60	10 mv	10 mv	ina	2	yes	R	1175	a,b,d,e
	Chalco	16V-75A	8	16	75	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	690	a,b,e,g
	Chalco	16V-100A	8	16	100	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	975	a,b,e,g
HC 22	Vector	ST-01-3A	0	18	3.5	$\pm 0.03$	0.05	25	1	yes	C	215	a,b,c,d,e,h,i
	Sorensen	QB12-4	9	18	4	$\pm 0.01^4$	$\pm 0.01^4$	25	0.3	yes	R	190	a,b,d,e,g,i
	Sola	281515-1	18	18	5	$\pm 1$	4	ina	1%	none	R	120	
	Voltex	18-5	0	18	5	$\pm 0.02$	$\pm 0.005$	25	3	yes	R	545	a,b,e,h,i
	Sorensen	MD18.0-5.55	18	18	5.55	$\pm 1$	5	ina	1%	none	R	120	
	Mid-East	ME18-6	0	18	6	0.01	0.05	50	1	yes	R	495	b,d,e,g
	Mid-East	SS18-6	0	18	6	$\pm 0.01$	0.05	ina	1	yes	R	397	b,d,e
	Mid-East	ST18-6S	0	18	6	0.01	0.05	50	1	yes	R	495	a,b,d,e,h
	NJE	QR-18-6	0	18	6	$\pm 0.02$	$\pm 0.005$	50	3	yes	C or R	375	a,b,d,e,h
	Trans Dev	RS 18-7	18	18	7	3 mv	3 mv	50	0.25	yes	R	ina	b,h
HC 23	Glentron	20588-3	18	18	7.5	0.1 <sup>1</sup>	0.1 <sup>1</sup>	ina	1	ina	C	ina	
	Sorensen	QB12-8	9	18	8	$\pm 0.01^4$	$\pm 0.01^4$	25	0.3	yes	C or R	245	a,b,d,e,g,i
	Lambda	LE105FM	0	18	8	0.05	0.05	50	0.5	yes	R	475	a,b,d,e,g,i
	Vector	CM-01-8A	0	18	8	$\pm 0.01$	$\pm 0.01$	25	1	yes	R	475	a,b,d,e,h,i
	Mid-East	SS18-9	0	18	9	$\pm 0.01$	0.05	ina	1	yes	R	495	b,d,e
	Mid-East	ST18-9	0	18	9	0.01	0.05	50	1	yes	R	595	a,b,d,e,h
	Trygon	FT-FTR18-10	18	18	10	$\pm 1$	0.9 v	ina	400	none	$\frac{1}{4}$ R	149	
	Voltex	18-10	0	18	10	$\pm 0.02$	$\pm 0.01$	25	3	yes	R	620	a,b,e,h,i
	Harrison	6363A	0	18	10	0.01	0.01	50	0.5	none	R	359	a,b,e,h
	Harrison	6263A	0	18	10	0.01	0.01	50	0.5	yes	R	435	a,b,d,e,h,i
HC 24	Kepeco	KS18-10M	0	18	10	0.01	0.01	50	1	yes	R	575	a,b,d,e,h,i
	Sorensen	MD18.0-11.1	18	18	11.1	$\pm 1$	5	ina	1%	none	R	145	
	Mid-East	SS18-12	0	18	12	$\pm 0.01$	0.05	ina	1	yes	R	539	b,d,e
	Mid-East	ST18-12S	0	18	12	0.01	0.05	100	1	yes	R	695	a,b,d,e,h
	Vector	CM-01-1L	0	18	12	$\pm 0.01$	0.01	25	1	yes	R	464	a,b,d,e,h,i
	Sorensen	QB12-15	9	18	15	$\pm 0.01^4$	$\pm 0.01^4$	25	0.3	yes	C or R	315	a,b,d,e,g,i
	Lambda	LE106FM	0	18	15	0.05	0.05	50	0.5	yes	R	640	a,b,d,e,g,i
	Mid-East	SS18-15	0	18	15	$\pm 0.01$	$\pm 0.01$	ina	1	yes	R	569	b,d,e
	Mid-East	ST18-15S	0	18	15	0.01	0.5	100	1	yes	R	795	a,b,d,e,h
	Voltex	18-15	0	18	15	$\pm 0.02$	$\pm 0.01$	25	3	yes	R	695	a,b,e,h,i

Notes, abbreviations and manufacturers' index at end of this section.



# High-current dc supplies

18-20 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 25	Trans Dev	RS18-20	18	18	20	5 mv	5 mv	50	0.3	yes	R	ina	b,h
	Harrison	6264A	0	18	20	0.01	0.01	50	0.5	yes	R	525	a,b,d,e,h,i
	Harrison	6364A	0	18	20	0.01	0.01	50	0.5	none	R	450	a,b,e,h
	Lambda	LE107FM	0	18	22	0.05	0.05	50	0.5	yes	R	745	a,b,d,e,g,i
	Sorensen	MD18.0-22.4	18	18	22.4	$\pm 1$	5	ina	1%	none	R	185	
	Kepeco	KS18-25M	0	18	25	0.01	0.01	50	1	yes	R	970	a,b,d,e,h,i
	NJE	Sy-18-30M	5	18	30	0.01	0.01	50	1	yes	R	555	a,b,d,e,g
	NJE	CR-18-30	0	18	30	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	610	a,b,d,e,h
	Mid-East	SS18-35	0	18	35	$\pm 0.01$	0.05	ina	1	yes	R	795	b,d,e
	Mid-East	ST18-35	0	18	35	0.01	0.05	50	1	yes	R	995	a,b,d,e,h
HC 26	Harrison	6428A	0	18	45	18 mv	18 mv	300	0.2	yes	R	550	a,b,d,e,f,h,i
	Kepeco	KS18-50M	0	18	50	0.01	0.01	50	1	yes	R	1360	b,d,e,h,i
	Mid-East	MS17-10	15.4	19	10	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Con Av	HS18-16.5	17	19	16.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Mid-East	MS17-30	15.4	19	30	$\pm 1$	$\pm 1$	ina	9.5%	yes	R	750	b
	Con Av	FS18-32.0	17	19	32	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Mid-East	MS17-45	15.4	19	45	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS17-80	15.4	19	80	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Deltron	DPI18-4 <sup>11</sup>	16	20	4-75	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	170	a,b,d,h
	EI Meas	PRO20-4M	0	20	4	0.04	0.04	150	1	yes	1/2R	250	a,b,d,e,g,i
HC 27	Sorensen	QRB20-4	0	20	4	0.01 <sup>4</sup>	0.01 <sup>4</sup>	50	0.2	yes	R	255	a,b,d,e,g,i
	Hevi-Duty	LR20-5M	16	20	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	450	a,b,d,e,g
	Chalco	20V-5A	10	20	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	230	a,b,e,g
	Fairlane	205	1	20	5	20 mv	10 mv	50	500	yes	R	325	b,d,e,h
	Fairlane	206	0.1	20	5	20 mv	10 mv	50	500	yes	R	420	b,d,e,h
	Deltron	HP20-5 <sup>11</sup>	0	20	5-50	0.05 <sup>20</sup>	0.05 <sup>20</sup>	50	1 <sup>23</sup>	yes	C <sup>13,24</sup>	255	d,h <sup>15,22,25,26</sup>
	Harrison	6285A	0	20	5	0.01	0.01	50	0.5	yes	C	350	a,b,c,d,e,h,i
	Pioneer	RR20-5-A	0	20	5	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR20-5-B	0	20	5	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Trygon	HR20-5B	0	20	5	0.01	0.01	50	0.5	yes	C	299	a,b,d,e,h,i
HC 28	Lambda	LH122FM	0	20	5.7	0.015	0.015	ina	0.25	yes	1/2R	260	a,b,d,e,i
	Hyperion	HY-Si-20-6	0	20	6	0.01	0.01	50	0.5	yes	1/2R	249	a,b,d,e,g
	Tech Pwr	L20-6.0M	0	20	6	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	215	a,b,d,e
	Tech Pwr	LS20.0-6.0M	0	20	6	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	395	a,b,d,e
	Hyperion	HY-ZS-20-7.5	0	20	7.5	0.01	0.01	50	0.5	yes	1/2R	279	a,b,c,d,e,g,i
	Sorensen	QRC20-8	0	20	8	$\pm 0.005^4$	$\pm 0.005^4$	50	1	yes	C or R	410	a,b,d,f,g,i
	Mid-East	MS20-10	18	20	10	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Hevi-Duty	LR20-10M	16	20	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	560	a,b,d,e,g
	Chalco	20V-10A	10	20	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	305	a,b,e,g
	Harrison	6286A	0	20	10	0.01	0.01	50	0.5	yes	C	395	a,b,c,d,e,h,i
HC 29	Hyperion	HY-Si-20-10	0	20	10	0.01	0.01	50	0.5	yes	1/2R	349	a,b,d,e,g
	Hyperion	HY-T1-20-10	0	20	10	0.02	0.02	50	1	yes	R	440	a,b,d,g,i
	Pioneer	RR20-10A	0	20	10	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR20-10-B	0	20	10	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Trygon	HR20-10B	0	20	10	0.01	0.01	50	0.5	yes	C	369	a,b,d,e,h,i
	Voltex	82-197-2M	0	20	10	0.1 <sup>4</sup>	0.1 <sup>4</sup>	ina	1	yes	R	ina	e
	Tech Pwr	LS20.0-12.0M	0	20	12	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	485	a,b,d,e
	Hevi-Duty	LR20-15M	16	20	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	630	a,b,d,e,g
	Chalco	20V-15A	10	20	15	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	335	a,b,e,g
	Sorensen	QRC20-15	0	20	15	$\pm 0.005^4$	$\pm 0.005^4$	50	1	yes	C or R	525	a,b,d,f,g,i
HC 30	Hevi-Duty	LR20-20M	16	20	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	920	a,b,d,e,g
	Chalco	20V-20A	10	20	20	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	395	a,b,e,g
	Hyperion	HY-Si-20-20	0	20	20	0.01	0.01	50	0.5	yes	R	449	a,b,d,e,g
	Pioneer	RR20-20-A	0	20	20	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR20-20-B	0	20	20	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Chalco	20V-25A	10	20	25	$\pm 0.1$	$\pm 0.1$	25	1	yes	R	430	a,b,e,g
	Tech Pwr	L20-25.0M	0	20	25	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	350	a,b,d,e
	Tech Pwr	LS20.0-25.0M	0	20	25	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	690	a,b,d,e
	Mid-East	MS20-30	18	20	30	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Hevi-Duty	LR20-30M	16	20	30	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	985	a,b,d,e,g

Notes, abbreviations and manufacturers' index at end of this section.



	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 31	EI Meas	PVC20-30M	0	20	30	0.01	0.01	ina	0.5	yes	R	875	a,b,d,e
	Hyperion	HY-T1-20-30	0	20	30	0.02	0.02	50	1	yes	R	645	a,b,d,g,i
	Pioneer	RR20-30-A	0	20	30	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR20-30-B	0	20	30	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Sorensen	QRC-20-30	0	20	30	$\pm 0.005^4$	$\pm 0.005^4$	50	1	yes	C or R	700	a,b,d,f,g,i
	Chalco	20V-40A	10	20	40	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	525	a,b,e,g
	Trygon	SR20-40	2	20	40	0.15	0.3	10 ms	100	yes	R	745	a,b,d,e,h
	Mid-East	MS20-45	18	20	45	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Hyperion	HY-T1-20-45	0	20	45	0.02	0.02	50	1	yes	R	1095	a,b,d,g,i
Chalco	20V-50A	10	20	50	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	640	a,b,e,g	
HC 32	Hyperion	HY-Si-20-50	0	20	50	0.01	0.01	50	0.5	yes	R	1249	a,b,d,e,g
	Trygon	SR20-70	2	20	70	0.15	0.3	10 ms	100	yes	R	995	a,b,d,e,h
	Deltron	DP18-75	16	20	75	0.5	0.5	50	1%	yes	R	595	a,b,d,h
	Chalco	20V-75A	10	20	75	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	745	a,b,e,g
	Mid-East	MS20-80	18	20	80	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Chalco	20V-100A	10	20	100	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	1080	a,b,e,g
	Sorensen	DCR20-125	0	20	125	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	1065	a,b,d,f,g,i
	Deltron	RS18-4.5M <sup>11</sup>	15	21	4.5-12	0.01	0.01	50	0.5	yes	1/2R	310	a,b,d,e,h
	Con Av	HS20-15.5	19	21	15.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
NJE	SR-20-5.5M	18	22	5.5	0.005	0.01	15	1	yes	R	285	a,b,d,e,g	
HC 33	NJE	SR-20-11M	18	22	11	0.005	0.01	15	1	yes	R	360	a,b,d,e,g
	Con Av	FS20-30.0	19	22	30	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Geo Space	18/180	13	22.5	10	ina	0.2	ina	0.1%	yes	C or R	ina	
	Deltron	LH244 <sup>11</sup>	7	24	4-20	$\pm 0.1^{14}$	$\pm 0.1^{14}$	50	1	yes	R	241	b,e,h 15,16
	Sorensen	MD24.0-4.2	24	24	4.2	$\pm 1$	5	ina	1%	none	R	115	
	Glenatron	20588-4	24	24	5	0.1 <sup>4</sup>	0.1 <sup>4</sup>	ina	1	ina	C	ina	
	Hevi-Duty	LR24-5M	20	24	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	470	a,b,d,e,g
	Sola	281024-1	24	24	6	$\pm 1$	4	ina	1%	none	R	145	
	Acme	PS-41423	24	24	6.25	$\pm 1$	$\pm 1$	ina	1%	none	R	143	
Trygon	FT-FTR24-8	24	24	8	$\pm 1$	1 v	ina	400	none	1/2R	149		
HC 34	Sorensen	MD24.0-8.32	24	24	8.32	$\pm 1$	5	ina	1%	none	R	145	
	Hevi-Duty	LR24-10M	20	24	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	565	a,b,d,e,g
	Trans Dev	RS 24-14	24	24	14	5 mv	5 mv	50	0.3	yes	R	ina	b,h
	Sola	281203	24	24	15	$\pm 1$	4	ina	1%	none	R	250	
	Hevi-Duty	LR24-15M	20	24	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	630	a,b,d,e,g
	Sorensen	MD24.0-16.64	24	24	16.64	$\pm 1$	5	ina	1%	none	R	185	
	Hevi-Duty	LR24-20M	20	24	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	935	a,b,d,e,g
	Hevi-Duty	LR24-30M	20	24	30	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1005	a,b,d,e,g
	Deltron	DP24-4 <sup>11</sup>	21	25	4-16	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	165	a,b,d,h
Deltron	L Series	12 <sup>6</sup>	25 <sup>6</sup>	5-45	0.01	0.01	50	0.5	yes	R	273	a,b,d,e,h	
HC 35	Kepeco	KO 25-50M	0	25	50	1	1	500 ms	40	yes	R	995	b,d,e,h,i
	NJE	SR-24-5M	22	26	5	0.005	0.01	15	1	yes	R	285	a,b,d,e,g
	Sorensen	QB18-6	13	26	6	$\pm 0.01^4$	$\pm 0.01^4$	25	0.3	yes	C or R	245	a,b,d,e,g,i
	NJE	SR-24-10M	22	26	10	0.005	0.005	15	1	yes	R	360	a,b,d,e,g
	Sorensen	QB18-12	13	26	12	$\pm 0.01^4$	$\pm 0.01^4$	35	0.3	yes	C or R	315	a,b,d,e,g,i
	Con Av	HS24-13.5	22	26	13.5	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Con Av	FS24-25.0	22	26	25	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Valor	AV26-40	22	26	40	6 mv	10 mv	ina	3	none	R	ina	a,b
	Mag Res	63-105-0	26.5	26.5	15	1	1	ina	1%	yes	R	1295	d,e
Mag Res	63-106-0	26.5	26.5	23	1	1	ina	1%	yes	R	733	d,e	
HC 36	Mid-East	MS25-8	22.5	27.5	8	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS25-25	22.5	27.5	25	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS25-37	22.5	27.5	37	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS25-60	22.5	27.5	60	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Sorensen	MD28.0-3.6	28	28	3.6	$\pm 1$	5	ina	1%	none	R	115	
	Deltron	RS24-3.6M <sup>11</sup>	20	28	3.6-9.6	0.01	0.01	50	0.5	yes	1/2R	310	a,b,d,e,h
	Glenatron	20588-5	28	28	5	0.1 <sup>4</sup>	0.1 <sup>4</sup>	ina	1	ina	C	ina	
	Scint	528F2	26	28	5	$\pm 10$ mv	$\pm 20$ mv	50	1	yes	R	325	b,d,g
	Trygon	FT-FTR28-7	28	28	7	$\pm 1$	0.9 v	ina	400	none	1/2R	149	
Sorensen	MD28.0-7.2	28	28	7.2	$\pm 1$	5	ina	1%	none	R	140		

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# High-current dc supplies

28-32 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 37	Sola	28626	28	28	8	$\pm 1$	4	ina	1%	none	R	180	
	Trans Dev	RS28-14	28	28	14	5 mv	5 mv	50	0.3	yes	R	ina	b,h
	Sorensen	MD28-0-14.3	28	28	14.3	$\pm 1$	5	ina	1%	yes	R	180	
	Christie	M32-15RF	28	28	15	3 <sup>4</sup>	3 <sup>4</sup>	ina	2%	yes	C or R	ina	d
	Christie	M32-5DRF	28	28	50	3 <sup>4</sup>	3 <sup>4</sup>	ina	3%	yes	C or R	ina	d
	Perkin	28-5WX	27.5	28.5	5	$\pm 0.5^4$	$\pm 0.5^4$	200 ms	1%	yes	R	320	b,h
	Un Elect	Q26-30-4A	26	30	4	5 mv	5 mv	50	1	yes	R	378	b,d,e,g
	NJE	SR-28-5M	26	30	5	0.005	0.01	15	1	yes	R	285	a,b,d,e,g
	Hevi-Duty	LR30-5M	24	30	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	480	a,b,d,e,g
	Hevi-Duty	HC30-5M	0	30	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	555	a,b,d,e,g
HC 38	Un Elect	Q26-30-6A	26	30	6	5 mv	5 mv	50	1	yes	R	430	b,d,e,g
	NJE	SR-28-10M	26	30	10	0.005	0.01	15	1	yes	R	360	a,b,d,e,g
	Un Elect	Q26-30-10A	26	30	10	5 mv	5 mv	50	1	yes	R	480	b,d,e,g
	Hevi-Duty	LR30-10M	24	30	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	580	a,b,d,e,g
	Hevi-Duty	HC30-10M	0	30	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	625	a,b,d,e,g
	Un Elect	Q26-30-15A	26	30	15	5 mv	5 mv	50	1	yes	R	580	b,d,e,g
	Hevi-Duty	LR30-15M	24	30	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	680	a,b,d,e,g
	Hevi-Duty	HC30-15M	0	30	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	750	a,b,d,e,g
	Hevi-Duty	LR30-20M	24	30	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	970	a,b,d,e,g
	Hevi-Duty	HC30-20M	0	30	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1020	a,b,d,e,g
HC 39	Un Elect	Q26-30-25A	26	30	25	5 mv	5 mv	100	1	yes	R	705	b,d,e,g
	Hevi-Duty	LR30-30M	24	30	30	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1020	a,b,d,e,g
	Hevi-Duty	HC30-30M	0	30	30	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1020	a,b,d,e,g
	Valor	AV30-40	26	30	40	6 mv	10 mv	ina	3	none	R	ina	a,b
	Christie	BC030-50	1	30	50	$\pm 0.5^4$	$\pm 0.5^4$	25-50 ms	100	yes	C or R	ina	b,d,g
	Dy Con	27V	23	31	4	note 2	note 2	50	5	yes	C or R	320	e,g
	Con Av	HS29-12.0	27	31	12	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Con Av	FS29-23.0	27	31	23	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Deltron	HP32-4 <sup>11</sup>	0	32	4-6	0.05 <sup>18</sup>	0.05 <sup>18</sup>	50	1	yes	C or R	310	d,h
	Perkin	MTR28-5A	24	32	5	$\pm 0.1$	$\pm 0.1$	ina	5	yes	R	425	d,e <sup>22</sup>
HC 40	El Meas	PV32-5M	0	32	5	0.01	0.01	200	0.5	yes	R	420	a,b,d,g
	Hyperion	HY-ZS-32-5	0	32	5	0.01	0.01	50	0.5	yes	1/2R	269	a,b,c,d,e,g,i
	Mid-East	MS29-8	26.1	32	8	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	El Meas	PV32-10M	0	32	10	0.01	0.01	200	0.5	yes	R	550	a,b,d,g
	Harrison	6433A	0	32	10	0.05	0.1	300 ms	1%	yes	R	370	a,b,d,e,h,i
	NJE	ELA-32-10CM	0	32	10	$\pm 0.5$	$\pm 2$	ina	1%	yes	C	485	d,e
	NJE	ELB-32-10CM	0	32	10	$\pm 0.5$	$\pm 5$	ina	1%	yes	C	445	d,e
	Perkin	28-10WXA	24	32	10	$\pm 0.5^4$	$\pm 0.5^4$	200 ms	1%	yes	R	375	b,h
	Perkin	MTR28-10A	24	32	10	$\pm 0.1$	$\pm 0.1$	ina	2	yes	R	556	d,e
	Rapid	2432A	24	32	10	$\pm 0.5$	$\pm 0.5$	ina	1%	yes	C	430	d
HC 41	NJE	TC-32-10	10	32	10	$\pm 0.5$	$\pm 0.5$	30	1%	yes	C or R	320	a,b,d,e,h
	Pwr Inst	2815	22	32	15	$\pm 1$	$\pm 1$	200 ms	100	yes	C or R	ina	b,d,e,g
	El Meas	PV32-15M	0	32	15	0.01	0.01	200	0.5	yes	R	685	a,b,d,g
	Glentron	20805-0	0	32	15	10 mv	10 mv	ina	0.5	ina	C or R	ina	
	Tabtron	T32V15ARM	0	32	15	$\pm 5$	$\pm 5$	ina	0.5%	yes	C	225	d
	Con Av	SP-32-20	10	32	20	50 mv	100 mv	ina	35	yes	R	525	a,b,e,g
	NJE	TC-32-20	10	32	20	$\pm 0.5$	$\pm 0.5$	30	1%	yes	C or R	450	a,b,d,e,g
	NJE	ELA-32-20RM	0	32	20	$\pm 0.5$	$\pm 2$	ina	1%	yes	R	685	d,e
	NJE	ELB-32-20RM	0	32	20	$\pm 0.5$	5	ina	1%	yes	R	595	d,e
	Mid-East	MS29-25	26.1	32	25	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
HC 42	Perkin	M60V	0	32	25	$\pm 1$	$\pm 1$	200 ms	1%	yes	C or R	609	d,h
	Rapid	3225R	0	32	25	$\pm 1$	$\pm 1$	ina	1%	yes	C	ina	
	Tabtron	MRT32V25A	0	32	25	$\pm 5$	$\pm 5$	ina	1%	yes	C	423	d
	Deltron	XR28-30M	24	32	30	0.01	0.01	50	1	yes	R	794	a,d,h
	NJE	TRM-28-30	24	32	30	0.1	0.1	ina	1%	yes	C or R	895	b,d,e
	Perkin	28-30WX	24	32	30	$\pm 0.05$	$\pm 0.05$	200 ms	1%	yes	R	723	b,d,h
	Rapid	2432EMA	24	32	30	$\pm 0.5$	$\pm 0.5$	ina	1%	yes	C	ina	
	Rapid	3230R	24	32	30	$\pm 0.5$	$\pm 0.5$	ina	1%	yes	R	ina	
	Con Av	SP-32-30	10	32	30	50 mv	50 mv	ina	35	yes	R	562	a,b,e,g
	NJE	TC-32-30	10	32	30	$\pm 0.5$	$\pm 0.5$	30 ms	1%	yes	C or R	550	a,b,d,e,g

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 43	EI Meas	PV32-30M	0	32	30	0.01	0.01	ina	0.5	yes	R	855	a,b,d
	NJE	ELA-32-30RM	0	32	30	$\pm 0.5$	$\pm 2$	ina	1%	yes	R	980	d,e
	NJE	ELB-32-30RM	0	32	30	$\pm 0.5$	$\pm 5$	ina	1%	yes	R	925	d,e
	Tabtron	T32V30ARM	0	32	30	$\pm 5$	$\pm 5$	ina	1%	yes	C	369	d
	Mid-East	MS29-27	26.1	32	37	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Pwr Inst	2840	22	32	40	$\pm 1$	$\pm 1$	200 ms	100	yes	C or R	ina	b,d,e,g
	Hyperion	HY-T1-32-40	0	32	40	0.02	0.02	50	1	yes	R	1095	a,b,d,g,i
	Con Av	SP-32-50	10	32	50	50 mv	100 mv	ina	35	yes	R	705	a,b,e,g
	NJE	TC-32-50	10	32	50	$\pm 0.5$	$\pm 0.5$	30 ms	1%	yes	C or R	750	a,b,d,e,g
	Mid-East	MS29-60	26.1	32	60	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
HC 44	NJE	TRM-28-60	24	32	60	0.1	0.1	ina	1%	yes	C or R	1330	d,e
	Con Av	SP-32-100	10	32	100	50 mv	100 mv	ina	35	yes	R	1195	a,b,e,g
	Chalco	33V-5A	15	33	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R	235	a,b,e,g
	Chalco	33V-10A	15	33	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	320	a,b,e,g
	Chalco	33V-15A	15	33	15	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	375	a,b,e,g
	Chalco	33V-20A	15	33	20	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	435	a,b,e,g
	Chalco	33V-25A	15	33	25	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	505	a,b,e,g
	Chalco	33V-40A	15	33	40	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	575	a,b,e,g
	Chalco	33V-50A	15	33	50	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	670	a,b,e,g
	Chalco	33V-75A	15	33	75	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	950	a,b,e,g
HC 45	Chalco	33V-100A	15	33	100	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	1250	a,b,e,g
	Lambda	LA50-03BM	0	34	5	0.05	0.1	50	1	yes	R	388	a,b,d,e,g
	Lambda	LA100-03BM	0	34	10	0.05	0.1	50	1	yes	R	495	a,b,d,e,g
	Lambda	LA200-03BM	0	34	20	0.05	0.1	50	1	yes	R	715	a,b,d,e,g
	Delltron	RS30-4M <sup>1</sup>	25	35	4-8	0.01	0.01	50	0.5	yes	1/2R	355	a,b,d,e,h
	Trans Dev	VS 201	0	35	5	$\pm 0.05$	$\pm 0.1$	50	1	yes	R	ina	d,e,h
	Sola	285110	5	35	7	$\pm 1$	ina	ina	0.1%	yes	R	325	d
	Dy Con	TT2/35-10	2	35	10	note 2	note 2	50	3	yes	C or R	640	b,d,e,g
	Un Elect	L3510	0	35	10	3 mv	3 mv	50	1	yes	C	425	b,d,e,g
	Un Elect	LQ35-10A	0	35	10	2 mv	5 mv	50	0.6	yes	R	585	b,d,e,g
HC 46	Con Av	HS33-11.0	31	35	11	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Un Elect	L3515	0	35	15	3 mv	3 mv	50	1	yes	C	525	b,d,e,g
	Un Elect	LQ35-15A	0	35	15	2 mv	5 mv	50	0.6	yes	R	625	b,d,e,g
	Con Av	FS33-21.0	31	35	21	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Un Elect	LQ35-25	0	35	25	2 mv	5 mv	100	2	yes	R	760	b,d,e,g
	Sorensen	QB28-4	18	36	4	$\pm 0.01^4$	$\pm 0.01^4$	25	0.3	yes	C or R	245	a,b,d,e,g,i
	ERA	SL36-4M	0	36	4	0.01	0.05	50	1	yes	R	290	a,b,d,e,g
	ERA	TR36-4	0	36	4	$\pm 0.02$	$\pm 0.05$	50	1	yes	R	370	b,d,e,g
	NJE	QR-36-4	0	36	4	$\pm 0.02$	$\pm 0.005$	50	3	yes	C or R	420	a,b,d,e,h
	Scint	536F2	34	36	5	$\pm 10$ mv	$\pm 20$ mv	50	1	yes	R	345	b,d,g
HC 47	Hevi-Duty	LR36-5M	30	36	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	495	a,b,d,e,g
	Mag Res	DMR28-5	18	36	5	$\pm 0.2$	$\pm 0.5$	100 ms	0.2%	yes	C or R	625	e,g
	Behl Invar	TPA-5	0	36	5	10 mv	5 mv	30	0.5	yes	R	520	b,d,e,h
	EI Meas	PV36-5M	0	36	5	0.01	0.01	200	0.5	yes	R	450	a,b,d,g
	EI Meas	T036-5M	0	36	5	10 mv	10 mv	80	1	yes	R	435	b,d,e,g
	Harrison	6266A	0	36	5	0.01	0.01	50	0.5	yes	R	435	a,b,d,e,h,i
	Harrison	6366A	0	36	5	0.01	0.01	50	0.5	none	R	359	a,b,e,h
	Kepeco	KS36-5M	0	36	5	0.01	0.01	50	1	yes	R	525	a,b,d,e,h,i
	Lambda	LE101FM	0	36	5	0.05	0.05	50	0.5	yes	R	470	a,b,d,e,g,i
	Kepeco	SM36-5M	0	36	5	0.01	0.05	50	1	yes	R	395	b,d,e,h,i
HC 48	NJE	RVC-36-5M	0	36	5	$\pm 0.01$	$\pm 0.005$	50	1	yes	C or R	345	a,b,d,e,g,i
	Perkin	MTR036-5A	0	36	5	$\pm 10$ mv	$\pm 10$ mv	ina	1	yes	R	468	a,b,d,e,g,i
	Pioneer	RR36-5A	0	36	5	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR36-5B	0	36	5	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Pwr Des	3650S	0	36	5	0.05	0.05	50	0.5	yes	C	299	d,e,g,i
	Pwr Des	3650R	0	36	5	0.01	0.01	50	0.5	yes	R	350	a,b,g,i
	Pwr Inst	3605	0	36	5	$\pm 0.1$	$\pm 0.1$	50	1	yes	C or R	ina	b,d,e,g
	Pwr Srce	PS4305	0	36	5	0.01	0.01	100 ms	1	yes	R	445	d,e,g
	Utronics	QCR36/5	0	36	5	$\pm 0.1$	$\pm 0.1$	50	1	yes	R	445	a,b,d,e,g
	Vector	CM-03-5A	0	36	5	$\pm 0.01$	0.01	25	1	yes	R	398	a,b,d,e,h,i

Notes, abbreviations and manufacturers' index at end of this section.



	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 49	Deltron	HP36-6 <sup>11</sup>	0	36	6-30	0.05 <sup>17,20</sup>	0.05 <sup>17,20</sup>	50	1	yes	C or R	390	d,h,15,22
	Mid-East	SS36-6	0	36	6	$\pm 0.01$	0.03	ina	1	yes	R	429	b,d,e,h
	Mid-East	ST36-6S	0	36	6	0.01	0.03	50	1	yes	R	495	a,b,d,e,h
	Voltex	36-6	0	36	6	$\pm 0.02$	$\pm 0.005$	25	3	yes	R	620	a,b,e,h,i
	Un Elect	LQ35-6A	0	36	6	2 mv	5 mv	50	0.25	yes	R	425	a,b,d,e,g
	Sorensen	QB28-8	18	36	8	$\pm 0.01^4$	$\pm 0.01^4$	35	0.3	yes	C or R	315	a,b,d,e,g,i
	ERA	SL36-8M	0	36	8	0.01	0.05	50	1	yes	R	355	a,b,d,e,g
	ERA	TR36-8	0	36	8	$\pm 0.02$	$\pm 0.05$	50	1	yes	R	475	b,d,e,g
	NJE	CR-36-8	0	36	8	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	410	a,b,d,e,h
	Vector	CM-03-8A	0	36	8	$\pm 0.01$	0.01	25	1	yes	R	425	a,b,d,e,h,i
HC 50	Hevi-Duty	LR36-10M	30	36	10	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	605	a,b,d,e,g
	NJE	SY36-10M	10	36	10	$\pm 0.01$	$\pm 0.01$	75	1	yes	C or R	385	a,b,d,e,g
	Behl-Invar	TPA-10	0	36	10	10 mv	5 mv	50	0.5	yes	R	585	b,d,e,h
	El Meas	PV36-10M	0	36	10	0.01	0.01	200	0.5	yes	R	575	a,b,d,g
	El Meas	T036-10M	0	36	10	0.01 v	0.01 v	100	1	yes	R	520	b,d,e,h
	Harrison	510A	0	36	10	0.5 <sup>4</sup>	0.5 <sup>4</sup>	50 ms	1%	yes	R	450	a,b,d,e,h
	Harrison	6267A	0	36	10	0.01	0.01	50	0.5	yes	R	525	a,b,d,e,h,i
	Harrison	6367A	0	36	10	0.01	0.01	50	0.5	none	R	450	a,b,e,h
	Kepeco	KS36-10M	0	36	10	0.01	0.01	50	1	yes	R	625	a,b,d,e,h,i
	Kepeco	SM36-10M	0	36	10	0.01	0.05	50	1	yes	R	525	b,d,e,h,i
HC 51	Lambda	LE102FM	0	36	10	0.05	0.05	50	0.5	yes	R	575	a,b,d,e,g,i
	Mid-East	SS36-10	0	36	10	$\pm 0.01$	0.03	ina	1	yes	R	510	b,d,e,h
	Mid-East	ST36-10S	0	36	10	0.01	0.03	50	1	yes	R	695	a,b,d,e,h
	NJE	QR-36-10	0	36	10	$\pm 0.02$	$\pm 0.01$	50	3	yes	C or R	465	a,b,d,e,h
	Pioneer	RR36-10A	0	36	10	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR36-10B	0	36	10	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Ultronics	QCR36/10	0	36	10	$\pm 0.01$	$\pm 0.01$	50	1	yes	R	565	a,b,d,e,g
	Vector	CM-03-10A	0	36	10	$\pm 0.01$	0.01	25	1	yes	R	550	a,b,e,h,i
	Voltex	36-10	0	36	10	$\pm 0.02$	$\pm 0.01$	25	3	yes	R	620	a,b,e,h,i
	ERA	SL36-12M	0	36	12	0.01	0.05	50	1	yes	R	455	a,b,d,e,g
HC 52	ERA	TR36-12	0	36	12	$\pm 0.02$	$\pm 0.05$	50	1	yes	R	525	b,d,e,g
	Hevi-Duty	LR36-15M	30	36	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	730	a,b,d,e,g
	Perkin	MR532-15A	2	36	15	$\pm 0.05$	$\pm 0.05$	200	1%	yes	C or R	598	b,d,h
	Rapid	236BMA	2	36	15	$\pm 0.5$	$\pm 0.5$	ina	1%	yes	C	595	
	Mag Res	DMR136-15	0.5	36	15	$\pm 0.2$	$\pm 0.2$	100 ms	20	yes	C or R	2219	e,g
	Basler	HLR-15M	0	36	15	$\pm 5$ mv	$\pm 5$ mv	50	2	yes	R	ina	a,b,h
	Behl-Invar	TPA-15	0	36	15	10 mv	5 mv	75	0.5	yes	R	750	b,d,e,h
	Deltron	HP36-15	0	36	15	0.25	0.25	50	1	yes	C	550	d,e,h
	El Meas	PV36-15M	0	36	15	0.01	0.01	200	0.5	yes	R	715	a,b,d,g
	El Meas	PVC36-15M	0	36	15	0.01	0.01	100	0.5	yes	R	835	a,b,d,e,g
HC 53	El Meas	T036-15M	0	36	15	10 mv	10 mv	80	1	yes	R	650	b,e,g
	Kepeco	KS36-15M	0	36	15	0.01	0.01	50	1	yes	R	730	a,b,d,e,h,i
	Kepeco	SM36-15M	0	36	15	0.01	0.05	50	1	yes	R	625	b,d,e,h,i
	Lambda	LE103FM	0	36	15	0.05	0.05	50	0.5	yes	4	645	a,b,d,e,g,i
	Mid-East	SS36-15	0	36	15	0.01	0.03	ina	1	yes	R	595	b,d,e,h
	Mid-East	ST36-15S	0	36	15	0.01	0.03	50	1	yes	R	795	a,b,d,e,h
	NJE	CR-36-15	0	36	15	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	540	a,b,d,e,h
	NJE	RVC-36-15M	0	36	15	0.01	0.01	50	1	yes	R	545	a,b,d,e,g,i
	Perkin	MTRO-36-15	0	36	15	$\pm 10$ mv	$\pm 10$ mv	ina	1	yes	R	850	d,e
	Pwr Inst	3615	0	36	15	$\pm 0.1$	$\pm 0.1$	50	1	yes	C or R	ina	b,d,e,g
HC 54	Pwr Srce	PS4315	0	36	15	0.01	0.05	100 ms	1	yes	R	590	d,e,g
	Trygon	M36-15A	0	36	15	0.01	0.01	50	1	yes	R	575	a,b,d,e,h,i
	Ultronics	QCR36/15	0	36	15	$\pm 0.01$	$\pm 0.01$	50	1	yes	R	635	a,b,d,e,g
	Vector	CM-03-1L	0	36	15	$\pm 0.01$	0.01	25	1	yes	R	670	a,b,e,h,i
	Hevi-Duty	LR36-20M	30	36	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1055	a,b,d,e,g
	NJE	SY-36-20M	10	36	20	$\pm 0.01$	$\pm 0.01$	75	1	yes	C or R	480	a,b,d,e,h
	ERA	TR36-20	0	36	20	$\pm 0.05$	0.1	50	1	yes	R	705	b,d,e,g
	NJE	CR-36-20	0	36	20	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	600	a,b,d,e,h
	Pioneer	RR36-20A	0	36	20	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR36-20B	0	36	20	0.01	0.01	50	1	yes	R	request	b,e,h,i

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 55	Vector	CM-03-2L	0	36	20	$\pm 0.01$	0.01	25	1	yes	R	765	a,b,e,h,i
	Trygon	SR36-25	2	36	25	0.1	0.2	10 ms	100	yes	R	745	a,b,d,e,h
	ERA	SL36-25M	0	36	25	0.01	0.05	50	1	yes	R	650	a,b,d,e,g
	Harrison	520A	0	36	25	$0.5^4$	$0.5^4$	50 ms	1%	yes	R	375	a,b,d,e,h,i
	Hyperion	HY-CRI-36-25	0	36	25	0.5	0.5	ina	360	yes	R	565	d,i
	Lambda	LE104FM	0	36	25	0.05	0.05	50	0.5	yes	R	825	a,b,d,e,g,i
	Mid-East	SS36-25	0	36	25	$\pm 0.01$	0.03	ina	1	yes	R	795	b,d,e,h
	Mid-East	ST36-25S	0	36	25	0.01	0.03	50	1	yes	R	995	a,b,d,e,h
	NJE	RVC-36-25M	0	36	25	0.01	0.01	50	1	yes	R	695	a,b,d,e,g,i
	Pwr Des	36250A	0	36	25	0.02	0.02	50	0.5	yes	4	875	a,b,g,i
HC 56	Trygon	M36-25A	0	36	25	0.01	0.01	50	1	yes	R	725	a,b,d,e,h,i
	NJE	SY-36-30M	10	36	30	$\pm 0.01$	$\pm 0.01$	75	1	yes	C or R	645	a,b,d,e,g
	Basler	HLR-30M	0	36	30	$\pm 5$ mv	$\pm 5$ mv	50	2	yes	R	ina	a,b,h
	Behl-Invar	TPA-30	0	36	30	10 mv	5 mv	100	0.5	yes	R	1100	b,d,e,h
	El Meas	PV36-30M	0	36	30	0.01	0.01	ina	0.5	yes	R	875	a,b,d
	El Meas	PVC36-30M	0	36 <sup>3</sup>	30	0.01	0.01	ina	0.5	yes	R	975	a,b,d
	El Meas	TO36-30M	0	36	30	0.01 v	0.01 v	100	1	yes	R	995	b,e,g
	ERA	TR36-30	0	36	30	$\pm 0.05$	$\pm 0.01$	ina	5	yes	R	915	b,d,e,g
	Hyperion	HY-T1-36-30	0	36	30	0.02	0.02	50	1	yes	R	790	a,b,d,g,i
	Kepeco	KS36-30M	0	36	30	0.01	0.01	50	1	yes	R	1150	b,d,e,h,i
HC 57	Mid-East	RH36-30	0	36	30	0.02	0.02	ina	1	yes	R	697	b,e
	NJE	CR-36-30	0	36	30	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	740	a,b,d,e,h
	Pioneer	RR36-30A	0	36	30	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR36-30B	0	36	30	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Pwr Inst	3630	0	36	30	$\pm 0.1$	$\pm 0.1$	50	1	yes	C or R	ina	b,d,e,g
	Pwr Srce	PS4330	0	36	30	0.01	0.01	100 ms	1	yes	R	1300	d,e,g
	Trygon	M36-30A	0	36	30	0.01	0.01	50	1	yes	R	795	a,b,d,e,h,i
	Ultronics	QCR36/30	0	36	30	$\pm 0.01$	$\pm 0.01$	50	1	yes	R	910	a,b,d,e,g
	Vector	CM-03-3L	0	36	30	$\pm 0.01$	0.01	25	1	yes	R	890	a,b,e,h,i
	Trygon	SR36-40	2	36	40	0.1	0.2	10 ms	100	yes	R	895	a,b,d,e,g
HC 58	Christie	BC036-40	1	36	40	$\pm 0.5^4$	$\pm 0.5^4$	25-50 ms	100	yes	C or R	ina	b,d,g
	Mag Res	DMR28-50	18	36	50	$\pm 0.2$	$\pm 0.5$	100 ms	0.2%	yes	C or R	1095	e,g
	Christie	MH36-50	15	36	50	0.01 <sup>4</sup>	0.01 <sup>4</sup>	50 ms	1	yes	C or R	ina	b,d,e,h
	ERA	TR36-50	0	36	50	$\pm 0.05$	$\pm 0.1$	ina	5	yes	R	1665	b,d,e,g
	Hyperion	HY-T1-36-50	0	36	50	0.02	0.02	50	1	yes	R	1425	a,b,d,g,i
	NJE	CR-36-50	0	36	50	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	1460	a,b,d,e,g
	Trygon	C36-50	0	36	50	0.01	0.01	100	1	yes	R	1425	a,b,d,e,h,i
	Vector	CM-03-5L	0	36	50	0.01	0.01	25	1	yes	R	1645	a,b,e,h,i
	El Meas	PVC36-60M	0	36	60	0.01	0.01	ina	1	yes	R	1625	a,b,d,e,f
	Christie	MH36-100	15	36	100	0.01 <sup>4</sup>	0.01 <sup>4</sup>	75 ms	1	yes	C or R	ina	b,d,e,h
HC 59	El Meas	PVC36-100M	0	36	100	0.01	0.01	ina	1	yes	R	2525	a,b,d,e,f
	Christie	MH36-200	15	36	200	0.02 <sup>4</sup>	0.02 <sup>4</sup>	100 ms	2	yes	C or R	ina	b,d,e,h
	Christie	MH36-250	26	36	250	0.02 <sup>4</sup>	0.02 <sup>4</sup>	100	2	yes	C or R	ina	b,d,e,h
	Christie	2C36-400	26	36	400	0.02 <sup>4</sup>	0.02 <sup>4</sup>	100	2	yes	C or R	ina	b,d,e,h
	Christie	2C36-600	26	36	600	0.02 <sup>4</sup>	0.02 <sup>4</sup>	100 ms	2	yes	C or R	ina	b,d,e,h
	Mid-East	MS34-6	30.6	37.4	6	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS34-20	30.6	37.4	20	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS34-30	30.6	37.4	30	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS34-50	30.6	37.4	50	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Geo Space	30/150	22.5	37.5	5	ina	0.2	ina	0.1%	yes	C or R	ina	
HC 60	Geo Space	30/600	22.5	37.5	20	ina	0.2	ina	0.1%	yes	C or R	ina	
	Kepeco	PR38-5M	0	38	5	$\pm 1$	2	ina	1%	yes	R	340	d,i
	Kepeco	PR38-15M	0	38	15	$\pm 1$	2	ina	1%	yes	R	495	d,i
	Delltron	DP36-4 <sup>11</sup>	33	39	4-12	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	175	a,b,d,h
	Con Av	HS37-10.0	35	39	10	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Con Av	FS37-19.0	35	39	19	0.025	0.025	25	1	yes	R	515	a,b,e,g
	Sorensen	QRC40-4	0	40	4	$\pm 0.005^4$	$\pm 0.005^4$	50	1	yes	C <sup>24</sup>	315	a,b,d,f,g,i
	Pwr Inst	4005	5	40	5	$\pm 1$	$\pm 1$	200 ms	100	yes	C or R	ina	b,d,e,g
	Delltron	RP40-5 <sup>11</sup>	0	40	5-30	0.01	0.01	50	0.2 <sup>27</sup>	yes	R <sup>24</sup>	349	a,b,d,e,h,i
	Harrison	6291A	0	40	5	0.01	0.01	50	0.5	yes	C	395	a,b,c,d,e,h,i

Notes, abbreviations and manufacturers' index at end of this section.



# High-current dc supplies

40-45 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 61	Hevi-Duty	HC40-5M	0	40	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	570	a,b,d,e,g
	Hyperion	HY-Si-40-5	0	40	5	0.01	0.01	50	0.5	yes	1/2R	299	a,b,d,e,g
	ITI	LS40-5	0	40	5	$\pm 0.005$	$\pm 0.005$	25	0.5	yes	R	425	a,e,g
	Perkin	TVRO40-5	0	40	5	$\pm 0.01$	$\pm 0.02$	50	1	yes	R	444	a,b,d,e,g
	Perkin	TVCR040-5	0	40	5	0.01	0.02	50	1	yes	C	595	a,b,d,e,g,i
	Trygon	HR40-5B	0	40	5	0.01	0.01	50	0.5	yes	C	329	a,b,d,e,g
	ERA	SPL40-6	0	40	6	0.01	0.02	50	0.5	yes	R	485	a,b,d,e,g
	Tech Pwr	L40-6.0M	0	40	6	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	260	a,b,d,e
	Tech Pwr	LS40,0-6.0M	0	40	6	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	465	a,b,d,e
	Hyperion	HY-T1-40-7.5	0	40	7.5	0.02	0.02	50	1	yes	R	430	a,b,d,g,i
HC 62	Trygon	HR40-7.5B	0	40	7.5	0.01	0.01	50	0.5	yes	C	399	a,b,d,e,h,i
	Sorensen	QRC40-8	0	40	8	$\pm 0.005^4$	$\pm 0.005^4$	50	1	yes	C or R	450	a,b,d,f,g,i
	ERA	SPL40-10	0	40	10	0.01	0.02	50	0.5	yes	R	525	a,b,d,e,g
	Hevi-Duty	HC40-10M	0	40	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	680	a,b,d,e,g
	Hyperion	HY-Si-40-10	0	40	10	0.01	0.01	50	0.5	yes	R	399	a,b,d,e,g
	Sorensen	DCR40-10	0	40	10	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	325	a,b,d,f,g,i
	Tech Pwr	L40-12.0M	0	40	12	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	340	a,b,d,e
	Tech Pwr	LS40,0-12.0M	0	40	12	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	620	a,b,d,e
	NJE	TRM-40-15	5	40	15	$\pm 0.1$	0.1	ina	1%	yes	C or R	900	d,e
	Pwr Inst	4015	5	40	15	$\pm 1$	$\pm 1$	200 ms	100	yes	C or R	ina	b,d,e,g
HC 63	ERA	SPL40-15	0	40	15	0.01	0.02	50	0.5	yes	R	720	a,b,d,e,g
	Hevi-Duty	HC40-15M	0	40	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	815	a,b,d,e,g
	Hyperion	HY-T1-40-15	0	40	15	0.02	0.02	50	1	yes	R	590	a,b,d,g,i
	Perkin	TVRO40-15	0	40	15	$\pm 0.01$	$\pm 0.02$	50	1	yes	R	644	a,b,d,e,f,g
	Perkin	TVCR040-15	0	40	15	$\pm 0.01$	$\pm 0.02$	50	1	yes	R	995	a,b,d,e,f,g,i
	Ratelco	PS-5	0	40	15	4v <sup>4</sup>	4v <sup>4</sup>	ina	0.7%	yes	C	190	d
	Sorensen	QRC40-15	0	40	15	$\pm 0.005^4$	$\pm 0.005^4$	50	1	yes	C or R	575	a,b,d,f,g,i
	Hevi-Duty	HC40-20M	0	40	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1225	a,b,d,e,g
	Sorensen	DCR40-20	0	40	20	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.5%	yes	C or R	525	a,b,d,f,g,i
	ERA	SPL40-25	0	40	25	0.01	0.02	50	0.5	yes	R	925	a,b,d,e,g
HC 64	Tech Pwr	L40-25.0M	0	40	25	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	460	a,b,d,e
	Tech Pwr	LS40,0-25.0M	0	40	25	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	820	a,b,d,e
	NJE	TRM-40-30	5	40	30	$\pm 0.1$	$\pm 0.1$	ina	1%	yes	C or R	1190	d,e
	Pwr Inst	4030	5	40	30	$\pm 1$	$\pm 1$	200 ms	100	yes	C or R	ina	b,d,e,g
	Rapid	540EMA	5	40	30	$\pm 1$	$\pm 1$	ina	1%	yes	C	945	
	Harrison	6268A	0	40	30	0.01	0.01	50	1	yes	R	695	a,b,d,e,h,i
	Hyperion	HY-T1-40-30	0	40	30	0.02	0.02	50	1	yes	R	845	a,b,d,g,i
	Perkin	TVRO40-30	0	40	30	$\pm 0.01$	$\pm 0.02$	50	1	yes	R	866	a,b,d,e,f,g
	Perkin	TVCR040-30	0	40	30	$\pm 0.01$	$\pm 0.02$	50	1	yes	C	1295	a,b,d,e,f,g,i
	Sorensen	QRC40-30	0	40	30	$\pm 0.005^4$	$\pm 0.005^4$	50	1	yes	C or R	775	a,b,d,f,g,i
HC 65	Sorensen	DCR40-35	0	40	35	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	710	a,b,d,f,g,i
	ERA	SPL40-50	0	40	50	0.01	0.02	50	0.5	yes	R	1780	a,b,d,e,g
	Harrison	6269A	0	40	50	0.01	0.01	50	0.5	yes	R	875	a,b,d,e,h,i
	NJE	TRM-40-60	5	40	60	$\pm 0.1$	0.1	ina	1%	yes	C or R	1515	d,e
	Sorensen	DCR40-60	0	40	60	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	925	a,b,d,f,g,i
	Christie	IRO40-75	0	40	75	0.1 <sup>4</sup>	0.1 <sup>4</sup>	25 ms	30	yes	C or R	ina	b,h
	Deltron	RS36-3.2M <sup>11</sup>	30	42	3.2-6.4	0.01	0.01	50	0.5	yes	1/2R	355	a,b,d,e,h
	Hevi-Duty	LR42-5M	36	42	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	510	a,b,d,e,g
	Mid-East	MS38-6	34.2	42	6	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Hevi-Duty	LR42-10M	36	42	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	625	a,b,d,e,g
HC 66	Hevi-Duty	LR42-15M	36	42	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	770	a,b,d,e,g
	Hevi-Duty	LR42-20M	36	42	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1105	a,b,d,e,g
	Mid-East	MS38-20	34.2	42	20	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS38-30	34.2	42	30	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS38-50	34.2	42	50	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Chalco	45V-5A	22	45	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	260	a,b,e,g
	Con Av	HS43-9.0	41	45	9	0.025	0.025	25	1	yes	R	340	a,b,e,g
	Chalco	45V-10A	22	45	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	345	a,b,e,g
	Chalco	45V-15A	22	45	15	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	460	a,b,e,g
	Con Av	FS43-17.0	41	45	17	0.025	0.025	25	1	yes	R	515	a,b,e,g

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 67	Chalco	45V-20A	22	45	20	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	555	a,b,e,g
	Chalco	45V-25A	22	45	25	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	575	a,b,e,g
	Kepeco	KO45-30M	0	45	30	1	1	500 ms	20 mv	yes	R	895	b,d,e,h,i
	Chalco	45V-40A	22	45	40	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	615	a,b,e,g
	Chalco	45V-50A	22	45	50	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	710	a,b,e,g
	Chalco	45V-75A	22	45	75	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	970	a,b,e,g
	Sola	281048	48	48	4	$\pm 1$	2.5	ina	1%	none	R	135	
	Trygon	FT-FTR-48-4	48	48	4	1	1.4 v	ina	400	none	1/8R	149	
	Acme	PS-41424	48	48	4.15	$\pm 1$	$\pm 1$	0.1	1%	none	R	133	h
	Sorensen	MD48-0-4.2	48	48	4.2	$\pm 1$	2	ina	1%	none	R	135	
HC 68	Hevi-Duty	LR48-5M	42	48	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	540	a,b,d,e,g
	Sorensen	MD48-0-8.4	48	48	8.4	$\pm 1$	2	ina	1%	none	R	170	
	Sola	281561	48	48	10	$\pm 1$	2	ina	1%	none	R	185	
	Hevi-Duty	LR48-10M	42	48	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	645	a,b,d,e,g
	Tabltron	T48V10ARM	0	48	10	$\pm 5$	$\pm 5$	ina	1%	yes	C	333	d
	Hevi-Duty	LR48-15M	42	48	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	795	a,b,d,e,g
	Hevi-Duty	LR48-20M	42	48	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1140	a,b,d,e,g
	Deltron	RS42-3.5M <sup>11</sup>	35	49	3.5-5.6	0.01	0.01	50	0.5	yes	1/2R	390	a,b,d,e,h
	Deltron	L Series	24 <sup>7</sup>	50 <sup>7</sup>	3.5-31	0.01	0.01	50	0.5	yes	R	273	a,b,d,e,h
	Deltron	DP48-4 <sup>11</sup>	42	50	4-30	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	175	a,b,d,h
HC 69	Deltron	LH504 <sup>11</sup>	23	50	4-12	$\pm 0.1$	$\pm 0.1$	50	1	yes	R	305	b,e,h
	Deltron	H50-4 <sup>11</sup>	0	50	4-8	0.214, 20	0.214, 20	50	1	yes	R	355	d,h <sup>15</sup> ,22,26
	Acme	PS-39600	0	50	5	$\pm 1$	3	ina	1%	yes	R	168	
	Un Elect	LQ50-6A	0	50	6	0.005	0.02	50	0.25	yes	R	525	b,d,e,g
	Glentron	Q-50-8	0	50	8	1 mv	0.2	ina	2	yes	R	ina	b,e
	Un Elect	L5010	0	50	10	3 mv	3 mv	50	1	yes	C	495	b,d,e,g
	Un Elect	L5015	0	50	15	3 mv	3 mv	50	1	yes	C	625	b,d,e,g
	EI Meas	T050-20M	0	50	20	10 mv	10 mv	100	1	yes	R	995	a,b,d,g
	Glentron	O-50-20	0	50	20	1 mv	0.2	ina	2	yes	R	ina	b,e
	Christie	BCO50-30	1	50	30	$\pm 0.5^4$	$\pm 0.5^4$	25-50 ms	150	yes	C or R	ina	b,d,g
HC 70	Perkin	MR550-50	5	50	50	$\pm 1$	$\pm 1$	200 ms	1%	yes	R	ina	b,d,g
	Con Av	HS48-8.0	45	51	8	0.025	0.025	25	1	yes	R	365	a,b,e,g
	Con Av	FS48-16.0	45	51	16	0.025	0.025	25	1	yes	R	565	a,b,e,g
	Un Elect	Q50-4A	48	52	4	5 mv	5 mv	50	1	yes	R	405	b,d,e,g
	Hevi-Duty	LR52-5M	48	52	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	590	a,b,d,e,g
	NJE	SR-48-6M	44	52	6	0.005	0.01	15	3	yes	R	370	a,b,d,e,g
	NJE	TC-52-6	20	52	6	$\pm 0.5$	$\pm 0.5$	30	1%	yes	C or R	360	a,b,d,e,g
	Hevi-Duty	LR52-10M	48	52	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	685	a,b,d,e,g
	NJE	TC-52-12	20	52	12	$\pm 0.5$	0.5	30	1%	yes	C or R	450	a,b,d,e,h
	Hevi-Duty	LR52-15M	48	52	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	850	a,b,d,e,g
HC 71	Hevi-Duty	LR52-20M	48	52	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1180	a,b,d,e,g
	Con Av	SP-41-20	30	52	20	50 mv	100 mv	ina	35	yes	R	720	a,b,e,g
	Con Av	SP-41-30	30	52	30	50 mv	100 mv	ina	35	yes	R	850	a,b,e,g
	NJE	TC-52-30	20	52	30	$\pm 0.5$	0.5	30 ms	1%	yes	C or R	650	a,b,d,e,g
	Con Av	SP-41-50	30	52	50	50 mv	100 mv	ina	35	yes	R	1150	a,b,e,g
	Mid-East	MS46-5	41.4	53	5	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS46-15	41.4	53	15	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS46-22	41.4	53	22	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS46-40	41.4	53	40	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Deltron	RS48-3.6M <sup>11</sup>	40	56	3.6-4.8	0.01	0.01	50	0.5	yes	1/2R	430	a,b,d,e,h
HC 72	Hevi-Duty	LR56-5M	52	56	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	630	a,b,d,e,g
	Hevi-Duty	LR56-10M	52	56	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1005	a,b,d,e,g
	Hevi-Duty	LR56-15M	52	56	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1320	a,b,d,e,g
	Sorensen	QB50-4	40	60	4	$\pm 0.01^4$	$\pm 0.01^4$	25	0.3	yes	C or R	315	a,b,d,e,g,i
	Mid-East	SS60-4	0	60	4	$\pm 0.01$	0.02	ina	1	yes	R	495	b,d,e
	Mid-East	ST60-4	0	60	4	0.01	0.02	50	1	yes	R	595	a,b,d,e,h
	Voltex	60-4	0	60	4	$\pm 0.02$	$\pm 0.005$	25	3	yes	R	620	a,b,e,h,i
	Hevi-Duty	LR60-5M	56	60	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	650	a,b,d,e,g
	Chalco	60V-5A	30	60	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	295	a,b,e,g
	Deltron	SP60-5 <sup>11</sup>	0	60	5-20	0.01	0.01	50	0.5	yes	1/2R <sup>13</sup>	445	a,b,d,e,h,i

Notes, abbreviations and manufacturers' index at end of this section.



# High-current dc supplies

60 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 73	EI Meas	PV60-5M	0	60	5	0.01	0.01	200	0.5	yes	R	600	a,b,d,g
	EI Meas	TO60-5M	0	60	5	10 mv	10 mv	100	1	yes	R	475	b,h
	Harrison	6438A	0	60	5	0.05	0.1	300 ms	0.2%	yes	R	360	a,b,d,e,h,i
	Hevi-Duty	HC60-5M	0	60	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	680	a,b,d,e,g
	Hyperion	HY-Si-60-5	0	60	5	0.01	0.01	50	0.5	yes	1/2R	349	a,b,d,e,g
	Hyperion	HY-T1-60-5	0	60	5	0.02	0.02	50	1	yes	R	519	a,b,d,g,i
	Kepeco	KS60-5M	0	60	5	0.01	0.01	50	1	yes	R	645	a,b,d,e,h,i
	Pioneer	RR60-5A	0	60	5	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR60-5B	0	60	5	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Trygon	HR60-5B	0	60	5	0.01	0.01	50	0.5	yes	C	369	a,b,d,e,g
HC 74	Vector	CM-06-5A	0	60	5	$\pm 0.01$	0.01	25	1	yes	R	474	a,b,d,e,h,i
	Sola	285120	25	60	6	$\pm 1$	ina	ina	0.05%	yes	R	325	d
	NJE	SY-60-6M	10	60	6	$\pm 0.01$	$\pm 0.01$	75	1	yes	C or R	415	a,b,d,e,g
	NJE	QR60-6	0	60	6	$\pm 0.02$	$\pm 0.005$	25	3	yes	C or R	520	a,b,d,e,h
	Mid-East	SS60-6	0	60	6	$\pm 0.01$	0.02	ina	1	yes	R	595	b,d,e
	Mid-East	ST60-6	0	60	6	0.01	0.02	50	1	yes	R	825	a,b,d,e,h
	Voltex	69-6	0	60	6	$\pm 0.02$	$\pm 0.005$	25	3	yes	R	695	a,b,e,h,i
	EI Meas	PV60-7.5M	0	60	7.5	0.01	0.01	200	0.5	yes	R	745	a,b,d,g
	EI Meas	PVC60-7.5M	0	60	7.5	0.01	0.01	100	0.5	yes	R	845	a,b,d,e,g
	EI Meas	TO60-7.5M	0	60	7.5	10 mv	10 mv	80	1	yes	R	675	b,d,e,h
HC 75	Delltron	H60-7.5 <sup>11</sup>	0	60	7.5-15	0.2	0.2	50	1	yes	C or R	599	d,h
	Glentron	20805-1	0	60	7.5	10 mv	10 mv	ina	0.5	ina	C or R	ina	
	Hyperion	HY-Si-60-7.5	0	60	7.5	0.01	0.01	50	1	yes	R	499	a,b,d,e,g
	NJE	CR-60-9	0	60	9	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	600	a,b,d,e,g
	Hevi-Duty	LR60-10M	56	60	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1125	a,b,d,e,g
	Chalco	60V-10A	30	60	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	340	a,b,e,g
	Delltron	DPV60-10	0	60	10	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	505	a,b,d,h
	Hevi-Duty	HC60-10M	0	60	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	955	a,b,d,e,g
	Hyperion	HY-T1-60-10	0	60	10	0.02	0.02	50	1	yes	R	655	a,b,d,g,i
	Kepeco	KS60-10M	0	60	10	0.01	0.01	50	1	yes	R	895	a,b,d,e,h,i
HC 76	Mid-East	SS60-10	0	60	10	$\pm 0.01$	0.02	ina	1	yes	R	795	b,d,e
	Mid-East	ST60-10S	0	60	10	0.005	0.02	100	1	yes	R	1095	a,b,d,e,h
	Pioneer	RR60-10A	0	60	10	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR60-10B	0	60	10	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Tabtron	T60V10ARM	0	60	10	$\pm 5$	$\pm 5$	ina	1%	yes	C	342	d
	Trygon	M60-10A	0	60	10	0.01	0.01	50	1	yes	R	725	a,b,d,e,h,i
	NJE	SY-60-12M	10	60	12	$\pm 0.01$	$\pm 0.01$	75	1	yes	C or R	505	a,b,d,e,g
	Sorensen	DCR60-13	0	60	13	$\pm 0.075$	$\pm 0.075$	30 ms	0.4%	yes	C or R	525	a,b,d,i,g,i
	Hevi-Duty	LR60-15M	56	60	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1405	a,b,d,e,g
	Chalco	60V-15A	30	60	15	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	385	a,b,e,g
HC 77	EI Meas	PV60-15M	0	60	15	0.01	0.01	200	0.5	yes	R	895	a,b,d,g
	EI Meas	PVC60-15M	0	60 <sup>3</sup>	15	0.01	0.01	ina	0.5	yes	R	995	a,b,d
	EI Meas	TO60-15M	0	60	15	10 mv	10 mv	100	1	yes	R	995	b,d,e,h
	Harrison	6274A	0	60	15	0.01	0.01	50	0.5	yes	R	695	a,b,d,e,h,i
	Harrison	6439A	0	60	15	60 mv	120 mv	300 ms	0.1%	yes	R	550	a,b,d,e,f,h,i
	Hevi-Duty	HC60-15M	0	60	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1220	a,b,d,e,g
	Mid-East	SS60-15	0	60	15	$\pm 0.01$	0.02	ina	1	yes	R	795	b,d,e
	Mid-East	ST-60-15S	0	60	15	0.01	0.02	50	1	yes	R	995	a,b,d,e,h
	Trygon	M60-15A	0	60	15	0.01	0.01	50	1	yes	R	825	a,b,d,e,h,i
	NJE	SY-60-18M	10	60	18	$\pm 0.01$	$\pm 0.01$	75	1	yes	C or R	660	a,b,d,e,g
HC 78	NJE	CR60-18	0	60	18	$\pm 0.02$	$\pm 0.01$	100	1	yes	C or R	850	a,b,d,e,g
	Chalco	60V-20A	30	60	20	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	440	a,b,e,g
	Hevi-Duty	HC60-20M	0	60	20	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1480	a,b,d,e,g
	Hyperion	HY-T1-60-20	0	60	20	0.02	0.02	50	1	yes	R	945	a,b,d,g,i
	Kepeco	KS60-20M	0	60	20	0.01	0.01	50	1	yes	R	1350	a,b,d,e,h,i
	Pioneer	RR60-20A	0	60	20	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR60-20B	0	60	20	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Chalco	60V-25A	30	60	25	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	510	a,b,e,g
	Christie	BC060-25	1	60	25	$\pm 0.5^4$	$\pm 0.5^4$	25-50 ms	150	yes	C or R	ina	b,d,g
	Sorensen	DCR60-25	0	60	25	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	710	a,b,d,f,g,i

Notes, abbreviations and manufacturers' index at end of this section.

# High-current dc supplies

60-90 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 79	Trygon	C60-25	0	60	25	0.01	0.01	100	1	yes	R	1395	a,b,d,e,h,i
	EI Meas	PVC60-30M	0	60	30	0.01	0.01	ina	1	yes	R	1725	a,b,d,e,f
	Pioneer	RR60-30A	0	60	30	0.1	0.1	50	1	yes	R	request	b,e,h,i
	Pioneer	RR60-30B	0	60	30	0.01	0.01	50	1	yes	R	request	b,e,h,i
	Chalco	60V-40A	30	60	40	$\pm 0.1$	$\pm 0.1$	25	1	yes	R10	895	a,b,e,g
	Sorensen	DCR60-40	0	60	40	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	900	a,b,d,f,g,i
	Chalco	60V-50A	30	60	50	$\pm 0.1$	$\pm 0.1$	25	1	yes	R10	1150	a,b,e,g
	Hevi-Duty	LR64-5M	60	64	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	725	a,b,d,e,g
	Hevi-Duty	LR64-10M	60	64	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1190	a,b,d,e,g
Hevi-Duty	LR68-5M	64	68	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	760	a,b,d,e,g	
HC 80	Hevi-Duty	LR68-10M	64	68	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1240	a,b,d,e,g
	Deltron	RS60-3.5M <sup>11</sup>	50	70	3.5,4	0.01	0.01	50	0.5	yes	1/2R	460,495	a,b,d,e,h
	Kepeco	KO70-20M	0	70	20	1	1	500 ms	30	yes	R	995	b,d,e,h,i
	Mid-East	MS65-10	58.8	71.5	10	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS65-15	58.8	71.5	15	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS65-25	58.8	71.5	25	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Hevi-Duty	LR72-5M	68	72	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	820	a,b,d,e,g
	Harrison	505A	0	72	5	0.5 <sup>4</sup>	0.5 <sup>4</sup>	50 ms	1%	yes	R	475	a,b,d,e,h
	Hevi-Duty	LR72-10M	68	72	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1325	a,b,d,e,g
Deltron	LH754 <sup>11</sup>	49	75	4-12	$\pm 0.1$	$\pm 0.1$	50	1	yes	R	378	b,e,h	
HC 81	Kepeco	SM75-5M	0	75	5	0.01	0.05	50	1	yes	R	525	b,d,e,h,i
	Kepeco	SM75-8M	0	75	8	0.01	0.05	50	1	yes	R	625	b,d,e,h,i
	Hevi-Duty	LR76-5M	72	76	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	865	a,b,d,e,g
	Hevi-Duty	LR76-10M	72	76	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1390	a,b,d,e,g
	NJE	TC-80-4	25	80	4	$\pm 0.5$	0.5	30	0.75%	yes	C or R	320	a,b,d,e,h
	NJE	ELA-80-4RM	0	80	4	$\pm 0.5$	$\pm 2$	ina	1%	yes	R	440	d,e
	NJE	ELB-80-4M	0	80	4	$\pm 0.5$	$\pm 5$	ina	1%	yes	R	415	d,e
	Hevi-Duty	LR80-5M	76	80	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	940	a,b,d,e,g
	Hevi-Duty	HC80-5M	0	80	5	$\pm 0.03$	$\pm 0.03$	50	1	yes	R	980	a,b,d,e,g
Sorensen	DCR80-5	0	80	5	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	325	a,b,d,f,g,i	
HC 82	Tech Pwr	L80-6.0M	0	80	6	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	340	a,b,d,e
	Tech Pwr	LS80.0-6.0M	0	80	6	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	595	a,b,d,e
	NJE	TRM-80-7.5	10	80	7.5	$\pm 0.1$	$\pm 0.1$	ina	1%	yes	C or R	905	d,e
	NJE	TC-80-8	25	80	8	$\pm 0.5$	0.5	30	0.75%	yes	C or R	450	a,b,d,e,h
	Kepeco	PR80-8M	0	80	8	$\pm 1$	2	ina	0.7%	yes	R	475	d,i
	NJE	ELA-80-8RM	0	80	8	$\pm 0.5$	$\pm 2$	ina	1%	yes	R	620	d,e
	NJE	ELB-80-8RM	0	80	8	$\pm 0.5$	$\pm 5$	ina	1%	yes	R	605	d,e
	Hevi-Duty	LR80-10M	76	80	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1455	a,b,d,e,g
	Hevi-Duty	HC80-10M	0	80	10	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1525	a,b,d,e,g
Sorensen	DCR80-10	0	80	10	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	525	a,b,d,f,g,i	
HC 83	Tech Pwr	L80-12.0M	0	80	12	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	460	a,b,d,e
	Tech Pwr	LS80.0-12.0M	0	80	12	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	790	a,b,d,e
	NJE	TRM-80-15	10	80	15	$\pm 0.1$	0.1	ina	1%	yes	C or R	1225	d,e
	Hevi-Duty	HC80-15M	0	80	15	$\pm 0.03$	$\pm 0.03$	100	1	yes	R	1780	a,b,d,e,g
	NJE	ELA-80-15RM	0	80	15	$\pm 0.5$	$\pm 2$	ina	1%	yes	R	920	d,e
	NJE	ELB-80-15RM	0	80	15	$\pm 0.5$	$\pm 5$	ina	1%	yes	R	810	d,e
	Sorensen	DCR80-18	0	80	18	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	710	a,b,d,f,g,i
	NJE	TC-80-20	25	80	20	$\pm 0.5$	0.5	30 ms	0.75%	yes	C or R	660	a,b,d,e,g
	Tech Pwr	L80-25.0M	0	80	25	$\pm 0.1$	$\pm 0.3$	ina	0.5%	yes	C or R	620	a,b,d,e
Tech Pwr	LS80.0-25.0M	0	80	25	$\pm 0.01$	$\pm 0.03$	ina	0.5	yes	C or R	995	a,b,d,e	
HC 84	NJE	TRM-80-30	10	80	30	$\pm 0.1$	0.1	ina	1%	yes	C or R	1640	d,e
	Sorensen	DCR80-30	0	80	30	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	875	a,b,d,f,g,i
	Deltron	DP75-4 <sup>11</sup>	68	82	4.6	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	240,300	a,b,d,h
	Deltron	RS72-3.36M	60	84	3.36	0.01	0.01	50	0.5	yes	1/2R	495	a,b,d,e,h
	Mid-East	MS77-10	69.3	84	10	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	750	b
	Mid-East	MS77-15	69.3	84	15	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS77-25	69.3	84	25	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Soia	285130	30	90	4	$\pm 1$	ina	ina	0.04%	yes	R	295	d
	Chalco	90V-5A	44	90	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	430	a,b,e,g
Chalco	90V-10A	44	90	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	530	a,b,e,g	

Notes, abbreviations and manufacturers' index at end of this section.



# High-current dc supplies

90-160 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time (μ sec)	Ripple mv				
HC 85	Tabtron	T90V10ARM	0	90	10	±5	±5	ina	1%	yes	C	444	d
	Chalco	90V-15A	44	90	15	±0.1	±0.1	25	1	yes	R <sup>10</sup>	600	a,b,e,g
	Chalco	90V-20A	44	90	20	±0.1	±0.1	25	1	yes	R <sup>10</sup>	630	a,b,e,g
	Chalco	90V-25A	44	90	25	±0.1	±0.1	25	1	yes	R <sup>10</sup>	650	a,b,e,g
	Chalco	90V-40A	44	90	40	±0.1	±0.1	25	1	yes	R <sup>10</sup>	945	a,b,e,g
	Deltron	LH1004 <sup>11</sup>	74	100	4-12	±0.1	±0.1	50	1	yes	R	466	b,e,h
	Deltron	L Series	48 <sup>8</sup>	100 <sup>8</sup>	4-18	0.01	0.01	50	0.5	yes	R	366	a,b,d,e,h
	Deltron	SH100-411	0	100	4-12	0.01	0.01	50	1 <sup>27</sup>	yes	R <sup>24</sup>	796	a,b,d,h <sup>25,26</sup>
	Voltex	100-4	0	100	4	±0.02	±0.005	25	3	yes	R	695	a,b,e,h,i
	Trans Dev	RS100-5	100	100	5	0.1	0.1	50	1.5	yes	R	ina	b,h
HC 86	Mid-East	ST100-5	5	100	5	0.01	0.01	100	1	yes	R	795	a,b,d,e,h
	Mid-East	SS100-5	0	100	5	±0.01	0.01	ina	3	yes	R	697	b,d,e
	NJE	TC-100-6	40	100	6	±0.5	0.5	30 ms	0.75	yes	C or R	570	a,b,d,e,g
	El Meas	TO100-10M	0	100	10	10 mv	10 mv	100	1	yes	R	1175	b,d,h
	Mid-East	ST100-10	0	100	10	0.01	0.01	100	3	yes	R	1595	a,b,d,e,h
	Christie	BCO100-15	3	100	15	±0.5 <sup>4</sup>	±0.5 <sup>4</sup>	25-50 ms	350	yes	C or R	ina	b,d,g
	Behl-Invar	TCR-30-100	0	100	30	0.001	0.01	100	5	yes	R	1950	a,b,d,e,h,i
	Lambda	LA40-05BM	20	105	4	0.05	0.1	50	1	yes	R	525	a,b,d,g,i
	Sorensen	MD115.0-3.5	115	115	3.5	±1	2	ina	1%	none	R	170	
	Perkin	115-SWX	115	115	5	±0.05	±0.05	200 ms	1	yes	R	689	d,h
HC 87	Deltron	H120-5	0	120	5	0.2	0.2	50	1	yes	R	835	d,h
	Mid-East	MS109-6	98	120	6	±1	±1	ina	0.5%	yes	R	750	b
	Mid-East	MS109-10	98	120	10	±1	±1	ina	0.5%	yes	R	1175	b
	Deltron	DPV120-10	0	120	10	±1	±1	100 ms	0.8%	yes	R	820	a,b,d,h
	NJE	ELA-120-10RM	0	120	10	±0.5	±2	ina	1%	yes	R	1025	d,e
	NJE	ELB-120-10RM	0	120	10	±0.5	±5	ina	1%	yes	R	960	d,e
	Mid-East	MS109-15	98	120	15	±1	±1	ina	0.5%	yes	R	1400	b
	Christie	M120-15F	60	120	15	4 <sup>4</sup>	4 <sup>4</sup>	ina	2%	yes	C or R	ina	d,g
	Rapid	5CYMA	15	125	5	±2	±2	ina	4%	yes	C	940	
	Rapid	5XMA	103.5	126.5	5	±0.5	±0.5	ina	1%	yes	C	725	
HC 88	Deltron	DP125-4	112	136	4	±1	±1	100 ms	0.8%	yes	R	310	a,b,d,h
	Mid-East	MS128-6	115	140	6	±1	±1	ina	0.5%	yes	R	750	b
	Mid-East	MS128-10	115	140	10	±1	±1	ina	0.5%	yes	R	1175	b
	Mid-East	MS128-15	115	140	15	±1	±1	ina	0.5%	yes	R	1400	b
	Trans Dev	RS150-5	150	150	5	0.1	0.1	50	1.5	yes	R	ina	b,h
	Deltron	DP150-5 <sup>11</sup>	120	150	5,7	±1	±1	100 ms	0.8%	yes	R	415,505	a,b,d,h
	Chalco	150V-5A	74	150	5	±0.1	±0.1	25	1	yes	R <sup>10</sup>	450	a,b,e,g
	Sorensen	DCR150-5	0	150	5	±0.075 <sup>4</sup>	±0.075 <sup>4</sup>	30 ms	0.4%	yes	C or R	525	a,b,d,f,g,i
	Chalco	150V-10A	74	150	10	±0.1	±0.1	25	1	yes	R <sup>10</sup>	540	a,b,e,g
	Christie	BCO150-10	4	150	10	±0.5 <sup>4</sup>	±0.5 <sup>4</sup>	25-50 ms	500	yes	C or R	ina	b,d,g
HC 89	Sorensen	DCR150-10	0	150	10	±0.075 <sup>4</sup>	±0.075 <sup>4</sup>	30 ms	0.4%	yes	C or R	710	a,b,d,f,g,i
	Chalco	150V-15A	74	150	15	±0.1	±0.1	25	1	yes	R <sup>10</sup>	690	a,b,e,g
	Sorensen	DCR150-15	0	150	15	±0.075 <sup>4</sup>	±0.075 <sup>4</sup>	30 ms	0.4%	yes	C or R	825	a,b,d,f,g,i
	Chalco	500V-20A	74	150	20	±0.1	±0.1	25	1	yes	R <sup>10</sup>	825	a,b,e,g
	Kepeco	PR155-4M	0	155	4	±1	2	ina	0.6%	yes	R	450	d,i
	NJE	ELA-160-4RM	0	160	4	±0.5	±2	ina	1%	yes	R	580	d,e
	NJE	ELB-160-4RM	0	160	4	±0.5	±5	ina	1%	yes	R	560	d,e
	Kepeco	SM160-4M	0	160	4	0.01	0.05	50	1	yes	R	625	b,d,e,h,i
	Hyperion	HY-T1-160-5	0	160	5	0.02	0.02	50	1	yes	R	845	a,b,d,g,i
	Trygon	M160-5A	0	160	5	0.01	0.01	50	1	yes	R	925	a,b,d,e,h,i
HC 90	Tech Pwr	L160-6.0M	0	160	6	±0.1	±0.3	ina	0.5%	yes	C or R	460	a,b,d,e
	Tech Pwr	LS160-0-6.0M	0	160	6	±0.01	±0.03	ina	0.5	yes	C or R	820	a,b,d,e
	NJE	TRM-160-7.5	20	160	7.5	±0.1	0.1	ina	1%	yes	C or R	1225	d,e
	Hyperion	HY-T1-160-B	0	160	8	0.02	0.02	50	1	yes	R	1195	a,b,d,g,i
	NJE	ELA-160-8RM	0	160	8	±0.5	±2	ina	1%	yes	R	1025	d,e
	NJE	ELB-160-8RM	0	160	8	±0.5	±5	ina	1%	yes	R	960	d,e
	Trygon	C160-8C	0	160	8	0.01	0.01	100	1	yes	R	1350	a,b,d,e,h,i
	Tech Pwr	L160-12.0M	0	160	12	±0.1	±0.3	ina	0.5%	yes	C or R	620	a,b,d,e
	Tech Pwr	LS160-0-12.0M	0	160	12	±0.01	±0.03	ina	0.5	yes	C or R	995	a,b,d,e
	NJE	TRM-160-15	20	160	15	±0.1	0.1	ina	1%	yes	C or R	1470	d,e

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 91	Trygon	C160-16C	0	160	16	0.01	0.01	100	1	yes	R	1995	a,b,d,e,h,i
	Deltron	L Series	96 <sup>9</sup>	200 <sup>9</sup>	4-9	0.01	0.01	50	0.5	yes	R	599	a,b,d,e,h
	Chalco	200V-5A	99	200	5	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	550	a,b,e,g
	Chalco	200V-10A	99	200	10	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	645	a,b,e,g
	Chalco	200V-15A	99	200	15	$\pm 0.1$	$\pm 0.1$	25	1	yes	R <sup>10</sup>	785	a,b,e,g
	Spec Ind	TC200-15	0	200	15	0.1	0.1	ina	ina	yes	C	1895	d,i
	Trans Dev	VS231	0	250	4	$\pm 0.05$	$\pm 0.1$	50	3	yes	R	ina	d,e,h
	NJE	ELA-250-5RM	0	250	5	$\pm 0.5$	$\pm 2$	ina	1%	yes	R	980	d,e
	NJE	ELB-250-5RM	0	250	5	$\pm 0.5$	$\pm 5$	ina	1%	yes	R	925	d,e
	Deltron	DP250-11	200	250	11	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	720	a,b,d,h
HC 92	Mid-East	MS240-5	210	264	5	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Mid-East	MS240-7	210	264	7	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Deltron	DP300-4	250	300	4	$\pm 1$	$\pm 1$	100 ms	0.8%	yes	R	510	a,b,d,h
	Mid-East	MS273-5	245	300	5	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1175	b
	Sorensen	DCR300-5	0	300	5	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	710	a,b,d,f,g,i
	Vector	CF-30-6A	2	300	6	$\pm 0.1$	0.1	ina	0.5%	yes	C	3075	d
	Mid-East	MS273-7	245	300	7	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Sorensen	DCR300-8	0	300	8	$\pm 0.075^4$	$\pm 0.075^4$	30 ms	0.4%	yes	C or R	825	a,b,d,f,g,i
	Trans Dev	RS300-10	300	300	10	0.05	0.05	50	5	yes	R	ina	b,h
	Hyperion	HY-T1-330-4	0	330	4	0.02	0.02	50	1	yes	R	1795	a,b,d,g,i
HC 93	Mid-East	MS350-5	315	385	5	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b
	Gen Radio	I265-A	0	400	5	0.2	1	0.1 sec	ina	yes	C or R	1050	d,g
	Vector	CF-40-6A	2	400	6	$\pm 0.1$	0.1	ina	0.5%	yes	C	3225	d
	Mid-East	MS410-5	370	450	5	$\pm 1$	$\pm 1$	ina	0.5%	yes	R	1400	b

Notes, abbreviations and manufacturers' index at end of this section.

## Notes

- a. Remote programing provided.
- b. Remote sensing provided.
- c. One meter reads voltage and current.
- d. Price includes meters.
- e. Solid state.
- f. Input: barrier strip.
- g. Response time given in listing.
- h. Recoverytime given in listing.
- i. Also constant current supply.
1. Adjustable over any 2 v within range.
2. Total regulation 0.25%.
3. Ambient range—40 to 75°C.
4. Total regulation.
5. Any 0.5 volt nominal available within this range.
6. Any 1 volt nominal available within this range.
7. Any 2 volts nominal available within this range.
8. Any 4 volts nominal available within this range.
9. Any 6 volts nominal available within this range.
10.  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{1}{2}$  & full rack-mount available.
11. Model number is for basic specifications or lowest value of ranges shown. Consult manufacturer's catalog for model number and price of optional characteristics.

12. 1% also available.
13. Full rack-mount also available.
14. 0.05% also available.
15. Remote programing available.
16. Non-solid state units available.
17. 0.2% also available.
18. 1 mv also available.
19. 2 mv also available.
20. 0.01% also available.
21. 50 msec also available.
22. Remote sensing available.
23. 0.02 and 0.5 mv also available.
24.  $\frac{1}{2}$  rack-mount also available.
25. Constant-current supplies also available in this series.
26. Solid-state also available.
27. 0.5 mv also available.
28. Dual-output unit.

## Abbreviations

- C Cabinet
- R Rack
- ina Information not available
- wig Whichever is greater



## Additional high-current dc supplies

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Response or Recovery Time ( $\mu$ sec)	Ripple mv				
HC 94	Trans Dev	RS3-10	1	3	10	$\pm 5$ mv	$\pm 5$ mv	50	0.2	none	R	request	
	Trans Dev	RS3-25	1	3	25	$\pm 5$ mv	$\pm 5$ mv	50	0.2	none	R	request	
	Trans Dev	RS3-50	1	3	50	$\pm 5$ mv	$\pm 5$ mv	50	0.2	none	R	request	
	Trygon	LR5-40	4	5.5	40	0.01	0.01	50	1	yes	R	request	
	Trans Dev	RS6-10	3	6	10	$\pm 0.05$	$\pm 0.1$	50	0.2	none	R	request	
	Trans Dev	RS6-25	3	6	25	$\pm 0.05$	$\pm 0.1$	50	0.2	none	R	request	
	Trans Dev	RS6-50	3	6	50	$\pm 0.05$	$\pm 0.1$	50	0.2	none	R	request	
	Trygon	LR6-40	5	7	40	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
	Acme	PS-57350	0	7	15	$\pm 1$	4	ina	2%	yes	R	ina	e
	Trygon	LR8-35	6.5	9	35	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
HC 95	Acme	PS-47509	10	10	4	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Trygon	LR10-30	8.5	11.5	30	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
	Trans Dev	RS12-10	12	12	20	1.5 mv	2 mv	50	0.15	none	R	request	
	Acme	PS-57351	12,16,24	12,16,24	66,50,33	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Trygon	LR12-30	11	14	30	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
	Glentron	20588-0	15	15	10	0.1 <sup>4</sup>	0.1 <sup>4</sup>	ina	1	ina	C	ina	
	Trygon	LR14-30	13.5	16.5	30	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
	Trans Dev	RS18-10	18	18	10	3 mv	3 mv	50	0.25	none	R	request	
	Trygon	LR17-30	16	19	30	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
	Trygon	RS20-7.5A	0	20	7.5	0.01	0.01	25	0.5	yes	R	375	a,b,d,e,h,i
HC 96	Trygon	RS20-15A	0	20	15	0.01	0.01	25	0.5	yes	R	495	a,b,d,e,h,i
	Acme	PS-57352	22	22	25	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Acme	PS-47125 <sup>11</sup>	24	24	10-100	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Acme	PS-47202	26	26	4	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Trygon	LR21-20	17	26	20	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
	Chatham	R28-45	28	28	45	1	1	50 ms	700	yes	C	ina	d,e,h
	Tabtron	B28V50ARM	28	28	50	$\pm 5$	$\pm 5$	ina	1%	yes	C	423	
	Trygon	LR28-20	24	32	20	0.01	0.01	50	1	yes	R	475	a,b,d,e,h
	Trans Dev	VS201	0	35	5	$\pm 0.05$	$\pm 0.1$	50	1	yes	R	request	
	Trans Dev	RS35-14	35	35	14	5 mv	5 mv	50	0.3	none	R	request	
HC 97	L-S	SVR-680045	0	35	30	0.5	0.1	ina	60	yes	R	request	e
	Avtel	200	20	35	70	$\pm 1$	$\pm 1$	8	100	yes	C or R	ina	b
	Pwr Des	36100	0	36	10	0.01	0.01	50	0.5	yes	R	463	a,b,d,h,i
	Trygon	RS40-5A	0	40	5	0.01	0.01	25	0.5	yes	R	375	a,b,d,e,h,i
	Trygon	RS40-10A	0	40	10	0.01	0.01	25	0.5	yes	R	449	a,b,d,e,h,i
	Acme	PS-57357 <sup>11</sup>	48	48	6, 10, 15	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Acme	PS-57362	48	54	4	$\pm 1$	2	ina	1%	yes	R	ina	e
	Trygon	RS60-7.5A	0	60	7.5	0.01	0.01	25	0.5	yes	R	595	a,b,d,e,h,i
	Acme	PS-47718 <sup>11</sup>	100	100	4, 25	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Lambda	LA80-05BM	20	105	8	0.05	0.1	ina	1	yes	R	810	a,d,e
	Acme	PS-47457	125	125	6	$\pm 1$	$\pm 2$	ina	1%	yes	R	ina	e,f
	Trans Dev	VS231	0	250	4	$\pm 0.05$	$\pm 0.1$	50	3	yes	R	request	
	Trans Dev	RS300-10	300	300	10	0.05	0.05	50	5	none	R	request	

Notes, abbreviations and manufacturers' index at end of this section.

# Lambda offers the BROADEST LINE of all silicon modular power supplies

Up to 150 volts / Up to 90 amps

7 power packages

Prices starting at

**\$69<sup>00</sup>**

**Features and Data** Meet Mil. Environment Specs. RFI—MIL-I-16910: Vibration: MIL-T-4807A: Shock: MIL-E-4970A • Proc. 1 & 2: Humidity: MIL-STD-810 • Meth. 507: Temp. Shock: MIL-E-5272C • (ASG) Proc. 1: Altitude: MIL-E-4970A • (ASG) Proc. 1: Marking: MIL-STD-130: Quality: MIL-Q-9858: Fungus Proofing (optional) all models available with MIL-V-173 varnish for all nutrient components.

Convection cooled—no heat sinking or forced air required

Wide input voltage and frequency range—105-132 VAC, (200-250 VAC, optional at no extra charge) 45-440 cps

Regulation (line) 0.05% plus 4MV (load) 0.03% plus 3MV: Ripple and Noise—1 MV rms, 3MV p to p

Oversvoltage protection available for all models up to 70 VDC

High Performance Option—All models available with these specifications for \$25.00 extra: Line regulation—.01% + 1MV; Load regulation—.02% + 2MV; Ripple and Noise—½MV rms; 1½MV p to p; Temp. Coef.—.01%°C

## RACK ADAPTERS



LRA-3—5¼" height by 2⅞" depth. Mounts up to 4 A, B or C package sizes; 2 D or 2 E packages sizes; or 2 A, B or C and 1 D or 1 E package sizes. Price \$35.00

LRA-4—3½" height by 14" depth. (For use with chassis slides) Mounts up to 4 A package sizes; 3 B or C package sizes; or 2 A and 1 B or C package sizes. Price \$55.00

LRA-6—5¼" height by 14" depth. (For use with chassis slides) Mounts up to 4 A, B or C package sizes; 2 D or 2 E packages sizes; or 2 A, B or C and 1 D or 1 E package sizes. Price \$60.00

LRA-5—3½" height by 2⅞" depth. Mounts up to 4 A package sizes; 3 B or C package sizes; or 2 A and 1 B or C package sizes. Price \$35.00

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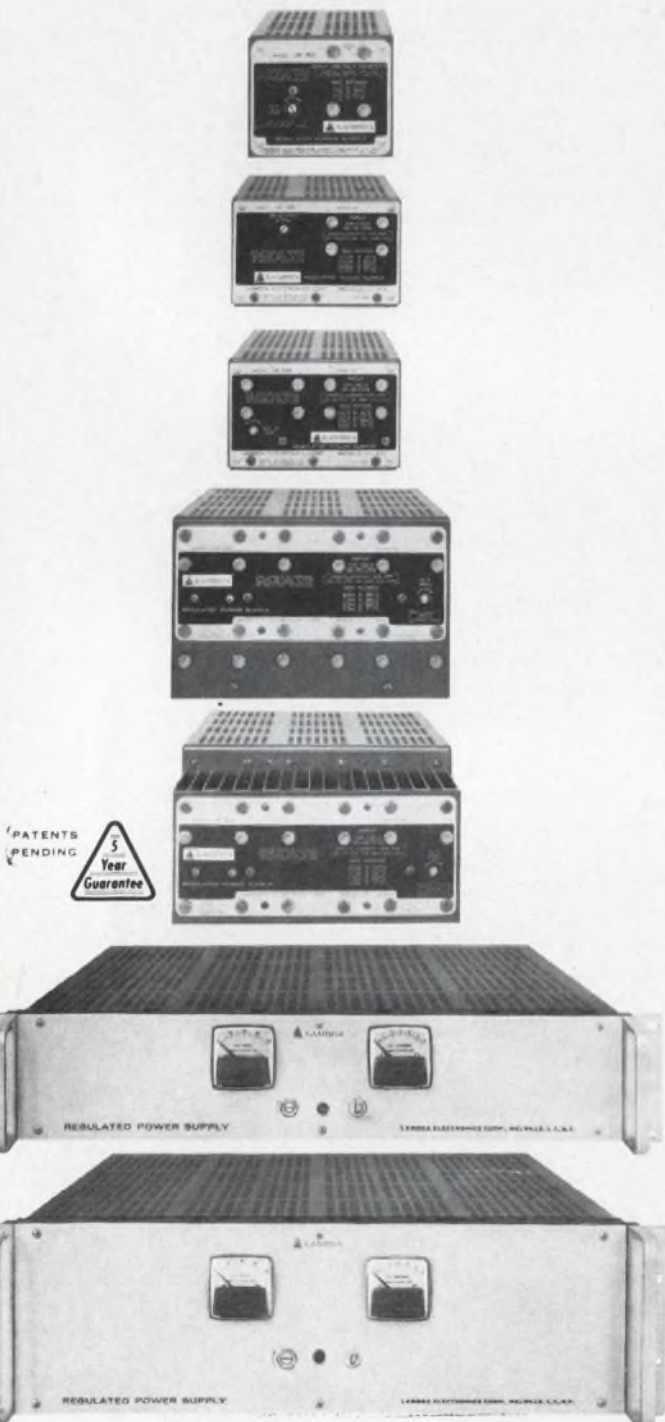


# LAMBDA

ELECTRONICS CORP.

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A **Veeco** SUBSIDIARY



ON READER-SERVICE CARD CIRCLE 11



# LAMBDA LM Series

## Package A 3 3/16" x 3 3/4" x 6 1/2"



Accessory Metered Panels: \$40.00

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM 251	0-7	0.35	0.31	0.29	0.27	\$ 69
LM 201	0-7	0.85	0.75	0.70	0.55	79
LM 202	0-7	1.7	1.5	1.4	1.1	89
LM 252	0-7	2.0	1.8	1.4	1.1	99
LM 253	0-10	0.31	0.27	0.26	0.25	69
LM 254	0-10	0.65	0.55	0.50	0.45	79
LM 255	0-10	1.20	1.10	1.00	0.75	89
LM 256	0-10	1.5	1.4	1.2	0.90	99

## Ordering Information

METERS—3 3/4" Metered panel MP-3 is used with rack adapters LRA-4, LRA-5 and packages A, B and C.

5 1/4" Metered panel MP-5 is used with rack adapters LRA-6, LRA-3 and packages A, B, C, D and E.

To order these accessory metered panels, specify panel number which MUST BE FOLLOWED BY THE MODEL NUMBER of the power supply with which it will be used.

Note—F and G LM Packages are full rack power supplies available metered or non-metered. For metered models, add suffix M to the Model No. and \$30 to the non-metered price.

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM 257	0-14	0.27	0.24	0.23	0.22	69
LM 203	0-14	0.45	0.40	0.38	0.28	79
LM 204	0-14	0.90	0.80	0.75	0.55	89
LM 258	0-14	1.2	1.1	1.0	0.80	99
LM 259	0-24	0.18	0.16	0.15	0.14	69
LM 260	0-24	0.35	0.30	0.25	0.20	79
LM 261	0-24	0.70	0.65	0.60	0.45	89
LM 262	0-24	0.80	0.75	0.70	0.60	99

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM 263	0-32	0.14	0.12	0.11	0.10	69
LM 205	0-32	0.25	0.23	0.20	0.15	79
LM 206	0-32	0.50	0.45	0.40	0.30	89
LM 264	0-32	0.66	0.60	0.50	0.32	99
LM 265	0-60	0.08	0.07	0.07	0.06	79
LM 207	0-60	0.13	0.12	0.11	0.08	89
LM 208	0-60	0.25	0.23	0.21	0.16	99
LM 266	0-60	0.35	0.31	0.28	0.25	109

## Package B 3 3/16" x 4 1/16" x 6 1/2"



Accessory Metered Panels: \$40.00

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM 217	8.5-14	2.1	1.9	1.7	1.3	\$119
LM 218	13-23	1.5	1.3	1.2	1.0	119
LM 219	22-32	1.2	1.1	1.0	0.80	119
LM 220	30-60	0.70	0.65	0.60	0.45	129
LM B2	2 ±5%	3.8	3.3	2.6	1.6	119
LM B3	3 ±5%	3.8	3.3	2.6	1.6	119
LM B3P3	3.3±5%	3.8	3.3	2.6	1.6	119
LM B3P6	3.6±5%	3.8	3.3	2.6	1.6	119
LM B4	4 ±5%	3.8	3.3	2.6	1.6	119
LM B4P5	4.5±5%	3.7	3.2	2.5	1.5	119
LM B5	5 ±5%	3.7	3.2	2.5	1.5	119
LM B6	6 ±5%	3.2	2.9	2.4	1.4	119
LM B8	8 ±5%	3.2	2.9	2.4	1.4	119
LM B9	9 ±5%	3.0	2.8	2.4	1.4	119
LM B10	10 ±5%	2.7	2.5	2.2	1.4	119
LM B12	12 ±5%	2.5	2.3	2.1	1.3	119
LM B15	15 ±5%	2.2	2.0	1.8	1.3	119
LM B18	18 ±5%	2.0	1.8	1.7	1.3	119
LM B20	20 ±5%	1.8	1.6	1.5	1.2	119
LM B24	24 ±5%	1.4	1.3	1.2	1.1	119
LM B28	28 ±5%	1.3	1.2	1.1	1.0	119
LM B36	36 ±5%	1.1	1.0	0.90	0.85	129
LM B48	48 ±5%	0.9	0.85	0.80	0.75	129
LM B60	60 ±5%	0.7	0.65	0.60	0.54	129
LM B100	100 ±5%	0.37	0.34	0.30	0.28	139
LM B120	120 ±5%	0.30	0.28	0.25	0.23	139
LM B150	150 ±5%	0.25	0.23	0.20	0.19	149

## Package C 3 3/16" x 4 1/16" x 9 3/4"



Accessory Metered Panels: \$40.00

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM 225	0-7	4.0	3.6	3.0	2.4	\$139
LM 226	8.5-14	3.3	3.0	2.5	2.0	139
LM 227	13-23	2.3	2.1	1.7	1.4	139
LM 228	22-32	2.0	1.8	1.5	1.2	139
LM 229	30-60	1.1	1.0	0.80	0.60	149
LM C2	2 ±5%	5.4	4.7	3.7	2.6	139
LM C3	3 ±5%	5.3	4.6	3.7	2.5	139
LM C3P3	3.3±5%	5.2	4.5	3.6	2.5	139
LM C3P6	3.6±5%	5.2	4.5	3.6	2.5	139
LM C4	4 ±5%	5.2	4.5	3.6	2.5	139
LM C4P5	4.5±5%	5.1	4.4	3.5	2.4	139
LM C5	5 ±5%	5.1	4.3	3.4	2.4	139
LM C6	6 ±5%	4.8	4.1	3.3	2.4	139
LM C8	8 ±5%	4.6	3.9	3.2	2.1	139
LM C9	9 ±5%	4.5	3.8	3.1	2.1	139
LM C10	10 ±5%	4.2	3.6	3.0	2.0	139
LM C12	12 ±5%	4.0	3.5	2.9	1.9	139
LM C15	15 ±5%	3.5	3.2	2.8	1.9	139
LM C18	18 ±5%	3.2	3.0	2.7	1.9	139
LM C20	20 ±5%	3.1	2.9	2.6	1.8	139
LM C24	24 ±5%	2.5	2.4	2.2	1.5	139
LM C28	28 ±5%	2.3	2.1	2.0	1.4	139
LM C36	36 ±5%	2.0	1.8	1.7	1.3	149
LM C48	48 ±5%	1.6	1.4	1.3	1.0	149
LM C60	60 ±5%	1.1	1.0	0.90	0.80	149
LM C100	100 ±5%	0.55	0.51	0.47	0.42	164
LM C120	120 ±5%	0.49	0.45	0.42	0.38	164
LM C150	150 ±5%	0.39	0.36	0.33	0.30	169

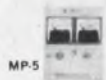
## Package D 4 1/16" x 7 1/2" x 9 3/4"



Accessory Metered Panels: \$40.00

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM 234	0-7	8.3	7.3	6.5	5.5	\$199
LM 235	8.5-14	7.7	6.8	6.0	4.8	199
LM 236	13-23	5.8	5.1	4.5	3.6	209
LM 237	22-32	5.0	4.4	3.9	3.1	219
LM 238	30-60	2.6	2.3	2.0	1.6	239
LM D2	2 ±5%	13.1	11.3	9.2	6.2	199
LM D3	3 ±5%	13.1	11.3	9.2	6.2	199
LM D3P3	3.3±5%	13.1	11.3	9.2	6.2	199
LM D3P6	3.6±5%	13.1	11.3	9.2	6.2	199
LM D4	4 ±5%	13.1	11.3	9.2	6.2	199
LM D4P5	4.5±5%	13.1	11.3	9.2	6.2	199
LM D5	5 ±5%	12.6	10.8	9.2	6.1	199
LM D6	6 ±5%	12.4	10.6	8.9	6.0	199
LM D8	8 ±5%	12.2	10.3	8.8	5.9	199
LM D9	9 ±5%	11.3	10.0	8.6	5.7	199
LM D10	10 ±5%	10.8	9.7	8.5	5.7	199
LM D12	12 ±5%	10.0	9.2	8.3	5.7	199
LM D15	15 ±5%	9.0	8.4	7.9	5.3	209
LM D18	18 ±5%	7.9	7.4	6.9	5.0	209
LM D20	20 ±5%	7.4	6.9	6.5	4.9	209
LM D24	24 ±5%	6.7	6.3	5.8	4.8	219
LM D28	28 ±5%	6.0	5.6	5.2	4.7	219
LM D36	36 ±5%	5.4	5.0	4.7	4.3	239
LM D48	48 ±5%	4.1	3.9	3.6	3.1	239
LM D60	60 ±5%	2.8	2.6	2.4	2.1	239
LM D100	100 ±5%	1.7	1.5	1.3	1.1	249
LM D120	120 ±5%	1.5	1.3	1.1	1.0	249
LM D150	150 ±5%	1.1	1.0	0.90	0.80	254

## Package E 4 1/16" x 7 1/2" x 11 3/4"



Accessory Metered Panels: \$40.00

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM E2	2 ±5%	23.0	20.0	16.5	10.0	\$269
LM E3	3 ±5%	22.0	20.0	16.5	10.0	269
LM E3P3	3.3±5%	21.0	19.0	16.5	10.0	269
LM E3P6	3.6±5%	21.0	19.0	16.5	10.0	269
LM E4	4 ±5%	21.0	19.0	16.5	10.0	269
LM E4P5	4.5±5%	20.0	18.0	16.4	10.0	269
LM E5	5 ±5%	20.0	18.0	16.4	10.0	269
LM E6	6 ±5%	19.0	17.3	15.6	10.0	269
LM E8	8 ±5%	18.0	16.4	14.7	10.0	269
LM E9	9 ±5%	17.0	15.5	14.0	9.5	269
LM E10	10 ±5%	16.0	14.5	13.0	9.5	269
LM E12	12 ±5%	15.0	13.6	12.3	9.5	269
LM E15	15 ±5%	14.0	12.7	11.5	8.6	269
LM E18	18 ±5%	13.0	11.8	10.6	8.6	269
LM E20	20 ±5%	12.0	10.9	9.8	8.5	269
LM E24	24 ±5%	11.0	10.0	9.0	7.6	269
LM E28	28 ±5%	10.0	9.0	8.0	7.1	269
LM E36	36 ±5%	8.0	7.3	6.5	5.7	279
LM E48	48 ±5%	6.0	5.4	4.9	4.3	299
LM E60	60 ±5%	3.5	3.3	3.0	2.6	299
LM E100	100 ±5%	2.0	1.7	1.6	1.5	299
LM E120	120 ±5%	1.7	1.5	1.4	1.2	299
LM E150	150 ±5%	1.4	1.3	1.2	1.0	299

## Package F 3 1/2" x 19" x 16 1/4"



For metered models, add suffix (M) to model number and \$30.00 to the price below.

Model	ADJ. VOLT. RANGE VDC	I MAX. AMPS				Price
		40°C	50°C	60°C	71°C	
LM F2	2 ±5%	44.0	39.0	32.0	24.0	\$425
LM F3	3 ±5%	44.0	39.0	32.0	24.0	425
LM F3P3	3.3±5%	44.0	39.0	32.0	24.0	425
LM F3P6	3.6±5%	44.0	39.0	32.0	24.0	425
LM F4	4 ±5%	44.0	39.0	32.0	24.0	425
LM F4P5	4.5±5%	44.0	39.0	32.0	24.0	425
LM F5	5 ±5%	44.0	38.0	31.0	24.0	425
LM F6	6 ±5%	43.0	37.0	30.0	23.0	425
LM F8	8 ±5%	40.0	34.0	28.0	22.0	425
LM F9	9 ±5%	38.0	32.0	26.0	21.0	425
LM F10	10 ±5%	36.0	31.0	25.0	20.0	425
LM F12	12 ±5%	30.0	26.0	21.0	16.0	425
LM F15	15 ±5%	25.0	22.0	18.0	15.0	425
LM F18	18 ±5%	23.0	20.0	17.0	13.0	395
LM F20	20 ±5%	21.0	19.0	16.0	12.0	395
LM F24	24 ±5%	18.0	16.0	13.0	10.0	380
LM F28	28 ±5%	17.0	15.0	13.0	9.5	380



# Index of Manufacturers and Model Numbers

(keyed to table locator symbols)

## Acme Electric Corp (Acme)

PS 39600 [HC-69]  
PS 41423 [HC-33]  
PS 41424 [HC-67]  
PS 47125 [HC-96]  
PS 47202 [HC-96]  
PS 47457 [HC-97]  
PS 47509 [HC-95]  
PS 47718 [HC-97]  
PS 57350 [HC-94]  
PS 57351 [HC-95]  
PS 57352 [HC-96]  
PS 57357 [HC-97]  
PS 57362 [HC-97]

## Avtel Corp (Avtel)

200 [HC-97]

## Basler Electric Co (Basler)

HLR-15M [HC-52]  
HLR-30M [HC-56]

## Behlman-Invar Electronics (Bel-Invar)

QS-5 [HC-1]  
QS-10 [HC-8]  
TCR 30-100 [HC-86]  
TPA-5 [HC-47]  
TPA-10 [HC-50]  
TPA-15 [HC-52]  
TPA-30 [HC-56]

## Bogue Electric Mfg (Bogue)

A-4-10 [HC-1]  
A-4-20 [HC-1]  
A-10-5 [HC-8]  
A-10-10 [HC-8]

## Chalco Engineering Corp (Chalco)

7V 5A [HC-3]  
7V 10A [HC-3]  
7V 15A [HC-4]  
7V 20A [HC-4]  
7V 25A [HC-4]  
7V 40A [HC-4]  
7V 50A [HC-4]  
7V 75A [HC-4]  
7V 100A [HC-4]  
11V 5A [HC-11]  
11V 10A [HC-11]  
11V 15A [HC-11]  
11V 20A [HC-11]  
11V 25A [HC-11]  
11V 40A [HC-12]  
11V 50A [HC-12]  
11V 75A [HC-12]  
11V 100A [HC-12]  
16V 5A [HC-20]  
16V 10A [HC-20]  
16V 15A [HC-20]  
16V 20A [HC-21]  
16V 25A [HC-21]  
16V 40A [HC-21]  
16V 50A [HC-21]  
16V 75A [HC-21]  
16V 100A [HC-21]  
20V 5A [HC-27]  
20V 10A [HC-28]  
20V 15A [HC-29]  
20V 20A [HC-30]  
20V 25A [HC-30]  
20V 40A [HC-31]  
20V 50A [HC-31]  
20V 75A [HC-32]  
20V 100A [HC-32]  
33V 5A [HC-44]  
33V 10A [HC-44]  
33V 15A [HC-44]  
33V 20A [HC-44]  
33V 25A [HC-44]  
33V 40A [HC-44]  
33V 50A [HC-44]  
33V 75A [HC-44]  
33V 100A [HC-45]  
45V 5A [HC-66]  
45V 10A [HC-66]  
45V 15A [HC-66]  
45V 20A [HC-67]  
45V 25A [HC-67]  
45V 40A [HC-67]  
45V 50A [HC-67]  
45V 75A [HC-67]  
60V 5A [HC-72]  
60V 10A [HC-75]  
60V 15A [HC-76]  
60V 20A [HC-78]  
60V 25A [HC-78]  
60V 40A [HC-79]  
60V 50A [HC-79]  
90V 5A [HC-84]  
90V 10A [HC-84]

90V 15A [HC-85]  
90V 20A [HC-85]  
90V 25A [HC-85]  
90V 40A [HC-85]  
150V 5A [HC-88]  
150V 10A [HC-88]  
150V 15A [HC-89]  
150V 20A [HC-89]  
200V 5A [HC-91]  
200V 10A [HC-91]  
200V 15A [HC-91]

## Chatham Electronics (Chatham)

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## Christie Electric Corp (Christie)

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2C36-600 [HC-59]  
BCO30-50 [HC-39]  
BCO36-40 [HC-58]  
BCO50-30 [HC-59]  
BCO60-25 [HC-78]  
BCO100-15 [HC-86]  
BCO150-10 [HC-88]  
IRO40-75 [HC-65]  
M32-15RF [HC-37]  
M32-50RF [HC-37]  
M120-15F [HC-87]  
MH36-50 [HC-58]  
MH36-100 [HC-58]  
MH36-200 [HC-59]  
MH36-250 [HC-59]

## Consolidated Avionics Corp (Con Av)

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HS6-24-5 [HC-3]  
HS8-22-5 [HC-7]  
HS10-21-0 [HC-11]  
HS12-20-5 [HC-15]  
HS15-17-5 [HC-20]  
HS18-16-5 [HC-26]  
HS20-15-5 [HC-32]  
HS24-13-5 [HC-35]  
HS29-12-0 [HC-39]  
HS33-11-0 [HC-46]  
HS37-10-0 [HC-60]  
HS43-9-0 [HC-66]  
HS48-8-0 [HC-70]  
FS5-40-0 [HC-1]  
FS6-46-0 [HC-3]  
FS8-43-0 [HC-7]  
FS10-41-0 [HC-12]  
FS15-35-0 [HC-21]  
FS18-32-0 [HC-26]  
FS20-30-0 [HC-33]  
FS24-25-0 [HC-35]  
FS29-23-0 [HC-39]  
FS33-21-0 [HC-46]  
FS37-19-0 [HC-60]  
FS43-17-0 [HC-66]  
FS48-16-0 [HC-70]  
SP32-20 [HC-41]  
SP32-30 [HC-42]  
SP32-50 [HC-43]  
SP32-100 [HC-44]  
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SP41-30 [HC-71]  
SP41-50 [HC-71]

## Deltron Inc. (Deltron)

DP6-4 [HC-2]  
DP12-4 [HC-14]  
DP18-4 [HC-26]  
DP18-75 [HC-32]  
DP24-4 [HC-34]  
DP36-4 [HC-60]  
DP48-4 [HC-68]  
DP75-4 [HC-84]  
DP125-4 [HC-88]  
DP150-5 [HC-88]  
DP250-11 [HC-91]  
DP300-4 [HC-92]  
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DPV120-10 [HC-87]  
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LH504 [HC-69]  
LH754 [HC-80]  
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RP40-5 [HC-60]

RS6-6M [HC-3]  
RS12-4M [HC-16]  
RS18-4-5M [HC-32]  
RS24-3-6M [HC-36]  
RS30-4M [HC-45]  
RS36-3-2M [HC-65]  
RS42-3-5M [HC-68]  
RS48-3-6M [HC-71]  
RS60-3-5M [HC-80]  
RS72-3-36M [HC-84]  
SP10-5 [HC-8]  
SP60-5 [HC-72]  
XR28-30M [HC-42]

## Dynamic Controls Co. (Dy Con)

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20V [HC-15]  
27V [HC-39]  
TT2/35-10 [HC-45]

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PV32-5M [HC-40]  
PV32-10M [HC-40]  
PV32-15M [HC-41]  
PV32-30M [HC-43]  
PV36-5M [HC-47]  
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PV36-15M [HC-52]  
PV60-5M [HC-73]  
PV60-7-5M [HC-74]  
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TO14-10M [HC-16]  
TO16-6M [HC-21]  
TO36-5M [HC-47]  
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TO36-15M [HC-53]  
TO36-30M [HC-56]  
TO50-20M [HC-69]  
TO60-5M [HC-73]  
TO60-7-5M [HC-74]  
TO60-15M [HC-77]  
TO100-10M [HC-86]

## Electronic Modules Corp (El Mod)

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PS0631-5 [HC-13]  
PS1263 [HC-13]

## Electronic Research Associates, Inc (ERA)

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SL36-8M [HC-49]  
SL36-12M [HC-51]  
SL36-25M [HC-55]  
SPL40-10 [HC-62]  
SPL40-15 [HC-63]  
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SPL40-50 [HC-65]  
TR36-4 [HC-46]  
TR36-8 [HC-49]  
TR36-12 [HC-52]  
TR36-20 [HC-54]  
TR35-30 [HC-56]  
TR36-50 [HC-58]

## Engineered Electronics Co (Eng Elect)

ZA720 [HC-14]  
ZA742 [HC-12]

## Fairlane Electronics (Fairlane)

205 [HC-27]  
206 [HC-27]

## General Radio Co (Gen Radio)

1265-A [HC-93]

## Geo Space Cor (Geo Space)

Type BE-1 [HC-17]  
1-5/15 [HC-1]  
6/300 [HC-5]

12/600 [HC-19]  
18/180 [HC-33]  
30/150 [HC-59]  
30/600 [HC-60]

## Glentronics, Inc. (Glentron)

0-50-8 [HC-69]  
0-50-20 [HC-69]  
20588-0 [HC-95]  
20588-1 [HC-9]  
20588-2 [HC-13]  
20588-3 [HC-23]  
20588-4 [HC-33]  
20588-5 [HC-36]  
20805-0 [HC-41]  
20805-1 [HC-75]

## Harrison Division Hewlett-Packard Co (Harrison)

505A [HC-80]  
510A [HC-50]  
520A [HC-55]  
6251A [HC-5]  
6260A [HC-11]  
6263A [HC-23]  
6264A [HC-25]  
6266A [HC-47]  
6267A [HC-50]  
6268A [HC-64]  
6269A [HC-65]  
6274A [HC-77]  
6281A [HC-5]  
6282A [HC-8]  
6285A [HC-27]  
6286A [HC-28]  
6291A [HC-60]  
6363A [HC-23]  
6364A [HC-25]  
6366A [HC-47]  
6367A [HC-50]  
6428A [HC-26]  
6433A [HC-40]  
6438A [HC-73]  
6439A [HC-77]

## Heath Co (Heath)

IP-12 [HC-2, 12]

## Hevi-Duty Electric Co (Hevi Duty)

HC15-5M [HC-17]  
HC15-10M [HC-9]  
HC15-15M [HC-18]  
HC15-20M [HC-19]  
HC30-5M [HC-37]  
HC30-10M [HC-38]  
HC30-15M [HC-38]  
HC30-20M [HC-38]  
HC30-30M [HC-39]  
HC40-5M [HC-61]  
HC40-10M [HC-62]  
HC40-15M [HC-63]  
HC40-20M [HC-63]  
HC60-5M [HC-73]  
HC60-10M [HC-75]  
HC60-15M [HC-77]  
HC60-20M [HC-78]  
HC80-5M [HC-81]  
HC80-10M [HC-82]  
HC80-15M [HC-83]  
LR7-5-5M [HC-4]  
LR7-5-10M [HC-5]  
LR7-5-15M [HC-5]  
LR7-5-20M [HC-5]  
LR7-5-30M [HC-5]  
LR12-5M [HC-12]  
LR12-10M [HC-13]  
LR12-15M [HC-13]  
LR12-20M [HC-14]  
LR12-30M [HC-14]  
LR16-5M [HC-20]  
LR16-10M [HC-20]  
LR16-15M [HC-20]  
LR16-20M [HC-21]  
LR16-30M [HC-21]  
LR20-5M [HC-27]  
LR20-10M [HC-28]  
LR20-15M [HC-29]  
LR20-20M [HC-30]  
LR20-30M [HC-30]  
LR 24-5M [HC-33]  
LR 24-10M [HC-34]  
LR 24-15M [HC-34]  
LR24-20M [HC-34]  
LR24-30M [HC-34]  
LR30-5M [HC-37]  
LR30-10M [HC-38]  
LR30-15M [HC-38]  
LR30-20M [HC-38]  
LR30-30M [HC-39]  
LR36-5M [HC-47]  
LR36-10M [HC-50]

LR36-15M [HC-52]  
LR36-20M [HC-54]  
LR42-5M [HC-65]  
LR42-10M [HC-65]  
LR42-15M [HC-66]  
LR42-20M [HC-66]  
LR48-5M [HC-68]  
LR48-10M [HC-68]  
LR48-15M [HC-68]  
LR48-20M [HC-68]  
LR52-5M [HC-70]  
LR52-10M [HC-70]  
LR52-15M [HC-70]  
LR52-20M [HC-71]  
LR56-5M [HC-72]  
LR56-10M [HC-72]  
LR56-15M [HC-72]  
LR60-5M [HC-73]  
LR60-10M [HC-75]  
LR60-15M [HC-76]  
LR64-5M [HC-79]  
LR64-10M [HC-79]  
LR68-5M [HC-79]  
LR68-10M [HC-80]  
LR72-5M [HC-80]  
LR72-10M [HC-80]  
LR76-5M [HC-81]  
LR76-10M [HC-81]  
LR80-5M [HC-81]  
LR80-10M [HC-82]

## Hyperion Industries Corp (Hyperion)

HY-CRI-36-25 [HC-55]  
HY-T1-10-15 [HC-9]  
HY-T1-10-40 [HC-10]  
HY-T1-10-60 [HC-10]  
HY-T1-20-10 [HC-29]  
HY-T1-20-30 [HC-31]  
HY-T1-20-45 [HC-31]  
HY-T1-32-40 [HC-43]  
HY-T1-36-30 [HC-56]  
HY-T1-36-50 [HC-58]  
HY-T1-40-7-5 [HC-61]  
HY-T1-40-15 [HC-63]  
HY-T1-40-30 [HC-64]  
HY-T1-60-5 [HC-73]  
HY-T1-60-10 [HC-75]  
HY-T1-60-20 [HC-78]  
HY-T1-160-5 [HC-89]  
HY-T1-160-B [HC-90]  
HY-T1-330-4 [HC-92]  
HY-Si-5-50 [HC-1]  
HY-Si-10-12-5 [HC-9]  
HY-Si-10-25 [HC-10]  
HY-Si-10-100 [HC-11]  
HY-Si-15-10 [HC-18]  
HY-Si-20-6 [HC-28]  
HY-Si-20-10 [HC-29]  
HY-Si-20-20 [HC-30]  
HY-Si-20-50 [HC-32]  
HY-Si-40-5 [HC-61]  
HY-Si-40-10 [HC-62]  
HY-Si-60-5 [HC-73]  
HY-Si-60-7-5 [HC-75]  
HY-ZS-10-10 [HC-9]  
HY-ZS-20-7-5 [HC-28]  
HY-ZS-32-5 [HC-40]

KO12-100M [HC-14]  
KO25-50M [HC-35]  
KO45-30M [HC-67]  
KO70-20M [HC-80]  
KS8-15M [HC-6]  
KS8-25M [HC-6]  
KS8-50M [HC-6]  
KS8-100M [HC-6]  
KS18-10M [HC-24]  
KS18-25M [HC-25]  
KS18-50M [HC-26]  
KS36-5M [HC-47]  
KS36-10M [HC-50]  
KS36-15M [HC-53]  
KS36-30M [HC-56]  
KS60-5M [HC-73]  
KS60-10M [HC-75]  
KS60-20M [HC-78]  
PR15-10M [HC-18]  
PR15-30M [HC-19]  
PR38-5M [HC-60]  
PR38-15M [HC-60]  
PR80-8M [HC-82]  
PR155-4M [HC-89]  
SM14-7M [HC-16]  
SM14-15M [HC-17]  
SM14-30M [HC-17]  
SM36-5M [HC-47]  
SM36-10M [HC-50]  
SM36-15M [HC-53]  
SM75-5M [HC-81]  
SM75-8M [HC-81]  
SM160-4M [HC-89]

## Lambda Electronics Corp (Lambda)

LA40-05BM [HC-86]  
LA50-03BM [HC-45]  
LA80-05BM [HC-97]  
LA100-03BM [HC-45]  
LA200-03BM [HC-45]  
LE101FM [HC-47]  
LE102FM [HC-51]  
LE103FM [HC-53]  
LE104FM [HC-55]  
LE105FM [HC-23]  
LE106FM [HC-24]  
LE107FM [HC-25]  
LE109FM [HC-7]  
LE110FM [HC-7]  
LH118FM [HC-7]  
LH119FM [HC-8]  
LH122FM [HC-28]

## Lear Siegler, Data and Controls Div. (L-S)

SVR-680045 [HC-97]

## Magnetic Research Corp (Mag Res)

DMR6-20 [HC-6]  
DMR6-100 [HC-6]  
DMR12-10 [HC-18]  
DMR28-5 [HC-47]  
DMR28-50 [HC-58]  
DMR136-15 [HC-52]  
63-103-0 [HC-16]  
63-105-0 [HC-35]  
63-106-0 [HC-35]

## Mid-Eastern Electronics, Inc (Mid-East)

ME18-6 [HC-22]  
MS12-12 [HC-15]  
MS12-40 [HC-15]  
MS12-60 [HC-15]  
MS12-100 [HC-15]  
MS13-5-12 [HC-18]  
MS13-5-40 [HC-19]  
MS13-5-60 [HC-19]  
MS13-5-100 [HC-20]  
MS17-10 [HC-26]  
MS17-30 [HC-26]  
MS17-45 [HC-26]  
MS17-80 [HC-26]  
MS20-10 [HC-28]  
MS20-30 [HC-28]  
MS20-45 [HC-31]  
MS20-80 [HC-32]  
MS25-8 [HC-36]  
MS25-25 [HC-36]  
MS25-37 [HC-36]  
MS25-60 [HC-36]  
MS29-8 [HC-40]  
MS29-25 [HC-41]  
MS29-27 [HC-43]  
MS29-60 [HC-43]  
MS34-6 [HC-59]

## ITI Electronics, Inc (ITI)

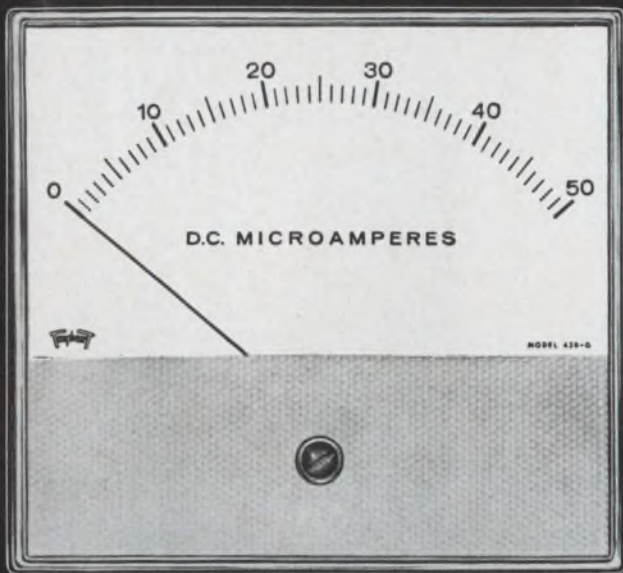
LS40-5 [HC-61]

## Kepeco, Inc (Kepeco)

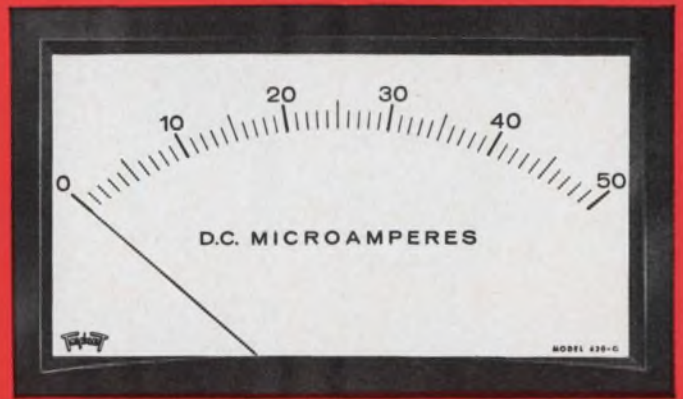
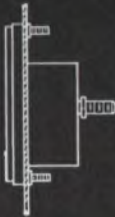
CK2-8M [HC-1]  
CK8-5M [HC-5]

Manufacturers' addresses and literature offerings in master cross index at front of issue.





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*now you don't*



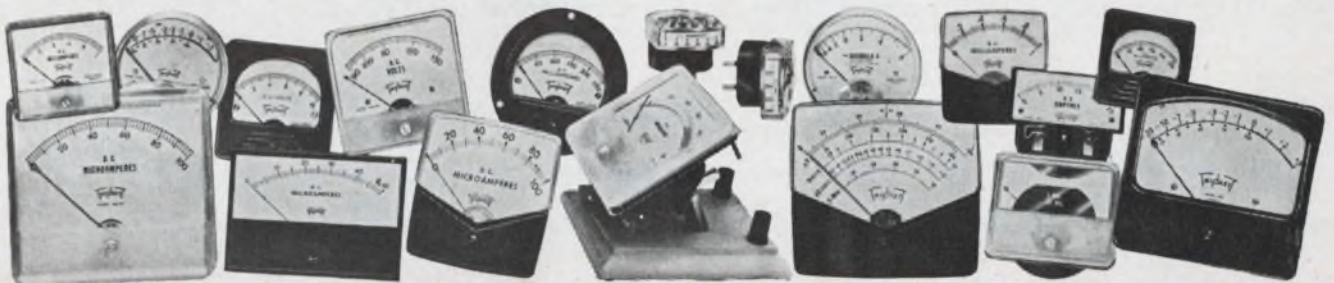
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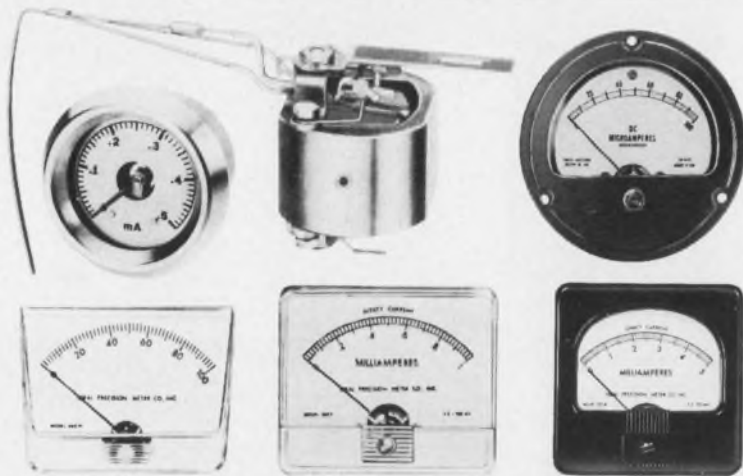
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MS34-30 [HC-59] SR-6-20M [HC-2]  
MS34-50 [HC-59] SR-8-20M [HC-7]  
MS38-6 [HC-65] SR-10-7.5M [HC-11]  
MS38-20 [HC-66] SR-10-15M [HC-11]  
MS38-30 [HC-66] SR-12-7.5M [HC-14]  
MS38-50 [HC-66] SR-12-15M [HC-15]  
MS46-5 [HC-71] SR-5-6M [HC-20]  
MS46-15 [HC-71] SR-15-12M [HC-20]  
MS46-22 [HC-71] SR-20-5.5M [HC-32]  
MS46-40 [HC-71] SR-20-11M [HC-33]  
MS65-10 [HC-80] SR-24-5M [HC-35]  
MS65-15 [HC-80] SR-24-10M [HC-35]  
MS65-25 [HC-80] SR-28-5M [HC-37]  
MS77-10 [HC-84] SR-28-10M [HC-38]  
MS77-15 [HC-84] SR-48-6M [HC-70]  
MS77-25 [HC-84] SY-18-30M [HC-25]  
MS109-6 [HC-87] SY-36-10M [HC-50]  
MS109-10 [HC-87] SY-36-20M [HC-54]  
MS109-15 [HC-87] SY-36-30M [HC-56]  
MS128-6 [HC-88] SY-60-6M [HC-74]  
MS128-10 [HC-88] SY-60-12M [HC-76]  
MS128-15 [HC-88] SY-60-18M [HC-77]  
MS240-5 [HC-92] TC-14-15 [HC-17]  
MS240-7 [HC-92] TC-14-30 [HC-17]  
MS273-5 [HC-92] TC-32-10 [HC-41]  
MS273-7 [HC-92] TC-32-20 [HC-41]  
MS350-5 [HC-93] TC-32-30 [HC-42]  
MS410-5 [HC-93] TC-32-50 [HC-43]  
RH36-30 [HC-57] TC-52-6 [HC-70]  
SS18-6 [HC-22] TC-52-12 [HC-70]  
SS18-9 [HC-23] TC-52-30 [HC-41]  
SS18-12 [HC-24] TC-80-4 [HC-81]  
SS18-15 [HC-24] TC-80-8 [HC-82]  
SS18-35 [HC-25] TC-80-20 [HC-83]  
SS36-6 [HC-49] TC-100-6 [HC-86]  
SS36-10 [HC-51] TRM-28-30 [HC-42]  
SS36-15 [HC-53] TRM-28-60 [HC-44]  
SS36-25 [HC-55] TRM-40-15 [HC-62]  
SS60-4 [HC-72] TRM-40-30 [HC-64]  
SS60-6 [HC-74] TRM-40-60 [HC-65]  
SS60-10 [HC-76] TRM-80-7.5 [HC-82]  
SS60-15 [HC-77] TRM-80-15 [HC-83]  
SS100-5 [HC-86] TRM-80-30 [HC-84]  
ST18-6S [HC-22] TRM-160-7.5  
ST18-9 [HC-23] [HC-90]  
ST18-12S [HC-24] TRM-160-15  
ST18-15S [HC-24] [HC-90]  
ST18-35 [HC-25]  
ST36-6S [HC-49]  
ST36-10S [HC-51]  
ST36-15S [HC-53]  
ST36-25S [HC-55]  
ST60-4 [HC-72]  
ST60-6 [HC-74]  
ST60-10S [HC-76]  
ST60-15S [HC-77]  
ST100-5 [HC-86]  
ST100-10 [HC-86]  
ST150-5 [HC-18]

#### NJE Corp

(NJE)  
CR-18-30 [HC-25]  
CR-36-8 [HC-49]  
CR-36-15 [HC-53]  
CR-36-20 [HC-54]  
CR-36-30 [HC-57]  
CR-36-50 [HC-58]  
CR-60-9 [HC-75]  
CR-60-18 [HC-78]  
ELA-32-10CM

[HC-40]  
ELA-32-20RM  
[HC-41]  
ELA-32-30RM  
[HC-43]  
ELA-80-4RM  
[HC-81]  
ELA-80-8RM  
[HC-82]  
ELA-80-15RM  
[HR-83]  
ELA-120-10RM  
[HC-87]  
ELA-160-4RM  
[HR-89]  
ELA-160-8RM  
[HC-93]  
ELA-250-5RM  
[HC-91]  
ELB-32-10CM  
[HC-40]  
ELB-32-20RM  
[HC-41]  
ELB-32-30RM  
[HC-43]  
ELB-80-4M  
[HC-81]  
ELB-80-8RM  
[HC-82]  
ELB-80-15RM  
[HC-83]  
ELB-120-10RM  
[HC-87]  
ELB-160-4RM  
[HC-89]  
ELB-160-8RM  
[HC-90]  
ELB-250-5RM  
[HC-91]

QR-10-10 [HC-9]  
QR-15-20 [HC-19]  
QR-18-6 [HC-22]  
QR-36-4 [HC-46]  
QR-36-10 [HC-51]  
QR-60-6 [HC-74]  
RVC-36-5M [HC-48]  
RVC-36-15M [HC-53]  
RVC-36-25M

#### Perkin-Electronics Corp (Perkin)

M60V [HC-42]  
MR532-15A [HC-52]  
MR550-50 [HC-70]  
MTR28-10A [HC-40]  
MTR036-5A  
[HC-48]  
MTR036-15 [HC-53]  
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TVCR040-15  
[HC-6]

#### Pioneer Magnetics, Inc (Pioneer)

TVRO40-30  
[HC-64]  
TVRO40-5 [HC-61]  
TVRO40-15 [HC-63]  
TVRO40-30 [HC-64]  
28-5WX [HC-49]  
28-10WXA [HC-40]  
28-30WX [HC-42]  
115-5WX [HC-86]  
RR10-5-A [HC-8]  
RR10-5-B [HC8]  
RR10-10A [HC-9]  
RR10-10B [HC-9]  
RR10-20A [HC-9]  
RR10-20-B [HC10]  
RR10-30-A [HC10]  
RR10-30-B [HC10]  
RR20-5-B [HC-27]  
RR20-10A [HC-29]  
RR20-10-B [HC-29]  
RR20-20-A [HC-30]  
RR20-20-B [HC-30]  
RR20-30-A [HC-31]  
RR20-30-B [HC-31]  
RR36-5A [HC-48]  
RR36-5B [HC-48]  
RR36-10A [HC-51]  
RR36-10B [HC-51]  
RR36-20A [HC-54]  
RR36-20B [HC-54]  
RR36-30A [HC-57]  
RR36-30B [HC-57]  
RR60-5A [HC-73]  
RR60-5B [HC-73]  
RR60-10A [HC-76]  
RR60-10B [HC-76]  
RR60-20A [HC-78]  
RR60-20B [HC-78]  
RR60-30A [HC-79]  
RR60-30B [HC-79]

#### Power Designs, Inc (Pwr Des)

1210S [HC-13]  
3650S [HC-48]  
3650R [HC-48]  
36100 [HC-97]  
36250A [HC-55]

#### Power Instruments Corp (Pwr Inst)

2815 [HC-41]  
2840 [HC-43]  
3605 [HC-48]



3615 [HC-53]  
3630 [HC-57]  
4005 [HC-60]  
4015 [HC-62]  
4030 [HC-64]

**Power Sources, Inc**  
(Pwr Srcs)  
PS4305 [HC-48]  
PS4315 [HC-54]  
PS4330 [HC-57]

**Rapid Electric Co**  
(Rapid)  
5CYMA [HC-87]  
5XMA [HC-87]  
6AMA [HC-3]  
15AMA [HC-3]  
15BMA [HC-15]  
40AMA [HC-3]  
236BMA [HC-52]  
540EMA [HC-64]  
2432A [HC-40]  
2432EMA [HC-42]  
3225R [HC-42]  
3230R [HC-42]

**Rateleo, Inc.**  
(Rateleo)  
PS-3 [HC-19]  
PS-5 [HC-63]

**Scintillonics, Inc**  
(Scint)  
56F2 [HC-3]  
59F2 [HC-8]  
514F2 [HC-16]  
528F2 [HC-36]  
536F2 [HC-46]

**Sola Electric Co**  
(Sola)  
28626 [HC-37]  
281024-1 [HC-33]  
281048 [HC-67]  
281203 [HC-34]  
281513-1 [HC-2]  
281514-1 [HC-12]  
281515-1 [HC-22]  
281561 [HC-68]  
285110 [HC-45]  
285120 [HC-74]  
285130 [HC-84]

**Sorensen**  
(Sorensen)  
DCR20-125 [HC-32]  
DCR40-10 [HC-62]  
DCR40-20 [HC-63]  
DCR40-35 [HC-65]  
DCR40-60 [HC-65]  
DCR60-13 [HC-76]  
DCR60-25 [HC-78]  
DCR60-40 [HC-79]  
DCR80-5 [HC-81]  
DCR80-10 [HC-82]  
DCR80-18 [HC-83]  
DCR80-30 [HC-84]  
DCR150-5 [HC-88]  
DCR150-10 [HC-89]  
DCR150-15 [HC-89]  
DCR300-5 [HC-92]  
DCR300-8 [HC-92]  
MD6-3-15.9 [HC-2]  
MD6-3-31.8 [HC-2]  
MD6-3-63.5 [HC-2]  
MD12-0-8.4 [HC-13]  
MD12-0-16.7 [HC-14]  
MD12-0-33.4 [HC-14]  
MD18-0-5.55 [HC-22]  
MD18-0-11.1 [HC-24]  
MD18-0-22.4 [HC-25]  
MD24-0-4.2 [HC-33]  
MD24-0-8.32 [HC-34]  
MD24-0-16.64 [HC-34]  
MD28-0-3.6 [HC-36]  
MD28-0-7.2 [HC-36]  
MD28-0-14.3 [HC-37]  
MD48-0-4.2 [HC-67]  
MD48-0-8.4 [HC-68]  
MD115-0-3.5 [HC-86]  
O18-12 [HC-35]  
OB6-4 [HC-7]  
OB6-8 [HC-7]  
OB6-15 [HC-7]  
OB6-30 [HC-7]  
OB12-4 [HC-22]  
OB12-8 [HC-23]  
OB12-15 [HC-24]  
OB18-6 [HC-35]  
OB28-4 [HC-46]  
OB28-8 [HC-49]  
OB50-4 [HC-72]  
QRB20-4 [HC-27]

QRC20-8 [HC-28]  
QRC20-15 [HC-29]  
QRC20-30 [HC-31]  
QRC40-4 [HC-60]  
QRC40-8 [HC-62]  
QRC40-15 [HC-63]  
QRC40-30 [HC-64]

**Spectromagnetic Industries**  
(Spec Ind)  
TC200-15 [HC-91]

**Technical Apparatus Builders**  
(Tabtron)  
B28V50ARM [HC-96]  
T12V15ARM [HC-13]  
T14V30ARM [HC-17]  
T32V15ARM [HC-41]  
T32V30ARM [HC-43]  
T48V10ARM [HC-68]  
T60V10ARM [HC-76]  
T90V10ARM [HC-85]  
MRT32V25A [HC-42]

**Technipower Inc**  
(Tech Pwr)  
L10-12.0M [HC9]  
L10-25.0M [HC10]  
L20-6.0M [HC-28]  
L20-25.0M [HC-30]  
L40-6.0M [HC-61]  
L40-12.0M [HC-62]  
L40-25.0M [HC-64]  
L80-6.0M [HC-82]  
L80-12.0M [HC-83]  
L80-25.0M [HC-83]  
L160-6.0M [HC-90]  
L160-12.0M [HC-90]  
L10-12.0M [HC-9]  
L10-25.0M [HC-10]  
L20-6.0M [HC-28]  
LS10-0-12.0M [HC-10]  
LS10-0-25.0M [HC-10]  
LS20-0-6.0M [HC-28]  
LS20-0-12.0M [HC-29]  
LS-10-0-25.0M [HC-30]  
LS40-0-6.0M [HC-61]  
LS40-0-12.0M [HC-62]  
LS40-0-25.0M [HC-64]  
LS80-0-6.0M [HC-82]  
LS80-0-12.0M [HC-83]  
LS80-0-25.0M [HC-83]  
LS160-0-6.0M [HC-90]  
LS160-0-12.0M [HC-90]

**Transistor Devices, Inc**  
(Trans Dev)  
RS3-10 [HC-1, 94]  
RS3-25 [HC-94]  
RS3-50 [HC-94]  
RS6-10 [HC-2, 94]  
RS6-25 [HC-94]  
RS6-50 [HC-94]  
RS12-10 [HC-95]  
RS12-20 [HC-14]  
RS18-7 [HC-22]  
RS18-10 [HC-95]  
RS18-20 [HC-25]  
RS24-14 [HC-34]  
RS28-14 [HC-37]  
RS35-14 [HC-96]  
RS100-5 [HC-85]  
RS150-5 [HC-88]  
RS300-10 [HC-92, 97]  
VS201 [HC-45, 96]  
VS231 [HC-91, 97]

**Trygon Electronics, Inc.**  
(Trygon)  
C15-80 [HC-19]  
C36-50 [HC-58]  
C60-25 [HC-79]  
C160-8C [HC-90]  
C160-16C [HC-91]  
FT-FTR6-25 [HC-2]  
FT-FTR-12-15 [HC-13]  
FT-FTR15-10 [HC-18]

FT-FTR18-10 [HC-23]  
FT-FTR24-8 [HC-33]  
FT-FTR28-7 [HC-36]  
FT-FTR48-4 [HC-67]  
HH7-4 [HC-3]  
HR20-5B [HC-27]  
HR20-10B [HC-29]  
HR40-5B [HC-61]  
HR40-7.5B [HC-62]  
HR60-5B [HC-73]  
LR5-40 [HC-94]  
LR6-40 [HC-94]  
LR8-35 [HC-94]  
LR10-30 [HC-95]  
LR12-30 [HC-95]  
LR14-30 [HC-95]  
LR17-30 [HC-95]  
LR21-20 [HC-96]  
LR28-20 [HC-96]  
M15-30A [HC-19]  
M15-50A [HC-19]  
M36-15A [HC-54]  
M36-25A [HC-56]  
M36-30A [HC-57]  
M60-10A [HC-76]  
M60-15A [HC-77]  
M160-5A [HC-89]  
SR20-40 [HC-31]  
SR20-70 [HC-32]  
SR36-25 [HC-55]  
SR36-40 [HC-57]  
RS20-7.5A [HC-95]  
RS20-15A [HC-96]  
RS40-5A [HC-97]  
RS40-10A [HC-97]  
RS60-7.5A [HC-97]

**Universal Electronics**  
(Un Elect)  
L3510 [HC-45]  
L3515 [HC-46]  
L5010 [HC-69]  
L5015 [HC-69]  
LQ35-6A [HC-49]  
LQ35-10A [HC-45]  
LQ35-15A [HC-46]  
LQ35-25 [HC-46]  
LQ50-6A [HC-49]  
Q5-8-4A [HC-5]  
Q5-8-6A [HC-6]  
Q5-8-10A [HC-6]  
Q5-8-15A [HC-6]  
Q5-8-25A [HC-6]  
Q10-14-4A [HC-16]  
Q10-14-6A [HC-16]  
Q10-14-10A [HC-16]  
Q10-14-15A [HC-17]  
Q10-14-25A [HC-17]  
Q26-30-4A [HC-37]  
Q26-30-6A [HC-38]  
Q26-30-10A [HC-38]  
Q26-30-15A [HC-38]  
Q26-30-25A [HC-39]  
Q50-4A [HC-70]

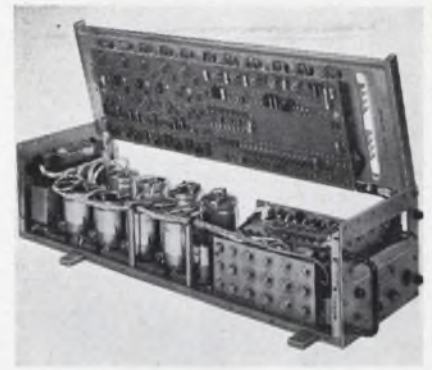
**Utronics, Inc**  
(Utronics)  
BR3/5 [HC-1]  
BR10/5 [HC-8]  
QCR15/10 [HC-18]  
QCR15/15 [HC-18]  
QCR36/5 [HC-48]  
QCR36/10 [HC-51]  
QCR36/15 [HC-54]  
QCR36/30 [HC-57]  
AV6-3-60 [HC-2]  
AV14-50 [HC-17]  
AV30-40 [HC-39]

**Valor Instruments, Inc**  
(Valor)  
AV6-3-60 [HC-2]  
AV14-50 [HC-17]  
AV26-40 [HC-35]  
AV30-40 [HC-39]

**Vector Engineering**  
(Vector)  
CF-30-6A [HC-92]  
CF-40-6A [HC-93]  
CM-01-1L [HC-24]  
CM-01-8A [HC-23]  
CM-03-1L [HC-54]  
CM-03-2L [HC-55]  
CM-03-3L [HC-57]  
CM-03-5A [HC-48]  
CM-03-5L [HC-58]  
CM-03-8A [HC-49]  
CM-03-10A [HC-51]  
CM-06-5A [HC-74]  
ST-01-3A [HC-22]

**Volteq Co. Inc**  
(Volteq)  
18-5 [HC-22]  
18-10 [HC-23]  
18-15 [HC-24]  
36-6 [HC-49]  
36-10 [HC-51]  
60-4 [HC-72]  
69-6 [HC-74]  
82-192 [HC-4]  
82-193 [HC-15]  
82-197-2M [HC-29]  
100-4 [HC-85]

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Manufacturers' addresses and literature offerings in master cross index at front of issue.

# Constant-Current DC Power Supplies

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price $\$$	Notes	
			Current		Max. Volts	Line %	Load %	Ripple %						
			Min. ma	Max. Amps										
1 CC 1	Kepeco	ABC2500M	1	0.002	2500	0.1 <sup>1,3</sup>	0.1	1 mv	2 <sup>B</sup>	yes	C	365	a,b,e	
	Alpha	AL50-5A	0	0.005	50	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1390	a,b,e	
	Alpha	AL50-5B	0	0.005 <sup>2</sup>	50	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1181	d,e	
	Alpha	AL100-5A	0	0.005	100	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1745	a,b,e	
	Alpha	AL100-5B	0	0.005	100 <sup>3</sup>	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1483	d,e	
	Alpha	AL50-10B	0	0.01	5	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1492	d,e	
	North Hills <sup>5</sup>	CS-151	0	0.01 <sup>4</sup>	$\pm 10$	5 ppm	ina	0.005	ina	ina	R	2495	a	
	Alpha	AL50-10A	0	0.01	50	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1755	a,b,e	
	Alpha	AL100-10A	0	0.01	100	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1845	a,b,e	
	Alpha	AL100-10B	0	0.01	100	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1568	d,e	
	2 CC 2	North Hills	CS-120	100 ma	0.01	2250	0.05	0.05	0.15	ina	none	R	695	a
		Alpha	AL50-20A	0	0.02	50	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	2185	a,b,e
Alpha		AL50-20B	0	0.02	50	$\pm 0.0005^2$	$\pm 0.0005$	0.1	ina	yes	R	1857	d,e	
Alpha		AL100-20A	0	0.02	100	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	2285	a,b,e	
Alpha		AL100-20B	0	0.02	100	$\pm 0.0005^2$	$\pm 0.0005$	0.1	ina	yes	R	1942	d,e	
Kepeco		ABC1000M	1	0.02	1000	0.1 <sup>1,3</sup>	0.1	1 mv	2 <sup>B</sup>	yes	C	295	a,b,e	
Kepeco		ABC1500M	1	0.02	1500	0.1 <sup>1,3</sup>	0.1	1 mv	2 <sup>B</sup>	yes	C	295	a,b,e	

The table in this section lists the specifications for constant-current dc power supplies. These supplies cover the current range from 0 to 125 amperes. Unless otherwise noted in the table, all have input-voltage requirements of 95-130 vac, 1 phase.

Prices indicated in the table are subject to change by the manufacturer.

An index of manufacturers and models is included at the end of the table. The index is alphabetical, by manufacturer, and it lists the various constant-current dc power supplies of each manufacturer. A location key is included after each model. This permits easy spotting in the table of the specifications for that supply, by means of the location-key column (1 above).

## How the table is arranged

Specifications for the constant-current dc power supplies are given in separate, appropriately headed columns. The complete specifications for any one supply can thus be read across the page. Within the table, the supplies are listed in ascending order of maximum output current (2 above). Where the maximum output current of several supplies is the same, the units are listed in order of increasing maximum output voltage (3 above). If both of these characteristics are identical for several supplies, they are then listed in order of

increasing output current swing (4 above). This arrangement allows for a rapid across-the-market comparison of all the constant-current dc power supplies with similar application capability.

Manufacturers are identified in the *Mfr* column by an abbreviation (5 above). The complete name of each manufacturer can be found in the index at the end of the section. For manufacturers' addresses and Reader Service literature offerings, see the master index at the front of the issue.

All notes and symbols used in the table are defined at the end of the section. At the top of each page of the table, reference is made to the output current range covered by the supplies on that page. This is to expedite the location of a supply with particular characteristics.

## How to use the table

1. Note how the supplies are listed.  
They are in ascending order of maximum output current. Where this is the same, they are in order of increasing maximum output voltage.
2. Select the most likely candidates.
3. Obtain supplementary data from the manufacturer.

Manufacturers' addresses, together with Reader Service numbers for specific power supply types, are given in the master cross index at the front of the issue.



# Constant-current dc supplies

0.002-0.24 amp

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 1	Kepeco	ABC2500M	1	0.002	2500	0.1 <sup>1,3</sup>	0.1	1 mv	2 <sup>8</sup>	yes	C	365	a,b,e
	Alpha	AL50-5A	0	0.005	50	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1390	a,b,e
	Alpha	AL50-5B	0	0.005	50	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1181	d,e
	Alpha	AL100-5A	0	0.005	100	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1745	a,b,e
	Alpha	AL100-5B	0	0.005	100	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1483	d,e
	Alpha	AL50-10B	0	0.01	5	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1492	d,e
	North Hills	CS-151	0	0.01	$\pm 10$	5 ppm	ina	0.005	ina	ina	R	2495	a
	Alpha	AL50-10A	0	0.01	50	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1755	a,b,e
	Alpha	AL100-10A	0	0.01	100	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	1845	a,b,e
	Alpha	AL100-10B	0	0.01	100	$\pm 0.0005^1$	$\pm 0.0005$	0.1	ina	yes	R	1568	d,e
CC 2	North Hills	CS-120	100 na	0.01	2250	0.05	0.05	0.15	ina	none	R	695	a
	Alpha	AL50-20A	0	0.02	50	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	2185	a,b,e
	Alpha	AL50-20B	0	0.02	50	$\pm 0.0005^2$	$\pm 0.0005$	0.1	ina	yes	R	1857	d,e
	Alpha	AL100-20A	0	0.02	100	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	2285	a,b,e
	Alpha	AL100-20B	0	0.02	100	$\pm 0.0005^2$	$\pm 0.0005$	0.1	ina	yes	R	1942	d,e
	Kepeco	ABC1000M	1	0.02	1000	0.1 <sup>1,3</sup>	0.1	1 mv	2 <sup>8</sup>	yes	C	295	a,b,e
	Kepeco	ABC1500M	1	0.02	1500	0.1 <sup>1,3</sup>	0.1	1 mv	2 <sup>8</sup>	yes	C	295	a,b,e
	Alpha	AL50-50B	0	0.05	50	$\pm 0.0005^2$	$\pm 0.0005$	0.1	ina	yes	R	3018	d,e
	Alpha	AL50-50A	0	0.05	50	$\pm 3 \times 10^{-7}$	$\pm 3 \times 10^{-7}$	0.001	ina	yes	R	3550	a,b,e
	Altair	C2B	0.01	0.05	300	1	ina	0.05	ina	none	C or R	230	
CC 3	Kepeco	ABC425M	1	0.05	425	0.1 <sup>1,3</sup>	0.1	500 $\mu$ V	2 <sup>8</sup>	yes	C	210	a,b,e
	Delltron	2753	0	0.05	425	0.01 <sup>3</sup>	0.01	500 $\mu$ V	20 <sup>5</sup>	yes	C	199	a,c,d,e
	Harrison	6525A	0	0.05	4000	ina	ina	500 $\mu$ V	ina	yes	R	750	c,d,e
	Vector	CP-1959-CC	10	0.1	20	0.005 <sup>7</sup>	0.005 <sup>7</sup>	ina	ina	yes	ina	ina	
	Singer/Sensitive	9770A	10	0.1	35	$\pm 0.0001$	$\pm 0.0001$	1 mv	ina	yes	C	1437	e
	Vector	CP-1863-CC	70	0.1	50	0.001	0.005	2 $\mu$ A	ina	ina	R	ina	
	North Hills	CS-11	1 $\mu$ A	0.1	50	0.0025	0.002	0.02	ina	none	R	995	a
	El Meas	C612A	1 $\mu$ A	0.1	100	0.15	0.1	0.04	ina	yes	R	289	a,e
	Fluke	351A	1 $\mu$ A	0.1	100	0.01	0.01	0.05 + 1 $\mu$ A	ina	yes	R	845	e
	Cohu	M10A-10	0	0.1	100	$\pm 0.01$	$\pm 0.01$	2 mv	ina	none	R	1495	
CC 4	Princeton	TC-100.2AR	0	0.1	100	100 na	0.005	100 na	ina	yes	R	1800	c,e
	Princeton	TC-100.2BR	0	0.1	100	100 na	0.005	100 na	ina	yes	R	2200	a,b,e
	Princeton	TC-100.2R	0	0.1	100	100 na	0.005	100 na	ina	yes	R	1500	c,e
	Kepeco	ABC200M	0	0.1	200	0.1 <sup>1,3</sup>	0.1	500 $\mu$ V	2 <sup>8</sup>	yes	C	210	a,b,e
	El Meas	C613CM	1 $\mu$ A	0.1	300	0.15	0.1	0.04	ina	yes	R	409	a,e
	Harrison	6209A	0	0.1	320	200 $\mu$ A	200 $\mu$ A	200 $\mu$ A	3 <sup>5</sup>	yes	C	194	a,b,c,d,e
	Delltron	2753A	0	0.1	425	0.01	0.01	500 $\mu$ V	20 <sup>5</sup>	yes	C	230	a,c,d,e
	El Meas	C638CM	500 na	0.1	1500	0.15	0.1	0.04	ina	yes	R	1120	a,e
	Delltron	CC100200S	10	0.1	2000	$\pm 0.1$	$\pm 0.5$	0.02	ina	yes	R	669	e
	Harrison	6522A	0	0.1	2000	1 ma	1 ma	1 ma	ina	yes	R	750	c,d,e
CC 5	Delltron	EA100-.12	0	0.12	100	0.01	0.01	ina	ina	yes	1/2 R	133	a,b,c,e
	Delltron	ED100-.12	0	0.12	100	0.01	0.01	ina	ina	yes	1/2 R	145	a,b,c,d,e
	North Hills	CS-152	0	0.15	$\pm 25$	5 ppm	ina	0.005	ina	none	R	2995	
	Delltron	EA80-.15	0	0.15	80	0.01	0.01	ina	ina	yes	1/2 R	133	a,b,c,e
	Delltron	E080-.15	0	0.15	80	0.01	0.01	ina	ina	yes	1/2 R	145	a,b,c,d,e
	North Hills	CS-140	0.1	0.15	$\pm 100$	0.0025	0.0025	0.02	ina	none	R	3250	a
	Hyperion	HY-W1-100-0.15	0	0.15	100	0.05 <sup>3,7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	1/2 R	159	a,b,c,d,e
	Delltron	EA60-.2	0	0.2	60	0.01	0.01	ina	ina	yes	1/2 R	133	a,b,c,e
	Delltron	E060-.2	0	0.2	60	0.01	0.01	ina	ina	yes	1/2 R	145	a,b,c,d,e
	Kepeco	ABC100-0.2M	1	0.2	100	0.1 <sup>1,3</sup>	0.5	0.25	0.05 <sup>8</sup>	yes	R	188	a,b,c,e
CC 6	Owen	500	0	0.2	100	$\pm 0.002$	$\pm 0.002$	ina	ina	yes	C or R	ina	
	Owen	505	0	0.2	100	$\pm 0.002$	$\pm 0.002$	ina	ina	none	C or R	ina	
	Harrison	6207A	0	0.2	160	200 $\mu$ A <sup>1</sup>	200 $\mu$ A	200 $\mu$ A	3 <sup>5</sup>	yes	1/2 R	194	a,b,c,d,e
	Kepeco	HB2AM	10	0.2	325	0.01 <sup>1,3</sup>	0.01	0.01	0.2 <sup>8</sup>	yes	R	295	a,b,e
	Buchler	3-1014A	0	0.2	1000	$\pm 1$	$\pm 1$	1	ina	yes	C	486	d,e
	Harrison	6521A	0	0.2	1000	1 ma	1 ma	2 ma	ina	yes	R	750	c,d,e
	El Meas	C624A	2.2 $\mu$ A	0.22	100	0.15	0.1	0.04	ina	yes	R	364	a,e
	El Meas	C632CM	2.2 $\mu$ A	0.22	300	0.15	0.1	0.04	ina	yes	R	424	a,e
	El Meas	C636CM	2.2 $\mu$ A	0.22	600	0.15	0.1	0.04	ina	yes	R	540	a,e
	Delltron	EA100-.24	0	0.24	100	0.01	0.01	ina	ina	yes	1/2 R	164	a,b,c,e

Notes, abbreviations and manufacturers' index at end of this section.



# Constant-current dc supplies

0.24-0.8 amp

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 7	Deltron	ED100-.24	0	0.24	100	0.01	0.01	ina	ina	yes	½R	175	a,b,c,d,e
	F W Bell	RS-1	10	0.25	3	+0.3 <sup>1</sup>	0.3	0.1	ina	none	C	89	c
	Deltron	CC25100S	2.5	0.25	1000	±0.1	±0.5	0.02	ina	yes	R	320	e
	Kepeco	ABC30-0.3M	1	0.3	30	0.1 <sup>1,3</sup>	0.5	0.25	0.1 <sup>8</sup>	yes	C	125	a,b,c,e
	Deltron	EA40-.3	0	0.3	40	0.01	0.01	ina	ina	yes	½R	129	a,b,c,e
	Deltron	ED40-.3	0	0.3	40	0.01	0.01	ina	ina	yes	½R	139	a,b,c,d,e
	Hyperion	HY-W1-60-0.3	0	0.3	60	0.05 <sup>3,7</sup>	0.05 <sup>3,7</sup>	350 $\mu$ V	ina	yes	½R	149	a,b,c,d,e
	Deltron	EA80-.3	0	0.3	80	0.01	0.01	ina	ina	yes	½R	164	a,b,c,e
	Deltron	ED80-.3	0	0.3	80	0.01	0.01	ina	ina	yes	½R	175	a,b,c,d,e
	Deltron	RP100-0.3	0	0.3 <sup>4</sup>	100	0.05 <sup>3</sup>	0.05	250 $\mu$ A	3 <sup>5</sup>	yes	½R	199	a,b,c,d,e
CC 8	EI Meas	C629CM	2.2 $\mu$ A	0.3	150	0.15 <sup>1</sup>	0.1	0.04	ina	yes	R	409	a,e
	EI Meas	C633C	2.2 $\mu$ A	0.3	300	0.15 <sup>1</sup>	0.1	0.4	ina	yes	R	464	a,e
	Deltron	EA60-.4	0	0.4	60	0.01	0.01	ina	ina	yes	½R	164	a,b,c,e
	Deltron	EA60-.4	0	0.4	60	0.01	0.01	ina	ina	yes	½R	175	a,b,c,d,e
	Kepeco	HB4AM	10	0.4	325	0.01 <sup>1,3</sup>	0.01	0.01	0.2	yes	R	330	a,b,e
	Kepeco	ABC18-0.5M	1	0.5	18	0.1 <sup>1,3</sup>	0.5	0.25	0.1 <sup>8</sup>	yes	C	125	a,b,c,e
	Deltron	EA20-.5	0	0.5	20	0.01	0.01	ina	ina	yes	½R	129	a,b,c,e
	Deltron	ED20-.5	0	0.5	20	0.01	0.01	ina	ina	yes	½R	139	a,b,c,d,e
	Sorensen	QB28-.5	0	0.5	36	±0.01 <sup>1,3,7</sup>	±0.01 <sup>7</sup>	13 $\mu$ A	0.005	none	½R	98	a,b,c
	Pwr Des	4005	25	0.5	40	0.02	0.02	0.005	ina	yes	C	143	a,c,d,e
CC 9	Pwr Des	TW-4005	25	0.5 <sup>6</sup>	40 <sup>6</sup>	0.02 <sup>7</sup>	0.02 <sup>7</sup>	0.005	ina	yes	C	297	c,d,e
	Kepeco	ABC40-0.5M	1	0.5	40	0.1 <sup>1,3</sup>	0.5	0.25	0.04 <sup>8</sup>	yes	C	167	a,b,c,e
	ERA	TRO40M	0	0.5	40	0.015	0.03	ina	ina	yes	½R	130	a,b,c,e
	Harrison	865C	0	0.5	40	0.02 <sup>1,3</sup>	0.02	200 $\mu$ A	3 <sup>5</sup>	yes	C	191	a,b,c,d,e
	Hyperion	HY-W1-40-0.5	0	0.5	40	0.01 <sup>3</sup>	0.01	ina	ina	yes	½R	124	a,b,c,d,e
	Perkin	TVCRO40-05	0	0.5	40	±0.02	±0.02	500 $\mu$ A	ina	yes	C	219	a,b,c,e
	EI Meas	C620CM	5 $\mu$ A	0.5	50	0.15	0.1	0.4	ina	yes	R	474	a,e
	Pwr Des	5005R	0	0.5	50	0.05	0.05	ina	ina	yes	½R	149	a,b,d,e
	Kepeco	CK60-0.5M	1	0.5	60	0.01 <sup>1,3</sup>	0.05	0.05	0.08 <sup>8</sup>	yes	C	305	a,b,c,d,e
	Hyperion	HY-WS-60-0.5	0	0.5	60	0.01 <sup>3</sup>	0.01	ina	ina	yes	½R	144	a,b,c,d,e
CC 10	Sorensen	QB50-.5	0	0.5	60	±0.01 <sup>1,3,7</sup>	±0.01 <sup>7</sup>	13 $\mu$ A	0.01	none	½R	108	a,b,c
	Deltron	RP60-0.5	0	0.5 <sup>4</sup>	64	0.05 <sup>3</sup>	0.05	250 $\mu$ A	2 <sup>5</sup>	yes	½R	176	a,b,c,d,e
	Sola	81-80-0500	0	0.5	80	±0.1 <sup>3</sup>	±0.1	50 $\mu$ A	ina	yes	½R	210	a,b,c,e
	EI Meas	C621CM	5 $\mu$ A	0.5	100	0.15	0.1	0.04	ina	yes	R	504	a,e
	Lambda	LH130FM	0	0.5	120	0.015	0.015	ina	ina	yes	¼R	250	a,c,d,e
	Trygon	SHR160-500B	0	0.5	160	0.5	0.5	0.25	0.02	yes	½R	295	a,b,c,d,e
	North Hills	CS-111	10 $\mu$ A	0.5	200	0.05	0.01	0.02	ina	none	R	995	a
	Kepeco	HB525M	10	0.5	525	0.01 <sup>1,3</sup>	0.01	0.01	0.2 <sup>8</sup>	yes	R	435	a,b,e
	Hyperion	HY-W1-30-0.6	0	0.6	30	0.05 <sup>3,7</sup>	0.05 <sup>7</sup>	350 $\mu$ V	ina	yes	½R	129	a,b,c,d,e
	Deltron	EA40-.6	0	0.6	40	0.01	0.01	ina	ina	yes	½R	159	a,b,c,e
CC 11	Deltron	ED40-.6	0	0.6	40	0.01	0.01	ina	ina	yes	½R	169	a,b,c,d,e
	Deltron	RP50-0.6	0	0.6 <sup>4</sup>	50	0.05 <sup>3</sup>	0.05	250 $\mu$ A	1.5 <sup>5</sup>	yes	½R	176	a,b,c,d,e
	Deltron	RP100-0.3	0	0.6 <sup>4</sup>	50	0.05 <sup>3</sup>	0.05	250 $\mu$ A	3 <sup>5</sup>	yes	½R	199	a,b,c,d,e
	Behl-Invar	QS-100	0	0.6	100	±0.01	±0.01	ina	ina	yes	¼R	229	a,b,c,d,e
	Deltron	RPO100-0.6	0	0.6	100	0.05 <sup>3</sup>	0.05	250 $\mu$ A	2 <sup>5</sup>	yes	½R	278	a,b,c,d,e
	Kepeco	HB6AM	10	0.6	325	0.01 <sup>1,3</sup>	0.01	0.01	0.2 <sup>8</sup>	yes	R	365	a,b,e
	Sola	81-60-0666	0	0.67	60	+0.06 <sup>3</sup>	±0.06	50 $\mu$ A	ina	yes	½R	210	a,b,c,e
	Kepeco	ABC10-0.75M	1	0.75	10	0.1 <sup>1,3</sup>	0.5	0.1	0.1 <sup>8</sup>	yes	C	125	a,b,c,e
	Sorensen	QB18-.75	0	0.75	26	+0.01 <sup>1,3,7</sup>	+0.01 <sup>7</sup>	19 $\mu$ A	0.0015	none	½R	98	a,b,c
	Trygon	HR40-750	5	0.75	40	0.5 <sup>1,3,7</sup>	0.5 <sup>7</sup>	0.25	400 M <sup>8</sup>	yes	½R	159	a,b,c,e
CC 12	Deltron	RP40-0.75	0	0.75 <sup>4</sup>	40	0.05 <sup>3</sup>	0.05	250 $\mu$ A	1 <sup>5</sup>	yes	½R	168	a,b,c,d,e
	Harrison	6200A	0	0.75 <sup>4</sup>	40 <sup>4</sup>	0.01 <sup>1,3</sup>	0.03	500 $\mu$ A	3 <sup>5</sup>	yes	C	210	a,b,c,d,e
	Harrison	6202A	0	0.75	40	0.01 <sup>1,3</sup>	0.03	500 $\mu$ A	3 <sup>5</sup>	yes	C	179	a,b,c,d,e
	Trygon	T50-750	30	0.75	50	0.05 <sup>7</sup>	0.05 <sup>7</sup>	0.01	ina	yes	C	199	a,b,c,e
	Harrison	6258A	0	0.75 <sup>6</sup>	100 <sup>6</sup>	0.01 <sup>1,3</sup>	0.01	500 $\mu$ A	2 <sup>5</sup>	yes	C	425	a,b,c,d,e
	Harrison	6299A	0	0.75	100 <sup>1,3</sup>	0.01	0.01	500 $\mu$ A	2 <sup>5</sup>	yes	C	225	a,b,c,d,e
	Kepeco	CK40-0.8M	1	0.8	40	0.01 <sup>1</sup>	0.01	0.05	0.08 <sup>8</sup>	yes	C	267	a,b,c,d,e
	Sorensen	QRB40-.75	0.1	0.8	40	±0.15 <sup>1,3,7</sup>	±0.15 <sup>7</sup>	10 $\mu$ A	ina	yes	C or R	160	a,b,c,d,e
	Hyperion	HY-W1-40-0.8	0	0.8	40	0.05 <sup>3,7</sup>	0.05 <sup>7</sup>	350 $\mu$ V	ina	yes	½R	159	a,b,c,d,e
	Hyperion	HY-WS-40-0.8	0	0.8	40	0.01 <sup>3</sup>	0.01	ina	ina	yes	½R	144	a,b,c,d,e

Notes, abbreviations and manufacturers' index at end of this section.



# Constant-current dc supplies

0.8-1.5 amp

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 13	Kepco	HB8AM	10	0.8	325	0.01 <sup>1,3</sup>	0.01	0.01	0.2 <sup>8</sup>	yes	R	395	a,b,e
	Lambda	LH119FM	0	0.9	10	0.015	0.015	ina	ina	yes	½R	314	a,c,d,e
	Lambda	LH127FM	0	0.9	60	0.015	0.015	ina	ina	yes	½R	209	a,c,d,e
	Behl-Invar	QS-60	0	0.96	60	±0.01	±0.01	ina	ina	yes	½R	209	a,b,c,d,e
	Kepco	ABC2-1M	1	1	2	0.1 <sup>1,3</sup>	0.5	0.1	0.1 <sup>8</sup>	yes	C	125	a,b,c,e
	Deltron	EA10-1	0	1	10	0.01	0.01	ina	ina	yes	½R	129	a,b,c,e
	Deltron	ED10-1	0	1	10	0.01	0.01	ina	ina	yes	½R	129	a,b,c,d,e
	North Hills	CS-12	10 $\mu$ a	1	12.5	0.005	0.002	0.05	ina	none	R	995	a
	Kepco	ABC15-1M	1	1	15	0.1 <sup>1,3</sup>	0.5	0.1	0.02 <sup>8</sup>	yes	C	167	a,b,c,e
	Hyperion	HY-W1-16-1.0	0	1	16	0.05 <sup>3,7</sup>	0.05 <sup>7</sup>	350 $\mu$ v	ina	yes	½R	139	a,b,c,d,e
CC 14	Sorensen	QB12-1	0	1	18	±0.01 <sup>1,3,7</sup>	±0.01 <sup>7</sup>	25 $\mu$ a	0.001	none	½R	98	a,b,c
	Deltron	EA20-1	0	1	20	0.01	0.01	ina	ina	yes	½R	159	a,b,c,e
	Deltron	ED20-1	0	1	20	0.01	0.01	ina	ina	yes	½R	169	a,b,c,d,e
	Deltron	RP30-1	0	1 <sup>4</sup>	32	0.05 <sup>3</sup>	0.05	250 $\mu$ v	0.8 <sup>5</sup>	yes	½R	168	a,b,c,d,e
	Deltron	RP060-0.5	0	1 <sup>4</sup>	32	0.05 <sup>3</sup>	0.05	250 $\mu$ a	2 <sup>5</sup>	yes	½R	176	a,b,c,d,e
	Hyperion	HY-WS-32-1	0	1	32	0.01 <sup>3</sup>	0.01	ina	ina	yes	½R	144	a,b,c,d,e
	Sorensen	QB28-1	0	1	36	±0.01 <sup>1,3,7</sup>	±0.01 <sup>7</sup>	25 $\mu$ a	0.002	none	½R	108	a,b,c
	Sola	81-40-1100	0	1	40	±0.04 <sup>3</sup>	±0.04	50 $\mu$ a	ina	yes	½R	210	a,b,c,e
	Ei Meas	C613CM	10 $\mu$ a	1	50	0.15	0.1	0.04	ina	yes	R	520	a,e
	Deltron	SP60-1	0	1	60	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	½R	230	a,b,c,d,e
CC 15	ERA	SL60-1M	0	1	60	±0.01	±0.02	ina	ina	yes	½R	215	a,b,c,e
	ERA	SL60-2M	0	1 <sup>6</sup>	60 <sup>6</sup>	±0.01	±0.02	ina	ina	yes	½R	415	a,b,c,e
	Harrison	6257A	0	1 <sup>6</sup>	60 <sup>6</sup>	0.01 <sup>1,3</sup>	0.01	500 $\mu$ a	2 <sup>5</sup>	yes	C	395	a,b,c,d,e
	Harrison	6294A	0	1	60	0.01 <sup>1,3</sup>	0.01	500 $\mu$ a	2 <sup>5</sup>	yes	C	210	a,b,c,d,e
	Hyperion	HY-ZS-60-1	0	1	60	0.01	0.01	ina	ina	yes	½R	229	a,b,c,d,e
	Sorensen	QB50-1	0	1	60	±0.01 <sup>1,3,7</sup>	±0.01 <sup>7</sup>	25 $\mu$ a	0.005	yes	R	160	a,b,c
	Trygon	SHR60-1A	0	1	60	0.5	0.5	0.25	0.018	yes	½R	235	a,b,c,d,e
	Harrison	6242A	0	1 <sup>4</sup>	64 <sup>4</sup>	0.1 <sup>1,3</sup>	0.1	2 ma	2 <sup>5</sup>	yes	R	435	a,b,c,d,e
	Deltron	RP60-1	0	1	64	0.05 <sup>3</sup>	0.05	250 $\mu$ a	1.5 <sup>5</sup>	yes	½R	242	a,b,c,d,e
	North Hills	CS-128	100	1	100	0.0025	0.0025	0.005	ina	none	R	3975	a
CC 16	Ei Meas	C614CM	10 $\mu$ a	1	100	0.15	0.1	0.04	ina	yes	R	554	a,e
	North Hills	CS-141	100 na	1	±100	0.0025	0.0025	0.02	ina	none	R	4500	a
	Deltron	SP100-1	0	1	100	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	½R	345	a,b,c,d,e
	Harrison	881A	0	1	100	0.02	0.02	100 $\mu$ a	2 <sup>5</sup>	yes	R	475	a,b,c,d,e
	Ei Meas	C628CM	10 $\mu$ a	1	150	0.15	0.1	0.04	ina	yes	R	670	a,e
	Hyperion	HY-Si-160-1	0	1	160	0.01	0.01	ina	ina	yes	½R	349	a,b,c,d
	Trygon	RS160-1A	0	1	160	0.5	0.5	0.25	0.008	yes	R	425	a,b,c,d,e
	Ei Meas	C630CM	10 $\mu$ a	1	200	0.15	0.1	0.04	ina	yes	R	770	a,e
	Kepco	HB250AM	10	1	250	0.01 <sup>1,3</sup>	0.01	0.01	0.2 <sup>8</sup>	yes	R	495	a,b,e
	Trygon	RS320-1A	0	1	320	0.5	0.5	0.25	0.016	yes	R	425	a,b,c,d,e
CC 17	Hyperion	HY-T1-330-1	0	1	330	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	615	a,b,c,d,e
	Sorensen	QRB30-1	0.1	1.15	30	±0.15 <sup>1,3,7</sup>	±0.15 <sup>7</sup>	10 $\mu$ a	0.029	yes	C or ½R	145	a,b,c,d,e
	Deltron	RP50-0.6	0	1.2 <sup>4</sup>	25	0.05 <sup>3</sup>	0.05	250 $\mu$ a	1.5 <sup>5</sup>	yes	½R	176	a,b,c,d,e
	Deltron	RP50-1.2	0	1.2	50	0.05 <sup>3</sup>	0.05	250 $\mu$ a	1 <sup>5</sup>	yes	½R	242	a,b,c,d,e
	Lambda	LH131FM	0	1.2	120	0.015	0.015	ina	ina	yes	½R	345	a,c,d,e
	Lambda	LH124FM	0	1.3	40	0.015	0.015	ina	ina	yes	½R	179	a,c,d,e
	Sorensen	DCR300-1.25	125	1.37	300	±15 ma <sup>7</sup>	±15 ma <sup>7</sup>	0.5	ina	yes	C or R	325	a,b,d,e
	Behl-Invar	QS-40	0	1.4	40	±0.01	±0.01	ina	ina	yes	½R	179	a,b,c,d,e
	Harrison	855C	0	1.5	18	0.02 <sup>1,3</sup>	0.02	200 $\mu$ a	3 <sup>5</sup>	yes	C	191	a,b,c,d,e
	Trygon	HR20-1.5	5	1.5	20	0.25 <sup>7</sup>	0.25 <sup>7</sup>	0.025	ina	yes	½R	164	a,b,c,e
CC 18	Deltron	RP20-1.5	0	1.5 <sup>4</sup>	20	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.5 <sup>5</sup>	yes	½R	168	a,b,d,e
	Deltron	RP40-0.75	0	1.5 <sup>4</sup>	20	0.05 <sup>3</sup>	0.05	250 $\mu$ a	1 <sup>5</sup>	yes	½R	168	a,b,c,d,e
	Harrison	6200A	0	1.5 <sup>4</sup>	20 <sup>4</sup>	0.01 <sup>1,3</sup>	0.03	500 $\mu$ a	3 <sup>5</sup>	yes	C	210	a,b,c,d,e
	Harrison	6201A	0	1.5	20	0.01 <sup>1,3</sup>	0.03	500 $\mu$ a	3 <sup>5</sup>	yes	C	179	a,b,c,d,e
	Hyperion	HY-W1-20-15	0	1.5	20	0.05 <sup>3,7</sup>	0.05 <sup>7</sup>	350 $\mu$ v	ina	yes	½R	159	a,b,c,d,e
	Hyperion	HY-WS-20-1.5	0	1.5	20	0.01 <sup>3</sup>	0.01	ina	ina	yes	½R	144	a,b,c,d,e
	Pwr Des	2015R	0	1.5	20	0.02 <sup>7</sup>	0.02 <sup>7</sup>	0.1	ina	yes	C	175	a,c,d,e
	Sorensen	QB18-1.5	0	1.5	26	±0.01 <sup>1,3,7</sup>	±0.01 <sup>7</sup>	38 $\mu$ a	0.001	none	½R	108	a,b,c
	Trygon	HH32-1.5	0	1.5	32	0.5	0.5	ina	0.002	yes	½R	177	a,b,c,d,e
	Kepco	CK36-1.5M	1	1.5	36	0.01	0.01	0.05	0.08	yes	C	305	a,b,c,d,e

Notes, abbreviations and manufacturers' index at end of this section.

# Constant-current dc supplies

1.5-3 amp

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price $\$$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 19	Harrison	6226A	0	1.5	36	0.03 <sup>1</sup>	0.05	200 $\mu$ a	3 <sup>5</sup>	yes	C	325	a,b,c,d,e
	Deltron	RP40-1.5	0	1.5	40	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.8 <sup>5</sup>	yes	1/2R	230	a,b,c,d,e
	Deltron	SP40-1.5	0	1.5	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	1/2R	195	a,b,c,d,e
	Harrison	6255A	0	1.5 <sup>6</sup>	40 <sup>6</sup>	0.01 <sup>1,3</sup>	0.01	500 $\mu$ a	2 <sup>5</sup>	yes	C	395	a,b,c,d,e
	Harrison	6289A	0	1.5	40	0.01 <sup>1,3</sup>	0.01	500 $\mu$ a	2 <sup>5</sup>	yes	C	210	a,b,c,d,e
	Hyperion	HY-ZS-40-1.5	0	1.5	40	0.01	0.01	ina	ina	yes	1/2R	198	a,b,c,d,e
	Trygon	SHR40-1.5A	0	1.5	40	0.5	0.5	0.25	0.012	yes	1/2R	199	a,b,c,d,e
	NJE	RB-50-1.5M	0	1.5	50	$\pm 500 \mu$ a	$\pm 750 \mu$ a	ina	ina	yes	C	230	a,b,c,d,e
	Hyperion	HY-Si-160-1.5	0	1.5	160	0.01	0.01	ina	ina	yes	1/2R	399	a,b,c,d
	Trygon	RS320-1.5A	0	1.5	320	0.5	0.5	0.25	0.02	yes	R	550	a,b,c,d,e
CC 20	Harrison	6448A	0	1.5	600	15 ma <sup>7</sup>	15 ma <sup>7</sup>	0.1	ina	yes	R	550	a,b,c,d,e
	Sorensen	QRB20-1.5	200	1.6	20	$\pm 0.15^{1,3,7}$	$\pm 0.15^7$	50 $\mu$ a	0.053	yes	C or R	145	a,b,c,d,e
	Kepeco	ABC7.5-2M	1	2	7.5	0.1 <sup>1,3</sup>	0.5	0.1	0.05 <sup>8</sup>	yes	C	167	a,b,c,e
	Sorensen	QB6-2	0	2	9	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	50 $\mu$ a	0.0005	none	1/2R	98	a,b,c
	Deltron	EA10-2	0	2	10	0.01	0.01	ina	ina	yes	1/2R	159	a,b,c,e
	Deltron	ED10-2	0	2	10	0.01	0.01	ina	ina	yes	1/2R	169	a,b,c,d,e
	Hyperion	HY-WS-15-2	0	2	15	0.01 <sup>3</sup>	0.01	ina	ina	yes	1/2R	144	a,b,c,d,e
	Deltron	RP30-1	0	2 <sup>4</sup>	16	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.8 <sup>5</sup>	yes	1/2R	168	a,b,c,d,e
	Sorensen	QB12-2	0	2	18	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	50 $\mu$ a	0.0005	none	1/2R	108	a,b,c
	Trygon	T20-2	30	2	20	0.05 <sup>7</sup>	0.05 <sup>7</sup>	0.01	ina	yes	C	199	a,b,c,e
CC 21	Sola	81-20-1200	0	2	20	$\pm 0.02^3$	$\pm 0.02$	50 $\mu$ a	ina	yes	1/2R	210	a,b,c,e
	Un Elect	LQ35-2A	10	2	30	2 ma	2 ma	250 $\mu$ V	ina	yes	R	375	a,b,c,e
	Un Elect	IQ30-2A	1	2	30	2 ma	1 ma	250 $\mu$ V	ina	yes	R	375	a,c,e
	Deltron	RP30-2	0	2	32	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.5 <sup>5</sup>	yes	1/2R	230	a,b,c,d,e
	Harrison	6242A	0	2 <sup>4</sup>	32 <sup>4</sup>	0.1 <sup>1,3</sup>	0.1	2 ma	2 <sup>5</sup>	yes	R	435	a,b,c,d,e
	NJE	RB-36-2-M	0	2	36	$\pm 500 \mu$ a	$\pm 1$ ma	ina	ina	yes	C	215	a,b,c,d,e
	Sorensen	QB28-2	0	2	36	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	50 $\mu$ a	0.001	yes	R	160	a,b,c
	Perkin	TVCR040-2	0	2	40	$\pm 0.02$	$\pm 0.05$	1 ma	ina	yes	C	495	a,b,c,e
	Fluke	382A	0	2	50	0.0005	0.0005	0.002	1000 M	yes	R	1595	e
	Fluke	383B	0	2	50	0.0005	0.0005	0.005	1000 M	yes	R	1995	e
CC 22	Trygon	T50-2	0	2	50	0.05	0.05	0.01	0.01	yes	C	249	a,b,c,e
	Kepeco	K560-2M	10	2	60	0.01 <sup>1</sup>	0.01	0.05	0.1 <sup>8</sup>	yes	R	525	a,b,c,d,e
	Princeton	TC-602CR	0	2	60	100 na	0.005	1 $\mu$ a	0.00001	yes	R	1750	e
	Sorensen	QBS0-2	0	2	60	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	50 $\mu$ a	0.0025	yes	R	215	a,b,c
	El Meas	C625CM	22 $\mu$ a	2	75	0.15	0.1	0.04	ina	yes	R	740	a,e
	El Meas	C626CM	22 $\mu$ a	2	100	0.15	0.1	0.04	ina	yes	R	740	a,e
	Deltron	SP100-2	0	2	100	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	1/2R	490	a,b,c,d,e
	Hyperion	HY-T1-160-2	0	2	160	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	560	a,b,c,d,e
	Trygon	HR160-2B	0	2	160	0.5	0.5	0.25	0.008	yes	1/2R	475	a,b,c,d,e
	ERA	CC2000	25	2	180	$\pm 0.25$	$\pm 0.25$	400 $\mu$ a	ina	yes	R	755	c,e
CC 23	Sorensen	QRB15-2	0.25	2.25	15	$\pm 0.15^{1,3,7}$	$\pm 0.15^7$	50 $\mu$ a	0.053	yes	C or 1/2R	145	a,b,c,d,e
	Sorensen	QRB40-2	0.25	2.25	40	$\pm 0.15^{1,3,7}$	$\pm 0.15^7$	30 $\mu$ a	0.2	yes	C or 1/2R	255	a,b,c,d,e
	Lambda	LH121FM	0	2.4	20	0.015	0.015	ina	ina	yes	1/4R	184	a,c,d,e
	Lambda	LH128FM	0	2.4	60	0.015	0.015	ina	ina	yes	1/2R	340	a,c,d,e
	Behl-Invar	QS-20	0	2.5	20	$\pm 0.01$	$\pm 0.01$	ina	ina	yes	1/4R	184	a,b,c,d,e
	Deltron	RP40-2.5	0	2.5	40	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.5 <sup>5</sup>	yes	1/2R	299	a,b,c,d,e
	Deltron	SP40-2.5	0	2.5	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	1/2R	295	a,b,c,d,e
	Trygon	HR60-2.5B	25	2.5	60	0.5 <sup>1,3</sup>	0.5	0.25	8 M	yes	1/2R	329	a,b,c,e
	Deltron	RP60-2.5	0	2.5	60	0.05	0.05	250 $\mu$ a	0.6 <sup>5</sup>	yes	1/2R	379	a,b,c,d,e
	Deltron	SP60-2.5	0	2.5	60	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	1/2R	375	a,b,c,d,e
CC 24	El Meas	PV60-2.5M	0	2.5	60	0.06	0.25	2 ma	ina	yes	R	460	a,b,c,d,e
	Hyperion	HY-ZS-60-2.5	0	2.5	60	0.01	0.01	ina	ina	yes	1/2R	299	a,b,c,d,e
	Harrison	6443A	0	2.5	120	1 <sup>7</sup>	1 <sup>7</sup>	2	ina	yes	C	360	a,b,c,d,e
	Hyperion	HY-T1-330-2.5	0	2.5	330	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	895	a,b,c,d,e
	Sorensen	DCR150-2.5	250	2.75	150	$\pm 15$ ma <sup>7</sup>	$\pm 15$ ma <sup>7</sup>	0.5	ina	yes	C or R	325	a,b,d,e
	Sorensen	DCR300-2.5	250	2.75	300	$\pm 15$ ma <sup>7</sup>	$\pm 15$ ma <sup>7</sup>	0.5	ina	yes	C or R	525	a,b,d,e
	Harrison	6203A	0	3	7.5	0.01 <sup>1,3</sup>	0.03	500 $\mu$ a	3 <sup>5</sup>	yes	1/2R	179	a,b,c,d,e
	Hyperion	HY-W1-7.5-3.0	0	3	7.5	0.05 <sup>3,7</sup>	0.05	350 $\mu$ V	ina	yes	1/2R	159	a,b,c,d,e
	Hyperion	HY-WS-7.5-3	0	3	7.5	0.01 <sup>3</sup>	0.01	ina	ina	yes	1/2R	144	a,b,c,d,e
	Deltron	RP20-1.5	0	3 <sup>4</sup>	10	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.5 <sup>5</sup>	yes	1/2R	168	a,b,c,d,e

Notes, abbreviations and manufacturers' index at end of this section.



# Constant-current dc supplies

3-5 amp

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 25	Trygon	HH14-3	0	3	14	0.5	0.5	ina	0.002	yes	¼R	182	a,b,c,d,e
	Kepeco	CK18-3M	1	3	18	0.01 <sup>1</sup>	0.01	0.05	0.05 <sup>8</sup>	yes	C	305	a,b,c,d,e
	Harrison	6224A	0	3	18	0.03 <sup>1,3</sup>	0.05	200 $\mu$ a	3 <sup>5</sup>	yes	C	340	a,b,c,d,e
	NJE	RB-18-3-M	0	3	18	$\pm 500 \mu$ a	$\pm 2$ ma	ina	ina	yes	C	215	a,b,c,d,e
	Deltron	RP20-3	0	3	20	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.3 <sup>5</sup>	yes	½R	230	a,b,c,d,e
	Deltron	SP20-3	0	3	20	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	½R	220	a,b,c,d,e
	Harrison	6253A	0	3 <sup>6</sup>	20 <sup>6</sup>	0.01 <sup>1,3</sup>	0.01	2 ma	2 <sup>5</sup>	yes	C	395	a,b,c,d,e
	Trygon	6284A	0	3	20	0.01 <sup>1,3</sup>	0.01	2 ma	2 <sup>5</sup>	yes	C	210	a,b,c,d,e
	Trygon	SHR20-3A	0	3	20	0.5	0.5	0.25	0.006	yes	½R	225	a,b,c,d,e
	Sorensen	QB18-3	0	3	26	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	75 $\mu$ a	0.0005	yes	R	160	a,b,c
CC 26	Harrison	6265A	0	3	36	0.02 <sup>1</sup>	0.02	3 ma	2 <sup>5</sup>	yes	R	350	a,b,c,d,e
	ERA	SPL40-3M	500	3	40	0.5	0.5	0.1	ina	yes	½R	425	a,b,c,e
	ERA	SPL40-3/2M	500	3 <sup>6</sup>	40 <sup>6</sup>	0.5	0.5	0.1	ina	yes	½R	765	a,b,c,e
	Harrison	6290A	0	3	40	0.05	0.05	3 ma	2 <sup>5</sup>	yes	C	350	a,b,c,d,e
	Hyperion	HY-Si-40-3	0	3	40	0.01	0.01	ina	ina	yes	½R	249	a,b,c,d
	Hyperion	HY-ZS-40-3	0	3	40	0.01	0.01	ina	ina	yes	½R	249	a,b,c,d,e
	Lambda	LH125FM	0	3	40	0.015	0.015	ina	ina	yes	½R	294	a,c,d,e
	El Meas	C615CM	22 $\mu$ a	3	50	0.15	0.1	0.04	ina	yes	R	890	a,e
	Harrison	6271A	0	3	60	0.02 <sup>1</sup>	0.02	3 ma	2 <sup>5</sup>	yes	R	435	a,b,c,d,e
	Harrison	6296A	0	3	60	0.05	0.05	3 ma	2 <sup>5</sup>	yes	C	395	a,b,c,d,e
CC 27	Hyperion	HY-Si-60-3	0	3	60	0.01	0.01	ina	ina	yes	½R	299	a,b,c,d
	El Meas	C618CM	22 $\mu$ a	3	100	0.15	0.1	0.04	ina	yes	R	940	a,e
	Deltron	SP100-3	0	3	100	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	½R	645	a,b,c,d,e
	Hyperion	HY-Si-160-3.0	0	3	160	0.01	0.01	ina	ina	yes	R	529	a,b,c,d
	Trygon	RS160-3A	0	3	160	0.5	0.5	0.25	0.005	yes	R	615	a,b,c,d,e
	Trygon	HH7-4	0	4	7	0.5	0.5	0.25	0.002	yes	¼R	189	a,b,c,d,e
	Sorensen	QB6-4	0	4	9	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	100 $\mu$ a	0.0003	none	½R	108	a,b,c
	Lambda	LH118FM	0	4	10	0.015	0.015	ina	ina	yes	¼R	200	a,c,d,e
	Sorensen	QB12-4	0	4	18	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	100 $\mu$ a	0.0002	yes	R	160	a,b,c
	Sorensen	QB28-4	0	4	36	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	100 $\mu$ a	0.0005	yes	R	215	a,b,c
CC 28	Sorensen	QRC40-4	0	4	40	$\pm 0.05^{1,3,7}$	$\pm 0.05^7$	1 ma	ina	yes	C or R	315	a,b,d,e
	Sorensen	QB50-4	0	4	60	$\pm 0.01^{1,7}$	$\pm 0.01^7$	100 $\mu$ a	0.0013	yes	R	285	a,b,c
	Deltron	SP100-4	0	4	100	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	795	a,b,c,d,e
	Hyperion	HY-T1-330-4	0	4	330	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	1795	a,b,c,d,e
	Behl-Invar	QS-10	0	4.2	10	$\pm 0.01$	$\pm 0.01$	ina	ina	yes	¼R	200	a,b,c,d,e
	Sorensen	QRB20-4	0.5	4.5	20	$\pm 0.15^{1,3,7}$	$\pm 0.15^7$	150 $\mu$ a	0.02	yes	C or R	255	a,b,c,d,e
	Harrison	6251A	0	5	7.5	0.01	0.01	4 ma	2 <sup>5</sup>	yes	C	395	a,b,c,d,e
	Harrison	6281A	0	5	7.5	0.01 <sup>1,3</sup>	0.01	4 ma	2 <sup>5</sup>	yes	C	210	a,b,c,d,e
	Kepeco	CK8-5M	1	5	8	0.01 <sup>1</sup>	0.01	0.05	0.05 <sup>8</sup>	yes	C	345	a,b,c,d,e
	Deltron	SP10-5	0	5	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	½R	220	a,b,c,d,e
CC 29	Voltex	82-194/195	0	5	18	0.2	0.2	ina	ina	none	R	ina	
	Trygon	HR20-5B	25	5	20	0.5 <sup>1,3</sup>	0.5	0.25	4 M	yes	½R	299	a,b,c,e
	Deltron	RP20-5	0	5	20	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.2 <sup>5</sup>	yes	½R	299	a,b,c,d,e
	Deltron	SP20-5	0	5	20	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	½R	295	a,b,c,d,e
	Harrison	6285A	0	5	20	0.05	0.05	3 ma	2 <sup>5</sup>	yes	C	350	a,b,c,d,e
	El Meas	PV32-5M	0	5	32	0.06	0.25	2 ma	ina	yes	R	420	a,b,c,d,e
	Hyperion	HY-ZS-32-5	0	5	32	0.01	0.01	ina	ina	yes	½R	269	a,b,c,d,e
	Trygon	M36-5C	50	5	36	0.05 <sup>7</sup>	0.05 <sup>7</sup>	0.01	ina	yes	R	470	a,b,c,e
	Kepeco	K536-5M	10	5	36	0.01 <sup>1</sup>	0.01	0.05	0.1 <sup>8</sup>	yes	R	525	a,b,c,d,e
	El Meas	PV36-5M	0	5	36	0.06	0.25	2 ma	ina	yes	R	450	a,b,c,d,e
CC 30	Harrison	6266A	0	5	36	0.02 <sup>1</sup>	0.02	3 ma	2 <sup>5</sup>	yes	R	435	a,b,c,d,e
	Lambda	LE101FM	0	5	36	0.05	0.05	ina	ina	yes	R	470	a,c,d,e
	NJE	RVC-36-5M	0	5	36	$\pm 1$ ma	$\pm 1$ ma	ina	ina	yes	R	345	a,b,c,e
	Pwr Des	3650R	0	5	36	0.02	0.02	0.1	ina	ina	R	349	a,b
	Trygon	HR40-5B	25	5	40	0.5 <sup>1,3</sup>	0.5	0.25	4 M	yes	½R	329	a,b,c,e
	Deltron	RP40-5	0	5	40	0.05 <sup>3</sup>	0.05	250 $\mu$ a	0.3 <sup>5</sup>	yes	½R	349	a,b,c,d,e
	Deltron	SP40-5	0	5	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	½R	345	a,b,c,d,e
	Harrison	6291A	0	5	40	0.05	0.05	3 ma	2 <sup>5</sup>	yes	C	395	a,b,c,d,e
	Hyperion	HY-Si-40-5	0	5	40	0.01	0.01	500 $\mu$ v	ina	yes	½R	299	a,b,c,d,e
	ITI	LS40-5	0	5	40	$\pm 0.005$	$\pm 0.005$	500 $\mu$ v	0.0005	yes	C or R	425	a,b,c,d,e

Notes, abbreviations and manufacturers' index at end of this section.



# Constant-current dc supplies

5-10 amp

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 31	Perkin	TVCR040-5	0	5	40	$\pm 0.02$	$\pm 0.05$	3 ma	ina	yes	C	550	a,b,c,e
	Trygon	HR40-3B	0	5	40	0.5	0.5	0.25	0.008	yes	$\frac{1}{2}$ R	295	a,b,c,d,e
	Trygon	RS40-5A	0	5	40	0.5	0.5	0.25	0.004	yes	R	375	a,b,c,d,e
	Trygon	HR60-5B	25	5	60	$0.5^{1,3}$	0.5	0.25	4 M	yes	$\frac{1}{2}$ R	369	a,b,c,e
	Kepeco	KS60-5M	10	5	60	$0.01^1$	0.01	0.05	$0.1^8$	yes	R	645	a,b,c,d,e
	Deltron	SP60-5	0	5	60	0.05	0.05	0.05	$0.04^5$	yes	$\frac{1}{2}$ R	445	a,b,c,d,e
	El Meas	PV60-5M	0	5	60	0.06	0.25	2 ma	ina	yes	R	600	a,b,c,d,e
	Harrison	6438A	0	5	60	$1^7$	$1^7$	0.2	ina	yes	R	360	a,b,c,d,e
	Hyperion	HY-Si-60-5	0	5	60	0.01	0.01	ina	ina	yes	$\frac{1}{2}$ R	349	a,b,c,d
	Hyperion	HY-T1-60-5	0	5	60	$0.05^7$	$0.05^7$	1 mv	ina	yes	R	519	a,b,c,d,e
CC 32	Harrison	505A	0	5	72	0.5 <sup>7</sup>	0.5 <sup>7</sup>	1	ina	yes	R	475	a,b,c,e
	Trygon	M160-5A	50	5	160	0.05	0.05	0.5	30 M	yes	R	925	a,b,c,e
	Hyperion	HY-T1-160-5	0	5	160	$0.05^7$	$0.05^7$	1 mv	ina	yes	R	845	a,b,c,d,e
	Gen Radio	1265-A	0	5	400	$0.2^1$	1	ina	ina	yes	C or R	1050	a,b,d,e
	Sorensen	DCR80-5	500	5.5	80	$\pm 15 \text{ ma}^7$	$\pm 15 \text{ ma}^7$	0.5	ina	yes	C or R	325	a,b,d,e
	Sorensen	DCR150-5	500	5.5	150	$\pm 15 \text{ ma}^7$	$\pm 15 \text{ ma}^7$	0.5	ina	yes	C or R	525	a,b,d,e
	Sorensen	DCR300-5	500	5.5	300	$\pm 15 \text{ ma}^7$	$\pm 15 \text{ ma}^7$	0.5	ina	yes	C or R	710	a,b,d,e
	Lambda	LH122FM	0	5.7	20	0.015	0.015	ina	ina	yes	$\frac{1}{2}$ R	260	a,c,d,e
	Un Elect	IQ15-6A	10	6	15	6 ma	6 ma	$600 \mu\text{v}$	ina	yes	R	475	a,c,e
	Hyperion	HY-Si-20-6	0	6	20	0.01	0.01	ina	ina	yes	$\frac{1}{2}$ R	249	a,b,c,d
CC 33	Sorensen	QB18-6	0	6	26	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	$150 \mu\text{a}$	0.0003	yes	R	215	a,b,c
	ERA	SPL40-6M	500	6	40	0.5	0.5	0.1	ina	yes	R	485	a,b,c,e
	Vector	CF-30-6A	600	6	300	$\pm 0.1$	0.1	0.5	ina	yes	C	3075	e
	North Hills	CVS-150	100	6	300	0.1	0.1	ina	ina	none	C	2495	d
	Vector	CF-40-6A	600	6	400	$\pm 0.1$	0.1	0.5	ina	yes	C	3225	e
	Behl-Invar	QS-5	0	6.5	5	$\pm 0.01$	$\pm 0.01$	ina	ina	yes	$\frac{1}{2}$ R	214	a,b,c,d,e
	Hyperion	HY-ZS-20-7.5	0	7.5	20	0.01	0.01	ina	ina	yes	$\frac{1}{2}$ R	279	a,b,c,d,e
	Trygon	RS20-7.5A	0	7.5	20	0.5	0.5	0.25	0.002	yes	R	375	a,b,c,d,e
	Hyperion	HY-T1-40-7.5	0	7.5	40	$0.05^7$	$0.05^7$	1 mv	ina	yes	R	430	a,b,c,d,e
	Trygon	HR40-7.5B	0	7.5	40	0.5	0.5	0.25	0.004	yes	$\frac{1}{2}$ R	399	a,b,c,d,e
CC 34	El Meas	PV60-7.5M	0	7.5	60	0.06	0.25	2 ma	ina	yes	R	745	a,b,c,d,e
	El Meas	PVC60-7.5M	0	7.5	60	0.05	0.05	2 ma	ina	yes	R	845	a,b,c,d,e
	Hyperion	HY-Si-60-7.5	0	7.5	60	0.01	0.01	ina	ina	yes	R	499	a,b,c,d
	Trygon	RS60-7.5A	0	7.5	60	0.5	0.5	0.25	0.004	yes	R	595	a,b,c,d,e
	Alfred	254	1.5 amps	7.5	105	1	1	0.5	ina	yes	R	490	e
	Kepeco	CK2-8M	1	8	2	$0.01^1$	0.01	0.01	$0.05^8$	yes	C	345	a,b,c,d,e
	Trygon	C160-8C	300	8	8	0.05	0.1	ina	2 M	yes	R	1350	a,b,c,d,e
	Sorensen	QB6-8	0	8	9	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	$200 \mu\text{a}$	0.0001	yes	R	160	a,b,c
	Lambda	LE105FM	0	8	18	0.05	0.05	ina	ina	yes	R	475	a,c,d,e
	Sorensen	QB12-8	0	8	18	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	$200 \mu\text{a}$	0.0001	yes	R	215	a,b,c
CC 35	Sorensen	QRC20-8	0	8	20	$\pm 0.05^{1,3,7}$	$\pm 0.05^7$	1 ma	ina	yes	C or R	410	a,b,d,e
	Sorensen	QB28-8	0	8	36	$\pm 0.01^{1,3,7}$	$\pm 0.01^7$	$200 \mu\text{a}$	0.00025	yes	R	285	a,b,c
	Sorensen	QRC40-8	0	8	40	$\pm 0.05^{1,3,7}$	$\pm 0.05^7$	1 ma	ina	yes	C or R	450	a,b,d,e
	Deltron	SP100-8	0	8	100	0.05	0.05	0.05	$0.04^5$	yes	R	1030	a,b,c,d,e
	Hyperion	HY-T1-160-8	0	8	160	$0.05^7$	$0.05^7$	1 mv	ina	yes	R	1195	a,b,c,d,e
	Sorensen	DCR300-8	800	8.8	300	$\pm 20 \text{ ma}^{7,9}$	$\pm 20 \text{ ma}^7$	0.05	ina	yes	C or R	825	a,b,d,e
	Lambda	LE109FM	0	10	9	0.05	0.05	ina	ina	yes	R	480	a,c,d,e
	Deltron	SP-10-10	0	10	10	0.05	0.05	0.05	$0.04^5$	yes	$\frac{1}{2}$ R	295	a,b,c,d,e
	Harrison	6282A	0	10	10	0.05	0.05	5 ma	$2^5$	yes	C	350	a,b,c,d,e
	Hyperion	HY-ZS-10-10	0	10	10	0.01	0.01	ina	ina	yes	$\frac{1}{2}$ R	279	a,b,c,d,e
CC 36	Holt	275	500	10	15	$0.05^7$	$0.05^7$	0.01	ina	yes	R	2060	e
	Un Elect	IQ15-10A	10	10	15	10 ma	10 ma	$600 \mu\text{v}$	ina	yes	R	585	a,c,e
	Hyperion	HY-Si-15-10	0	10	15	0.01	0.01	ina	ina	yes	$\frac{1}{2}$ R	299	a,b,c,d,e
	Kepeco	KS18-10M	10	10	18	$0.01^1$	0.01	0.05	$0.04^8$	yes	R	575	a,b,c,d,e
	Harrison	6263A	0	10	18	$0.02^1$	0.02	3 ma	$2^5$	yes	R	435	a,b,c,d,e
	Trygon	HR20-10B	25	10	20	$0.5^{1,3}$	0.5	0.25	2 M	yes	C or R	389	a,b,c,e
	Deltron	SP20-10	0	10	20	0.05	0.05	0.05	$0.04^5$	yes	$\frac{1}{2}$ R	375	a,b,c,d,e
	Harrison	6286A	0	10	20	0.05	0.05	5 ma	$2^5$	yes	C	395	a,b,c,d,e
	Hyperion	HY-Si-20-10	0	10	20	0.01	0.01	ina	ina	yes	$\frac{1}{2}$ R	349	a,b,c,d
	Hyperion	HY-T1-20-10	0	10	20	0.05	0.05	1 mv	ina	yes	R	440	a,b,c,d,e

Notes, abbreviations and manufacturers' index at end of this section.



# Constant-current dc supplies

10-20 amp

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 37	EI Meas	PV32-10M	0	10	32	0.06	0.25	2 ma	ina	yes	R	550	a,b,c,d,e
	Harrison	6433A	0	10	32	1 <sup>7</sup>	1 <sup>7</sup>	0.1	ina	yes	R	370	a,b,c,d,e
	Kepeco	KS36-10M	10	10	36	0.01 <sup>1</sup>	0.01	0.05	0.1 <sup>8</sup>	yes	R	625	a,b,c,d,e
	EI Meas	PV36-10M	0	10	36	0.06	0.25	2 ma	ina	yes	R	575	a,b,c,d,e
	Harrison	510A	0	10	36	0.5 <sup>7</sup>	0.5 <sup>7</sup>	1	ina	yes	R	450	a,b,c,e
	Harrison	6267A	0	10	36	0.02 <sup>1</sup>	0.02	3 ma	2 <sup>5</sup>	yes	R	525	a,b,c,d,e
	Lambda	LE102FM	0	10	36	0.05	0.05	ina	ina	yes	R	575	a,c,d,e
	Pwr Des	36100	0	10 <sup>6</sup>	36 <sup>6</sup>	0.01	0.01	ina	ina	yes	R	463	a,b,d,e
	ERA	SPL40-10M	500	10	40	0.5	0.5	0.1	ina	yes	R	625	a,b,c,e
	Delltron	SP40-10	0	10	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	545	a,b,c,d,e
CC 38	Hyperion	HY-Si-40-10	0	10	40	0.01	0.01	ina	ina	yes	R	399	
	Trygon	RS40-10A	0	10	40	0.5	0.5	0.25	0.002	yes	R	449	a,b,c,d,e
	Trygon	M60-10A	50	10	60	0.5 <sup>7</sup>	0.5 <sup>7</sup>	0.5	4 M	yes	R	795	a,b,c,e
	Kepeco	KS60-10M	10	10	60	0.01 <sup>1</sup>	0.01	0.05	0.1 <sup>8</sup>	yes	R	895	a,b,c,d,e
	Delltron	SP60-10	0	10	60	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	755	a,b,c,d,e
	Hyperion	HY-T1-60-10	0	10	60	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	655	a,b,c,d,e
	Hyperion	HY-Si-10-100	0	10	100	0.01	0.01	ina	ina	yes	R	1240	a,b,c,d
	Sorensen	DCR40-10	1 amp	11	40	$\pm 20$ ma <sup>7</sup>	$\pm 20$ ma <sup>7</sup>	0.5	ina	yes	C or R	325	a,b,d,e
	Sorensen	DCR80-10	1 amp	11	80	$\pm 20$ ma <sup>7</sup>	$\pm 20$ ma <sup>7</sup>	0.5	ina	yes	C or R	525	a,b,d,e
	Sorensen	DCR150-10	1 amp	11	150	$\pm 20$ ma <sup>7</sup>	$\pm 20$ ma <sup>7</sup>	0.5	ina	yes	C or R	710	a,b,d,e
CC 39	Sorensen	QB18-12	0	12	26	$\pm 0.1$ , <sup>7</sup>	$\pm 0.01$ <sup>7</sup>	300 $\mu$ a	0.00015	yes	R	285	a,b,c
	Delltron	SP100-12	0	12	100	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	1290	a,b,c,d,e
	Hyperion	HY-Si-10-12.5	0	12.5	10	0.01	0.01	ina	ina	yes	1/2 R	299	a,b,c,d
	Sorensen	DCR60-13	1.3 amps	14.3	60	$\pm 20$ ma <sup>7,9</sup>	$\pm 20$ ma <sup>7</sup>	0.5	ina	yes	C or R	525	a,b,d,e
	Kepeco	KS8-5M	10	15	8	0.01 <sup>1</sup>	0.01	0.05	0.04 <sup>8</sup>	yes	R	625	a,b,c,d,e
	Sorensen	QB6-15	0	15	9	$\pm 0.01$ , <sup>1,3,7</sup>	$\pm 0.01$ <sup>7</sup>	375 $\mu$ a	0.00005	yes	R	215	a,b,c
	Un Elect	IQ10-15A	10	15	10	15 ma	15 ma	600 $\mu$ V	ina	yes	R	695	a,c,e
	Delltron	SP-10-15	0	15	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	1/2 R	395	a,b,c,d,e
	Hyperion	HY-T1-10-15	0	15	10	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	440	a,b,c,d,e
	Kepeco	KS18-15M	10	15	18	0.01 <sup>1</sup>	0.01	0.05	0.04 <sup>8</sup>	yes	R	725	a,b,c,d,e
CC 40	Harrison	6427A	0	15	18	1 <sup>7</sup>	1 <sup>7</sup>	0.2	ina	yes	R	380	a,b,c,d,e
	Lambda	LE106FM	0	15	18	0.05	0.05	ina	ina	yes	R	640	a,c,d,e
	Sorensen	QB12-15	0	15	18	$\pm 0.01$ , <sup>1,7</sup>	$\pm 0.01$ <sup>7</sup>	375 $\mu$ a	0.00005	yes	R	285	a,b,c
	Delltron	SP20-15	0	15	20	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	535	a,b,c,d,e
	Sorensen	QRC20-15	0	15	20	$\pm 0.05$ , <sup>1,3,7</sup>	$\pm 0.05$ <sup>7</sup>	2 ma	ina	yes	C or R	525	a,b,d,e
	Trygon	RS20-15A	0	15	20	0.5	0.5	0.25	0.001	yes	R	495	a,b,c,d,e
	EI Meas	PV32-15M	0	15	32	0.06	0.25	2 ma	ina	yes	R	685	a,b,c,d,e
	Trygon	M36-15A	50	15	36	0.5 <sup>1,7</sup>	0.5 <sup>7</sup>	0.5	2 M	yes	R	575	a,b,c,e
	Kepeco	KS36-15M	10	15	36	0.01 <sup>1</sup>	0.01	0.05	0.1 <sup>8</sup>	yes	R	730	a,b,c,d,e
	EI Meas	PV36-15M	0	15	36	0.06	0.25	2 ma	ina	yes	R	715	a,b,c,d,e
CC 41	EI Meas	PVC36-15M	0	15	36	0.05	0.05	2 ma	ina	yes	R	835	a,b,c,d,e
	Lambda	LE103FM	0	15	36	0.05	0.05	ina	ina	yes	R	645	a,c,d,e
	NJE	RVC-36-15M	0	15	36	3 ma	3 na	ina	ina	yes	R	545	a,b,c,e
	ERA	SPL40-15M	500	15	40	0.5	0.5	0.1	ina	yes	R	720	a,b,c,e
	Delltron	SP40-15	0	15	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	625	a,b,c,d,e
	Hyperion	HY-T1-40-15	0	15	40	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	625	a,b,c,d,e
	Perkin	TVCRO40-15	0	15	40	$\pm 0.02$	$\pm 0.05$	0.2	ina	yes	C	850	a,b,c,e
	Sorensen	QRC40-15	0	15	40	$\pm 0.05$ , <sup>1,3,7</sup>	$\pm 0.05$ <sup>7</sup>	2 ma	ina	yes	C or R	575	a,b,d,e
	Trygon	M60-15A	50	15	60	0.5 <sup>7</sup>	0.5 <sup>7</sup>	0.5	2 M	yes	R	825	a,b,c,e
	EI Meas	PV60-15M	0	15	60	0.06	0.25	2 ma	ina	yes	R	895	a,b,c,d,e
CC 42	EI Meas	PVC60-15M	0	15	60	0.05	0.05	2 ma	ina	yes	R	995	a,b,c,d,e
	Delltron	SP60-15	0	15	60	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	950	a,b,c,d,e
	Harrison	6274A	0	15	60	0.02 <sup>1</sup>	0.02	5 ma	2 <sup>5</sup>	yes	R	695	a,b,c,d,e
	Harrison	6439A	0	15	60	1 <sup>7</sup>	1 <sup>7</sup>	0.1	ina	yes	R	530	a,b,c,d,e
	Trygon	C160-16C	300	16	16	0.05	0.1	ina	1 M	yes	R	1995	a,b,c,d,e
	Sorensen	DCR150-15	1.5 amps	16.5	150	$\pm 25$ ma <sup>7,9</sup>	$\pm 25$ ma <sup>7</sup>	0.5	ina	yes	C or R	825	a,b,d,e
	Sorensen	DCR80-18	1.8 amps	19.8	80	$\pm 25$ ma <sup>7</sup>	$\pm 25$ ma <sup>7</sup>	0.5	ina	yes	C or R	710	a,b,d,e
	Lambda	LE110FM	0	20	9	0.05	0.05	ina	ina	yes	R	725	a,c,d,e
	Delltron	SP-10-20	0	20	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	1/2 R	460	a,b,c,d,e
	Harrison	6264A	0	20	18	0.2 <sup>1</sup>	0.2	5 ma	2 <sup>5</sup>	yes	R	525	a,b,c,d,e

Notes, abbreviations and manufacturers' index at end of this section.



# Constant-current dc supplies

20-45 amp

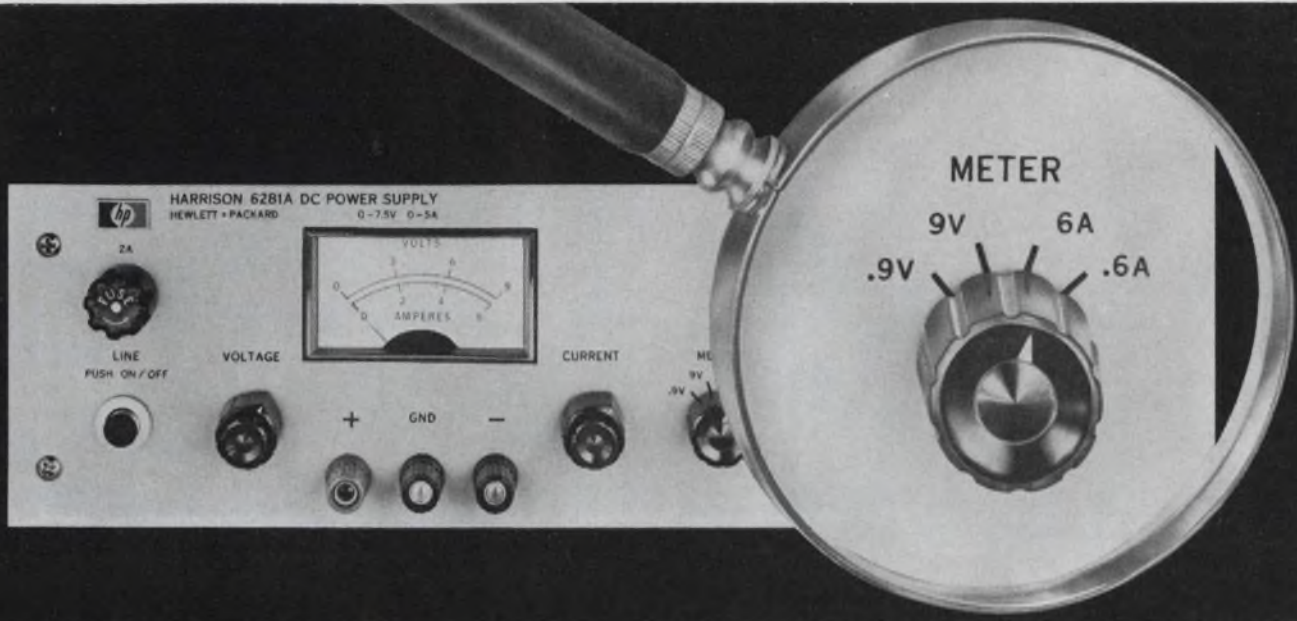
	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 43	Deltron	SP20-20	0	20	20	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	695	a,b,c,d,e
	Hyperion	HY-Si-20-20	0	20	20	0.01	0.01	ina	ina	yes	R	449	a,b,c,d
	Deltron	SP40-20	0	20	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	715	a,b,c,d,e
	Deltron	SP60-20	0	20	60	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	1145	a,b,c,d,e
	Hyperion	HY-T1-60-20	0	20	60	0.05	0.05	1 mv	ina	yes	R	945	a,b,c,d,e
	Kepco	KS60-20M	10	20	60	0.01 <sup>1</sup>	0.01	0.05	0.01 <sup>8</sup>	yes	R	1350	a,b,c,d,e
	Harrison	6483A	0	20	500	1 <sup>7</sup>	1 <sup>7</sup>	0.1	ina	yes	R	2900	a,b,c,d,e
	Lambda	LE107FM	0	22	18	0.05	0.05	ina	ina	yes	R	745	a,c,d,e
	Sorensen	DCR40-20	2 amps	22	40	$\pm 25$ ma <sup>7,9</sup>	$\pm 25$ ma <sup>7</sup>	500 ma	ina	yes	C or R	525	a,b,d,e
	Kepco	KS8-25M	10	25	8	0.01 <sup>1</sup>	0.01	0.05	0.04 <sup>8</sup>	yes	R	760	a,b,c,d,e
CC 44	Deltron	SP10-25	0	25	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	525	a,b,c,d,e
	Hyperion	HY-Si-10-25	0	25	10	0.01	0.01	ina	ina	yes	R	499	a,b,c,d
	Kepco	KS18-25M	10	25	18	0.01 <sup>1</sup>	0.01	0.05	0.04 <sup>8</sup>	yes	R	970	a,b,c,d,e
	Deltron	SP20-25	0	25	20	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	865	a,b,c,d,e
	Trygon	SR36-25	5 amps	25	36	0.3	0.3	ina	5 M	yes	R	745	a,b,c,e
	Trygon	M36-25A	50	25	36	0.5 <sup>7</sup>	0.5 <sup>7</sup>	0.5	1 M	yes	R	725	a,b,c,e
	Harrison	520A	0	25	36	0.5 <sup>7</sup>	0.5 <sup>7</sup>	1	ina	yes	R	575	a,b,c,e
	Hyperion	HY-CR1-36-25	0	25	36	0.5 <sup>7</sup>	0.5 <sup>7</sup>	1	ina	yes	R	565	a,b,d,e
	Lambda	LE104FM	0	25	36	0.05	0.05	ina	ina	yes	R	825	a,c,d,e
	NJE	RVC-36-25M	0	25	36	5 ma	5 ma	ina	ina	yes	C	695	a,b,c,e
CC 45	Pwr Des	36250A	0	25	36	0.04	0.03	0.03	ina	ina	R	875	a,b
	Deltron	SP40-25	0	25	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	825	a,b,c,d,e
	ERA	SPL40-25M	0	25	40	0.5	0.5	0.1	ina	yes	R	925	a,b,c,e
	Trygon	C60-25	300	25	60	0.05	0.1	ina	ina	yes	R	1395	a,b,c,d,e
	Sorensen	DCR60-25	2.5 amps	27.5	60	$\pm 25$ ma <sup>7</sup>	$\pm 25$ ma <sup>7</sup>	625 ma	ina	yes	C or R	710	a,b,d,e
	Sorensen	QB6-30	0	30	9	$\pm 0.01$ <sup>1,7</sup>	$\pm 0.01$ <sup>7</sup>	750 $\mu$ a	25 $\mu$	yes	R	285	a,b,c
	Deltron	SP10-30	0	30	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	645	a,b,c,d,e
	Trygon	M15-30A	50	30	15	0.5 <sup>7</sup>	0.5 <sup>7</sup>	0.5	1 M	yes	R	645	a,b,c,e
	Deltron	SP20-30	0	30	20	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	1040	a,b,c,d,e
	El Meas	PVC20-30M	0	30	20	0.05	0.05	4 ma	ina	yes	R	875	a,b,c,d,e
CC 46	Hyperion	HY-T1-20-30	0	30	20	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	645	a,b,c,d,e
	Sorensen	QRC20-30	0	30	20	$\pm 0.05$ <sup>1,3,7</sup>	$\pm 0.05$ <sup>7</sup>	8 ma	ina	yes	C or R	700	a,b,d,e
	Spec Ind	6001	100	30	30	$\pm 0.0001$ <sup>1</sup>	$\pm 0.0001$	10 ma	ina	yes	C or R	895	a,b,e
	El Meas	PV32-30M	0	30	32	0.06	0.2	3 ma	ina	yes	R	855	a,b,c,d,e
	Trygon	M36-30A	50	30	36	0.5 <sup>7</sup>	0.5 <sup>7</sup>	0.5	1 M	yes	R	795	a,b,c,e
	Kepco	KS36-30M	10	30	36	0.01 <sup>1</sup>	0.01	0.05	0.04 <sup>8</sup>	yes	R	1150	a,b,c,d,e
	El Meas	PV36-30M	0	30	36	0.06	0.25	3 ma	ina	yes	R	875	a,b,c,d,e
	El Meas	PVC36-30M	0	30	36	0.05	0.05	4 ma	ina	yes	R	975	a,b,c,d,e
	Hyperion	HY-T1-36-30	0	30	36	0.01	0.01	ina	ina	yes	R	790	a,b,d
	Deltron	SP40-30	0	30	40	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	1055	a,b,c,d,e
CC 47	Harrison	6268A	0	30	40 <sup>1</sup>	0.02	0.02	10 ma	2 <sup>5</sup>	yes	R	695	a,b,c,d,e
	Hyperion	HY-T1-40-30	0	30	40	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	845	a,b,c,d,e
	Perkin	TVCRO40-30	0	30	40	$\pm 0.02$	$\pm 0.05$	0.2	ina	yes	C	1150	a,b,c,e
	Sorensen	QRC40-30	0	30	40	$\pm 0.05$ <sup>1,3,7</sup>	$\pm 0.05$ <sup>7</sup>	8 ma	ina	yes	C or R	775	a,b,d,e
	Kepco	KO45-30M	3 amps	30	45	2 <sup>1</sup>	2	0.5	0.04 <sup>8</sup>	yes	R	895	a,b,c,d,e
	El Meas	PVC60-30M	0	30	60	0.05	0.05	12 ma	ina	yes	R	1825	a,b,c,d,e
	Kepco	KO70-20M	2 amps	30	70	2 <sup>1</sup>	2	0.5	0.04 <sup>8</sup>	yes	R	995	a,b,c,d,e
	Behl-Invar	TCR-30-100	0	30	100	0.02 <sup>1</sup>	0.05	0.03	0.01 <sup>8</sup>	yes	R	ina	a,b,c,d
	Sorensen	DCR80-30	3	33	80	$\pm 30$ ma <sup>7</sup>	$\pm 30$ ma <sup>7</sup>	750 ma	ina	yes	C or R	875	a,b,d,e
	Dy Con	12C	1.5 amps	35	70	0.05	0.05	0.01	ina	yes	C or R	875	c,e
CC 48	El Meas	PVC36-60M	0	36	60	0.05	0.05	12 ma	ina	yes	R	1725	a,b,c,d,e
	Sorensen	DCR40-35	3.5 amps	38.5	40	$\pm 35$ ma <sup>7</sup>	$\pm 35$ ma <sup>7</sup>	875 ma	ina	yes	C or R	710	a,b,d,e
	Deltron	SP10-40	0	40	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	765	a,b,c,d,e
	Hyperion	HY-T1-10-40	0	40	10	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	695	a,b,c,d,e
	Trygon	SR20-40	5 amps	40	20	0.3	0.3	ina	5 M	yes	C	745	a,b,c,e
	Hyperion	HY-T1-32-40	0	40	32	0.05	0.05	ina	ina	yes	R	1095	a,b,d
	Trygon	SR36-40	10 amps	40	36	0.3	0.3	ina	5 M	yes	R	895	a,b,c,e
	Sorensen	DCR60-40	4 amps	44	60	$\pm 40$ ma <sup>7</sup>	$\pm 40$ ma <sup>7</sup>	1 amp	ina	yes	C or R	900	a,b,d,e
	Harrison	6428A	0	45	18	1 <sup>7</sup>	1 <sup>7</sup>	0.5	ina	yes	R	550	a,b,c,d,e
	Hyperion	HY-T1-20-45	0	45	20	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	1095	a,b,c,d,e

Notes, abbreviations and manufacturers' index at end of this section.





# new disciplines in DC



## take the models with magnified meter ranges

Multiple Range Meter provides increased resolution and accuracy at low output

DC OUTPUT	SIZE*	MODEL	PRICE
0-7.5V, 0-3A	3½"HxHRW	6203B	\$169
0-7.5V, 0-5A	3½"HxHRW	6281A	210
TWIN 0-7.5V, 0-5A	3½"HxFRW	6251A	445
0-10V, 0-10A	5¼"HxHRW	6282A	350
0-20V, 0-.6A / 0-40V, 0-.3A DUAL RANGE	3½"HxHRW	6204B	144
TWIN 0-20V, 0-.6A / 0-40V, 0-.3A DUAL RANGE	3½"HxHRW	6205B	235†
0-20V, 0-1.5A	3½"HxHRW	6201B	169
0-20V, 0-1.5A / 0-40V, 0-.75A DUAL RANGE	3½"HxHRW	6200B	189
0-20V, 0-3A	3½"HxHRW	6284A	210
TWIN 0-20V, 0-3A	3½"HxFRW	6253A	445
0-20V, 0-5A	5¼"HxHRW	6285A	350
0-20V, 0-10A	5¼"HxHRW	6286A	395
0-40V, 0-.75A	3½"HxHRW	6202B	169
0-30V, 0-1A / 0-60V, 0-.5A DUAL RANGE	3½"HxHRW	6206B	169
0-40V, 0-1.5A	3½"HxHRW	6289A	210
TWIN 0-40V, 0-1.5A	3½"HxFRW	6255A	445
0-40V, 0-3A	5¼"HxHRW	6290A	350
0-40V, 0-5A	5¼"HxHRW	6291A	395
0-60V, 0-1A	3½"HxHRW	6294A	210
TWIN 0-60V, 0-1A	3½"HxFRW	6257A	445
0-60V, 0-3A	5¼"HxHRW	6296A	395
0-100V, 0-.75A	3½"HxHRW	6299A	225
TWIN 0-100V, 0-.75A	3½"HxFRW	6258A	445
0-160V, 0-.2A	3½"HxHRW	6207B	194
0-320V, 0-.1A	3½"HxHRW	6209B	194

\*HRW = half rack width, FRW = full rack width  
†Also available with standard meters @ \$195

A four-position meter range switch sets the full scale voltmeter and ammeter values at either 100% or 10% of the nominal output rating (approximately). Meter and associated circuitry are foolproof — no danger of burnout for any DC output combined with any meter range.

Chart lists 25 low and medium power models from LAB, MPB, and DPR series — all have multiple range meters at no extra price — all are recently updated or added instruments featuring all-silicon circuitry. Typical specs include: Regulation, Load or Line, 0.01%; Ripple, 200  $\mu$ V Constant Voltage, 500  $\mu$ A Constant Current; Transient Recovery Time less than 50 microseconds. All units are designed for both bench and rack use.

Front and Rear Output Terminals • No Overshoot on Turn-On, Turn-Off, or Power Removal  
Constant Voltage/Constant Current Operation with Automatic Crossover, Except Constant Voltage/  
Current Limiting on Some Dual Range Models • Remote Programming • Remote Error Sensing  
Special High Speed Programming Circuitry on Models 6200B, 6201B, 6202B, and 6203B  
Auto-Series, Auto-Parallel, and Auto-Tracking Operation • Floating Output, Ground Either Side  
Full Output Rating to 50°C • Convection Cooling, No Moving Parts  
Options Include Overvoltage Protection "Crowbar" and 10-Turn Front Panel Output Controls

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ON READER-SERVICE CARD CIRCLE 16

	Mfr.	Model	OUTPUT			REGULATION			Internal Impedance $\Omega$	Meters	Mounting	Price \$	Notes
			Current		Max. Volts	Line %	Load %	Ripple %					
			Min. ma	Max. Amps									
CC 49	Hyperion	HY-Si-5-50	0	50	5	0.01	0.01	ina	ina	yes	R	499	a,b,c,d
	Kepeco	K58-50M	10	50	8	0.01 <sup>1</sup>	0.01	0.05	0.02 <sup>6</sup>	yes	R	1050	a,b,c,d,e
	Deltron	SP10-50	0	50	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	895	a,b,c,d,e
	Trygon	M15-50A	50	50	15	0.5 <sup>7</sup>	0.5 <sup>7</sup>	0.5	1 M	yes	R	945	a,b,c,e
	Kepeco	KS18-50M	10	50	18	0.01 <sup>1</sup>	0.01	0.05	0.02 <sup>6</sup>	yes	R	1360	a,b,c,d,e
	Deltron	SP20-50	0	50	20	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	1215	
	Hyperion	HY-Si-20-50	0	50	20	0.01	0.01	ina	ina	yes	R	1240	a,b,c,d
	Kepeco	KO25-50M	5 amps	50	25	2 <sup>1</sup>	2	0.5	0.04 <sup>6</sup>	yes	R	995	a,b,c,d,e
	Trygon	C36-50	300	50	36	0.05	0.1	ina	ina	yes	R	1425	a,b,c,d,e
	Hyperion	HY-T1-36-50	0	50	36	0.01	0.01	ina	ina	yes	R	1425	a,b,d
CC 50	ERA	SPL40-50M	0	50	40	0.5	0.5	0.1	ina	yes	R	1780	a,b,c,e
	Harrison	6269A	0	50	40	0.02 <sup>1</sup>	0.02	15 ma	2 <sup>5</sup>	yes	R	875	a,b,c,d,e
	Hyperion	HY-T1-10-60	0	60	10	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1 mv	ina	yes	R	975	a,b,c,d,e
	Sorensen	DCR40-60	6 amps	66	40	$\pm 60 \text{ ma}^7$	$\pm 60 \text{ ma}^7$	0.5	ina	yes	C or R	925	a,b,d,e
	Trygon	SR20-70	20 amps	70	20	0.3	0.3	ina	5 M	yes	R	995	a,b,c,d
	Spec Ind	6002-1	200	75	28	$\pm 0.00003^9$	$\pm 0.00003$	2 ma	ina	yes	R	1395	a,b,e
	Trygon	C15-80	300	80	15	0.05	0.1	ina	ina	yes	R	1250	a,b,c,d,e
	Kepeco	K58-100M	10	100	8	0.01 <sup>1</sup>	0.01	0.05	0.02 <sup>6</sup>	yes	R	1450	a,b,c,d,e
	Deltron	SP10-100	0	100	10	0.05	0.05	0.05	0.04 <sup>5</sup>	yes	R	1250	a,b,c,d,e
	Harrison	6260A	0	100	10	0.02	0.02	30 ma	ina	yes	R	775	a,b,c,d,e
	Kepeco	KO12-100M	10 amps	100	12	2 <sup>1</sup>	2	0.5	0.04 <sup>6</sup>	yes	R	1095	a,b,c,d,e
	Ei Meas	PV36-100M	0	100	36	0.05	0.05	12 ma	ina	yes	R	2625	a,b,c,d,e
	Sorensen	DCR20-125	12.5	137.5	20	$\pm 125 \text{ ma}^7,9$	$\pm 125 \text{ ma}^7$	0.5	ina	yes	C or R	1055	a,b,d,e

Notes, abbreviations and manufacturers' index at end of this section.

### Notes

- a. Remote programing provided.
- b. Remote sensing provided.
- c. Solid state.
- d. Automatic crossover from constant current to constant voltage.
- e. Price includes meters.
1. Input: 115/230 v.
2. Input: 230 v.
3. Input: 50-490 cps.
4. Dual range unit.
5. 100 kc to 1 Mc.
6. Dual output.
7. Total regulation.
8. 1 to 100 kc.
9. Input: 189-229/207-253 v.

### Abbreviations

- C Cabinet
- R Rack
- ina Information not available



## Con Avionics' new silicon power supply has an M.T.B.F. of 100,000 hours and a 5 year guarantee. It costs \$65.

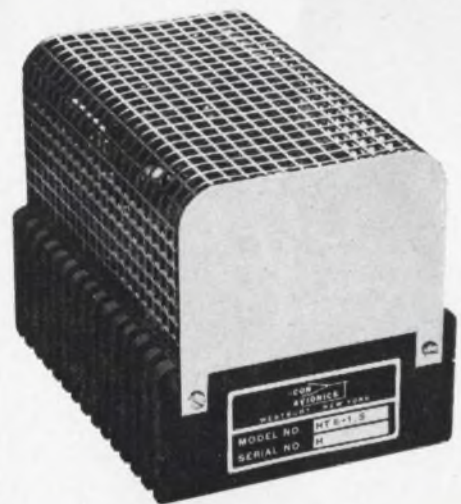
These dc regulated power supplies are available in nearly 200 different voltage-current combinations. Silicon transistors are used throughout and the units operate in ambients as high as 75°C, with a small external heat sink.

The Mean Time Between Failure of the modules is 100,000 hours, calculated according to Mil Handbook 217. They are certified to meet the environmental tests of Mil-E-5272, and most of the requirements of three other mil specs. In addition, they meet the RFI requirements of Mil-I-6181.

Prices start at \$65. Every time you specify one of these supplies, instead of a comparable germanium unit, you save considerable money. If you're using commercial supplies, typical savings-per-unit are about \$40. For military supplies it's much more.

The fastest way to get complete technical information and prices is to write, call, TWX or wire Gerry Albers at Con Avionics.

		SPECIFICATIONS		
		STANDARD MODEL	"A" MODEL	ALL MODELS
Total Regulation (Line and Load)	±0.5%	±0.05%	or 2 mv	Input 105-125 v ac, 47 to 440 cps
Ripple (rms. max.)	10 mv	1 mv or .003%		Temperature 75°C ambient max. 95°C base plate max.
Temperature Coefficient	0.07%/°C	0.015%/°C		Response Time 10 microseconds
				Military Specifications Certified to meet the environmental requirements of MIL-E-5272 and the RFI requirements of MIL-I-6181



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**6 VOLTAGE RANGES:** from 0-5 to 0-100 VDC  
**6 CURRENT RANGES:** from 0-19.5 to 0-2.4 AMP  
**LIFETIME WARRANTY**

Many more advantages, too: silicon reliability . . . liberally derated circuit elements . . . load regulation of 0.01% . . . stability  $\pm 10\text{mV}/8\text{hrs}$  . . . remote voltage and current programming and sensing . . . constant voltage, constant current, with automatic crossover . . . provision for external modulation.

Choose from six models:

Model	Nom. Volts	Amperes		Ripple P-P
		30°C	71°C	
HS-5	0-5	0-19.5	0-14.0	1.0mV
HS-10	0-10	0-14.0	0-9.5	1.0mV
HS-20	0-20	0-9.0	0-6.0	1.0mV
HS-40	0-40	0-5.4	0-3.8	1.0mV
HS-60	0-60	0-3.8	0-2.7	1.0mV
HS-100	0-100	0-2.4	0-1.6	1.0mV

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With B-I's optional rack adapter, you can mix or match two HS's, or one HS and up to two quarter-rack units, such as the QS DC Conditioner or the QA AC Amplifier/Supply. Blank panel inserts available. Want the full specifications on the HS DC power conditioners? Just send us your name and whereabouts.

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ON READER-SERVICE CARD CIRCLE 17

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April 19, 1966

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TVCRO40-30 [CC-47]

**Power Designs, Inc (Pwr Des)**  
TW-4005 [CC-9]  
2015R [CC-18]  
3650R [CC-30]  
4005 [CC-8]  
5005R [CC-9]  
36100 [CC-37]  
36250A [CC-45]

**Princeton Applied Research Corp (Princeton)**  
TC-100-2AR [CC-4]  
TC-100-2BR [CC-4]  
TC-100-2R [CC-4]  
TC-602CR [CC-22]

**Sensitive Instruments (Singer/Sensitive)**  
9770A [CC-3]

**Sola Electric Co (Sola)**  
81-20-100 [CC-21]  
81-40-1100 [CC-14]  
81-60-0666 [CC-11]  
81-80-0500 [CC-10]

**Sorensen (Sorensen)**  
DCR20-125 [CC-50]  
DCR40-10 [CC-38]  
DCR40-20 [CC-43]  
DCR40-35 [CC-48]  
DCR40-60 [CC-50]  
DCR60-13 [CC-39]  
DCR60-25 [CC-45]  
DCR60-40 [CC-48]  
DCR80-5 [CC-32]  
DCR80-10 [CC-38]  
DCR80-18 [CC-42]  
DCR80-30 [CC-47]  
DCR150-2.5 [CC-24]  
DCR150-5 [CC-32]  
DCR150-10 [CC-38]  
DCR150-15 [CC-42]

DCR300-1.25 [CC-17]  
DCR300-2.5 [CC-24]  
DCR300-5 [CC-32]  
DCR300-8 [CC-35]  
QB6-2 [CC-20]  
QB6-4 [CC-27]  
QB6-8 [CC-34]  
QB6-15 [CC-39]  
QB6-30 [CC-45]  
QB12-1 [CC-14]  
QB12-2 [CC-20]  
QB12-4 [CC-27]  
QB12-8 [CC-34]  
QB12-15 [CC-40]  
QB18-75 [CC-11]  
QB18-1.5 [CC-18]  
QB18-3 [CC-25]  
QB18-6 [CC-33]  
QB18-12 [CC-39]  
QB28-5 [CC-8]  
QB28-1 [CC-14]  
QB28-2 [CC-21]  
QB28-4 [CC-27]  
QB28-8 [CC-35]  
QB50-.5 [CC-10]  
QB50-1 [CC-15]  
QB50-2 [CC-22]  
QB50-4 [CC-28]  
ORB15-2 [CC-23]  
ORB20-1.5 [CC-20]  
ORB20-4 [CC-28]  
ORB30-1 [CC-17]  
ORB40-.75 [CC-12]  
ORB40-2 [CC-23]  
ORC20-8 [CC-35]  
ORC20-15 [CC-40]  
ORC20-30 [CC-46]  
ORC40-4 [CC-28]  
ORC40-8 [CC-35]  
ORC40-15 [CC-41]  
ORC40-30 [CC-47]

**Spectromagnetic Industries (Spec Ind)**  
6001 [CC-46]  
6002-1 [CC-50]

**Trygon Electronics, Inc (Trygon)**  
C15-80 [CC-50]  
C36-50 [CC-49]  
C60-25 [CC-45]  
C160-8C [CC-34]  
C160-16C [CC-42]  
HH7-4 [CC-27]  
HH14-3 [CC-25]  
HH32-1.5 [CC-18]  
HR20-1.5 [CC-17]  
HR20-5B [CC-29]  
HR20-10B [CC-36]  
HR40-3B [CC-31]  
HR40-5B [CC-30]  
HR40-7.5B [CC-33]  
HR40-750 [CC-11]  
HR60-2.5B [CC-23]  
HR60-5B [CC-31]  
HR160-2B [CC-22]  
M15-30A [CC-45]  
M15-50A [CC-49]  
M36-5C [CC-29]  
M36-15A [CC-40]  
M36-25A [CC-44]  
M36-30A [CC-46]  
M60-10A [CC-38]  
M60-15A [CC-41]  
M160-5A [CC-32]  
RS20-7.5A [CC-33]  
RS20-15A [CC-40]  
RS40-5A [CC-31]  
RS40-10A [CC-38]  
RS60-7.5A [CC-34]  
RS160-1A [CC-16]  
RS160-3A [CC-27]  
RS320-1A [CC-16]  
RS320-1.5A [CC-19]  
SR20-40 [CC-48]  
SHR20-3A [CC-25]  
SHR40-1.5A [CC-19]  
SHR60-1A [CC-15]  
SHR160-500B [CC-10]  
SR20-70 [CC-50]  
SR36-25 [CC-44]  
SR36-40 [CC-48]  
T20-2 [CC-20]  
T50-2 [CC-22]  
T50-750 [CC-12]

**Universal Electronics (Un Elect)**  
IQ10-15A [CC-39]  
IQ15-6A [CC-32]  
IQ15-10A [CC-36]  
IQ30-2A [CC-21]  
LQ35-2A [CC-21]

**Vector Engineering (Vector)**  
CF-30-6A [CC-33]  
CF-40-6A [CC-33]  
CP-1863-CC [CC-3]  
CP-1959-CC [CC-3]

**Voltex Co, Inc (Voltex)**  
82-194/195 [CC-29]

# Power supplies

## portable high-voltage DC power supplies

Widely used for powering electronic equipment and for routine breakdown and insulation testing. Output voltage is well filtered DC which is adjustable with convenient



front panel control. Input is 115 VAC, 60 CPS. Larger 6" precision 1% mirror scale movement available on order. Regulated models provide closely stabilized output voltage regardless of line or load changes.

## heavy-duty power supplies

Employing husky components selected for power handling capacity these industrial type power supplies are built for service and efficiency. Output is continuously variable from 0 to full rated values. Standard ripple is 5% or less.

Ripple of 0.01% to 1%, and regulated supplies available on special order. All units feature automatic overload cutout control circuits.



## 3φ heavy-duty power supplies



For use in applications where high voltages at extra high currents are required. Fixed or fully variable types available. Automatic circuits protect against over-current conditions. Widely used in plasma research, electron beam furnaces, plate power and condenser charging applications. Voltage or current regulated types available.

## constant-current power supplies

Designed for applications where output current must remain constant regardless of loading resistance changes. Used for magnet fields, plating applications, gaseous lamps.

Magnetic current stabilizer has no moving parts, no tubes, no transistors to replace. No balancing or adjustment needed, simply set current to desired level. Standard hum level 5%, lower hum levels available on order.



**Beckman INSTRUMENTS, INC.**

CEDAR GROVE OPERATIONS  
89 Commerce Road  
Cedar Grove, New Jersey 07009

Formerly Industrial Instruments, Inc.  
ON READER-SERVICE CARD CIRCLE 19



# Laboratory-Type DC Power Supplies

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time ( $\mu$ sec)				
1 LS 1	Kepeco	ABC2-1M	0	2	1	0.05	0.05	0.25	50	yes	C	125	a,b,c,e,f
	Dynage	702-5	$\pm 5$	$\pm 5$	0.2	$\pm 0.003$	$\pm 0.003$	0.5	ina	yes	C	request	
	CEA	PT215	5	5	0.2	0.03	0.08	0.4	ina	none	R	137	c
	Duffers	620	0	5	2	0.5	0.5	1	ina	yes	C	345	f
	ERA	TD6M	0	6	0.1	0.05	0.05	1	ina	yes	C	195	c,f
	Engr El	ZA-740	6	6	0.6 <sup>3</sup>	0.1	0.1	1	ina	yes	R	950	c,f
	Trygon	SHR60-1A	0	6	1	0.01	0.01	0.5	25	yes	1/2R	235	a,b,c,e,f
	Deltron	RS6-3M	5	7	3	0.01	0.01	0.5	50	yes	1/2R	195	a,b,c,e,f
	Kepeco	ABC7.5-2M	0	7.5	2	0.05	0.05	0.25	50	yes	C	167	a,b,c,e,f
	Harrison	6203A	0	7.5	3	3 mv	5 mv	0.2	50	yes	C	179	a,b,c,e,f
	Hyperion	HY-W1-7.5-3	0	7.5	3	0.05	0.05	0.35	50	yes	C	159	a,b,d,f
	Hyperion	HY-WS-7.5-3	0	7.5	3	0.01	0.01	ina	50	yes	C	144	a,b,c,d,f
	Un Elect	Q5-8-2AM	5	8	2	5 mv	5 mv	1	50	yes	1/2R	235	c,d,f

The table in this section lists the specifications for laboratory-type dc power supplies. These supplies have output voltages up to and including 1000 volts, and output currents up to and including 3 amperes. Although voltage-reference dc power supplies may fall within these specifications, they are listed separately under "Special Purpose" supplies.

Unless otherwise noted in the table, the input-voltage requirements for all of the supplies are 95-130 vac, 1 phase.

Prices indicated in the table are subject to change by the manufacturer.

An index of manufacturers and models is included at the end of the table. The index is alphabetical, by manufacturer, and it lists the various laboratory-type dc power supplies of each manufacturer. A location key is included after each model. This permits easy spotting in the table of the specifications for that supply, by means of the location-key column (1 above).

## How the table is arranged

Specifications for the laboratory-type dc power supplies are given in separate, appropriately headed columns. The complete specifications for any one supply can thus be read across the page.

Within the table, the supplies are listed in ascending order of maximum output voltage (2 above). Where the maximum output voltage of several supplies is the same, the units are listed in order of increasing maximum output current (3 above). If both of these characteristics are identical for several supplies, they are then listed in order of increasing output voltage swing (4 above). This

arrangement allows for a rapid across-the-market comparison of all the laboratory-type dc power supplies with similar application capability.

Manufacturers are identified in the *Mfr* column by an abbreviation (5 above). The complete name of each manufacturer can be found in the index at the end of the section. For manufacturers' addresses and Reader Service literature offerings, see the master index at the front of the issue.

All notes and symbols used in the table are defined at the end of the section. At the top of each page of the table, reference is made to the output voltage range covered by the supplies on that page. This is to expedite the location of a supply with particular characteristics.

## Additional entries

A supplementary table is included at the end of the basic table. It lists additional laboratory-type dc power supplies that could not be fitted into the basic table because of editorial make-up limitations. The arrangement of this supplementary table is identical with that of the basic table.

## How to use the table

- Note how the supplies are listed. They are in ascending order of maximum output voltage. Where this is the same, they are in order of increasing maximum output current.
- Select the most likely candidates.
- Obtain supplementary data from the manufacturer. Manufacturers' addresses, together with Reader Service numbers for specific power supply types, are given in the master cross index at the front of the issue.



# Laboratory-type dc supplies

2-20 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 1	Kepeco	ABC2-1M	0	2	1	0.05	0.05	0.25	50	yes	C	125	a,b,c,e,f
	Dynage	702-5	±5	±5	0.2	±0.003	±0.003	0.5	ina	yes	C	request	
	CEA	PT215	5	5	0.2	0.03	0.08	0.4	ina	none	R	137	c
	Duffers	620	0	5	2	0.5	0.5	1	ina	yes	C	345	f
	ERA	TD6M	0	6	0.1	0.05	0.05	1	ina	yes	C	195	c,f
	Engr El	ZA-740	6	6	0.6 <sup>3</sup>	0.1	0.1	1	ina	yes	R	950	c,f
	Trygon	SHR60-1A	0	6	1	0.01	0.01	0.5	25	yes	½R	235	a,b,c,e,f
	Deltron	RS6-3M	5	7	3	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
	Kepeco	ABC7.5-2M	0	7.5	2	0.05	0.05	0.25	50	yes	C	167	a,b,c,e,f
	Harrison	6203A	0	7.5	3	3 mv	5 mv	0.2	50	yes	C	179	a,b,c,e,f
LS 2	Hyperion	HY-W1-7.5-3	0	7.5	3	0.05	0.05	0.35	50	yes	C	159	a,b,d,f
	Hyperion	HY-WS-7.5-3	0	7.5	3	0.01	0.01	ina	50	yes	C	144	a,b,c,d,f
	Un Elect	Q5-8-2AM	5	8	2	5 mv	5 mv	1	50	yes	½R	235	c,d,f
	Deltron	LH82M	0	8	2	0.05	0.05	1	50	yes	R	229	a,b,c,e,f
	Deltron	ULH82M	0	8	2	0.01	0.01	1	50	yes	R	269	a,b,c,e,f
	Deltron	SH8-3	0	8	3	0.01	0.01	1	50	yes	R	310	a,b,c,e,f
	Sorenson	QB6-2	5	9	2	±0.02 <sup>7</sup>	±0.02 <sup>7</sup>	0.3	25	none	C	98	a,b,c,d
	Dynage	702-10	±10	±10	0.2	±0.003	±0.003	0.5	ina	yes	C	request	
	CEA	PT216	10	10	0.2	0.03	0.08	0.4	ina	none	R	137	c
	CEA	PT214	5 <sup>1</sup>	10 <sup>1</sup>	0.2	0.03	0.08	0.4	ina	none	R	147	c
LS 3	Kepeco	ABC10-0.75M	0	10	0.75	0.05	0.05	0.25	50	yes	C	125	a,b,c,e,f
	Duffers	620	0	10	2	0.5	0.5	1	ina	yes	C	345	f,h
	Pioneer	RR10-2.5A	0	10	2.5	0.1	0.1	1	50	yes	R	ina	a,b,c,e
	Pioneer	RR10-2.5B	0	10	2.5	0.01	0.01	1	50	yes	R	ina	a,b,c,e
	Deltron	RP20-1.5	0	10	3	0.01	0.01	0.2	50	yes	½R	168	a,b,c,e,f,h
	Acme	PS-47623	12	12	3	±1	±2	1%	ina	yes	R	102	
	Un Elect	Q10-14-1AM	10	14	1	5 mv	5 mv	1	50	yes	½R	235	c,d,f
	Deltron	RS12-2M	10	14	2	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
	Un Elect	Q10-14-2AM	10	14	2	5 mv	5 mv	1	50	yes	½R	260	c,d,f
	Trygon	MH14-3	0	14	3	0.01	0.01	0.5	25	yes	¼R	182	a,b,c,e,f
LS 4	El Meas	TO14-3M	0	14	3	10 mv	10 mv	0.5	ina	yes	R	335	a,b,c,f
	Dynage	702-15	±15	±15	0.2	±0.003	±0.003	0.5	ina	yes	C	request	
	CEA	PT316	0	15	0.2	0.03	0.08	0.4	ina	none	R	157	c
	Kepeco	ABC15-1M	0	15	1	0.05	0.05	0.25	50	yes	C	167	a,b,c,e,f
	Pwr Des	1515B	1	15	1.5	0.05	0.05	0.25	ina	yes	C	175	c,f
	Acme	PS-47508	15	15	2	±1	±2	1%	ina	yes	R	100	
	Sorensen	QRB15-2	0	15	2	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.25	50	yes	C	145	a,b,c,d,f
	Hyperion	HY-WS-15-2	0	15	2	0.01	0.01	ina	50	yes	C	144	a,b,c,d,f
	Deltron	H15-2 <sup>18</sup>	0	15	2	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	C or R	190	b,e,f
	B-B	502	-15	+15	2	0.1	0.1	0.25	ina	none	R	480	a,b,c,g
LS 5	Hyperion	HY-W1-16-1	0	16	1	0.05 <sup>7</sup>	0.05 <sup>7</sup>	1	50	yes	C or R	150	a,b,d,f
	Hyperion	HY-Z1-16-1.5	0	16	1.5	0.05	0.05	1	50	yes	C or R	190	b,d,f
	Deltron	RP30-1	0	16	2	0.01	0.01	0.2	50	yes	½R	168	a,b,c,e,f,h
	Grundig	TN1	0.5	16	3	±0.05	±0.05	0.1	ina	yes	C	ina	c
	Topaz	91PQ	5	18	0.5	±0.05	5 mv	1	ina	none	C	150	
	Kepeco	ABC18-0.5M	0	18	0.5	0.05	0.05	0.25	50	yes	C	125	a,b,c,e,f
	Harrison	6204AM	0	18	0.6	0.01	0.01	0.2	50	yes	C	144	a,b,c,e,f,h
	Sorensen	QB12-1	9	18	1	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	none	C	98	a,b,c,d
	El Meas	TRO18-1M	0	18	1	0.04	0.04	0.25	ina	yes	½R	154	a,b,c,f
	Harrison	855C	0	18	1.5	0.01	0.01	0.2	50	yes	C	179	a,b,c,d,f
LS 6	Sorensen	QB12-2	9	18	2	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	none	C	108	a,b,c,d
	Harrison	6224A	0	18	3	0.02	0.03	0.5	50	yes	C	340	a,b,c,e,f
	NJE	RB-18-3-M	0	18	3	±0.01	±0.01	0.25	50	yes	C	215	a,b,c,e,f
	Behl-Invar	TPA-36/18	0	18	3	10 mv	5 mv	0.3	50	yes	C	275	c,e,f
	Kepeco	CK18-3M	0	18	3	0.01	0.01	0.5	50	yes	C	305	a,b,c,e,f
	NJE	TR-18-3	0	18	3	±0.03	±0.02	2	50	yes	C	190	a,b,c,e,f
	Dynage	702-20	±20	±20	0.2	±0.003	±0.003	0.5	ina	yes	C	request	
	B-B	500	10	20	0.2	±0.2	±0.2	0.15	ina	yes	C	365	c,g
	Pwr Des	2005	0	20	0.5	100 μv	100 μv	100 μv	10	yes	C	325	a,b,c,d,f
	Harrison	6823A	-20	+20	0.5	0.02	0.02	2	100	yes	C	194	a,c,e,f

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 7	Harrison	6205A	0	20	0.6	0.01	0.01	0.2	50	yes	C	195	a,b,c,e,f
	Trygon	DL40-700	0	20 <sup>8</sup>	0.7	0.01	0.01	0.5	25	yes	C	249	a,b,c,e,f
	Trygon	DL40-700	0	20 <sup>8</sup>	1.4	0.1	0.1	0.5	25	yes	C	249	a,b,c,e,f
	Deltron	RP20-15	0	20	1.5	0.01	0.01	0.2	50	yes	½R	168	a,b,c,e,f,h
	Pwr Des	2015R	0	20	1.5	0.5	0.5	0.15	ina	yes	C	175	a,c,f
	Hyperion	HY-W1-20-1.5	0	20	1.5	0.05	0.05	0.35	50	yes	C	159	a,b,d,f
	Harrison	6201A	0	20	1.5	0.01	0.01	0.2	50	yes	C	179	a,b,c,e,f
	Harrison	6200A	0	20	1.5	0.01	0.01	0.2	50	yes	C	210	a,b,c,e,f,h
	Trygon	HR20-1.5	0	20	1.5	0.01	0.05	0.25	50	yes	½R	164	a,b,c,e,f
	Hyperion	HY-WS-20-1.5	0	20	1.5	0.01	0.01	ina	50	yes	C	144	a,b,c,d,f
LS 8	Sorensen	QRB20-1.5	0	20	1.5	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.2	50	yes	C or ½R	145	a,b,c,d,f
	Trygon	T20-2	0	20	2	0.05	0.05	0.5	50	yes	C	199	a,b,c,e
	Lambda	LH121FM	0	20	2.4	0.015	0.015	0.25	ina	yes	½R	184	a,c,f
	Pioneer	RR-20-2.5A	0	20	2.5	0.1	0.1	1	50	yes	R	ina	a,b,c,e
	Pioneer	RR20-2.5A	0	20	2.5	0.01	0.01	1	50	yes	R	ina	a,b,c,e
	Behl-Invar	QS-20	0	20	2.5	0.01	0.01	1	25	yes	¼R	184	a,b,c,d,f
	NJE	XR-18-3	10	20	3	±0.005	±0.01	0.25	50	none	C	170	a,b,c,e
	Deltron	RP20-3 <sup>18</sup>	0	20	3	0.01	0.01	0.2 <sup>14</sup>	50	yes	½R <sup>15</sup>	230	a,b,c,e,f
	Trygon	SHR-20-3A	0	20	3	0.01	0.01	0.5	25	yes	½R	225	a,b,c,e,f
	Harrison	6284A	0	20	3	0.01	0.01	0.2	50	yes	½R	210	a,b,c,e,f
LS 9	Harrison	6253A	0	20	3	0.01	0.01	0.2	50	yes	½R	395	a,b,c,e,f,g
	Deltron	HP20-3	0	20	3	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	C or R	230	e,f,16,17
	Deltron	RS18-3M	15	21	3	0.01	0.01	0.5	50	yes	½R	260	a,b,c,e,f
	Acme	PS41422	24	24	2	±1	±2	1%	ina	yes	R	105	a,b,c,e,f
	Deltron	LH242M	9 <sup>2</sup>	24 <sup>2</sup>	2	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	R	249	a,b,c,e,f
	Dynage	702-25	±25	±25	0.2	±0.003	±0.003	0.5	ina	yes	C	request	
	Princeton	SF-25.2R	25 <sup>6</sup>	25 <sup>6</sup>	0.2	0.0001	0.0001	0.2	25	yes	R	ina	b,c,d,f
	EI Prod	PS-3A	0	25	0.2	±0.02	0.02	0.2	ina	yes	C	99	c
	Deltron	RP50-0.6	0	25	1.2	0.01	0.01	0.2	50	yes	½R	176	a,b,c,e,f,h
	Deltron	L Series	12 <sup>10</sup>	25 <sup>10</sup>	2.5	0.01	0.01	0.5	50	yes	R	192	a,b,c,e
LS 10	Sorensen	QB18-.75	13	26	0.75	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	none	C or ½R	98	a,b,c,d
	Sorensen	QB18-1.5	13	26	1.5	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	none	C or ½R	108	a,b,c,d
	Sorensen	QB18-3	13	26	3	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	yes	R	190	a,b,c,d,f
	Deltron	RS24-1.2M <sup>18</sup>	20	28	1.2,2.4	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
	Harrison	721A	0	30	0.15	±15 mv	±30 mv	0.15	50	yes	C	145	e,f
	Dynage	702-30	±30	±30	0.2	±0.003	±0.003	0.5	ina	yes	C	request	
	Un Elect	200B	0	30	0.2	0.07	0.07	1	100	yes	R	325	d,f
	CEA	PT314	0	30	0.2	0.03	0.04	1	ina	none	R	167	c
	Kepeco	ABC30-0.3M	0	30	0.3	0.05	0.05	0.25	50	yes	C	125	a,b,c,e,f
	Topaz	151	0	30	0.5	±0.02	5 mv	1	ina	yes	C	ina	
LS 11	Hyperion	HY-W1-30-0.6	0	30	0.6	0.05	0.05	1	50	yes	C or R	140	a,b,d,f
	Un Elect	Q26-30-1AM	26	30	1	5 mv	5 mv	1	50	yes	½R	260	c,d,f
	Un Elect	Q26-30-2AM	26	30	1	5 mv	5 mv	1	50	yes	½R	280	d
	Specific	BP-30B	0	30	1	1	1	5	ina	yes	C	145	c,f
	CEA	PT321	0	30	1	±0.01	±0.01	0.003%	ina	none	1/3R	425	c
	Endevco	SR5000EP	0	30	1	0.01	0.01	0.03	ina	none	R	795	b
	Endevco	SR1000EP	0	30	1	0.01	0.01	0.03	ina	none	½R	395	b
	Sorensen	QR30-1	0	30	1	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.15	50	yes	C or ½R	145	a,b,c,d,f
	Un Elect	IQ30-2A	0	30	2	1 ma	1 ma	0.25	50	yes	R	350	a,c,d,f
	R & S	NGN BN95143	0	30	2.5	±0.5	ina	1	ina	yes	C	580	f
LS 12	Pwr Inst	3210	0	31	1	±0.1	±0.1	1	50	yes	C	295	a,c,d,f
	Pwr Inst	3225	0	32	0.25	±0.1	±0.1	1	50	yes	C	125	a,c,d,f
	Semi Cir	370	0	32	0.3	10 mv	10 mv	3	50	yes	C	70	d,f
	Oregon	BT-3-50	0	32	0.5	0.15	0.1	1	ina	yes	C	135	c,f
	Vector	TM-03-1A	5	32	1	±0.01	0.2	1	ina	yes	C	100	c,f
	Deltron	RP30-1	0	32	1.2	0.01	0.01	0.2	50	yes	½R	168	a,b,c,e,f,h
	Pwr Inst	3201	0	32	1	±0.2	±0.2	1	50	yes	R	ina	a,b,c,d
	Harrison	6206AM	0	32	1	0.01	0.01	0.2	50	yes	C	184	a,b,c,e,f,h
	Hyperion	HY-Z1-32-1	0	32	1	0.05	0.05	1	50	yes	C or R	200	b,d,f
	Hyperion	HY-WS-32-1	0	32	1	0.01	0.01	ina	50	yes	C	144	a,b,c,d,f

Notes, abbreviations and manufacturers' index at end of this section.



# Laboratory-type dc supplies

32-40 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 13	Trygon	HH32-1.5	0	32	1.5	0.01	0.01	0.5	25	yes	¼R	177	a,b,c,e,f
	Cohu	3F-200	2	32	2	±0.002	±0.01	0.5	200	none	R	1250	d
	Harrison	6242A	0	32	2	0.03	0.02	0.2	50	yes	R	435	a,b,c,e,f
	Hyperion	HY-Z1-32-2.5	0	32	2.5	0.05	0.05	1	50	yes	C or R	240	b,d,f
	Glentron	20588-6	0	32	3	0.1	0.1	1	ina	yes	R	request	
	Pwr Inst	3230	0	32	3	±0.1	±0.1	1	50	yes	C	485	a,c,d,f
	Deltron	RS30-1M <sup>18</sup>	25	35	1 <sup>19</sup>	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
	Un Elect	TQ35-1	0	35	1	7 mv	7 mv	0.25	50	yes	R	475	c,d,f,g
	Un Elect	L3501	0	35	1	5 mv	5 mv	0.25	50	yes	C	199	a,c,d,f
	Un Elect	TQ35-2	0	35	2	7 mv	7 mv	0.25	50	yes	R	575	c,d,f,g
LS 14	Un Elect	LQ35-2A	0	35	2	2 mv	5 mv	0.25	50	yes	R	375	a,b,c,d,f
	Trans Dev	VS101	0	35	3	±0.05	±0.1	1	50	yes	R	ina	a,b,c,d
	EI Meas	TR036-0.2M	0	36	0.2	0.04	0.04	0.15	50	yes	½R	149	a,b,c,d,f
	Vector	TM-03-20	5	36	0.25	±0.01	0.2	1	ina	yes	C	120	c,f
	Harrison	6204AM	0	36	0.3	0.01	0.01	0.2	50	yes	C	164	a,b,c,e,f,h
	Sorensen	QB28-.5	18	36	0.5	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	none	C or ½R	98	a,b,c,d
	EI Meas	TR036-0.5M	0	36	0.5	0.04	0.04	0.25	50	yes	½R	160	a,b,c,d,f
	Vector	TM-03-50	0	36	0.5	±0.1	0.2	1	ina	yes	C	ina	
	Sorensen	QB28-1	18	36	1	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	none	C or ½R	108	a,b,c,d
	Vector	ST-03-1A	0	36	1	±0.03	0.05	1	25	yes	C	202	a,b,c,e,f
LS 15	Krohn-Hite	RS-361	0	36	1	0.0002	0.0005	0.05	25	yes	C or R	850	d,f
	Behl-Invar	TPA-36/18	0	36	1.5	10 mv	5 mv	0.3	50	yes	C	275	c,e,f
	Kepeco	CK36-1.5M	0	36	1.5	0.01	0.01	0.5	50	yes	C	305	a,b,c,e,f
	Harrison	6226A	0	36	1.5	0.02	0.01	0.5	50	yes	C	325	a,b,c,e,f
	Deltron	HP36-1.5 <sup>18</sup>	0	36	1.5	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	C or R	230	b,e,f
	Sorensen	QB28-2	18	36	2	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.3	25	yes	R	190	a,b,c,d,f
	NJE	XR-36-2	10	36	2	±0.005	±0.01	0.25	50	none	C	170	a,b,c,e
	ERA	SL-36-2/2M	0	36	2	±0.025	0.05	1	50	yes	R	465	a,b,c,d,f,g
	Vector	ST-03-2A	0	36	2	±0.03	0.05	1	25	yes	C	210	a,b,c,e,f
	NJE	RB-36-2-M	0	36	2	±0.01	±0.01	0.25	50	yes	C	215	a,b,c,e,f
LS 16	NJE	TR-36-2	0	36	2	±0.03	±0.02	2	50	yes	C	190	a,b,c,e,f
	ERA	SL-36-2M	0	36	2	±0.025	0.05	1	50	yes	½R	235	a,b,c,d,f
	Pioneer	RR36-2.5A	0	36	2.5	0.1	0.1	1	50	yes	R	ina	a,b,c,e
	Pioneer	RR36-2.5B	0	36	2.5	0.01	0.01	1	50	yes	R	ina	a,b,c,e
	Glentron	20588-7	0	36	3	0.1	0.1	1	ina	yes	R	request	
	Voltex	36-3	0	36	3	±0.02	±0.005	3	25	yes	R	575	a,b,c,e,f
	Harrison	6365A	0	36	3	0.01	0.01	0.5	50	none	R	279	a,b,c,e
	Harrison	6265A	0	36	3	0.01	0.01	0.5	50	yes	R	350	a,b,c,e,f
	EI Meas	T036-3M	0	36	3	10 mv	10 mv	0.5	ina	yes	R	355	a,b,c,f
	Deltron	HP36-3 <sup>18</sup>	0	36	3	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	C or R	280	e,f <sup>16,17,20</sup>
LS 17	Mid-Eastern	SS36-3	0	36	3	0.01	0.03	1	50	yes	R	395	a,b,c,d,f
	Mid-Eastern	ST36-3S	0	36	3	0.005	0.03	0.5	50	yes	R	495	a,b,c,e,f
	Vector	CM-03-3A	0	36	3	±0.01	0.01	1	ina	yes	R	338	a,b,c,e,f
	Harrison	6205A	0	40	0.3	0.01	0.01	0.2	50	yes	C	195	a,b,c,e,f,g
	Trygon	DL40-700	0	40 <sup>8</sup>	0.35	0.01	0.01	0.5	25	yes	C	249	a,b,c,e,f
	Pwr Des	4005	0	40	0.5	0.05	0.05	0.25	ina	yes	C	144	a,c,f
	Pwr Des	TW4005	0	40	0.5	0.05	0.05	0.25	50	yes	C	297	a,c,e,f,g
	Mid-Eastern	MP40-0.5	0	40	0.5	0.1	0.1	1	ina	yes	C	176	a,c,f
	ERA	TR040M	0	40	0.5	±0.015	0.03	1	ina	yes	½R	130	a,b,c,f
	Harrison	865C	0	40	0.5	0.01	0.01	0.2	50	yes	C	179	a,b,c,e,f
LS 18	Harrison	6112A	0	40	0.5	0.001	0.001	0.04	50	yes	C	375	a,b,c,e,f
	Perkin	TVCRO40-05	0	40	0.5	±0.01	±0.01	100	25	yes	C	239	a,b,c,d,f
	Harrison	6102A	0	40	0.5	0.001	0.001	0.04	50	yes	C	265	a,b,c,e,f
	Harrison	723A	0	40	0.5	10 mv	20 mv	0.15	ina	yes	C	240	
	Harrison	6294A	0	40	0.5	10 mv	20 mv	0.15	ina	yes	C	240	
	Kepeco	ABC40-0.5M	0	40	0.5	0.05	0.05	0.25	50	yes	C	167	a,b,c,e,f
	Trygon	DL40-700	0	40 <sup>8</sup>	0.7	0.01	0.01	0.5	25	yes	C	249	a,b,c,e,f
	Deltron	RP40-0.75	0	40	0.75	0.01	0.01	0.2	50	yes	½R	168	a,b,c,e,f,h
	Trygon	HR40-750	0	40	0.75	0.01	0.05	0.15	50	yes	½R	159	a,b,c,e,f
	Sorensen	QRB40-.75	0	40	0.75	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.15	50	yes	C or ½R	145	a,b,c,d,f

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 19	Harrison	6200A	0	40	0.75	0.01	0.01	0.2	50	yes	C	210	a,b,c,e,f,h
	Harrison	6202A	0	40	0.75	0.01	0.01	0.2	50	yes	C	179	a,b,c,e,f
	Hyperion	HY-W1-40-0.8	0	40	0.8	0.05	0.05	0.35	50	yes	C	159	a,b,d,f
	Hyperion	HY-WS-40-0.8	0	40	0.8	0.01	0.01	ina	50	yes	C	144	a,b,c,d,f
	Kepeco	CK40-0.8M	0	40	0.8	0.01	0.01	0.5	50	yes	C	267	a,b,c,e,f
	Perkin	MTVRO40-1	0	40	1	±0.01	±0.01	0.2	50	yes	C	215	a,b,c,e,f
	Lambda	LH124FM	0	40	1.3	0.015	0.015	0.25	ina	yes	½R	179	a,c,f
	Behl-Invar	QS-40	0	40	1.4	0.01	0.01	1	25	yes	¼R	179	a,b,c,d,f
	Hyperion	HY-ZS-40-1.5	0	40	1.5	0.01	0.01	ina	50	yes	C	198	a,b,c,d,f
	Deltron	RP40-1.5 <sup>18</sup>	0	40	1.5	0.01	0.01	0.2 <sup>14</sup>	50	yes	½R <sup>15</sup>	230	a,b,c,e,f
LS 20	Trygon	SHR40-1.5A	0	40	1.5	0.01	0.01	0.5	25	yes	½R	199	a,b,c,e,f
	Harrison	6255A	0	40	1.5	0.01	0.01	0.2	50	yes	C	395	a,b,c,e,f,g
	Harrison	6289A	0	40	1.5	0.01	0.01	0.2	50	yes	C	210	a,b,c,e,f
	EI Meas	PRO40-2M	0	40	2	0.04	0.04	1	125	yes	½R	250	a,b,c,d,f
	Perkin	TVRO60-2	0	40	2	±0.01	±0.02	2	50	yes	C or R	495	a,b,c,d,f
	Sorensen	QRB40-2	0	40	2	±0.01 <sup>7</sup>	±0.01 <sup>7</sup>	0.15	50	yes	C	255	a,b,c,d,f
	Perkin	TVCRO40-2	0	40	2	±0.01	±0.01	0.5	25	yes	C	450	a,b,c,d,f
	Fairlane	403	1	40	2.5	20 mv	10 mv	0.5	50	yes	R	375	c,e,f
	Fairlane	404	0.1	40	2.5	20 mv	10 mv	0.5	50	yes	R	480	c,e,f
	Deltron	RP40-2.5 <sup>18</sup>	0	40	2.5	0.01	0.01	0.2 <sup>14</sup>	50	yes	½R <sup>15</sup>	299	a,b,c,e,f
LS 21	Lambda	LH125FM	0	40	3	0.015	0.015	0.25	ina	yes	½R	294	a,c,f
	Tech Pwr	LS-40,0-3.0M	0	40	3	±0.01	±0.03	0.5	ina	yes	½R	320	a,b,c,f
	Tech Pwr	L-40,0-3.0M	0	40	3	±0.1	±0.3	0.5%	ina	yes	½R	200	a,b,c,f
	Hyperion	HY-SI-40-3	0	40	3	0.01	0.01	0.5	50	yes	½R	249	a,b,c,d,f
	Trygon	HR40-3B	0	40	3	0.01	0.01	0.5	50	yes	½R	295	a,b,c,e,f
	ERA	SPL40-3M	0	40	3	±0.01	0.02	0.5	50	yes	½R	425	a,b,c,d,f
	ERA	SPL-40-3/2M	0	40	3	±0.01	0.02	0.5	50	yes	R	755	a,b,c,d,f,g
	Harrison	6290A	0	40	3	0.01	0.01	0.5	50	yes	C	350	a,b,c,e,f
	Hyperion	HY-ZS-40-8	0	40	3	0.01	0.01	ina	50	yes	C	249	a,b,c,d,f
	Deltron	RS36-0.8M <sup>18</sup>	32	42	0.8,2,4	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
LS 22	Behl-Invar	TPR2,5-45	0	45	2.5	±0.0025	0.008	0.3	ina	yes	R	495	a,c,f
	Acme	PS-1-6757	0	45	2.5	ina	5	ina	ina	none	R	145	
	Sorensen	MD48,0-2.1	48	48	2.1	±1	2	1%	ina	none	R	115	
	Deltron	RS42-2.8M <sup>18</sup>	35	49	2.8 <sup>21</sup>	0.01	0.01	0.5	50	yes	½R	355	a,b,c,e,f
	Deltron	RP100-0.3	0	50	0.06	0.01	0.01	0.2	50	yes	½R	199	a,b,c,e,f,h
	Pwr Des	5005	0	50	0.5	0.05	0.05	250	50	yes	C	149	a,c,f
	EI Meas	220AM	0	50	0.5	0.06	0.06	1	ina	yes	R	324	a,b,f
	Deltron	RP50-C.6	0	50	0.6	0.01	0.01	0.2	50	yes	½R	176	a,b,c,e,f,h
	Trygon	T50-750	0	50	0.75	0.05	0.05	0.5	50	yes	C	199	a,b,c,e,f
	Pwr Des	5010P	0.2	50	1	0.05	0.05	0.25	60	yes	R	299	a,l
LS 23	EI Meas	213A	0	50	1	0.06	0.01	1	1 ms	yes	R	370	a,b,d,f
	Deltron	RF59-1.2	0	50	1.2	0.01	0.01	0.2	50	yes	½R	242	a,b,c,e,f
	Heath	IP-20	0.5	50	1.5	0.005	±15 mv	0.15	25	yes	C	115	c,d,f
	Pwr Des	5015AS	0	50	1.5	0.05	0.05	0.5	50	yes	C	234	c,f
	Deltron	HP50-1.5 <sup>18</sup>	0	50	1.5	0.05 <sup>13</sup>	0.05 <sup>13</sup>	0.5 <sup>22</sup>	50	yes	C or R	234	e,f
	NJE	RB-50-1.5-M	0	50	1.5	±0.01	±0.01	0.25	50	yes	C	230	a,b,c,e,f
	Hyperion	HY-Z1-50-1.5	0	50	1.5	0.05	0.05	1	50	yes	C	225	b,d,f
	Deltron	L Series	24 <sup>2</sup>	50 <sup>2</sup>	1.7	0.01	0.01	0.5	50	yes	R	192	a,b,c,e
	Deltron	DP48-2M	42	50	2	0.5	0.5	0.8%	100	yes	R	175	a,b,e,f
	Deltron	LH502M <sup>18</sup>	25	50	2	0.05 <sup>13</sup>	0.05	1	50	yes	R	301	a,b,c,e,f
LS 24	Un Elect	LQ50-2A	0	50	2	5 mv	5 mv	0.25	50	yes	R	425	b,c,d,f
	Glentron	O-50-2	0	50	2	1 mv	1 mv	2	ina	yes	R	request	b
	Trygon	T50-2	0	50	2	0.05	0.05	0.5	50	yes	C	249	a,b,c,e,f
	Deltron	SH50-3	0	50	3	0.01	0.01	1	50	yes	R	446	a,b,e,f
	Deltron	HP50-3 <sup>18</sup>	0	50	3	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	C	330	e,f
	Deltron	H50-3	0	50	3	0.2	0.2	1	50	yes	R	335	b,e,f
	EI Meas	215A	0	50	3	0.06	0.01	1	1 ms	yes	R	695	a,b,d,f
	Un Elect	Q50-2AM	48	52	2	5 mv	5 mv	1	50	yes	R	325	d
	NJE	SR-48-3M	44	52	3	0.005	0.01	0.2	15	yes	R	295	a,b,c,d,f
	Deltron	RS48-0.6M <sup>18</sup>	40	56	0.6-3	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f

Notes, abbreviations and manufacturers' index at end of this section.



Laboratory-type dc supplies

60-90 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 25	Hyperion	HY-W1-60-0.3	0	60	0.3	0.05	0.05	1	50	yes	C or R	160	a,b,d,f
	Un Elect	L6005	0	60	0.5	5 mv	5 mv	0.5	50	yes	C	215	a,c,d,f
	Kepeco	CK60-0.5M	0	60	0.5	0.01	0.01	0.5	50	yes	C	305	a,b,c,e,f
	Hyperion	HY-WS-60-0.5	0	60	0.5	0.01	0.01	ina	50	yes	C	144	a,b,c,d,f
	Hyperion	HY-Z1-60-0.5	0	60	0.5	0.05	0.05	1	50	yes	C or R	210	b,d,f
	Lambda	LH127FM	0	60	0.9	0.015	0.015	0.25	ina	yes	¼R	209	a,c,f
	Behl-Invar	QS-60	0	60	0.96	0.01	0.01	1	25	yes	¼R	209	a,b,c,d,f
	Fairlane	601	1	60	1	20 mv	10 mv	0.5	50	yes	R	395	c,e,f
	Fairlane	602	0.1	60	1	20 mv	10 mv	0.5	50	yes	R	495	c,e,f
	Deltron	SP60-1	0	60	1	0.01	0.01	0.5	50	yes	R	230	a,b,c,e,f
LS 26	Vector	ST-06-1A	0	60	1	±0.03	0.05	1	25	yes	C	265	a,b,c,e,f
	Mid-Eastern	ME60-1M	0	60	1	0.1	0.1	1	50	yes	R	595	a,b,c,d,f
	ERA	SL601-2M	0	60	1	±0.01	0.02	1	ina	yes	½R	415	b,c,f,g
	ERA	SL60-1M	0	60	1	±0.01	0.02	1	ina	yes	½R	215	b,c,f
	Deltron	HP60-1 <sup>18</sup>	0	60	1-3	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	C or R	232	e <sup>16,17,20</sup>
	Behl-Invar	TPA-1-60	0	60	1	20 mv	6 mv	0.5	20	yes	R	480	b,c,e,f
	Hyperion	HY-ZS-60-1	0	60	1	0.01	0.01	ina	50	yes	C	229	a,b,c,d,f
	Hyperion	HY-Z1-60-1.0	0	60	1	0.05	0.05	1	50	yes	C or R	250	b,d,f
	Harrison	6257A	0	60	1	0.01	0.01	0.2	50	yes	C	395	a,b,c,e,f,g
	EI Meas	PRO60-1.5M	0	60	1.5	0.04	0.04	1	100	yes	½R	250	a,b,c,d,f
LS 27	Mid-Eastern	ST60-1.5	0	60	1.5	0.005	0.02	0.5	50	yes	R	495	a,b,c,e,f
	EI Meas	TO60-1.5M	0	60	1.5	10 mv	10 mv	0.5	ina	yes	R	394	a,b,c,f
	Mid-Eastern	S360-1.5	0	60	1.5	0.01	0.02	1	50	yes	R	395	a,b,c,d,f,g
	Princeton	TC-602R	0	60	2	0.0001	0.0001	0.05	25	yes	R	1185	a,b,c,d,f
	Voltex	60-2	0	60	2	±0.02	±0.005	3	25	yes	R	575	a,b,c,e,f
	Kepeco	KS60-2M	0	60	2	0.01	0.01	1	50	yes	R	525	a,b,c,e,f
	Hyperion	HY-Z1-60-2.0	0	60	1	0.05	0.05	2	50	yes	C or R	310	b,d,f
	Harrison	726AR	0	60	2	2.5 mv	5 mv	0.25	200	yes	R	545	a,b,c,d,e,f
	Lambda	LH128FM	0	60	2.4	0.015	0.015	0.25	ina	yes	½R	340	a,c,f
	Trygon	HR60-2.5B	0	60	2.5	0.01	0.01	0.5	50	yes	½R	329	a,b,c,e,f
LS 28	NJE	QR-60-2.5	0	60	2.5	±0.02	±0.005	3	50	yes	R	420	a,b,c,d,f
	Pioneer	RR60-2.5B	0	60	2.5	0.01	0.01	1	50	yes	R	ina	a,b,c,e
	Pioneer	RR60-2.5A	0	60	2.5	0.1	0.1	1	50	yes	R	ina	a,b,c,e
	EI Meas	PV60-2.5M	0	60	2.5	0.01	0.01	0.5	ina	yes	R	495	a,b,c,f
	EI Meas	TP60-2.5M	0	60	2.5	10 mv	10 mv	1	ina	yes	R	515	a,b,c,f
	Hyperion	HY-ZS-60-2.5	0	60	2.5	0.01	0.01	ina	50	yes	C	299	a,b,c,d,f
	Chalco	60V-3A	30	60	3	±0.1	±0.1	1	25	yes	R <sup>9</sup>	275	a,b,c,d
	Hyperion	HY-Si-60-3	0	60	3	0.01	0.01	0.5	50	yes	½R	299	a,b,c,d,f
	Harrison	6371A	0	60	3	0.01	0.01	0.5	50	none	R	435	a,b,c,e
	Harrison	6296A	0	60	3	0.01	0.01	0.5	50	yes	C	395	a,b,c,e,f
LS 29	Harrison	6271A	0	60	3	0.01	0.01	0.5	50	yes	R	435	a,b,c,e,f
	Deltron	RP60-0.5 <sup>18</sup>	0	64	0.5-2.5	0.01	0.01	0.2	50	yes	½R	176	a,b,c,e,f
	Harrison	6206AM	0	64	0.5	0.01	0.01	0.2	50	yes	C	184	a,b,c,e,f,h
	Harrison	6242A	0	64	1	0.03	0.02	0.2	50	yes	R	435	a,b,c,e,f
	Deltron	RS60-0.5M <sup>18</sup>	50	70	0.5-3	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
	Trans Dev	VS102	0	70	2	±0.05	±0.1	1	50	yes	R	ina	a,b,c,d
	Trans Dev	VS202	0	70	3	±0.05	±0.1	1	50	yes	R	ina	a,b,c,d
	Deltron	ULH752M <sup>18</sup>	51 <sup>2</sup>	75 <sup>2</sup>	2	0.01 <sup>13</sup>	0.01 <sup>13</sup>	1	50	yes	R	403	a,b,c,e,f
	Behl-Invar	TPA-2-75	0	75	2	20 mv	10 mv	1	20	yes	R	650	b,c,e,f
	EI Meas	225AM	0	75	2	0.05	0.05	1	ina	yes	R	545	a,b,f
LS 30	Kepeco	SM75-2M	0	75	2	0.01	0.05	1	50	yes	R	425	b,c,e,f
	Trygon	DL40-700	0	80 <sup>8</sup>	0.35	0.01	0.01	0.5	25	yes	C	249	a,b,c,e,f
	Tech Pwr	LS-80-0-1.5M	0	80	1.5	±0.01	±0.03	0.5	ina	yes	½R	320	a,b,c,f
	Tech Pwr	L-80-0-1.5M	0	80	1.5	±0.01	±0.3	0.5%	ina	yes	½R	200	a,b,c,f
	Kepeco	PR80-2.5M	0	80	2.5	±1	2	0.7	ina	yes	R	340	f
	Tech Pwr	LS-80-0-3.0M	0	80	3	±0.01	±0.03	0.5	ina	yes	½R	450	a,b,c,f
	Tech Pwr	L-80-0-3.0M	0	80	3	±0.1	±0.3	0.5%	ina	yes	½R	260	a,b,c,f
	Deltron	DP75-2M	68	82	2	0.5	0.5	1%	50	yes	R	195	a,b,e,f
	Deltron	RS72-0-42M <sup>18</sup>	60	84	0.42-2.94	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
	Chalco	90V-1A	44	90	1	±0.1	±0.1	1	25	yes	R <sup>9</sup>	240	a,b,c,d

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 31	Chalco	90V-3A	44	90	3	±0.1	±0.1	1	25	yes	R <sup>9</sup>	315	a,b,c,d
	Deltron	RS84-0.35M <sup>18</sup>	70	98	0.35	0.01	0.01	0.5	50	yes	½R	195	a,b,c,e,f
	Deltron	RP100-0.3	0	100	0.03	0.01	0.01	0.2	50	yes	½R	199	a,b,c,e,f,h
	EI Meas	212AM	0	100	0.1	0.1	0.05	0.5	ina	yes	R	154	a,b,f
	EI Meas	2-212AM	0	100	0.1	0.1	0.05	1	ina	yes	R	308	a,b,f,g
	EI Meas	TR212A	0	100	0.1	0.04	0.04	0.25	50	yes	½R	184	a,b,c,d,f
	Hyperion	HY-W1-100-0.15	0	100	0.15	0.05	0.05	1	50	yes	C	159	a,b,d,f
	Owen	505	0.01	100	0.2	±0.002	0.05	2	ina	yes	C	ina	b
	Owen	500	0	100	0.2	±0.002	0.05	2	ina	yes	C	ina	b
	Harrison	6106A	0	100	0.2	0.001	0.001	0.04	50	yes	C	265	a,b,c,e,f
LS 32	Harrison	6116A	0	100	0.2	0.001	0.001	0.04	50	yes	C	375	a,b,c,e,f
	EI Meas	224AM	0	100	0.2	0.1	0.05	1	ina	yes	R	214	a,b,f
	Princeton	TC-100.2AR	0	100	0.2	0.0001	0.0001	0.2	25	yes	R	1800	a,b,c,d,f
	Kepeco	ABC100-0.2M	0	100	0.2	0.05	0.05	0.25	50	yes	C	188	a,b,c,e,f
	Princeton	TC-100.2R	0	100	0.2	0.0001	0.0001	0.2	25	yes	R	1500	a,b,c,d,f
	Pwr Des	105TA	1	100	0.5	0.05	0.05	1	50	yes	C	239	d,f
	EI Meas	221AM	0	100	0.5	0.04	0.04	1	ina	yes	R	354	a,b,f
	Deltron	RP100-0.6	0	100	0.6	0.01	0.01	0.2	50	yes	½R	278	a,b,c,e,f
	Behl-Invar	QS-100	0	100	0.6	0.01	0.01	1	25	yes	¼R	229	a,b,c,d,f
	Harrison	6258A	0	100	0.75	0.01	0.01	0.2	50	yes	C	425	a,b,c,e,f,g
LS 33	Harrison	6299A	0	100	0.75	0.01	0.01	0.2	50	yes	C	395	a,b,c,e,f
	Deltron	L Series	48 <sup>11</sup>	100 <sup>11</sup>	1	0.01	0.01	0.5	50	yes	R	197	a,b,c,e
	Pwr Des	1010T	1	100	1	0.05	0.05	1	50	yes	C	339	c,d,f
	Voltex	100-1	0	100	1	±0.02	±0.005	3	25	yes	R	575	a,b,c,e,f
	Harrison	881A	0	100	1	0.02	0.02	0.2	50	yes	R	475	a,b,c,e,f
	Harrison	881AX	0	100	1	2 mv	2 mv	0.2	50	yes	R	600	a,b,c,e,f
	EI Meas	214AM	0	100	1	0.05	0.05	1	1 ms	yes	R	404	a,b,d,f
	Deltron	HP100-1 <sup>18</sup>	0	100	1-3	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1 <sup>14</sup>	50	yes	C or R	325	e,f <sup>16,17,20</sup>
	Mid-Eastern	ST100-1	0	100	1	0.005	0.01	0.5	50	yes	R	495	a,b,c,e,f
	EI Meas	PRO100-1M	0	100	1	0.04	0.04	1	100	yes	½R	250	a,b,c,d,f
LS 34	Mid-Eastern	SS100-1	0	100	1	0.01	0.01	1	50	yes	R	395	a,b,c,d,f
	Voltex	100-2	0	100	2	±0.02	±0.005	3	25	yes	R	650	a,b,c,e,f
	EI Meas	226AM	0	100	2	0.05	0.04	1	ina	yes	R	575	a,b,f
	Deltron	HP100-2	0 <sup>24</sup>	100	2	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1 <sup>14</sup>	50	yes	C or R	415	e,f <sup>16,17,20</sup>
	EI Meas	218AM	0	100	3	0.06	0.04	1	1 ms	yes	R	745	a,b,f
	Deltron	SH100-3	0	100	3	0.01	0.01	1 <sup>14</sup>	50	yes	R	683	a,b,e,f <sup>20</sup>
	Mid-Eastern	ST100-3	0	100	3	0.005	0.01	0.5	50	yes	R	795	a,b,c,e,f
	Lambda	LA20-05BM	20	105	2	0.05	0.1	1	ina	yes	R	380	a,c,f
	NJE	SR-100-1.5M	92	108	1.5	0.005	0.01	1	15	yes	C	310	a,b,c,d,f
	NJE	SR-100-3M	92	108	3	0.005	0.01	1	15	yes	C	420	a,b,c,d,f
LS 35	Sorensen	MD115-.87	115	115	0.87	±1	2	1%	ina	none	R	115	
	Sorensen	MD115-1.8	115	115	1.8	±1	2	1%	ina	none	R	135	
	Lambda	LH130FM	0	120	0.5	0.015	0.015	0.25	ina	yes	½R	250	a,c,f
	Lambda	LH131FM	0	120	1.2	0.015	0.015	0.25	ina	yes	½R	345	a,c,f
	Harrison	6443A	0	120	2.5	0.05	0.1	0.2%	300 ms	yes	R	360	a,b,c,e,f
	Sola	281125	125	125	2	±1	1.5	1%	ina	none	R	145	
	Acme	PS-41425	125	125	2	±1	±1	1%	100 ms	none	R	143	e
	Acme	PS-47201	125	125	3	±1	±2	1%	ina	yes	R	210	
	NJE	SR-120-1.3M	110	130	1.3	0.005	0.01	1	15	yes	C	310	a,b,c,d,f
	NJE	SR-120-2.6M	110	130	2.6	0.005	0.01	1	15	yes	C	420	a,b,c,d,f
LS 36	Deltron	DP125-1M <sup>18</sup>	112	136	1-3	±0.5	0.5	1%	50 ms	yes	R	215	a,b,e,f
	EI Meas	229AM	0	150	0.3	0.05	0.04	1	ina	yes	R	259	a,b,f
	Trygon	FT-FTR-150-1	150	150	1	±1	5 v	500	25	none	¼R	149	e
	Deltron	DP150-1M	120	150	1	±0.5	0.5	1%	50 ms	yes	R	220	a,b,e,f
	Chalco	150V-1A	74	150	1	±0.1	±0.1	1	25	yes	R <sup>9</sup>	340	a,b,c,d
	Pwr Des	1510TC	50	150	1	0.05	0.05	1	ina	yes	R	425	f
	EI Meas	228AM	0	150	1	0.05	0.04	1	ina	yes	R	475	a,b,f
	Mid-Eastern	ST150-1.5S	0	150	1.5	0.01	0.01	1	50	yes	R	695	b,c,e,f
	Sola	281150M	150	150	2	±1	1.5	1	ina	yes	R	175	
	Acme	PS-41426	150	150	2	±1	±1	1%	100 ms	none	R	143	e

Notes, abbreviations and manufacturers' index at end of this section.



# Laboratory-type dc supplies

150-250 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 37	Deltron	DP150-2M	120	150	2	±0.5	0.5	1%	50 ms	yes	R	250	a,b,e,f
	EI Meas	HV150-2M	0	150	2	0.03	0.03	1	100	yes	R	590	a,b,d,f
	Sorensen	DCR150-2.5	0	150	2.5	±0.17	±0.17	±30	30 ms	yes	C	325	a,b,c,d,f
	Deltron	DP150-3M	120	150	3	±0.5	0.5	1%	50 ms	yes	R	310	a,b,e,f
	Chalco	150V-3A	74	150	3	±0.1	±0.1	1	25	yes	R <sup>9</sup>	390	a,b,c,d
	EI Meas	HV150-3M	0	150	3	0.03	0.03	1	100	yes	R	620	a,b,d,f
	Deltron	H150-3	0	150	3	0.05	0.05	1	50	yes	R	760	b,e,f
	Deltron	HP150-31 <sup>8</sup>	0	150	3	0.05 <sup>13</sup>	0.05 <sup>13</sup>	1	50	yes	C	755	e,f
	Pwr Des	1510TA	145	155	1	0.05	0.05	1	ina	yes	R	375	f
	Kepeco	PR155-1M	0	155	1	±1	2	0.6%	ina	yes	R	340	f
LS 38	Harrison	6207A	0	160	0.2	0.02	0.02	0.5	50	yes	C	194	a,b,c,e,f,g
	Trygon	SHR160-500B	0	160	0.5	0.01	0.01	0.5	25	yes	½R	295	a,b,c,e,f
	Tech Pwr	L-160.0-0.750M	0	160	0.75	±0.1	±0.3	0.5%	ina	yes	½R	200	a,b,c,f
	Tech Pwr	LS-160.0-0.750M	0	160	0.75	±0.01	±0.03	0.5	ina	yes	½R	345	a,b,c,f
	Hyperion	HY-T1-160-8	0	160	0.8	0.025	0.025	1	50	yes	R	1195	a,b,d,f
	NJE	SR-150-1M	140	160	1	0.005	0.01	1	15	yes	C	310	a,b,c,d,f
	Hyperion	HY-Si-160-1	0	160	1	0.01	0.01	1	50	yes	½R	349	a,b,c,d,f
	Kepeco	SM160-1M	0	160	1	0.01	0.05	1	50	yes	R	425	b,c,e,f
	Hyperion	HY-Z1-160-1	0	160	1	0.05	0.05	2	50	yes	C	319	b,d,f
	Trygon	RS160-1A	0	160	1	0.01	0.01	0.5	25	yes	R	425	a,b,c,e,f
LS 39	NJE	QR-160-1.2	0	160	1.2	±0.02	±0.005	3	50	yes	R	620	a,b,c,d,f
	Tech Pwr	L-160.0-1.5M	0	160	1.5	±0.1	±0.3	0.5%	ina	yes	½R	260	a,b,c,f
	Hyperion	HY-Si-160-1.5	0	160	1.5	0.01	0.01	1	50	yes	½R	399	a,b,c,d,f
	Tech Pwr	LS-160.0-1.5M	0	160	1.5	±0.01	±0.03	0.5	ina	yes	½R	495	a,b,c,f
	NJE	SR-150-2M	140	160	2	0.005	0.01	1	15	yes	C	420	a,b,c,d,f
	Kepeco	SM160-2M	0	160	2	0.01	0.05	1	50	yes	R	525	b,c,e,f
	Hyperion	HY-T1-160-2	0	160	2	0.025	0.025	1	50	yes	R	560	a,b,d,f
	Trygon	HR160-2B	0	160	2	0.01	0.01	0.5	25	yes	½R	475	a,b,c,e,f
	Harrison	896A	75	160	2.5	0.007	0.007	1	100	yes	R	675	a,b,c,e,f
	Tech Pwr	L-160.0-3.0M	0	160	3	±0.1	±0.3	0.5%	ina	yes	½R	340	a,b,c,f
LS 40	Hyperion	HY-Si-160-3	0	160	3	0.01	0.01	1	50	yes	R	529	a,b,c,d,f
	Tech Pwr	LS-160.0-3.0M	0	160	3	±0.01	±0.03	0.5	ina	yes	½R	820	a,b,c,f
	NJE	QRP-160-3	50	160	3	±0.02	±0.005	3	50	yes	R	720	a,b,c,d,f
	Trygon	RS160-3	0	160	3	0.01	0.01	0.5	25	yes	R	615	a,b,c,e,f
	Sola	285140	60	180	2	±1	ina	0.02	ina	yes	4	295	f
	Lambda	29M	100	200	0.1	1	1	10	ina	yes	R	120	f
	Assoc Spec	13	75	200	0.1	1	1	5	ina	yes	C	80	f
	Assoc Spec	11	75	200	0.1	1	1	5	ina	none	R	70	
	Kepeco	ABC200M	0	200	0.1	0.05	0.05	0.5	50	yes	C	210	a,b,e,f
	Lambda	C280M	0	200	0.2	0.15	0.25	3	ina	yes	R	235	f
LS 41	Deltron	KP2020 <sup>18</sup>	0	200	0.2-3	0.05	0.05	2	50	none	R	185	a,b,c,e
	Lambda	33M	100	200	0.3	1	1	10	ina	yes	R	215	f
	Pwr Des	203M	100	200	0.3	0.05	0.05	0.5	50	yes	R	226	d,f
	Lambda	C480M	0	200	0.4	0.15	0.25	3	ina	yes	R	320	f
	Chalco	200V-0.5A	99	200	0.5	±0.1	±0.1	1	25	yes	R <sup>9</sup>	330	a,b,c,d
	Deltron	L Series <sup>18</sup>	96 <sup>12</sup>	200 <sup>12</sup>	0.5-3	0.01	0.01	0.5	50	yes	R	217	a,b,c,e
	Lambda	C880M	0	200	0.8	0.15	0.25	3	ina	yes	R	410	f
	Chalco	200V-1A	99	200	1	±0.1	±0.1	1	25	yes	R <sup>9</sup>	410	a,b,c,d
	EI Meas	230AM	0	200	1	0.05	0.04	1	ina	yes	R	575	a,b
	Acme	PS-41427	0	200	1	±1	±1	1%	100 ms	none	R	135	e
LS 42	Lambda	C1580M	0	200	1.5	0.15	0.25	3	ina	yes	R	655	f
	Chalco	200V-2.5A	99	200	2.5	±0.1	±0.1	1	25	yes	R <sup>9</sup>	480	a,b,c,d
	Oregon	E120-10	95	210	0.1	0.75	0.75	5	ina	yes	R	95	f
	Oregon	EL20-30	95	210	0.3	0.75	0.75	5	ina	yes	R	175	f
	Pwr Srce	PS4222M	35	215	1.5	0.1	0.1	3	ina	yes	C	619	b,f,g
	Deltron	DP200-1M	180	220	1	±1	1	0.8%	100	yes	R	175	a,b,e,f
	Kepeco	PR220-3M	0	220	3	±1	2	0.5%	ina	yes	R	450	c,e,f
	Deltron	DP250-1M	200	250	1	±1	1	0.8%	100	yes	R	180	a,b,e,f
	Kepeco	HB250M	0	250	1	0.01	0.01	1	50	yes	R	395	a,b,c,e,f
	Acme	PS41428	0	250	1	±1	±1	1%	100 ms	none	4	147	e

Notes, abbreviations and manufacturers' index at end of this section.

# Laboratory-type dc supplies

250-330 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 43	Sola	285150	150	250	1.5	±1	0.5-8	0.03%	ina	yes	R	295	f
	Deltron	DP250-2M	200	250	2	±1	1	0.8%	100	yes	R	305	a,b,e,f
	Freed	1170-A	25	270	1	±1.5	ina	ina	ina	yes	C	350	f
	Gen Radio	1264-A	200	300	0.05	0.5 v	ina	1	ina	none	C or R	285	
	Gen Radio	1201-C	300 <sup>d</sup>	300 <sup>d</sup>	0.07	±0.25	±0.25	1	ina	none	C or R	95	
	Gen Radio	1267-A	300 <sup>5</sup>	300 <sup>5</sup>	0.07	±0.25	±0.25	1	ina	none	C or R	170	
	Heath	EVW-15	200	300	0.1	ina	1	10	ina	none	C	75	
	R & S	NGU BN95140	100	300	0.1	±200 mv	ina	0.2	ina	none	C	360	
	EI Meas	2601AK	0	300	0.1	0.01	0.01	1	ina	yes	R	429	
	EI Meas	231AM	0	300	0.1	0.08	0.02	0	500	yes	R	239	b,d,f
LS 44	Un Elect	200AT	0	300	0.2	0.07	0.07	1	100	yes	R	595	d,f,h
	Gen Radio	1205-B	0	300	0.2	750 mv	100 mv	1	ina	yes	C or R	365	
	EI Meas	232AM	0	300	0.2	0.08	0.02	1	500	yes	R	259	b,d,f
	EI Meas	2602AK	0	300	0.2	0.01	0.01	1	ina	yes	R	449	
	EI Meas	2603AK	0	300	0.3	0.01	0.01	1	ina	none	R	469	
	EI Meas	233AM	0	300	0.3	0.08	0.02	1	500	yes	R	279	b,d,f
	Pwr Des	304M	250	300	0.4	0.05	0.05	0.5	50	yes	R	264	d,f
	Trygon	FT-FTR-300-500	300	300	0.5	±1	10 v	700	25	none	½R	149	e
	EI Meas	234AM	0	300	0.5	0.08	0.02	500	500	yes	R	394	a,b,d,f
	Un Elect	G3050M	0	300	0.5	0.05	0.05	2	100	yes	R	350	d,f
LS 45	Deltron	DP300-1M	250	300	1	±1	1	0.8%	100	yes	R	190	a,b,e,f
	Sorensen	DCR300-1.25	0	300	1.25	±0.17	±0.17	±60	30 ms	yes	C	325	a,b,c,d,f
	Pwr SrCs	PS4000C	260	300	1.5	ina	200 mv	2	ina	yes	C	621	f,g
	Pwr SrCs	PS4230M	90	300	1.5	0.1	0.1	3	ina	yes	R	642	b,f,g
	EI Meas	HV300-1.5M	0	300	1.5	0.03	0.03	1	100	yes	R	620	a,b,d,f
	Sorensen	DCR300-2.5	0	300	2.5	±0.17	±0.17	±60	30 ms	yes	C	525	a,b,c,d,f
	Cohu	30F-1	2	302	0.02	±0.002	±0.01	0.5	200	none	R	575	d
	Kepeco	PR310-2M	0	310	2	±1	2	0.5	ina	yes	R	450	f
	Kepeco	PR310-0.6M	0	310	0.6	±1	2	0.5	ina	yes	R	360	f
	Harrison	890A	0	320	0.6	0.007	0.007	1	100	yes	R	445	a,b,c,e,f
LS 46	Trygon	RS320-1A	0	320	1	0.01	0.01	0.5	25	yes	R	425	a,b,c,e,f
	Harrison	895A	0	320	1.5	0.007	0.007	1	100	yes	R	625	a,b,c,e,f
	Trygon	RS320-1.5	0	320	1.5	0.01	0.01	0.5	25	yes	R	550	a,b,c,e,f
	Assoc Spec	3	200	325	0.1	1	1	10	ina	yes	C	70	f
	Assoc Spec	1	200	325	0.1	1	1	10	ina	none	R	53	
	Lambda	28M	200	325	0.1	1	1	5	ina	yes	R	110	f
	Oregon	EL32-10	200	325	0.1	0.75	0.75	5	ina	yes	R	88	f
	EI Meas	200B	0	325	0.125	1	1	5	ina	yes	R	185	f
	Oregon	GP32-20	195	325	0.2	0.05	0.05	1	ina	yes	R	178	f
	Un Elect	32A	160	325	0.2	0.25	0.25	1	100	yes	R	225	d,f
LS 47	Lambda	C281M	125	325	0.2	0.15	0.25	3	ina	yes	R	210	f
	Deltron	KP3020	125	325	0.2	0.05	0.05	2	50	none	R	160	a,b,c,e
	Kepeco	HB-2AM	0	325	0.2	0.01	0.01	1	50	yes	R	295	a,b,c,e,f
	Lambda	32M	200	325	0.3	1	1	10	ina	yes	R	200	f
	Pwr Des	323M	200	325	0.3	0.05	0.05	3	50	yes	R	216	d,f
	Lambda	C481M	125	325	0.4	0.15	0.25	3	ina	yes	R	300	f
	Deltron	LP3040	125	325	0.4	0.05	0.05	2	50	none	R	245	a,b,c,e
	Kepeco	HB4AM	0	325	0.4	0.01	0.01	1	50	yes	R	330	a,c,e,f
	Kepeco	SM325-0.5M	0	325	0.5	0.01	0.05	1	50	yes	R	440	b,c,e,f
	Kepeco	HB6AM	0	325	0.6	0.01	0.01	1	50	yes	R	365	a,b,c,e,f
LS 48	Lambda	C881M	125	325	0.8	0.15	0.25	3	ina	yes	R	380	f
	Deltron	KP3080	125	325	0.8	0.05	0.05	2	50	none	R	320	a,b,c,e
	Kepeco	HB8AM	0	325	0.8	0.01	0.01	1	50	yes	R	395	a,b,c,e,f
	Kepeco	SM325-1M	0	325	1	0.01	0.05	1	50	yes	R	555	b,c,e,f
	Lambda	C1581M	125	325	1.5	0.15	0.25	3	ina	yes	R	680	f
	Deltron	KP30150	125	325	1.5	0.05	0.05	2	50	none	R	585	a,b,c,e
	Pwr SrCs	PS4232M	115	325	1.5	0.1	0.1	3	ina	yes	C	678	b,f,g
	Kepeco	SM325-2M	0	325	2	0.01	0.05	1	50	yes	R	675	b,c,e,f
	Hyperion	HY-Z1-330-0.35	0	330	0.35	0.05	0.05	2	50	yes	C	319	b,d,f
	Lambda	LA8-08AM	75	330	0.8	0.05	0.1	1	ina	yes	R	425	a,c,f

Notes, abbreviations and manufacturers' index at end of this section.



# Laboratory-type dc supplies

330-510 v

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 49	EI Meas	HV330-1M	0	330	1	0.03	0.03	1	100	yes	R	590	a,b,d,f
	Hyperion	HY-T1-330-1	0	330	1	0.025	0.025	1	50	yes	R	615	a,b,d,f
	Lambda	LA15-08BM	75	330	1.5	0.05	0.1	1	ina	yes	R	590	a,c,f
	Hyperion	HY-T1-330-2.5	0	330	2.5	0.025	0.025	1	50	yes	R	895	a,b,d,f
	Lambda	LA30-08BM	75	330	3	0.05	0.1	1	ina	yes	R	890	a,c,f
	Oregon	D4	0	350	0.075	0.5	0.5	10	ina	yes	C or R	350	f,g
	Oregon	A3	0	350	0.075	0.5	0.5	10	ina	yes	C or R	175	f
	Oregon	A3A	0	350	0.075	0.5	0.5	10	ina	yes	C or R	185	f
	Grundig	6007	50	350	0.1	±0.5	±0.5	0.05%	ina	yes	C	979	
Grundig	SN3	0	350	0.1	±0.15	±0.45	5	ina	yes	C	319		
LS 50	Oregon	B3	0	350	0.2	0.3	0.15	5	ina	yes	C or R	200	f
	Oregon	B3 Dual	0	350	0.2	0.3	0.15	5	ina	yes	C or R	425	f,g
	Oregon	BF35-20	0	350	0.2	0.1	0.1	2	ina	yes	C or R	185	f
	Pwr Des	353AM	150	350	0.3	0.05	0.05	0.5	50	yes	R	253	d,f
	Pwr Des	305M	250	350	0.5	0.05	0.05	0.5	50	yes	R	330	d,f
	Oregon	RL37-25M	195	375	0.25	0.05	0.05	1	ina	yes	R	193	f
	Heath	IP-32	0	400	0.1	±0.5 v	1 v	10	ina	yes	C	85	f
	Keppo	2400B	0	400	0.15	0.1	0.25	3	50	yes	R	595	d,f,g
	Precise	780	0	400	0.15	0.4	0.33	3	ina	yes	C	100	f,h
Keppo	400B	0	400	0.15	0.1	0.25	3	50	yes	R	295	d	
LS 51	Un Elect	425A	0	400	0.25	0.5	0.5	5	1 ms	yes	R	250	d,f
	Un Elect	425AT	0	400	0.25	0.5	0.5	5	1 ms	yes	R	460	d,f,h
	Sola	285160	250	400	0.75	±1	0.5-8	0.02%	ina	yes	R	295	f
	EI Meas	HV400-1M	0	400	1	0.03	0.03	1	100	yes	R	720	a,b,d,f
	Deltron	27531 <sup>a</sup>	0	425	0.05,0.1	0.01	0.01	0.5	50	yes	½R	199	a,b,c,e,f
	Keppo	ABC425M	0	425	0.05	0.05	0.05	0.5	50	yes	½R	210	a,b,c,e,f
	Keppo	430D	0	450	0.3	0.1	0.025	3	50	yes	R	725	d,f,h
	Deltron	DP450-1M	360	450	1	±1	1	0.8%	100	yes	R	315	a,b,e,f
	Alfred	262	20	500	0.1	0.01	0.02	5	ina	yes	R	850	
Harrison	711	0	500	0.1	0.5	0.5	1	ina	yes	C	275	f	
LS 52	Oregon	D6	0	500	0.125	0.5	0.5	10	ina	yes	C or R	325	f,g
	Pwr Des	351M	150	500	0.15	0.05	0.05	0.5	50	yes	R	183	d,f
	Pwr Des	502M	300	500	0.2	0.05	0.05	0.5	50	yes	C	216	d,f
	Krohn-Hite	UHR-225	140	500	0.2	0.08	0.002	0.1	1	yes	C or R	395	d,f
	Krohn-Hite	UHR-220	0	500	0.2	0.003	0.001	0.1	1	yes	C or R	495	d,f
	Harrison	712B	0	500	0.2	100 mv	50 mv	0.5	100	yes	C or R	490	d,f
	Un Elect	UP520B	0	500	0.2	0.003	0.003	1	100	yes	R	375	d,f
	Oregon	5-2V	0	500	0.2	0.3	0.15	5	ina	yes	C or R	240	f,g
	Un Elect	520AT	0	500	0.2	0.5	0.5	5	1 ms	yes	R	525	d,f
Lambda	71M	0	500	0.2	0.15	0.15	8	ina	yes	C	380	f	
LS 53	Un Elect	520A	0	500	0.2	0.5	0.5	5	1 ms	yes	R	295	d,f
	Cohu	50F-25	1.02	500	0.25	±0.002	±0.01	0.002	200	none	R	1395	d
	EI Prod	RB-500	0	500	0.25	0.03	0.03	5	ina	yes	C	395	
	Un Elect	530A	0	500	0.3	0.05	0.05	5	50	yes	R	350	d,f
	EI Meas	204A	0	500	0.3	0.5	1	5	ina	yes	R	360	
	Un Elect	300B	0	500	0.3	0.04	0.04	2	100	yes	R	410	d,f
	Pwr Des	504M	400	500	0.4	0.05	0.05	0.5	50	yes	R	272	d,f
	Oregon	5-4V	0	500	0.4	0.3	0.15	5	ina	yes	C or R	370	f
	Krohn-Hite	UHR-245	140	500	0.5	0.08	0.002	0.1	1	yes	C or R	575	d,f
Lambda	50RM	0	500	0.5	0.15	0.5	5	ina	yes	R	506	f	
LS 54	Lambda	50M	0	500	0.5	0.15	0.5	5	ina	yes	C	525	f
	Krohn-Hite	UHR-240	0	500	0.5	0.003	0.001	0.1	1	yes	C or R	750	d,f
	Oregon	BV50-50	0	500	0.5	0.1	0.1	2	ina	yes	C or R	385	f
	Cohu	50F-100	1.02	500	1	±0.002	±0.01	2	200	none	R	2175	d
	Cohu	50B-25	1.02	500	1	±0.002	±0.01	0.002	200	none	R	1575	d
	Cohu	301	1	501	0.02	0.002	0.002	0.1	ina	yes	C	995	f
	Cohu	50B-100	1.02	502	1	±0.002	±0.01	2	200	none	R	2375	d
	Oregon	RW51-20M	195	510	0.2	0.05	0.05	1	ina	yes	R	225	f
	Oregon	RL51-50M	325	510	0.5	0.05	0.05	1	ina	yes	R	278	f
Oregon	RL51-150M	325	510	1.5	0.05	0.05	1	ina	yes	R	678	f	

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time (μ sec)				
LS 55	Fluke	301E	1.02	512	0.3	0.005	0.005	2	200	yes	R	695	
	Lambda	C282M	325	525	0.2	0.15	0.25	3	ina	yes	R	220	f
	Deltron	KP502018	325	525	0.2-1.5	0.05	0.05	2	50	none	R	170	a,b,c,e
	Lambda	C482M	325	525	0.4	0.15	0.25	3	ina	yes	R	315	f
	Kepeco	HB525M	0	525	0.5	0.01	0.01	1	50	yes	R	435	a,b,c,e,f
	Lambda	C882M	325	525	0.8	0.15	0.25	3	ina	yes	R	425	f
	Lambda	C1582M	325	525	1.5	0.15	0.25	3	ina	yes	R	755	f
	Fluke	407D	0	555	0.3	0.005	0.01	0.5	ina	yes	C	360	
	Fluke	407D	0	555	0.3	0.005	0.01	0.5	ina	yes	R	380	
	Un Elect	620A	0	600	0.2	0.5	0.5	5	1 ms	yes	R	325	d,f
LS 56	El Meas	236AM	0	600	0.2	0.025	0.02	1	ina	yes	R	350	a,b,f
	Kepeco	800B	0	600	0.2	0.1	0.02	3	50	yes	R	575	d,f,g
	Kepeco	615B	0	600	0.3	0.1	0.02	3	50	yes	R	375	d,f
	El Meas	235AM	0	600	0.5	0.025	0.02	1	ina	yes	R	650	a,b,f
	Kepeco	605	0	600	0.5	0.1	0.02	3	50	yes	R	450	d,f
	El Meas	209B	0	600	0.6	0.02	0.01	0.5	200 ms	yes	R	525	d,f
	El Meas	219B	0	600	1	0.02	0.01	0.5	200 ms	yes	R	675	d,f
	Harrison	6448A	1	600	1.5	300 mv	600 mv	1.2 v	200 ms	yes	R	550	a,c,e,f
	Mid-Eastern	JP600-3	423	600	3	±17	±17	0.5%	ina	yes	R	1450	b,f
	Pwr Des	701M	500	800	0.15	0.05	0.05	0.5	50	yes	C	257	d,f
LS 57	Kepeco	ABC1000M	0	1000	0.02	0.05	0.05	1	50	yes	R	295	a,e,f
	Buchler	3-1014A	0	1000	0.2	±1	±1	1%	ina	yes	C	486	c,f
	Harrison	6521A	0	1000	0.2	0.005	0.005	1	50	yes	R	750	c,e,f
	Kepeco	1250B	0	1000	0.5	0.05	0.01	3	50	yes	R	650	d,f
	El Meas	222-A	0	1000	0.5	0.02	0.01	1	200 ms	yes	R	675	d,f
	Keithley	240	0	1000	10	±0.05	0.05	3	15 ms	none	R	345	d
	Keithley	241	0	1000	20	0.005	0.005	1	1 sec	none	R	800	d

Notes, abbreviations and manufacturers' index at end of this section.

### Notes

- a. Remote programing provided.
- b. Remote sensing provided.
- c. Solid state.
- d. Response time given in listing.
- e. Recovery time given in listing.
- f. Price includes meters.
- g. Dual power supply with two identical sections.
- h. Dual power supply with common meters.
1. 5 or 10 volt output.
2. Any 2 volts nominal available within this range.
3. Three outputs: 6 amp, 6 amp & 0.6 amp.
4. Heater output: 6.3 volt at 4 amp.
5. Heater output: 6.3 volt at 1 amp.
6. Adjustable, ±50 mv.
7. Total regulation.
8. Dual output, dual range unit.
9. 1/3, 1/4, 1/2 and full rack-mount available.
10. Any 1 volt nominal available within this range.
11. Any 4 volts nominal available within this range.
12. Any 8 volts nominal available within this range.

13. 0.01 also available.
14. 0.5 also available.
15. Full rack-mount available.
16. Remote programing available.
17. Remote sensing available.
18. Model number is for basic specifications or lowest value of ranges shown. See manufacturer's catalog for model number and price when options are specified.
19. 2 or 3 ampere output also available.
20. Solid-state also available.
21. 0.7, 1.4 and 2.1 amp outputs also available.
22. 1 mv also available.
23. Higher output currents available.
24. 48 and 76 also available.
25. 0.1 also available.

### Abbreviations

- C Cabinet
- R Rack
- ina Information not available



## Additional laboratory-type dc supplies

Mr.	Model	OUTPUT			REGULATION				Meters	Mounting	Price \$	Notes
		Min. Volts	Max. Volts	Max. Amps	Line %	Load %	Ripple mv	Response or Recovery Time. (μ sec)				
LS 58	Deltron ED10-1	0	10	1	0.01	0.01	ina	ina	yes	C	139	
	Deltron ED10-2	0	10	2	0.01	0.01	ina	ina	yes	C	169	
	Deltron ED20-5	0	20	0.5	0.01	0.01	ina	ina	yes	C	139	
	Deltron ED20-1	0	20	1	0.01	0.01	ina	ina	yes	C	169	
	Deltron ED40-.3	0	40	0.3	0.01	0.01	ina	ina	yes	C	139	
	Deltron ED40-.6	0	40	0.6	0.01	0.01	ina	ina	yes	C	169	
	Deltron ED60-.2	0	60	0.2	0.01	0.01	ina	ina	yes	C	145	
	Deltron ED60-.4	0	60	0.4	0.01	0.01	ina	ina	yes	C	175	
	Deltron ED80-.15	0	80	0.15	0.01	0.01	ina	ina	yes	C	145	
	Deltron ED80-.3	0	80	0.3	0.01	0.01	ina	ina	yes	C	175	
	Deltron ED100-.12	0	100	0.12	0.01	0.01	ina	ina	yes	C	145	
	Deltron ED100-.24	0	100	0.24	0.01	0.01	ina	ina	yes	C	175	

## Index of Manufacturers and Model Numbers

(keyed to table locator symbols)

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### Alfred Electronics Corp (Alfred)

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### Buchler Instruments, Inc (Buchler)

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### CEA, A Division of Berkleionics Corp (CEA)

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### Chalco Engineering Corp (Chalco)

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90V-3A [LS-31]  
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### Cohu Electronics (Cohu)

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50B-25 [LS-54]  
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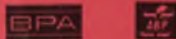
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ELECTRICAL DESIGN NEWS	2	859
IEEE SPECTRUM	Not shown in readout of top magazines.	
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ELECTRO-TECHNOLOGY	6	567
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"Number in order (1, 2, 3) the three magazines most helpful to you in your job."		"Rank from 1 to 11, in order of their importance, the publications you read regularly."		"List trade or technical publications you read regularly and rank each publication by its importance and value to you in your work or for information."		"List, in order of their importance to you, the three business magazines you read for information about quartz crystals, filters, and electronic devices."		(1) "Which publication do you read?" (2) "Which publication do you prefer?"			
Mail, partially aided recall, check-off list. In tabulating responses, scoring was weighted (1st, 3 points, 2nd, 2 and 3rd, 1).		Mail, aided recall. Scores were weighted (1st place, 5 points; 2nd place, 4 points; etc.).		Mail, unaided recall.		Mail, unaided recall.		Mail, partially aided recall, check-off list.			
Mailing list supplied by Cohu's engineering representatives.		Random sample of Ballantine's customers and prospects.		Magnetics' list of catalog holders.		McCoy's list of engineers who inquired about their products.		Engineers employed by companies who purchased Nexus' amplifiers.			
35,000		498		800		111		1000			
3119 (8.9%)		299 (63%)		104 (13%)		32 (29%)		Not stated.			
Components, instruments, test equipment.		AC, DC voltmeters, DC/AC volt/ohmmeters, decade amplifiers, calibrators, capacitance meters, AC/DC linear converters, laboratory voltage standards.		RF-IF amplifiers, magnetic amplifiers, control equipment, cores, instruments, power supplies.		Filters, crystals, and accessories.		Operational amplifiers.			
February 1965		December 1965		February 1965		April 1965		May-June 1965			
Rank among electronics magazines	Point Total	Rank	Read Regularly	Rank	Read Regularly	Rank	Mentions	Rank Read	Rank Prefer	Mentions Read	Mentions Prefer
<b>1</b>	1725	<b>1</b>	640	<b>1</b>	57	<b>1</b>	18	<b>1</b>		317	111
9	602	7	266	4 (Tie)	39	5	7	7	7	191	24
2	1519	2	477	4 (Tie)	39	6	6	2	3	270	104
3	1092	3	421	3	47	3 (Tie)	9	3	5	248	64
6 (Tie)	735	5	324	Not shown in readout of top magazines.		7	2	Not included.			
5	895	4	369	6	24	3 (Tie)	9	4	4	238	86
4	1000	6	318	2	48	2	10	6	2	214	107
6 (Tie)	735	Not included.		Not shown in readout of top magazines.		Not included.		Not included.			
10	581	8	260	Not shown in readout of top magazines.		Not included.		5	6	218	34
8	708	9	129	Not shown in readout of top magazines.		Not included.		Not included.			



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**Technipower, Inc (Tech Pwr)**  
 L-40.0-3.0M [LS-21]  
 L-80.0-1.5M [LS-30]  
 L-80.0-3.0M [LS-30]  
 L-160.0-0.750M [LS-38]  
 L-160.0-1.5M [LS-38]  
 L-160.0-3.0M [LS-39]  
 LS-40.0-3.0M [LS-21]  
 LS-80.0-1.5M [LS-30]  
 LS-80.0-3.0M [LS-30]  
 LS-160.0-0.750M [LS-38]  
 LS-160.0-1.5M [LS-39]  
 LS160.0-3.0M [LS-40]

**Topaz, Inc (Topaz)**  
 91PQ [LS-5]  
 151 [LS-10]

**Transistor Devices, Inc (Trans Dev)**  
 VS101 [LS-14]  
 VS102 [LS-29]  
 VS202 [LS-29]

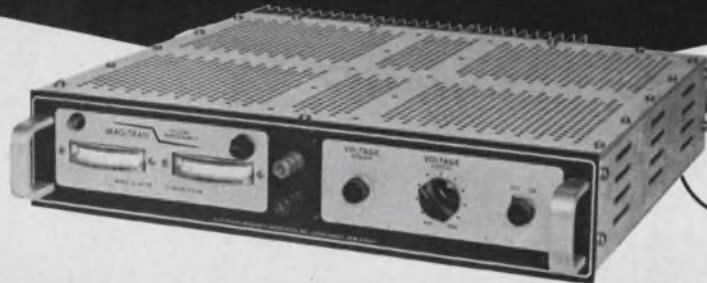
**Trygon Electronics, Inc (Trans Dev)**  
 DL40-700 [LS-7,17,18,30]  
 FT-FTR150-1 [LS-36]  
 FT-FTR300-500 [LS-44]  
 HH14-3 [LS-3]  
 HH32-1.5 [LS-13]  
 HR20-1.5 [LS-7]  
 HR40-3B [LS-21]  
 HR40-750 [LS-18]  
 HR60-2.5B [LS-27]  
 HR160-2B [LS-39]  
 RS160-1A [LS-38]  
 RS160-3 [LS-40]  
 RS320-1A [LS-46]  
 RS320-1.5 [LS-46]  
 SHR20-3A [LS-8]  
 SHR40 1.5A [LS-20]  
 SHR60-1A [LS-1]  
 SHR160-500B [LS-38]  
 T20-2 [LS-8]  
 T50-2 [LS-24]  
 T50-750 [LS-22]

**Universal Electronics (Un Elect)**  
 32A [LS-46]  
 200AT [LS-42]  
 200B [LS-10]  
 300B [LS-53]  
 425A [LS-51]  
 425AT [LS-51]  
 520A [LS-53]  
 520AT [LS-52]  
 530A [LS-53]  
 620A [LS-55]  
 G3050M [LS-44]  
 IQ30-2A [LS-11]  
 L3501 [LS-13]  
 L6005 [LS-25]  
 LO35-2A [LS-14]  
 LO50-2A [LS-24]  
 Q5-8-2AM [LS-2]  
 Q10-14-1AM [LS-3]  
 Q10-14-2AM [LS-3]  
 Q26-30-1AM [LS-11]  
 Q26-30-2AM [LS-11]  
 O50-2AM [LS-24]  
 TO35-1 [LS-13]  
 TO35-2 [LS-13]  
 UP520-B [LS-52]

**Vector Engineering (Vector)**  
 CM-03-3A [LS-17]  
 ST-03-1A [LS-14]  
 ST-03-2A [LS-15]  
 ST-06-1A [LS-26]  
 TM-03-1A [LS-12]  
 TM-03-20 [LS-14]  
 TM-03-50 [LS-14]

**Voltex Co, Inc (Voltex)**  
 36-3 [LS-16]  
 60-2 [LS-27]  
 100-1 [LS-33]  
 100-2 [LS-34]

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**GENERAL SPECIFICATIONS**

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 Input Frequency Range: 50-400 cps  
 Regulation Line: ±0.01% or 5 mv  
 Regulation Load: 0.05% or 8 mv  
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 Ripple: Less than 1 mv, RMS  
 Transient Response: Less than 50 μsec  
 Operating Temperature: -20°C to +65°C  
 Temperature Coefficient: 0.01%/°C or 3 mv  
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Short Circuit Protection with automatic recovery  
 Remote Sensing  
 Parallel and Series Operation  
 Vernier Voltage Control  
 Output Terminals (Ungrounded): Location, front and rear  
 Reverse Voltage Protection  
 Cooling: Convection  
 Metering: Separate Current and Voltage Meters

**STANDARD MODELS**

Model	Voltage	Current	Price
SL36-2M	0-36 VDC	0-2 amps	\$235.00
SL36-2/2M	0-36 VDC Dual	0-2 amps Dual	465.00
SL36-4M	0-36 VDC	0-4 amps	290.00
SL36-8M	0-36 VDC	0-8 amps	355.00
SL36-12M	0-36 VDC	0-12 amps	455.00
SL36-25M	0-36 VDC	0-25 amps	650.00



For complete information write for Catalog Supplement #133a.

**ELECTRONIC RESEARCH ASSOCIATES, INC.**

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SUBSIDIARIES: ERA Electric Co. • Advanced Acoustics Co. • ERA Dynamics Corp. • ERA Pacific, Inc.

ON READER-SERVICE CARD CIRCLE 22

# High-Voltage DC Power Supplies

	Mfr.	Model	OUTPUT				REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. kv	Max. Amps	Impedance $\Omega$	Line %	Load %	Ripple %				
HV 1	Veritron	M-1200	0	1	0.2	ina	0.1	0.1	10 mv	yes	C	455	a
	Kepco	1220C	0	1.2	0.5	2.4	0.05	0.01	3 mv	yes	R	495	a
	RIDL	40-8C	595	1.36	0.001	100 k	0.005 <sup>2</sup>	ina	40 mv	ina	C	390	d
	RIDL	40-12B	595	1.445	0.001	100 k	0.005 <sup>2</sup>	ina	40 mv	ina	C	485	d
	Moran	1.5K-2G	500	1.5 <sup>2</sup>	0.002 <sup>3</sup>	ina	0.001	0.005	2	none	C	385	
	Kepco	ABC1500M	0	1.5 <sup>4</sup>	0.01	75	0.05	0.05	1 mv	yes	C	295	a
	El Meas	238AMK	0	1.5	0.1	0.1	0.01	0.01	1 mv	yes	R	950	a
	El Meas	238AM	0	1.5	0.1	0.1	0.04	0.04	1 mv	yes	R	855	a
	Veritron	M-1515	0	1.5	0.15	ina	0.1	0.1	15 mv	yes	C	1650	a
	Alfred	265	0	1.5	0.15	ina	0.01	0.02	10 mv	yes	R	990	a
HV 2	Kepco	1520B	0	1.5	0.2	0.75	0.05	0.01	3 mv	yes	R	750	a
	Fluke	409A	170	1.53	0.003	ina	0.01	0.04	0.002	yes	R	350	a
	Harrison	6515A	0	1.6	0.005	32	0.01	0.01	2 mv	yes	C	235	a
	Hamner	N-401	500	1.8	0.005	ina	3 ppm/v	2.5 ppm	3 ppm	yes	R	565	a
	Vector	PM-1K-01	300	1.8	0.01	ina	$\leq 0.005$	0.002	1 mv	yes	R	350	a
	Gyra	V-201	200	2	0.005	ina	0.001 <sup>2</sup>	0.004	5 mv	none	R	295	
	Gyra	V-200	0	-2	0.005	ina	0.0001 <sup>2</sup>	0.001	5 mv	yes	R	350	a

The table in this section lists the specifications for high-voltage dc power supplies. These supplies cover the voltage range from 1 to 1000 kv. Unless otherwise noted in the table, the input-voltage requirements for all the supplies are 95-130 vac, 1 phase.

Prices indicated in the table are subject to change by the manufacturer.

An index of manufacturers and models is included at the end of the table. The index is alphabetical, by manufacturer, and it lists the various high-voltage dc power supplies of each manufacturer. A location key is included after each model. This permits easy spotting in the table of the specifications for that supply, by means of the location-key column (1 above).

## How the tables are arranged

Specifications for the high-voltage dc power supplies are given in separate, appropriately headed columns. The complete specifications for any one supply can thus be read across the page.

Within the table, the supplies are listed in ascending order of maximum output voltage (2 above). Where the maximum output voltage of several supplies is the same, the units are listed in order of increasing maximum output current (3 above). If both of these characteristics are identical for several supplies, they are then listed in order of

increasing output-voltage swing (4 above). This arrangement allows for a rapid across-the-market comparison of all the high-voltage dc power supplies with similar application capability.

Manufacturers are identified in the *Mfr* column by an abbreviation (5 above). The complete name of each manufacturer can be found in the index at the end of the section. For manufacturers' addresses and Reader Service literature offerings, see the master cross-index at the front of the issue.

All notes and symbols used in the table are defined at the end of the section. At the top of each page of the table, reference is made to the output voltage range covered by the supplies on that page. This is to expedite the location of a supply with particular characteristics.

## How to use the table

- Note how the supplies are listed. They are in ascending order of maximum output voltage. Where this is the same, they are in order of increasing maximum output current.
- Select the most likely candidates.
- Obtain supplementary data from the manufacturer.

Manufacturers' addresses, together with Reader Service numbers for specific power supply types, are given in the master cross index at the front of the issue.



# High-voltage dc supplies

1-3.55 kv

	Mfr.	Model	OUTPUT				REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. kv	Max. Amps	Impedance Ω	Line %	Load %	Ripple %				
HV 1	Veritron	M-1200	0	1	0.2	ina	0.1	0.1	10 mv	yes	C	455	a
	Kepeco	1220C	0	1.2	0.5	2.4	0.05	0.01	3 mv	yes	R	495	a
	RIDL	40-8C	595	1.36	0.001	100 k	0.005 <sup>2</sup>	ina	40 mv	ina	C	390	d
	RIDL	40-12B	595	1.445	0.001	100 k	0.005 <sup>2</sup>	ina	40 m v	ina	C	485	d
	Moran	1.5K-2G	500	1.5	0.002	ina	0.001	0.005	2	none	C	385	
	Kepeco	ABC1500M	0	1.5	0.01	75	0.05	0.05	1 mv	yes	C	295	a
	El Meas	238AMK	0	1.5	0.1	0.1	0.01	0.01	1 mv	yes	R	950	a
	El Meas	238AM	0	1.5	0.1	0.1	0.04	0.04	1 mv	yes	R	855	a
	Veritron	M-1515	0	1.5	0.15	ina	0.1	0.1	15 mv	yes	C	1650	a
	Alfred	265	0	1.5	0.15	ina	0.01	0.02	10 mv	yes	R	990	a
HV 2	Kepeco	1520B	0	1.5	0.2	0.75	0.05	0.01	3 mv	yes	R	750	a
	Fluke	409A	170	1.53	0.003	ina	0.01	0.04	0.002	yes	R	350	a
	Harrison	6515A	0	1.6	0.005	32	0.01	0.01	2 mv	yes	C	235	a
	Hamner	N-401	500	1.8	0.005	ina	3 ppm/v	2.5 ppm	3 ppm	yes	R	565	a
	Vector	PM-1K-01	300	1.8	0.01	ina	±0.005	0.002	1 mv	yes	R	350	a
	Gyra	V-201	200	2	0.005	ina	0.001 <sup>2</sup>	0.004	5 mv	none	R	295	
	Gyra	V-200	0	-2	0.005	ina	0.0001 <sup>2</sup>	0.001	5 mv	yes	R	350	a
	Veritron	M-101	0	2	0.01	ina	1	1	100 mv	yes	C	455	a
	Harrison	6522A	0	2	0.01	ina	0.005	0.005	1 mv	yes	R	750	a,e
	Del	PSCR2-50-1	0	2	0.05	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.025	yes	R	request	a,d
HV 3	Del	PSCR2-120-1	0	2	0.12	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.025	yes	R	request	a,d
	Un Volt	BRE2-200	500	2	0.2	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Un Volt	BRE2-400	500	2	0.4	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Kepeco	HB2050	0	2	0.5	0.2	0.01	0.005	3 mv	yes	C	1650	a
	Un Volt	BRE2-700	500	2	0.7	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Fluke	412B	0	2.1	0.03	0.7	±0.001	±0.001	0.5 v	yes	R	410	a
	Precise M	RF6000	2000	2.5	0.0001	ina	1 <sup>1</sup>	1 <sup>1</sup>	5	yes	C	145	
	Kepeco	ABC2500M	0	2.5	0.002	625	0.05	0.05	1 mv	yes	C	365	a
	NJE	S-325	500	2.5	0.01	ina	±0.01	+100 mv	5 mv	yes	R	340	a
	Vector	PM-2K-01	500	2.5	0.01	ina	±0.005	0.002	1 mv	yes	R	365	a
HV 4	NJE	H-2.5-50	0	2.5	0.05	ina	±1	15-25	2	yes	C	770	a
	Kepeco	HB2500	0	2.5	0.05	2.5	0.01	0.005	5 mv	yes	R	975	a
	NJE	H-2.5-100	0	2.5	0.1	ina	±1	15-25	2	yes	C	825	a
	Kilovolt	KVR2.5-200	400	2.5	0.2	ina	0.025	0.05	0.025	yes	C	request	b,d
	NJE	S-326	500	2.5	0.5	ina	±0.01	+100 mv	5 mv	yes	R	380	a
	Kilovolt	KVR2.5-500	400	2.5	0.5	ina	0.025	0.05	0.025	yes	C	request	b,d
	Kilovolt	KVR2.5-1000	400	2.5	1	ina	0.025	0.05	0.025	yes	C	request	b,d
	NJE	HH-2.5-1000	0	2.5	1	ina	±1	10	1	yes	C	2400	a
	Tech Assoc	RHV-1B	300	3	0.001	ina	0.01	0.02	10 mv	yes	R	375	a
	RIDL	40-9B	50	3	0.004	100	0.02 <sup>2</sup>	ina	35 mv	ina	C	445	
HV 5	Gyra	V-301	500	3	0.005	ina	0.0001 <sup>2</sup>	0.001	7 mv	none	R	595	
	Hipotron	103D	0	3	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	200	a,b,d
	Harrison	6110A	0	3	0.005	ina	0.001	0.001	0.04 mv	yes	C	495	a,e
	Gyra	V-300	0	-3	0.005	ina	0.0001 <sup>2</sup>	0.001	5 mv	ina	R	535	
	Harrison	6516A	0	3	0.006	32	0.01	0.01	4 mv	yes	C	295	a,e
	Veritron	M-3100	0	3	0.1	ina	0.1	0.1	30 mv	yes	C	1650	a
	El Meas	243AM	0	3	0.1	0.1	0.04	0.04	1 mv	yes	R	1695	a
	Hipotron	803-1	0	3	0.1	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	700	a,b,d
	El Meas	243AMK	0	3	0.1	0.1	0.01	0.01	1 mv	yes	R	1770	a
	Sorensen	1003-200C2	0	3	0.2	0.002	0.2 <sup>1</sup>	ina	2	yes	R	1130	a
HV 6	Kilovolt	KV3-200	0	3	0.3	ina	note 4	15-25	2	yes	C	request	b,d
	Hipotron	803-5	0	3	0.5	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	1200	a,b,d
	Kilovolt	KV3-1000	0	3	1	ina	note 4	15-25	2	yes	C	request	b,d
	Sorensen	2003-1000C2	0	3	1	0.002	0.2 <sup>1</sup>	ina	2	yes	C	2550	a,c
	Kilovolt	KV3-2000	0	3	2	ina	note 4	15-25	2	yes	C	request	b,d
	Fluke	405B	0	3.1	0.03	1	±0.001	±0.001	1 mv	yes	R	595	a
	Fluke	413C	0	3.111	0.02	1.5	±0.001	±0.001	0.15 v	yes	R	695	a
	Vector	PM-3K-01	1000	3.5	0.005	ina	±0.005	0.002	1 mv	yes	R	415	a
	Keithley	242	300	3.5	0.025	ina	±0.005	±0.005	2 mv	none	R	850	
	Hamner	N-4035	750	3.55	0.025	ina	0.005	0.005	1 mv	none	R	650	

Notes, abbreviations and manufacturers' index at end of this section.

# High-voltage dc supplies

4-10 kv

	Mfr.	Model	OUTPUT				REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. kv	Max. Amps	Impedance Ω	Line %	Load %	Ripple %				
HV 7	Del	PSCR4-25-1	0	4	0.025	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.035	yes	R	request	a,d
	Harrison	6525A	0	4	0.05	ina	0.005	0.005	1 mv	yes	R	750	a,e
	Del	PSCR4-75-1	0	4	0.075	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.035	yes	R	request	a,d
	Un Volt	BRE4-100	500	4	0.1	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Un Volt	BRE4-200	500	4	0.2	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Un Volt	BRE4-350	500	4	0.35	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Kilovolt	KVR4-500	600	4	0.5	ina	0.025	0.05	0.025	yes	C	request	b,d
	Kilovolt	KVR4-1000	600	4	1	ina	0.025	0.05	0.025	yes	C	request	b,d
	Precise M	RF6005	4000	5	0.0001	ina	1 <sup>1</sup>	1 <sup>1</sup>	5	yes	C	150	
	Vector	PM-5K-01	500	5	0.001	ina	±0.005	0.002	5 mv	yes	R	450	a
HV 8	Spellman	RG-5	2000	5	0.002	ina	1	1	ina	yes	R	250	a
	Hammer	N-4050	500	5	0.002	ina	0.01	0.01	5 mv	yes	R	595	
	Hipotron	105D	0	5	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	220	a,b,d
	NJE	S-327	500	5	0.01	ina	±0.01	±100 mv	5 mv	yes	R	490	a
	Vector	PMA-5K-01	500	5	0.01	ina	±0.005	0.002	5 mv	yes	R	550	a
	Gyra	V-501	0	5	0.01	ina	0.0001 <sup>2</sup>	0.001	10 mv	ina	R	request	
	Gyra	V-500	0	-5	0.01	ina	0.0001 <sup>2</sup>	0.001	10 mv	ina	R	request	
	Keithley	243	300	5	0.015	ina	±0.005	±0.005	2 mv	none	R	990	
	Alfred	271	0	5	0.15	ina	0.005	0.001	30 mv	yes	R	1550	a
	Del	PSCR5-20-2	0	5	0.02	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.05	yes	R	request	a,d
HV 9	NJE	H-5-25	0	5	0.025	ina	±1	15-25	1	yes	C	770	a
	Veritron	M-5250	0	5	0.25	ina	0.1	0.1	45 mv	yes	C	2150	
	NJE	H-5-50	0	5	0.05	ina	±1	15-25	2	yes	C	825	a
	Del	PSCR5-50-1	0	5	0.05	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.05	yes	R	request	a,d
	Hipotron	805-1	0	5	0.1	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	800	a,b,d
	Kilovolt	KV5-100	0	5	0.1	ina	note 4	10-15	2	yes	C	request	b,d
	NJE	H-5-100	0	5	0.1	ina	±1	15-25	3.5	yes	C	1015	a
	NJE	H-5-200	0	5	0.2	ina	±1	15-25	3.5	yes	C	1510	a
	NJE	H-5-500	0	5	0.5	ina	note 4	10	1	yes	C	1850	a
	Veritron	M-5500	0	5	0.5	ina	0.1	0.1	45 mv	yes	C	2850	a
HV 10	Kilovolt	KV5-500	0	5	0.5	ina	note 4	10-15	2	yes	C	request	b,d
	Hipotron	805-5	0	5	0.5	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	1700	a,b,d
	Kilovolt	KV5-1000	0	5	1	ina	note 4	10-15	2	yes	C	request	b,d
	Fluke	408B	0	6	0.02	3	±0.001	±0.001	1 mv	yes	R	525	a
	Un Volt	BRE6-65	500	6	0.065	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Sorensen	1006-100C2	0	6	0.1	0.01 M	±0.2	ina	2	yes	R	1130	a
	Un Volt	BRE6-125	500	6	0.125	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Un Volt	BRE6-225	500	6	0.225	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Sorensen	2006-500C2	0	6	0.5	0.008 M	±0.2	ina	1.5	yes	C	2550	a,c
	Neutronics	75BR	2000	7.5	0.001	ina	ina	1	1	yes	C	150	
HV 11	Kilovolt	KVR8-500	600	8	0.5	ina	0.025	0.05	0.025	yes	C	request	b,d
	Precise M	RF6010	8000	10	0.0001	ina	1 <sup>1</sup>	1 <sup>1</sup>	5	yes	C	155	
	Walden	568	2000	10	0.001	2.5 k	0.05	0.05	0.05	yes	R	1100	a,e
	Walden	569	2000	10	0.001	2.5 k	0.05	0.05	0.05	yes	R	1100	a,e
	Spellman	RG-10	5000	10	0.002	ina	1	1	ina	yes	R	260	a
	Hipotron	110D	0	10	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	290	a,d
	NJE	H-10-5	0	10	0.005	ina	±1	15-25	1	yes	C	830	a
	Kilovolt	KV10-5	0	10	0.005	ina	note 4	15-25	1	yes	C	request	b,d
	Sorensen	5010-8	1000	10	0.008	ina	±0.05	±0.05	0.003	yes	R	675	a
	NJE	S-328	1000	10	0.01	ina	±0.01	±150 mv	15 mv	yes	R	1530	a
HV 12	Neutronic	R-21KR	1000	10	0.01	ina	ina	0.5	ina	yes	C	827	a
	Neutronic	21KR	1000	10	0.01	ina	ina	0.5	ina	yes	C	662	a
	Del	PSCR10-10-1	0	10	0.01	ina	±0.001	±0.001	5 mv	yes	R	request	a,d
	Fluke	410B	0	10	0.01	25	±0.001	±0.001	1 mv	yes	R	665	a
	Veritron	M-10010	0	10	0.01	ina	0.1	0.1	100 mv	yes	C	1350	a
	Del	PSCR10-12-1	0	10	0.012	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.25	yes	R	request	a,d
	Monroe	116B	±500	±10	0.025	ina	±1	±1	0.1	yes	C or R	1250	a
	NJE	H-10-25	0	10	0.025	ina	±1	15-25	1	yes	C	910	a
	Un Volt	BRE10-40	500	10	0.04	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Hipotron	810-05	0	10	0.05	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	850	a,d

Notes, abbreviations and manufacturers' index at end of this section.



# High-voltage dc supplies

10-25 kv

	Mfr.	Model	OUTPUT				REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. kv	Max. Amps	Impedance Ω	Line %	Load %	Ripple %				
HV 13	Kilovolt	KV10-50	0	10	0.05	ina	note 4	10-15	2.5	yes	C	request	b,d
	NJE	H-10-50	0	10	0.05	ina	±1	15-25	2	yes	C	1065	a
	Un Volt	BRE10-80	500	10	0.08	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	NJE	H-10-100	0	10	0.1	ina	±1	15-25	3.5	yes	C	1585	a
	Veritron	M-10100	0	10	0.1	ina	0.1	0.1	100 mv	yes	C	2850	a
	Hipotron	810-1	0	10	0.1	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	1250	a,d
	Un Volt	BRE10-140	500	10	0.14	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Kilovolt	KV10-250	0	10	0.25	ina	note 4	15-25	2.5	yes	C	request	b,d
	NJE	HH-10-250	0	10	0.25	ina	±1	10	1	yes	C	2435	a
	Hipotron	810-5	0	10	0.5	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	2600	a,d
HV 14	Kilovolt	KV10-500	0	10	0.5	ina	note 4	10-15	2.5	yes	C	request	b,d
	Veritron	M-11000	0	10	1	ina	0.1	0.1	100 mv	yes	C	4675	a
	Neutronic	21MR	1000	12	0.006	ina	ina	0.5	ina	yes	C	662	a
	Neutronic	R-21MR	1000	12	0.006	ina	ina	0.5	ina	yes	C	827	a,d
	Sorensen	1012-50C2	0	12	0.05	0.05 M	±0.2	ina	2	yes	C	1155	a
	Sorensen	2012-250C2	0	12	0.25	0.015 M	±0.2	ina	2	yes	C	2550	a,c
	Precise M	RF6015	12 kv	15	0.0001	ina	1 <sup>1</sup>	1 <sup>1</sup>	5	yes	C	160	a
	Neutronic	15BR	2	15	0.001	ina	1	1	1	yes	C	198	a
	Spellman	RG-15	8000	15	0.002	ina	1	1	ina	yes	R	275	a
	NJE	S-330	5000	15	0.002	ina	±0.01	±0.01	10 mv	none	R	1980	a
HV 15	Spellman	LAB-10	1000	15	0.002	ina	0.5	0.5	ina	yes	R	275	a
	Spellman	LAB-10PH	1000	15	0.002	ina	0.5	0.5	ina	yes	R	375	a,d
	Hipotron	115D	0	15	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	320	a,d
	Del	PSCR15-6-1	0	15	0.006	ina	±0.5 <sup>1</sup>	±0.5 <sup>1</sup>	0.4	yes	R	request	a,d
	Moran	15K-10C	1	15	0.01	10	±0.01	±0.01	100 mv	none	R	2985	a
	NJE	H-15-10	0	15	0.01	ina	±1	15-25	0.5	yes	C	925	a
	NJE	H-15-20	0	15	0.02	ina	±1	15-25	1	yes	C	1115	a
	Hipotron	815-05	0	15	0.05	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	900	a,d
	NJE	HH-15-150	0	15	0.15	ina	±0.5	10	1	yes	C	2925	a
	Hipotron	815-25	0	15	0.25	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	2200	a,d
HV 16	Kilovolt	KVR16-8	1000	16	0.008	ina	0.01	0.025	0.01	yes	C	request	b,d
	Kilovolt	KVR16-120	1000	16	0.12	ina	0.025	0.05	0.025	yes	C	request	b,d
	Walden	562A	16 k	18	0.001	17 k	0.1	0.02	10 v	yes	R	1700	a
	Moran	20K-1CZ	2	20	0.0008	10	0.005	0.01	100 mv	yes	R	2890	a
	Walden	574	10 kv	20	0.001	10 k	0.1	0.1	0.1	yes	R	1492	a,e
	Walden	560	10 kv	20	0.001	1 k	0.01 <sup>1</sup>	0.01 <sup>1</sup>	0.01	yes	R	2087	a,e
	Spellman	LAB-20	0	20	0.004	ina	1	1	ina	yes	R	525	a
	Hipotron	120D	0	20	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	350	a,d
	NJE	H-20-5	0	20	0.005	ina	±1	15-25	1	yes	C	860	a
	Un Volt	BRE20-10	500	20	0.01	ina	±0.1	±0.1	0.01	yes	C	request	a,d
HV 17	NJE	H-20-10	0	20	0.01	ina	±1	15-25	1	yes	C	950	a
	Kilovolt	KV20-10	0	20	0.01	ina	note 4	15-25	2.5	yes	C	request	b,d
	NJE	H-20-20	0	20	0.02	ina	±1	15-25	1	yes	C	1240	a
	Un Volt	BRE20-25	500	20	0.025	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Sorensen	1020-30C2	0	20	0.03	0.133 M	±0.2	ina	2	yes	C	1205	a
	NJE	H-20-50	0	20	0.05	ina	±1	15-25	2	yes	C	1585	a
	Kilovolt	KV20-50	0	20	0.05	ina	note 4	15-25	2.5	yes	C	request	b,d
	Hipotron	820-05	0	20	0.05	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	950	a,d
	Un Volt	BRE20-75	500	20	0.075	ina	±0.1	±0.1	0.01	yes	C	request	a,d
	Sorensen	2020-150C2	0	20	0.15	0.025 M	±0.2	ina	2.5	yes	C	2765	a,c
HV 18	Kilovolt	KV20-150	0	20	0.15	ina	note 4	15-25	1.5	yes	C	request	b,d
	Hipotron	820-25	0	20	0.25	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	2500	a,d
	Kilovolt	KV20-300	0	20	0.3	ina	note 4	15-25	2.5	yes	C	request	b,d
	Kilovolt	KVR24-8	1000	24	0.008	ina	0.01	0.025	0.01	yes	C	request	b,d
	Kilovolt	KVR24-40	1000	24	0.04	ina	0.025	0.05	0.025	yes	C	request	b,d
	Kilovolt	KVR24-80	1000	24	0.08	ina	0.025	0.05	0.025	yes	C	request	b,d
	Precise M	RF6025	20 kv	25	0.0001	ina	1 <sup>1</sup>	1 <sup>1</sup>	5	yes	C	215	a
	Moran	25K-.8CZ	10	25	0.0008	10	0.005	0.01	100 mv	yes	R	2985	a
	NJE	HH-25-100	0	25	0.1	ina	±0.5	10	1	yes	C	2850	a
	Kilovolt	KV25-200	0	25	0.2	ina	note 4	15-25	2.5	yes	C	request	b,d

Notes, abbreviations and manufacturers' index at end of this section.

# High-voltage dc supplies

26-60 kv

	Mfr.	Model	OUTPUT				REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. kv	Max. Amps	Impedance $\Omega$	Line %	Load %	Ripple %				
HV 19	Neutronic	22CR	5000	26	0.002	ina	ina	0.5	ina	yes	C	606	a
	Neutronic	R-22CR	2000	26	0.002	ina	ina	0.5	ina	yes	C	771	a,d
	Walden	538A	10 kv	30	0.0005	20 k	0.1 <sup>1</sup>	0.1 <sup>1</sup>	0.1	yes	R	1492	a,e
	Spellman	RG-30	15 kv	30	0.001	ina	0.5	0.5	0.05	yes	R	375	a
	Neutronic	30BR	5000	30	0.001	ina	ina	1	1	yes	C	298	a
	Veritron	M-3000-1	0	30	0.001	ina	0.1	0.1	30 mv	yes	C	2120	a
	Spellman	TR301	15 kv	30	0.0015	ina	0.05	0.05	0.05	yes	R	475	a,e
	Neutronic	R-22SR	5000	30	0.002	ina	ina	0.5	ina	yes	C	request	a
	Spellman	LAB-30PN	1000	30	0.002	ina	0.5	0.5	ina	yes	C or R	645	a,d
	Spellman	LAB-30	1000	30	0.002	ina	0.5	0.5	0.05	yes	C or R	545	a
HV 20	Un Volt	BRE30-2	500	30	0.002	ina	$\pm 0.1$	$\pm 0.1$	0.01	yes	C	request	a,d
	Neutronic	22MR	5000	30	0.003	ina	ina	0.5	ina	yes	C	634	a
	Neutronic	R-22MR	5000	30	0.003	ina	ina	0.5	ina	yes	C	799	a,d
	Sorensen	5030-4	5000	30	0.004	ina	0.005	0.025	0.015	yes	R	950	a
	Un Volt	BRE30-4	500	30	0.004	ina	$\pm 0.1$	$\pm 0.1$	0.01	yes	C	request	a,d
	Walden	545A	10 kv	30	0.005	2 k	0.01 <sup>1</sup>	0.01 <sup>1</sup>	0.01	yes	R	2087	a,e
	Hipotron	130D	0	30	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	400	a,d
	Veritron	M-3005-1	0	30	0.005	ina	0.1	0.1	300 mv	yes	C	2450	a
	NJE	H-30-5	0	30	0.005	ina	$\pm 1$	15-25	0.5	yes	C	975	a
	NJE	H-30-10	0	30	0.01	ina	$\pm 1$	15-25	1	yes	C	1140	a
HV 21	Un Volt	BRE30-12	500	30	0.012	ina	$\pm 0.1$	$\pm 0.1$	0.01	yes	C	request	a,d
	Sorensen	1030-20C2	0	30	0.02	0.3 M	$\pm 0.2$	ina	2	yes	C	1235	a
	Kilovolt	KV30-20	0	30	0.02	ina	note 4	15-25	2.5	yes	C	request	b,d
	PI Capac	HVA300-303	0	30	0.03	ina	5-50	5-50	0.01	yes	C	request	c
	Un Volt	BRE30-35	500	30	0.035	ina	$\pm 0.1$	$\pm 0.1$	0.01	yes	C	request	a,d
	NJE	H-30-35	0	30	0.035	ina	$\pm 1$	15-25	2	yes	C	1760	a
	Kilovolt	KV30-50	0	30	0.05	ina	note 4	15-25	2.5	yes	C	request	b,d
	Hipotron	830-05	0	30	0.05	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	1550	a,d
	Sorensen	2030-100C2	0	30	0.1	0.075 M	$\pm 0.2$	ina	2	yes	C	2945	a,b
	Kilovolt	KV30-100	0	30	0.1	ina	note 4	15-25	2.5	yes	C	request	b,d
HV 22	Kilovolt	KV30-200	0	30	0.2	ina	note 4	15-25	2.5	yes	C	request	b,d
	Fluke	430B	10	30.22	0.05	120	$\pm 0.005$	$\pm 0.02$	5 mv	yes	C	4900	a
	Fluke	430A	10	30.22	0.05	50	$\pm 0.005$	$\pm 0.1$	5 mv	yes	C	3900	a
	Neutronic	23SR	5000	35	0.003	ina	ina	0.5	ina	yes	C	1056	a
	Neutronic	23CR	5000	40	0.0013	ina	ina	0.5	ina	yes	C	617	a
	Walden	566	13 kv	40	0.003	3.3 k	0.1	0.1	0.1	yes	R	3028	a,e
	Kilovolt	KVR40-40	1000	40	0.04	ina	0.025	0.05	0.025	yes	C	request	b,d
	Kilovolt	KVR40-80	1000	40	0.08	ina	0.025	0.05	0.025	yes	C	request	b,d
	Neutronic	23MR	5000	45	0.0015	ina	ina	0.5	ina	yes	C	674	a
	Calmag	6VT8	0	-50	0.0005	1 k	0.001 <sup>1</sup>	0.001 <sup>1</sup>	50 mv	yes	C	6150	a
HV 23	Calmag	6VT6C	0	50	0.0005	1 k	0.001 <sup>1</sup>	0.001 <sup>1</sup>	50 mv	yes	C	5750	a
	Sames	Samtron A50	0	-50	0.0005	ina	0.01	0.001	0.001	yes	C	4200	a
	Neutronic	24CR	5000	50	0.001	ina	ina	0.5	ina	yes	C	707	a
	Neutronic	24MR	5000	50	0.002	ina	ina	0.5	ina	yes	C	725	a
	Kilovolt	KVR50-5	1000	50	0.005	ina	0.01	0.025	0.01	yes	C	request	b,d
	NJE	HO-50-5	0	50	0.005	ina	$\pm 1$	15-25	2	yes	C	1370	a,c
	Hipotron	150D	0	50	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	800	a,d
	NJE	HO-50-10	0	50	0.01	ina	$\pm 1$	15-25	3.5	yes	C	1560	a,c
	NJE	HO-50-15	0	50	0.015	ina	$\pm 1$	15-25	3.5	yes	C	2030	a,c
	Hipotron	850-05	0	50	0.05	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	2400	a,d
HV 24	Kilovolt	KV50-50	0	50	0.05	ina	note 4	15-25	2.5	yes	C	request	c,d
	NJE	HHO-50-50	0	50	0.05	ina	$\pm 0.5$	15-25	3.5	yes	C	3090	a,c
	Kilovolt	KV50-100	0	50	0.1	ina	note 4	15-25	2.5	yes	C	request	c,d
	Veritron	M-50106-1	0	50	0.1	ina	0.1	0.1	450 mv	yes	C	4250	a
	Neutronic	60DR	5000	60	0.001	ina	ina	0.1	0.3	ina	R	1535	a
	Spellman	LAB-60PN	1000	60	0.001	ina	1	1	ina	yes	C	820	a,d
	Spellman	LAB-60	1000	60	0.001	ina	1	1	ina	yes	C	765	a
	Zeiss	HA60RE	5000	60	0.003	150 k	0.001	15	0.6	yes	C	2812	a
	NJE	HO-60-10	0	60	0.01	ina	$\pm 1$	15-25	3.5	yes	C	1750	a,c
	Kilovolt	KV60-10	0	60	0.01	ina	note 4	15-25	3	yes	C	request	c,d

Notes, abbreviations and manufacturers' index at end of this section.



# High-voltage dc supplies

60-1000 kv

	Mfr.	Model	OUTPUT				REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. kv	Max. Amps	Impedance $\Omega$	Line %	Load %	Ripple %				
HV 25	Sorensen	1061C2	0	60	0.01	1.2 M	$\pm 0.2$	ina	1.5	yes	C	1535	a, c, d
	Sorensen	2060-50C2	0	60	0.05	0.45 M	$\pm 0.2$	ina	1	yes	C	3050	a, c
	Zeiss	HA60R	-5 kv	-66	0.003	ina	0.006	15	1 v	yes	C	ina	
	Sames	AC751	0	-75	0.0008	ina	1	3	$\pm 1$	yes	C	2600	a
	Sames	AB80-02	0	-80	0.0002	ina	0.5	1	$\pm 1$	yes	C	1200	a
	Sames	Samtron A80	0	-80	0.0008	ina	0.001	0.002	0.001	yes	C	5500	a
	Sames	AKS80	0	80	0.0008	ina	0.001	0.001	0.004	yes	C	8700	a, c
	Veritron	M-80010-1	0	80	0.01	ina	0.1	0.1	700 mv	yes	C	5630	a
	Spellman	LAB-90	1000	$\pm 90^3$	700 MA	1	1	1	ina	yes	C	900	a
	Sames	A100	0	-100	0.0003	ina	0.001	0.001	0.001	yes	C	6500	a
HV 26	Sames	AKS100	0	100	0.0003	ina	0.001	0.001	0.006	yes	C	9100	a, c
	Sorensen	1101C2	0	100	0.0015	7 M	$\pm 0.2$	ina	4	yes	C	1485	a, c, d
	Kilovolt	KVR100-5	5000	100	0.005	ina	0.025	0.05	0.02	yes	C	request	b, d
	Veritron	M-100005	0	100	0.005	ina	0.1	0.1	1 v	yes	C	6600	a
	Hipotron	1100D	0	100	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	1650	a, d
	Hipotron	8100-02	0	100	0.02	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	2600	a, d
	Kilovolt	KVR120-5	5000	120	0.005	ina	0.025	0.05	0.02	yes	C	request	b, d
	NJE	HO-120-5	0	120	0.005	ina	$\pm 1$	15-25	2	yes	C	2010	a, c
	Kilovolt	KV120-5	0	120	0.005	ina	note 4	15-25	1.5	yes	C	request	c, d
	Sorensen	1121C2	0	120	0.005	5 M	$\pm 0.2$	ina	2	yes	C	1810	a, c
HV 27	Kilovolt	KV120-10	0	120	0.01	ina	note 4	15-25	2.5	yes	C	request	c, d
	Kilovolt	KV120-30	0	120	0.03	ina	note 4	15-25	2	yes	C	request	c, d
	Sorensen	2120-30C2	0	120	0.03	2 M	$\pm 0.2$	ina	1	yes	C	3485	a, c
	Zeiss	HA150R	25 kv	150	0.0008	ina	0.001	0.001	5 v	yes	C	request	a
	Hipotron	1500D2	0	150	0.002	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	2000	a, d
	Kilovolt	KVR150-5	5000	150	0.005	ina	0.025	0.05	0.02	yes	C	request	b, d
	Hipotron	1500D	0	150	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	2150	a, d
	Kilovolt	KV150-5	0	150	0.005	ina	note 4	15-25	2.5	yes	C	request	c, d
	Sorensen	1151C2	0	150	0.005	2 M	$\pm 0.2$	ina	2	yes	C	2230	a, c
	NJE	HO-150-5	0	150	0.005	ina	$\pm 1$	15-25	2	yes	C	2335	a, c
HV 28	NJE	HO-150-10	0	150	0.01	ina	$\pm 0.5$	15-25	4	yes	C	3200	a, c
	Kilovolt	KV150-10	0	150	0.01	ina	note 4	20-35	3	yes	C	request	c, d
	NJE	HHD-150-20	0	150	0.02	ina	$\pm 0.5^5$	15-25	3.5	yes	C	2790	a, c
	Sorensen	2150-20C2	0	150	0.02	1.8 M	$\pm 0.2$	ina	1	yes	C	3485	a, c
	Kilovolt	KV150-30	0	150	0.03	ina	Note 4	20-35	3	yes	C	request	c, d
	Kilovolt	KVR200-2	10 kv	200	0.002	ina	0.025	0.05	0.02	yes	C	request	b, d
	Hipotron	1200D2	0	200	0.002	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	3500	a, d
	Hipotron	1200D	0	200	0.005	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	3800	a, d
	Kilovolt	KV200-5	0	200	0.005	ina	note 4	20-35	3	yes	C	request	c, d
	NJE	HO-200-5	0	200	0.005	ina	$\pm 0.5$	15-25	3.5	yes	C	4290	a, c
HV 29	Kilovolt	KV200-10	0	200	0.01	ina	note 4	20-35	3	yes	C	request	c, d
	Kilovolt	KVR250-2	10 kv	250	0.002	ina	0.025	0.05	0.02	yes	C	request	b, d
	Kilovolt	KV250-2	0	250	0.002	ina	note 4	20-35	2.5	yes	C	request	c, d
	Kilovolt	KV250-5	0	250	0.005	ina	note 4	20-35	3	yes	C	request	c, d
	NJE	HHD-250-5	0	250	0.005	ina	$\pm 1$	15-25	3.5	yes	C	5525	a, c
	Sorensen	2250-10C2	0	250	0.01	7.5 M	$\pm 0.2$	ina	5	yes	C	request	c, d
	Kilovolt	KV250-10	0	250	0.01	ina	note 4	20-35	3	yes	C	request	c, d
	Zeiss	HA300	50 kv	300	0.001	ina	0.0001	ina	ina	yes	C	12,000	a, c
	Kilovolt	KVR300-2	10 kv	300	0.002	ina	0.025	0.05	0.02	yes	C	request	b, d
	Hipotron	1300D2	0	300	0.002	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	6000	a, d
HV 30	Hipotron	8300-02	0	300	0.02	ina	15-20 <sup>6</sup>	15-20 <sup>6</sup>	2	yes	C	9000	a, d
	Kilovolt	KV350-2	0	350	0.002	ina	note 4	20-35	2.5	yes	C	request	c, d
	Kilovolt	KV350-5	0	350	0.005	ina	note 4	20-35	3	yes	C	request	c, d
	Sorensen	2350-8C2	0	350	0.008	12 M	$\pm 0.2$	ina	2	yes	C	request	c, d
	Kilovolt	KV600-2	0	600	0.002	ina	note 4	20-35	1.5	yes	C	request	c, d
	Kilovolt	KV600-5	0	600	0.005	ina	note 4	20-35	3	yes	C	request	c, d
	PI Capac	HVA1000-102	0	1000	0.0015	ina	ina	5-60	2	yes	C	request	c
	Kilovolt	KV1000-5	0	1000	0.005	ina	note 4	20-35	3	yes	C	request	c, d

Notes, abbreviations and manufacturers' index at end of this section.



# Additional high-voltage dc supplies

	Mfr.	Model	OUTPUT				REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. kv	Max. Amps	Impedance Ω	Line %	Load %	Ripple %				
HV 31	Sorensen	9005-5	0	5	0.005	ina	23	23	1.8	none	C	95	
	Sorensen	9010-5	0	10	0.005	ina	19	19	2	none	C	115	
	Sorensen	9020-5	0	20	0.005	ina	25	25	1.9	none	C	225	
	Sorensen	9030-5	0	30	0.005	ina	25	25	1.5	none	C	375	
	Sorensen	9061	0	60	0.01	ina	20	20	1.5	none	C	785	

## Notes

- Price includes meters.
  - Control section and high voltage tank enclosed in one cabinet.
  - Control section and high voltage tank in separate sections.
  - Reversible polarity.
- Solid state.
  - Total regulation.
  - Per volt change.

- Specify polarity.
- ±0.01%, 0.1% or 1% available at extra cost.
- Available at extra cost.
- ½% regulation, line or load, available at extra cost.

## Abbreviations

- C Cabinet  
R Rack  
ina Information not available

## Index of Manufacturers and Model Numbers

(keyed to table locator symbols)

<b>Alfred Electronics (Alfred)</b> 265 [HV-1] 271 [HV-8]	6516A [HV-5] 6522A [HV-2] 6525A [HV-7]	<b>Hipotronics (Hipotron)</b> 103D [HV-5] 105D [HV-8] 110D [HV-11] 115D [HV-15] 120D [HV-16] 130D [HV-20] 150D [HV-23] 803-1 [HV-5] 803-5 [HV-6] 805-1 [HV-9] 805-5 [HV-10] 810-1 [HV-13] 810-5 [HV-13] 810-05 [HV-12] 815-05 [HV-15] 815-25 [HV-15] 820-05 [HV-17] 820-25 [HV-18] 830-05 [HV-21] 850-05 [HV-23] 1100D [HV-26] 1200D [HV-28] 1200D2 [HV-28] 1300D2 [HV-29] 1500D [HV-27] 1500D2 [HV-27] 8100-02 [HV-26] 8300-02 [HV-30]	<b>Kepeco, Inc (Kepeco)</b> 1220C [HV-1] 1520B [HV-2] ABC1500M [HV-1] ABC2500M [HV-3] HB2050 [HV-3] HB2500 [HV-4]	<b>Monroe Electronics, Inc (Monroe)</b> 116B [HV-12]	<b>Moran Instrument Corp (Moran)</b> 1.5K-2G [HV-1] 15K-10C [HV-15] 20K-1CZ [HV-16] 25K-8CZ [HV-18]	<b>NJE Corp (NJE)</b> H-2.5-50 [HV-4] H-2.5-100 [HV-4] H-5-25 [HV-9] H-5-50 [HV-9] H-5-100 [HV-9] H-5-200 [HV-9] H-5-500 [HV-9] H-10-5 [HV-11] H-10-25 [HV-12] H-10-50 [HV-13] H-10-100 [HV-13]	<b>H-15-10 [HV-15] H-15-20 [HV-15] H-20-5 [HV-16] H-20-10 [HV-17] H-20-20 [HV-17] H-20-50 [HV-17] H-30-5 [HV-20] H-30-10 [HV-20] H-30-35 [HV-21] HH-2.5-1000 [HV-4] HH-10-250 [HV-13] HH-15-150 [HV-15] HH-25-100 [HV-18] HHO-50-50 [HV-24] HHO-150-20 [HV-28] HO-50-5 [HV-23] HO-50-10 [HV-23] HO-50-15 [HV-23] HO-60-10 [HV-24] HO-120-5 [HV-26] HO-150-10 [HV-28] HO-15-5 [HV-27] HO-200-5 [HV-28] HO-250-5 [HV-29] S-325 [HV-3] S-326 [HV-4] S-327 [HV-8] S-328 [HV-11] S-330 [HV-14]</b>	<b>Neutronic Associates (Neutronic)</b> 15BR [HV-14] 21MR [HV-14] 22MR [HV-20] 22CR [HV-19] 23CR [HV-22] 23MR [HV-22] 23SR [HV-22] 24CR [HV-23] 24MR [HV-23] 30BR [HV-19] 60DR [HV-24] 75BR [HV-10] 21KR [HV-12] R-21KR [HV-12] R-21MR [HV-14] R-22CR [HV-19] R-22MR [HV-20] R-22SR [HV-19]	<b>Plastic Capacitors (PI Capac)</b> HVA300-303 [HV-21] HVA1000-102 [HV-30]	<b>Precision Measurements Div (now Beckman Instruments, Inc) (Precision M)</b> RF6000 [HV-3] RF6005 [HV-7] RF6010 [HV-11] RF6015 [HV-14] RF6025 [HV-18]	<b>Radiation Instrument Development Labs (RIDL)</b> 40-8C [HV-1] 40-9B [HV-4] 40-12B [HV-1] <b>Sames USA, Inc (Sames)</b> A100 [HV-25] AB80-02 [HV-25] AC751 [HV-25] AKS80 [HV-25] AKS100 [HV-26] <b>Samtron A50 [HV-23] Samtron A80 [HV-25]</b>	<b>Sorensen (Sorensen)</b> 1003-200C2 [HV-5] 1006-100C2 [HV-10] 1012-50C2 [HV-14] 1020-30C2 [HV-17] 1030-20C2 [HV-21] 1061C2 [HV-25] 1101C2 [HV-26] 1121C2 [HV-26] 1151C2 [HV-27] 2003-1000C2 [HV-6] 2006-500C2 [HV-10] 2012-250C2 [HV-14] 2020-150C2 [HV-17] 2030-100C2 [HV-21] 2060-50C2 [HV-25] 2120-30C2 [HV-27] 2150-20C2 [HV-28] 2250-10C2 [HV-29] 2350-8C2 [HV-30] 5010-8 [HV-11] 5030-4 [HV-20] 9005-5 [HV-31] 9010-5 [HV-31] 9020-5 [HV-31] 9030-5 [HV-31] 9061 [HV-31]	<b>Universal Voltronics Corp (Un Volt)</b> BRE2-200 [HV-3] BRE2-400 [HV-3] BRE2-700 [HV-3] BRE4-100 [HV-7] BRE4-200 [HV-7] BRE4-350 [HV-7] BRE6-65 [HV-10] BRE6-125 [HV-10] BRE6-225 [HV-10] BRE10-40 [HV-12] BRE10-80 [HV-13] BRE10-140 [HV-13] BRE20-10 [HV-16] BRE20-25 [HV-17] BRE20-75 [HV-17] BRE30-2 [HV-20] BRE30-4 [HV-20] BRE30-12 [HV-21] BRE30-35 [HV-21]	<b>Vector Engineering (Vector)</b> PM-1K-01 [HV-2] PM-2K-01 [HV-3] PM-3K-01 [HV-6] PM-5K-01 [HV-7] PMA-5K-01 [HV-8]	<b>Veritron Corp (Veritron)</b> M-101 [HV-2] M-1200 [HV-1] M-1515 [HV-1] M-3000-1 [HV-19] M-3005-1 [HV-20] M-3100 [HV-5] M-5250 [HV-9] M-5500 [HV-9] M-10010 [HV-12] M-10100 [HV-13] M-11000 [HV-14] M-50106-1 [HV-24] M-80010-1 [HV-25] M-100005 [HV-26]	<b>Walden Electronics Corp (Walden)</b> 538A [HV-19] 545A [HV-20] 560 [HV-16] 562A [HV-16] 566 [HV-22] 568 [HV-11] 569 [HV-11] 574 [HV-16]	<b>Carl Zeiss, Inc (Zeiss)</b> HA60R [HV-25] HA60RE [HV-24] HA150R [HV-27] HA300 [HV-29]
<b>Alfred Electronics (Alfred)</b> 265 [HV-1] 271 [HV-8]	6516A [HV-5] 6522A [HV-2] 6525A [HV-7]	<b>Hipotronics (Hipotron)</b> 103D [HV-5] 105D [HV-8] 110D [HV-11] 115D [HV-15] 120D [HV-16] 130D [HV-20] 150D [HV-23] 803-1 [HV-5] 803-5 [HV-6] 805-1 [HV-9] 805-5 [HV-10] 810-1 [HV-13] 810-5 [HV-13] 810-05 [HV-12] 815-05 [HV-15] 815-25 [HV-15] 820-05 [HV-17] 820-25 [HV-18] 830-05 [HV-21] 850-05 [HV-23] 1100D [HV-26] 1200D [HV-28] 1200D2 [HV-28] 1300D2 [HV-29] 1500D [HV-27] 1500D2 [HV-27] 8100-02 [HV-26] 8300-02 [HV-30]	<b>Kepeco, Inc (Kepeco)</b> 1220C [HV-1] 1520B [HV-2] ABC1500M [HV-1] ABC2500M [HV-3] HB2050 [HV-3] HB2500 [HV-4]	<b>Monroe Electronics, Inc (Monroe)</b> 116B [HV-12]	<b>Moran Instrument Corp (Moran)</b> 1.5K-2G [HV-1] 15K-10C [HV-15] 20K-1CZ [HV-16] 25K-8CZ [HV-18]	<b>NJE Corp (NJE)</b> H-2.5-50 [HV-4] H-2.5-100 [HV-4] H-5-25 [HV-9] H-5-50 [HV-9] H-5-100 [HV-9] H-5-200 [HV-9] H-5-500 [HV-9] H-10-5 [HV-11] H-10-25 [HV-12] H-10-50 [HV-13] H-10-100 [HV-13]	<b>H-15-10 [HV-15] H-15-20 [HV-15] H-20-5 [HV-16] H-20-10 [HV-17] H-20-20 [HV-17] H-20-50 [HV-17] H-30-5 [HV-20] H-30-10 [HV-20] H-30-35 [HV-21] HH-2.5-1000 [HV-4] HH-10-250 [HV-13] HH-15-150 [HV-15] HH-25-100 [HV-18] HHO-50-50 [HV-24] HHO-150-20 [HV-28] HO-50-5 [HV-23] HO-50-10 [HV-23] HO-50-15 [HV-23] HO-60-10 [HV-24] HO-120-5 [HV-26] HO-150-10 [HV-28] HO-15-5 [HV-27] HO-200-5 [HV-28] HO-250-5 [HV-29] S-325 [HV-3] S-326 [HV-4] S-327 [HV-8] S-328 [HV-11] S-330 [HV-14]</b>	<b>Neutronic Associates (Neutronic)</b> 15BR [HV-14] 21MR [HV-14] 22MR [HV-20] 22CR [HV-19] 23CR [HV-22] 23MR [HV-22] 23SR [HV-22] 24CR [HV-23] 24MR [HV-23] 30BR [HV-19] 60DR [HV-24] 75BR [HV-10] 21KR [HV-12] R-21KR [HV-12] R-21MR [HV-14] R-22CR [HV-19] R-22MR [HV-20] R-22SR [HV-19]	<b>Plastic Capacitors (PI Capac)</b> HVA300-303 [HV-21] HVA1000-102 [HV-30]	<b>Precision Measurements Div (now Beckman Instruments, Inc) (Precision M)</b> RF6000 [HV-3] RF6005 [HV-7] RF6010 [HV-11] RF6015 [HV-14] RF6025 [HV-18]	<b>Radiation Instrument Development Labs (RIDL)</b> 40-8C [HV-1] 40-9B [HV-4] 40-12B [HV-1] <b>Sames USA, Inc (Sames)</b> A100 [HV-25] AB80-02 [HV-25] AC751 [HV-25] AKS80 [HV-25] AKS100 [HV-26] <b>Samtron A50 [HV-23] Samtron A80 [HV-25]</b>	<b>Sorensen (Sorensen)</b> 1003-200C2 [HV-5] 1006-100C2 [HV-10] 1012-50C2 [HV-14] 1020-30C2 [HV-17] 1030-20C2 [HV-21] 1061C2 [HV-25] 1101C2 [HV-26] 1121C2 [HV-26] 1151C2 [HV-27] 2003-1000C2 [HV-6] 2006-500C2 [HV-10] 2012-250C2 [HV-14] 2020-150C2 [HV-17] 2030-100C2 [HV-21] 2060-50C2 [HV-25] 2120-30C2 [HV-27] 2150-20C2 [HV-28] 2250-10C2 [HV-29] 2350-8C2 [HV-30] 5010-8 [HV-11] 5030-4 [HV-20] 9005-5 [HV-31] 9010-5 [HV-31] 9020-5 [HV-31] 9030-5 [HV-31] 9061 [HV-31]	<b>Universal Voltronics Corp (Un Volt)</b> BRE2-200 [HV-3] BRE2-400 [HV-3] BRE2-700 [HV-3] BRE4-100 [HV-7] BRE4-200 [HV-7] BRE4-350 [HV-7] BRE6-65 [HV-10] BRE6-125 [HV-10] BRE6-225 [HV-10] BRE10-40 [HV-12] BRE10-80 [HV-13] BRE10-140 [HV-13] BRE20-10 [HV-16] BRE20-25 [HV-17] BRE20-75 [HV-17] BRE30-2 [HV-20] BRE30-4 [HV-20] BRE30-12 [HV-21] BRE30-35 [HV-21]	<b>Vector Engineering (Vector)</b> PM-1K-01 [HV-2] PM-2K-01 [HV-3] PM-3K-01 [HV-6] PM-5K-01 [HV-7] PMA-5K-01 [HV-8]	<b>Veritron Corp (Veritron)</b> M-101 [HV-2] M-1200 [HV-1] M-1515 [HV-1] M-3000-1 [HV-19] M-3005-1 [HV-20] M-3100 [HV-5] M-5250 [HV-9] M-5500 [HV-9] M-10010 [HV-12] M-10100 [HV-13] M-11000 [HV-14] M-50106-1 [HV-24] M-80010-1 [HV-25] M-100005 [HV-26]	<b>Walden Electronics Corp (Walden)</b> 538A [HV-19] 545A [HV-20] 560 [HV-16] 562A [HV-16] 566 [HV-22] 568 [HV-11] 569 [HV-11] 574 [HV-16]	<b>Carl Zeiss, Inc (Zeiss)</b> HA60R [HV-25] HA60RE [HV-24] HA150R [HV-27] HA300 [HV-29]

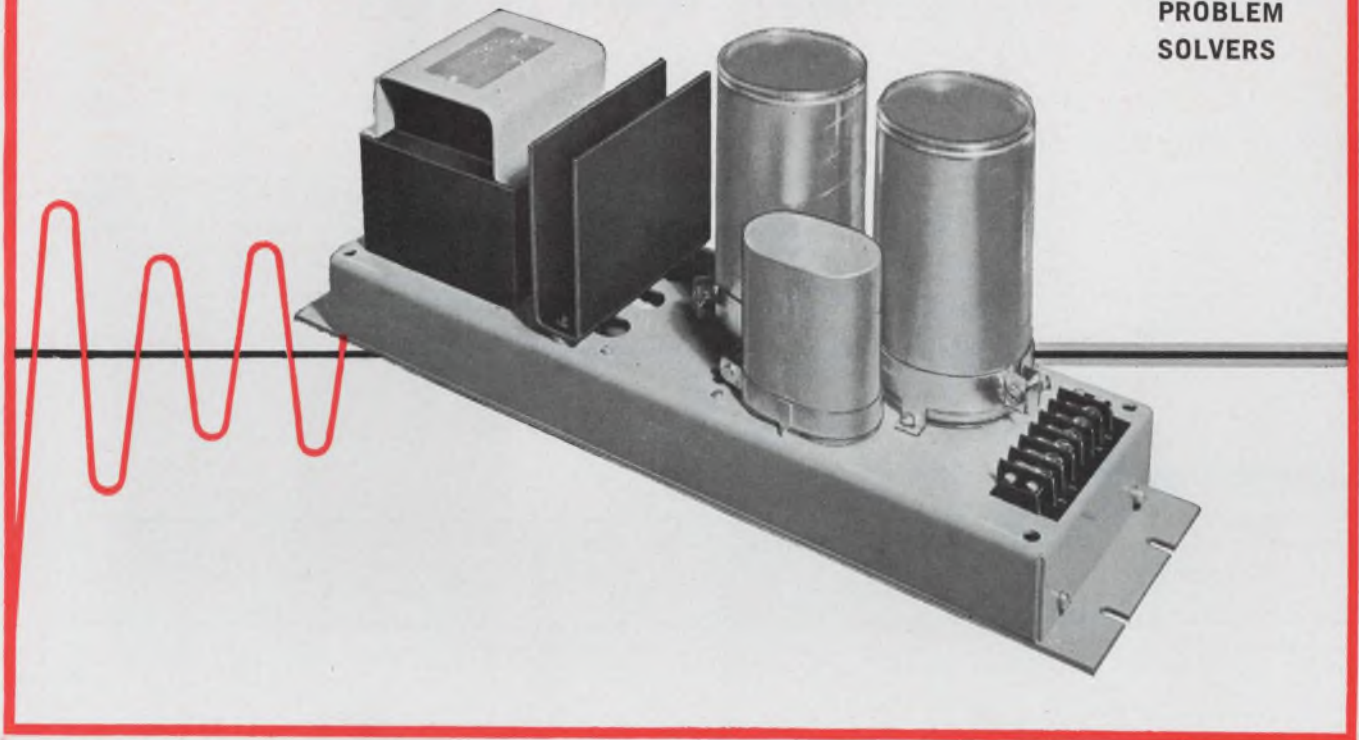
Manufacturers' addresses and literature offerings in master cross index at front of issue.



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Variable	Excursion	DC Output Voltage Change
Line Voltage	97-130 volts	2%
Load	0-100% rated load	3%
Ambient Temp	40C temp change	1%
Regulation—2-5% at full to half load		

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ON READER-SERVICE CARD CIRCLE 23

# Special-Purpose DC Power Supplies

(Voltage reference, Klystron, Microwave)

## Voltage reference supplies

Mfr.	Model	OUTPUT						CALIBRATION			Stability short term	Meters	Mounting	Price \$	Notes
		Min. Volts	Max. Volts	Current ma	Impedance		Volts	Accuracy %	Resolution						
					$\Omega$ dc	$\Omega$ ac									
El Dev (El Dev) 3	MV50R	0	-51.110 mv	ina	1	ina	5 <sup>5</sup>	+0.015	1 $\mu$ v	0.001%	none	R	750	f	
	MV100N	0	+111.110mv	!	20 M	ina	5 <sup>5</sup>	+0.01	1 $\mu$ v	0.001%	yes	C	745	f, g	

## Klystron supplies

Mfr.	Model	OUTPUT				REGULATION			MODULATION			HEATERS		Meters	Mounting	Price \$	Notes
		Supply	Min. Volts	Max. Volts	Current ma	Line %	Load %	Ripple mv	Square	Other cps	External	Volts	Amps				
Harrison 3	715A	Beam Refl	-250 0	-400 -900	30-50 10 $\mu$ a	1 !	1 ina	7 10	1 kc 100 cps	60 at 0-350 v	yes	6.3	1.5	yes	C	325	g

The tables in this section list the specifications for three types of special-purpose dc power supplies:

- Voltage-reference supplies.
- Klystron supplies.
- Microwave supplies.

Unless otherwise noted, all supplies have input-voltage requirements of 95-130 vac, 1 phase.

The last two tables in this section list modular units designed for powering microwave tubes. A number of these units can be used to provide independently controllable voltages for a single tube. The first of these tables lists filament supplies, and the second lists modular supplies that can be used for various microwave-tube elements.

The prices in all of the tables are subject to change by the manufacturer.

An index of manufacturers and models is given on page 94. The index is alphabetical, by manufacturer, and it lists the various special-purpose dc supplies of each manufacturer. A location key is included after each model. This permits easy spotting in the table of the specifications for that supply, by means of the location-key column (1 above).

### How the tables are arranged

Specifications for all special-purpose dc power

supplies are given in separate, appropriately headed columns. The complete specifications for any one supply can thus be read across the page.

In the table covering voltage reference supplies the units are listed in ascending order of maximum output voltage (2 above). In all other tables the units are listed by manufacturer.

Manufacturers are identified in the *Mfr* column by an abbreviation (3 above). The complete name of each manufacturer can be found in the index at the end of the section. For manufacturers' addresses and Reader Service literature offerings, see the master index at the front of the issue.

All notes and symbols used in the tables are defined at the end of the section.

### How to use the tables

- Note how the supplies are listed.  
The voltage reference supply table is in ascending order of increasing output voltage. In all other tables the supplies are listed by manufacturer.
- Select the most likely candidates.
- Obtain supplementary data from the manufacturer.  
Manufacturers' addresses, together with Reader Service numbers for specific power supply types, are given in the master cross index at the front of the issue.



# Voltage reference supplies

51.110 mv-1111.110 v

	Mfr.	Model	OUTPUT					CALIBRATION			Stability short term	Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Current ma	Impedance		Volts	Accuracy %	Resolution					
						Ω dc	Ω ac								
SP 1	EI Dev	MV50R	0	±51.110 mv	ina	1	ina	5 <sup>5</sup>	±0.015	1 μv	0.001%	none	R	750	f
	EI Dev	MV100N	0	±111.110mv	1	20 M	ina	5 <sup>5</sup>	±0.01	1 μv	0.001%	yes	C	745	f,g
	Abbey	SM-4	0	10, 1	25	ina	ina	10 <sup>3</sup>	0.25	5 mv	ina	yes	C or R	295	g
	Hevi-Duty	MC-1011	0	10, 1	10, 1	ina	ina	5 <sup>8</sup>	±0.05	ina	ina	none	C or R	2275	
	Hevi-Duty	MC-1111	0	10, 1	10, 1	ina	ina	5 <sup>8</sup>	±0.05	ina	ina	none	C or R	3950	
	North Hills	VS-10	10 μv	10	10 v into 10 k	15	ina	10 μ <sup>8</sup>	ina	ina	0.0005%	none	R	495	
	Ballantine	420	0	10	ina	ina	ina	4 <sup>1</sup>	±0.25	200 ppm	±0.05%	none	C	395	
	EI Dev	VS11P	0	±11.110	20	50 M	ina	ina	±0.01	1 mv	0.001%	none	R	1019	f
	EI Dev	MV100NR	0	±11.1110	10	50 M	ina	5 <sup>5</sup>	±0.01	100 μv	0.001%	yes	R	770	f,g
SP 2	EI Dev	MV100N	0	±11.1110	10	50 M	ina	5 <sup>5</sup>	±0.01	100 μv	0.001%	yes	C	745	f,g
	EI Dev	VS11N	0	±11.1110	20	50 M	ina	5 <sup>5</sup>	±0.01	100 μv	0.001%	yes	C or R	645	f,g
	Epsco	VRS611	-11.112	+11.112	10	50 M	ina	4 <sup>5</sup>	±0.025	0.0001%	ina	none	C or R	645	
	EI Dev	CEA11	0	±12.110	20	50 M	ina	4 <sup>5</sup>	±0.02	1 mv	0.001%	none	R	719	f
	North Hills	VS-36	0	21.1	1000	0.025	0.025	100 μ <sup>8</sup>	0.02	100 μv	25 ppm	none	R	995	
	Weston-Rotek	410	0	±21.111	50	10 M	ina	3 range	±0.01	20 μv	10 ppm	yes	C or R	2375	g
	Fluke	383B	0	50	0-2 a	500 μ	5 M	note 6	0.025	100 μv	±0.005%	yes	R	1950	a,b,f,g
	Fluke	313A	0	50	0-2 a	100 μ	1 M	6 <sup>4</sup>	±0.01	100 μv	±0.002%	yes	R	1295	a,b,f,g
	Fluke	382A	0	50	0-2 a	100 μ	1 M	6 <sup>4</sup>	±0.01	100 μv	±0.002%	yes	R	1595	a,b,f,g
	Princeton	TC-602R	0	60	2 a	10 μ	100 M	3 <sup>3,4</sup>	±0.1	10 mv	10 ppm	yes	R	1185	g
SP 3	Princeton	TC-602CR	0	60	2 a	10 μ	100 M	2 ranges	0.01	1 μv	±0.001%	yes	R	1750	g
	Cohu	M10A-10	0	100, 10, 1	100	10 M	ina	ina	5 mv	ina	ina	none	R	1495	
	Hevi-Duty	MC-0100	0	100, 10, 1	100, 10, 1	ina	ina	5 <sup>8</sup>	±0.05	ina	ina	none	C or R	1350	
	Hevi-Duty	MC-0101	0	100, 10, 1	100, 10, 1	ina	ina	5 <sup>8</sup>	±0.05	ina	ina	none	C or R	1950	
	Princeton	TC-100.2AR	0	100	200	10 μ	100 M	note 9	±0.005	10 μv	±0.001%	yes	R	1800	g
	Princeton	TC-100.2BR	0	100	200	10 μ	100 M	note 9	±0.005	100 mv	±0.001%	yes	R	2200	g
	Princeton	TC-100.2R	0	100	200	10 μ	100 M	note 9	0.01	1 mv	0.001%	yes	R	1500	g
	Ballantine	421	0	111	ina	ina	ina	6 <sup>1</sup>	±0.15	100 mv	±0.01%	none	C or R	620	
	North Hills	VS-35	0	111.1	100	0.025	0.025	10 μ <sup>8</sup>	0.02	100 mv	25 ppm	none	R	995	
	EI Dev	VS111P	0	±111.10	10	0.1	ina	ina	±0.01	10 mv	0.001%	none	R	1195	f
EI Dev	MV100NR	0	±111.110	1	20 M	ina	5 <sup>5</sup>	±0.01	1 μv	0.001%	yes	R	770	f,g	
SP 4	EI Dev	VS111N	0	±111.110	10	0.1	ina	5 <sup>5</sup>	±0.01%	1 mv	0.001%	yes	C or R	835	f,g
	Epsco	VR-607	0	±111.112	15	0	ina	1 mv	±0.01%	10 μv	0.005%	yes	C	1995	g
	Epsco	VR-608	0	±111.112	100	0	ina	1 mv	±0.01%	10 μv	0.005%	yes	R	2275	g
	Hevi-Duty	LC025-100M	0	250	1 a	ina	ina	ina	ina	ina	0.1%	yes	C or R	675	b,g
	Hevi-Duty	LC025-025M	0	250	250	ina	ina	ina	ina	ina	0.1%	yes	C or R	235	b,g
	Hevi-Duty	LC025-050M	0	250	500	ina	ina	ina	ina	ina	0.1%	yes	C or R	435	b,g
	Hevi-Duty	LC050-100M	0	500	1 a	ina	ina	ina	ina	ina	0.1%	yes	C or R	640	b,g
	Hevi-Duty	LC050-050M	0	500	500	ina	ina	ina	ina	ina	0.1%	yes	C or R	565	b,g
	Hevi-Duty	LC050-025M	0	500	250	ina	ina	ina	ina	ina	0.1%	yes	C or R	350	b,g
	Hevi-Duty	LC050-010M	0	500	100	ina	ina	ina	ina	ina	0.1%	yes	C or R	265	b,g
SP 5	Cohu	301	1	501	20	10 M	0.2	note 5	±0.02%	ina	±50 ppm	yes	C or R	995	g
	Cohu	50B-100	1.02	502	1 a	10 M	0.5	2 <sup>2</sup>	±0.02%	ina	±50 ppm	none	R	2375	
	Cohu	50B-25	1.02	502	250	10 M	0.5	2 <sup>2</sup>	±0.02%	ina	±50 ppm	none	R	1595	
	Cohu	302	1.000	502.110	20	10 M	ina	6 <sup>8</sup>	0.01%	ina	±25 ppm	yes	C	1830	g
	Fluke	301E	1.02	512	300	100 M	1	note 5	0.1%	500 μv	0.005%	yes	R	695	g
	Fluke	407D	0	555	300	500 M	500 M	note 5	0.5%	2 mv	0.01%	yes	C or R	380	g
	Hevi-Duty	MC-1011	0	1000, 100	1000, 100	ina	ina	5 <sup>8</sup>	±0.05	ina	ina	none	C or R	2275	
	Hevi-Duty	MC-1111	0	1000, 100	1000, 100	ina	ina	5 <sup>8</sup>	±0.05	ina	ina	none	C or R	3950	
	Hevi-Duty	LC100-050M	0	1000	500	ina	ina	ina	ina	ina	0.1%	yes	C or R	765	b,g
	Hevi-Duty	LC100-100M	0	1000	1 a	ina	ina	ina	ina	ina	0.1%	yes	C or R	1190	b,g
SP 6	Hevi-Duty	LC100-025M	0	1000	250	ina	ina	ina	ina	ina	0.1%	yes	C or R	640	b,g
	Hevi-Duty	LC100-010M	0	1000	100	ina	ina	ina	ina	ina	0.1%	yes	C or R	520	b,g
	Hevi-Duty	LC100-005M	0	1000	50	ina	ina	ina	ina	ina	0.1%	yes	C or R	440	b,g
	Keithley	241	0	±1000	20	50 M	ina	5 <sup>2</sup>	0.05	100 μv	0.005%	none	C or R	815	
	Keithley	240	0	±1000	10	15	ina	3 <sup>2</sup>	1	ina	0.05 v	none	C or R	360	
	Fluke	301C	1.02	1012	400	50 M	ina	4 <sup>5</sup>	±0.1	500 μv	0.005%	yes	C	985	g
	Abbey	MC-10	0	1099	10	ina	ina	6 <sup>2</sup>	±0.1	1 mv	ina	yes	R	1500	g
	Cal Stand	VS-100BR	0	1111	50	250 M	250 M	5 <sup>2</sup>	±0.05	100 μv	0.005%	yes	R	690	g
	Key Inst	MCS 6420	0	±1111.1	11	ina	ina	5 <sup>8</sup>	ina	ina	0.005%	yes	C or R	1950	g
	EI Dev	VS1000NR	0	±1111.110	10	0.1	ina	6 <sup>5</sup>	±0.01	1 mv	0.001%	yes	R	995	f,g

Notes and abbreviations at end of this section, manufacturers' index on page 94.

# Voltage reference supplies

1111.110-30,220 v

	Mfr.	Model	OUTPUT					CALIBRATION			Stability short term	Meters	Mounting	Price	Notes
			Min. Volts	Max. Volts	Current ma	Impedance		Volts	Accuracy %	Resolution					
						Ω dc	Ω ac								
SP 7	Cohu	321/323	0	1111.110	25	1 M	ina	6 <sup>2</sup>	0.01	ina	0.0025%	yes	C or R	2145	g
	Fluke	332A	0	1111.111	50	5 M	ina	7 <sup>2</sup>	0.003	0.1%	±0.0015%	yes	R	2490	g
	Cohu	313	0	1111.1110	25	1 M	ina	7 <sup>2</sup>	0.01	ina	0.0025%	none	C or R	3995	
	Cohu	303B	0	1111.1110	25	ina	ina	7 <sup>2</sup>	0.01	ina	0.0025%	none	R	2695	
	Cohu	304	0	1222.2221	50	1 M	ina	7 <sup>2</sup>	0.003	ina	0.0015%	none	R	3995	
	PDP	1565	0	2012	15	ina	ina	3 <sup>5</sup>	0.25	10 mv	0.005%	yes	R	415	g
	Cal Stand	120B	0	2111	20	1	1	4 <sup>2</sup>	±0.25	5 mv	0.005%	yes	R	495	g
	Cal Stand	127	500	3000	2	ina	ina	ina	0.5	100 mv	0.02%	ina	R	ina	
	PDP	1547	0	3012	40	ina	ina	3 <sup>5</sup>	0.25	10 mv	0.005%	yes	R	575	g
	PDP	1544	0	3012	20	ina	ina	3 <sup>5</sup>	0.25	10 mv	0.005%	yes	R	520	g
SP 8	Fluke	405B	0	3100	30	ina	ina	3 <sup>7</sup>	0.25	5 mv	0.005%	yes		525	g,h
	Fluke	413C	0	3111	20	ina	ina	note 5	±0.25	2 mv	±0.005%	yes	R	695	g
	Fluke	334B	0	3111	400	ina	ina	6 <sup>5</sup>	0.03	50 μv	±0.005%	yes	C	2650	g
	Cal Stand	122E	0	3111	20	1	1	4 <sup>2</sup>	±0.25	5 mv	0.005%	yes	R	540	g
	Keithley	242	300	3500	25	ina	ina	4 <sup>2</sup>	±0.1	15 mv	0.01%	none		850	h
	Keithley	243	300	3500	15	ina	ina	4 <sup>2</sup>	±0.1	15 mv	±0.01%	none		990	h
	ERA	TH5K-15L	10	5000	15	ina	ina	ina	ina	ina	ina	yes	C or R	295	g
	ERA	TH5K-15LM	0	±5000	15	ina	ina	3 <sup>5</sup>	ina	ina	ina	yes	C or R	350	g
	PDP	1545	0	5021	20	ina	ina	3 <sup>5</sup>	0.25	10 mv	0.005%	yes	R	625	g
	Cal Stand	133S	0	6000	20	ina	ina	4 <sup>2</sup>	±0.25	10 mv	0.005%	yes	R	675	g
SP 9	Fluke	408B	0	6000	20	ina	ina	note 8	0.25	10 mv	0.005%	yes		665	g,h
	PDP	1556	0	6021	20	ina	ina	3 <sup>5</sup>	0.25	5 mv	0.005%	yes	R	650	g
	ERA	TH10K-10LM	0	±10,000	10	ina	ina	3 <sup>5</sup>	ina	ina	ina	yes	C or R	600	g
	ERA	TH10K-10L	100	10,000	10	ina	ina	ina	ina	ina	ina	yes	C or R	395	g
	Fluke	410B	0	10,000	10	ina	ina	note 8	0.25	5 mv	0.005%	yes		975	g,h
	Cal Stand	134	0	10,010	15	ina	ina	4 <sup>2</sup>	±0.25	10 mv	0.005%	yes	R	1075	g
	Cal Stand	134B	0	10,010	10	ina	ina	4 <sup>2</sup>	±0.25	10 mv	0.005%	yes	R	975	g
	PDP	1543	0	10,021	10	ina	ina	3 <sup>5</sup>	0.25	10 mv	0.005%	yes	R	975	g
	Cal Stand	170	0	20,000	5	ina	ina	5 <sup>2</sup>	±0.25	50 mv	0.02%	yes	R	3500	g
	Fluke	430A	10	30,220	10	ina	ina	2000 <sup>8</sup>	±0.25	100 mv	±0.005%	yes	C	3900	g

Notes and abbreviations at end of this section, manufacturers' index below.

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**Calibration Standards, now Electro Instruments, Inc (Cal Stand)**  
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**Epsco Inc (Epsco)**  
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**John Fluke Mfg Co (Fluke)**

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**North Hills Electronics, Inc**  
 (North Hills)  
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**PRD Electronics, Inc**  
 (PRD Elec)  
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**Power Designs Pacific, Inc**  
 (PDP)  
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**Princeton Applied Research Corp**  
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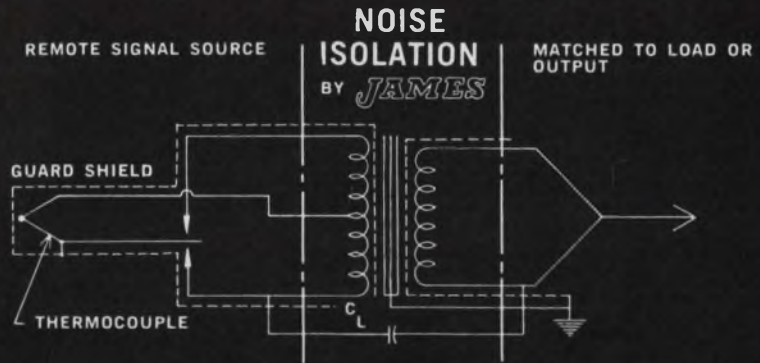
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**Weston Instruments**  
 Div of Ritek  
 (Weston-Ritek)  
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# 150 db Common Mode Rejection SHIELDED TRANSFORMERS

by **JAMES**®



CMR > 150 db

CL < 5 × 10<sup>-7</sup> pf.

## SIGNAL-GUARD TRANSFORMERS

Low and Medium Frequency (DC to 100 KC) response  
 Designed for use in analog acquisition and computation equipment use. Signal Guard provides isolation, voltage comparison, impedance matching, and common mode rejection.

## DATA-GUARD TRANSFORMERS

High Frequency Signal (1 kc—20 mc)  
 Designed and shielded to isolate and terminate high frequency signal data in the form of pulses, AM and FM modulated carriers, multiplexed signals, and other low to high frequency data.

## ELECTRO-GUARD TRANSFORMERS

Power (1 watt to 100 VA)  
 Electrostatically shielded for use in signal conditioners, bridge supplies, and Zener reference supplies to isolate circuits from noise transients and undesirable common mode voltages commonly carried on electrical power lines.

Write for complete technical details and specifications.

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ON READER-SERVICE CARD CIRCLE 24

## Klystron supplies

	Mfr.	Model	OUTPUT			REGULATION			MODULATION			HEATERS		Meters	Mounting	Price \$	Notes	
			Supply	Min. Volts	Max. Volts	Current ma	Line %	Load %	Ripple mv	Square	Other cps	External	Volts					Amps
SP 10	Harrison	715A	Beam Refl	-250 0	-400 -900	30-50 10 $\mu$ a	1 1	1 ina	7 10	1 kc $\pm$ 100 cps	60 at 0-350 v	yes	6.3	1.5	yes	C	325	g
	PRD Elec	809-A	Beam Refl	250 0	600 -900	65 50 $\mu$ a	$\pm$ 1 v 0.1	ina 0.1	5 10	0.4 - 2 kc	60 at 0-125 v	yes	6.3	2	yes	C	395	g
	Cubic	701B	Beam Refl	250 0	600 900	70 1	1 1	5 ina	5 7	0.35 - 3.5 kc	60 at 0-350 v		6.3	1.75	yes	C	450	d,e,g
SP 11	Narda	438	Beam Refl	250 0	700 1000	65 50 $\mu$ a	$\pm$ 1 v 0.1	$\pm$ 3 v ina	5 3	0.3 - 3 kc	30 - 180	yes	6.3	2	yes	C or R	510	c,d,g
	Harrison	716B	Beam Refl	-250 0	-800 -800	100	0.1 0.05	0.05 ina	1 500 $\mu$ v	0.4 - 2.5 kc	75	200 v	6.3	2	yes	C or R	875	c,e,g
	PRD Elec	815	Beam Refl Grid	200 0 note 10	2200 1000 note 10	45-65 50 $\mu$ a 5	$\pm$ 0.05 $\pm$ 0.02 $\pm$ 0.02	$\pm$ 0.01 ina ina	5 1 3	0.4 - 4 kc	pulse	2 cps - 1 Mc	6.3	3	yes		1050	c,d,g,h
SP 12	TRG	940	Beam Refl Grid	-300 -25 0	-3600 -650 -300	70 ina ina	$\pm$ 0.002 $\pm$ 0.002 $\pm$ 0.002	ina ina ina	10 5 5	1 kc	ina	yes	6.6	3	yes	C	2150	e,f,g
	PRD Elec	812	Beam Refl Grid	200 0 note 10	3600 -1000 note 10	125 50 $\mu$ a	$\pm$ 0.015 $\pm$ 0.001 $\pm$ 0.001	0.1 v +0.05 ina	5 rms 1 rms 3 rms	400 - 400 cps	pulse	yes	6.3	3	yes	C	2395	c,d,e,g,h
	Narda (Microline)	62A)	Beam Refl Grid	-200 0 -300	-4000 1000 +150	150 ina 5	0.01	ina	3 rms 3 rms 5	0.2 - 2 kc	40 - 400	yes	6.3	4	yes	C	1300	c,d,e,f,g
SP 13	Litton	242	Beam Refl	0 0	5000 1000	150 10	ina	ina	1 rms 0.05 rms	ina	ina	ina	0-10	5	yes	C or R	ina	
	Litton	261	Beam Refl	0 500	6500 1500	250	ina	ina	0.005 rms 0.005 rms	ina	ina	ina	6-6.5	2.2	yes	C or R	ina	
	Litton	242A	Beam Refl	0 0	7000 1500	250 10	ina	ina	1 rms 0.05 rms	ina	ina	ina	0-10	5	yes	C or R	ina	

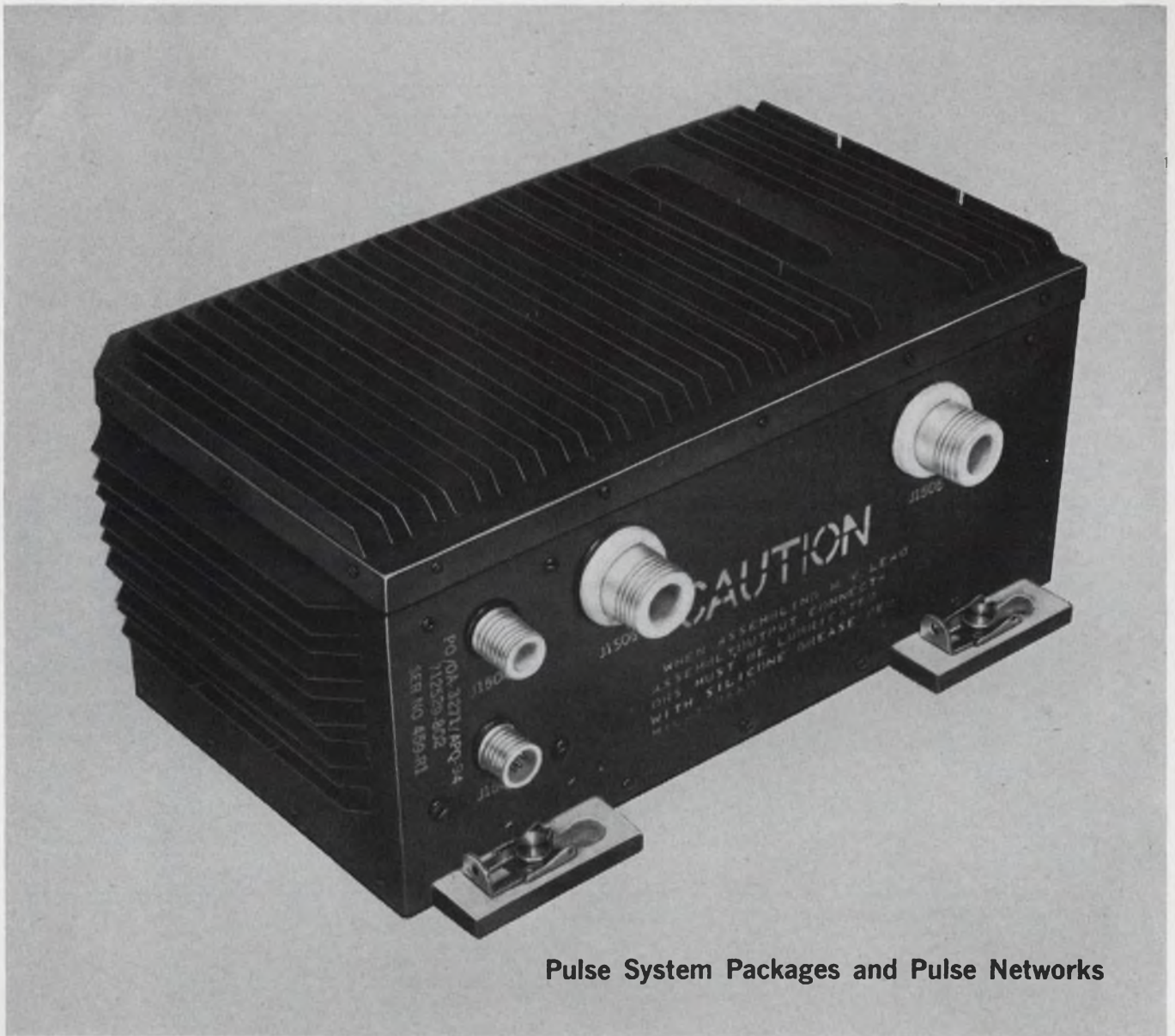
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## Microwave supplies

	Mfr.	Model	OUTPUT			REGULATION			HEATERS		Meters	Mounting	Price \$	Notes	
			Supply	Min. Volts	Max. Volts	Current ma	Line %	Load %	Ripple mv	Volts					Amps
SP 14	Alfred	250	Anode 1 Anode 2 Anode 3	0 0 0	+450 +300 +750	20 1 1	0.5 0.5 0.5	0.5 0.5 0.5	0.5% 0.5% 0.5%	0-10	20 v	yes	C	1990	g
	Alfred	250	Anode 4 Helix Coll	0 90 0	+2500 +3500 +250	1 5 60	1 0.05 1	1 ina ina	2% 0.02% 0.5%	0-10	20 v	yes	C	1990	g
	Alfred	250	Grid	0	-150	100 $\mu$ a	0.1	ina	0.1%	0-10	20 v	yes	C	1990	g
	Alfred	252	Helix Coll Anode A	75 40 -100	1400 300 +100	500 $\mu$ a 1500 $\mu$ a 1	$\pm$ 0.03 $\pm$ 2 $\pm$ 0.2	ina ina ina	20 1 v 25	10 1 1	1 1	yes yes	R	890	g
	Alfred	252	Anode B Anode C Anode D	-100 0 0	+100 450 900	100 $\mu$ a 100 $\mu$ a 100 $\mu$ a	$\pm$ 0.1 $\pm$ 0.2 $\pm$ 0.2	ina ina ina	25 25 50	10 1	1	yes	R	890	g
	SP 15	Narda	15101	Beam Bias Grid	-2 0 50	-12,000 250 600	2.5 a 25 ina	0.1	0.1	ina	0-10	5	yes	C	9925
Narda		15551	Beam Bias Grid	0 0 100	-15,000 -150 500	2.5 a 25 ina	ina	ina	ina	0-10	5	yes	C	5725	e,g
PRD Elec		816	Anode Grid	30 0	500 300	15 2	$\pm$ 0.1 $\pm$ 0.05	$\pm$ 0.1	10 rms 7 rms	6.3	3	yes		2300	g,h
Servodynamics		812	Anode Line Grid	100 3000 0	3000 10,000 200	5 100 10	$\pm$ 0.05 $\pm$ 0.005 $\pm$ 0.5	0.05 0.05 ina	ina ina ina	10	5	yes	C	8800	

Notes and abbreviations at end of this section, manufacturers' index on page 94.





Pulse System Packages and Pulse Networks

## More power to you, from AMP

When it comes to power, your specifications reign supreme. That's why AMP specializes in the custom engineering of pulse system packages and pulse networks to the customer's requirements. We make packaged pulse modulators for high-power radar systems with weight and cube reductions of 50% or more compared to standard systems.

We've developed over 2,500 different types of pulse forming networks, covering all combinations of pulse widths, impedances, and charging voltages. These units are designed with exact compliance to pulse shape, rise time, and ripple tolerances.

All A-MP\* power packages are characterized by light weight, rugged construction and extreme reliability. Here, for example, are specifications for a typical high power pulse modulator shown above:

Magnetron Filament Voltages: 13.75 volts—standby  
7.8 volts—operate

Peak Pulse Amplitude: 22.0 kilovolts  $\pm$  4%

Rate of Rise: 140  $\pm$  20 KV/ $\mu$  sec.

Pulse Width (current): 0.7  $\pm$  0.05  $\mu$  sec.

Positive Backswing: 20% max.

Fall Time (current): max. 30% of pulse width

Ripple Detected RF: 14% max. on 711 magnetron

Overload Protection: 200% of protective diode current

Trigger Amplitude: 110 volts  $\pm$  10%

Trigger Pulse Width: 1  $\pm$  5%  $\mu$  sec.

Trigger Rise Time: 0.2  $\pm$  10%  $\mu$  sec.

Programming: 2 sec. delay

Inputs: DC voltage, system triggers, and AC filament voltages

Additional features—overload protection current, average magnetron current output, thyratron filament and mounting, line filters and RF bypass.

Our facilities and engineering staff have the capability to provide many other items for land, sea, and aerospace applications. Why not get in touch with us today.

**Custom pre-engineered high voltage power supplies • low voltage power supplies • high voltage lead assemblies & connectors • high voltage capacitors**



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### (modular filaments)

	Mfr.	Model	Max. Volts dc	Max. Amps	REGULATION		Price \$
					Line & Load %	Ripple mv	
SP 16	Micro Power	FB	2.5	3.5	0.1	1 rms	305
	Micro Power	FC	4.0	1.0	0.1	1 rms	305
	Micro Power	FD	6.3	2.0	0.1	1 rms	305
	Micro Power	FA	6.3 ac	4.8	unreg.	ina	125
	Micro Power	FE	9.0	1.1	0.1	1 rms	305
	Micro Power	FF	11.0	1.2	0.1	1 rms	305
	Micro Power	FG	15.0	1.0	0.1	1 rms	305

manufacturers' index on page 94.

### (modular elements)

	Mfr.	Model	BACKWARD-WAVE OSCILLATOR			VOLTAGE TUNABLE MAGNETRON		KLYSTRON			TRAVELING-WAVE TUBE AMPLIFIERS			OUTPUT			Price \$
			Grid	Anode	Delay Line	Injection Electrode	Anode	Grid	Reflector	Resonator	Grid or Anode	Collector	Helix	Min. Volts	Max. Volts	Current ma	
SP 17	Micro Power	EM	yes <sup>k</sup>	yes <sup>k</sup>		yes <sup>k</sup>		yes <sup>k</sup>	yes <sup>k</sup>	yes <sup>k</sup>	yes <sup>k</sup>	yes <sup>k</sup>		0	400	60	375
	Micro Power	DX1												400	500	100	490
	Micro Power	DX2												500	600	100	490
	Micro Power	DX3												600	700	100	490
	Micro Power	DX4												700	800	100	490
	Micro Power	CS							yes <sup>i</sup>					50	1000	15	570
SP 18	Micro Power	CV		yes <sup>k</sup>		yes <sup>k</sup>		yes <sup>j</sup>			yes <sup>k</sup>			50	1000	15	570
	Micro Power	BS			yes <sup>i</sup>		yes <sup>i</sup>							75	1500	50	875
	Micro Power	BV			yes <sup>j</sup>		yes <sup>i</sup>					yes <sup>k</sup>		75	1500	50	875
	Micro Power	BW								yes <sup>k</sup>		yes <sup>k</sup>		50	1700	50	875
	Micro Power	AS			yes <sup>i</sup>		yes <sup>i</sup>							125	2500	25	860
	Micro Power	AV			yes <sup>j</sup>		yes <sup>i</sup>			yes <sup>k</sup>			yes <sup>k</sup>	125	2500	25	860

manufacturers' index on page 94.

### Notes

- Remote programming provided.
- Remote sensing provided.
- Sawtooth modulation.
- Sinewave modulation.
- Provision made for external sync.
- Transistorized.
- Price includes meters.
- Will fit rack when removed from cabinet.
- Direct-coupled electronic control: responds to step input control signal @ rate 20kv/sec/Ma of load current. Input: 30v minimum. Input impedance: 10k. Rise time: 100  $\mu$ s minimum.
- Same as i, except response is 200v/sec/ma of load current.
- Manual voltage control: 10 turn pot, 0.02% resolution.

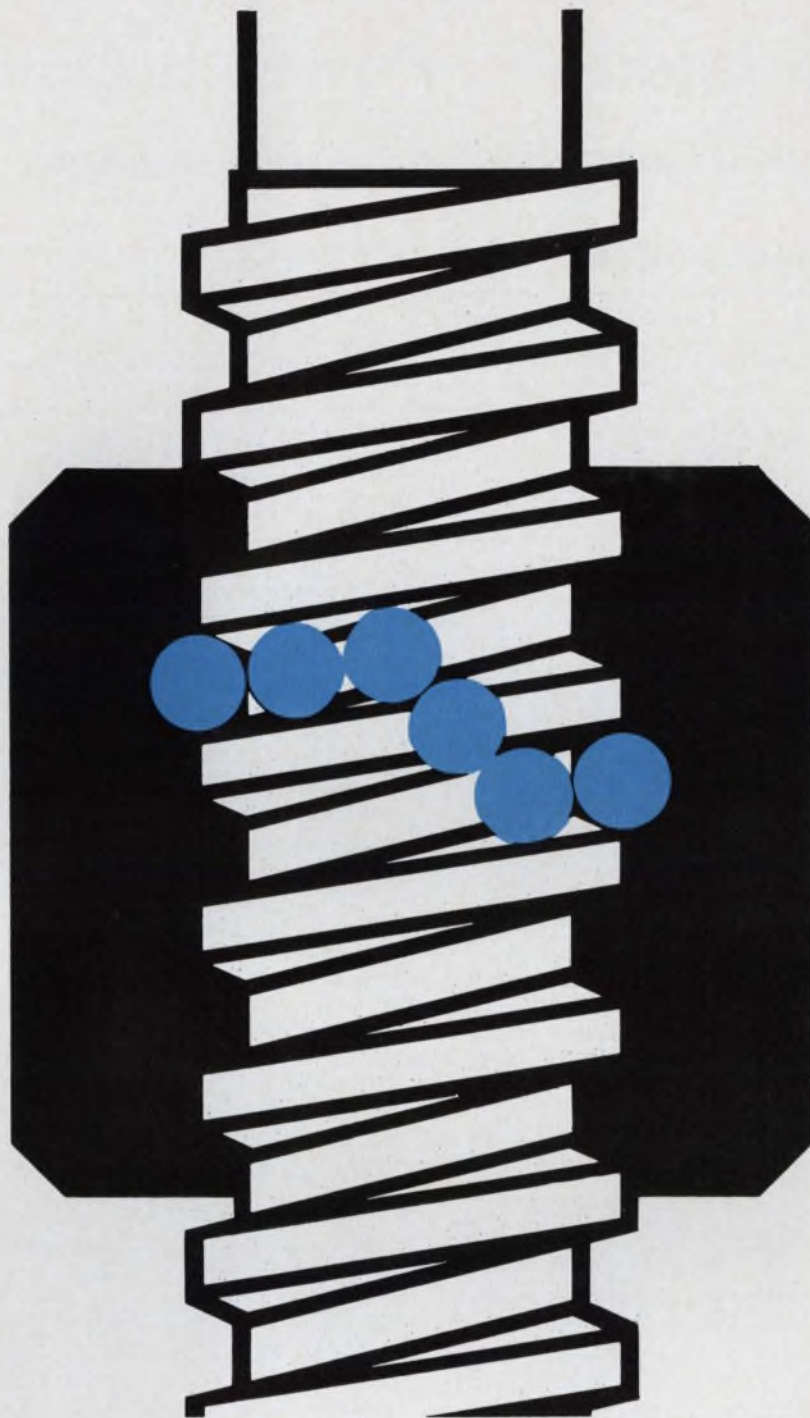
m. Manual voltage control: 1-turn pot.

- Decade, pot & vernier.
- Decade.
- Turn pot.
- Digital dial.
- Decade and vernier.
- Binary.
- Decade and pot.
- Step switch.
- Thumb-wheel switch.
- 0 to +150 v; 0 to -300 v.
- 0.5 amp to +0.5 amp.

### Abbreviations

- C Cabinet  
 R Rack  
 ina Information not available





## Kidde Ballscrews

### FOR LIGHTWEIGHT, COMPACT TRANSFER OF MOTION AND POWER.

Design engineers anxious to hold down weight and size of power transfer units turn to Kidde. Highest precision and compact construction make Kidde Ballscrews ideal for use in computers, potentiometers, capacitors, scientific instruments, nuclear reactors, and inertial guidance packages in missiles and satellites.

Units feature almost complete frictionless action, and can be custom-made to any configuration to suit a particular

application. Stock items in sizes from 3/16" to 1/2" are immediately available. For complete information on compact Kidde Ballscrews, write for your free copy of "Ballscrews and Mechanical Actuator Assemblies." Walter Kidde & Company, Inc., 374 Main Street, Belleville, New Jersey 07109; Northolt, England; Luneburg, Germany.



ON READER-SERVICE CARD CIRCLE 26

# Regulated AC Power Supplies

(Amplitude regulated and frequency regulated)

## Ac supplies (amplitude-regulated)

Mfr.	Model	OUTPUT				INPUT		REGULATION			Meters	Mounting	Price \$	Notes
		Min. Volts	Max. Volts	Max. Amps	Power K VA	Min. Volts	Max. Volts	Line %	Load %	Response Time				
Microdot Sola 6	2R510	115	115 <sup>2</sup>	4.4	0.5 <sup>3</sup>	103	127	0.1	0.1	ina	yes	C	ina	d,j
	23-90-150	115	115	7.5	0.5	100	130	±1 <sup>2</sup>	1.5 <sup>2</sup>	25μs	yes	C	275	d,k

## Ac supplies (fixed-frequency)

Mfr.	Model	FREQUENCY				OUTPUT						Meters	Mounting	Price \$	Notes	
		Mins. cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %					Response Time
									Line %	Load %						
CML Tel Inst 6	SG31A-T30A	50	50 <sup>4</sup>	ina	±0.25 <sup>9</sup>	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	4010A-1-A	50	50	1	1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	510	

The tables in this section list the specifications for regulated ac power supplies. Three separate tables are included:

- Amplitude-regulated ac supplies.
- Frequency-regulated (fixed-frequency) ac supplies.
- Frequency-regulated (adjustable-frequency) ac supplies.

Unless otherwise noted in the table, all supplies have input-voltage requirements of 60 cps, 1 phase.

Prices indicated in the table are subject to change by the manufacturer.

An index of manufacturers and models is included at the end of the section. The index is alphabetical, by manufacturer, and it lists the various ac power supplies of each manufacturer. A location key is included after each model. This permits easy spotting in the tables of the specifications for that supply, by means of the location-key (1 above).

### How the tables are arranged

Specifications for the regulated ac supplies are given in separate, appropriately headed, columns. The complete specifications for any one supply can thus be read across the page.

Within the three tables, the power supplies are arranged as follows:

**Amplitude regulated** supplies are listed in ascending order of maximum output voltage (2 above). Where this is the same for several supplies, they are listed in order of increasing output power (3 above).

**Frequency-regulated, fixed-frequency** supplies are listed in ascending order of maximum output

frequency (4 above). Where this is the same for several supplies, they are then listed in order of increasing power output (5 above).

**Frequency-regulated, adjustable-frequency** supplies are listed in the same order as the fixed-frequency supplies: first by maximum output frequency and then by power output.

In all tables, manufacturers are identified in the *Mfr* column by an abbreviation (6 above). The complete name of each manufacturer can be found in the index at the end of the section. For manufacturers' addresses and Reader Service literature offerings, see the master index at the front of the issue.

All notes and symbols used in the table are defined at the end of the section.

At the top of each page of the tables, reference is made to the voltage or frequency range covered by the supplies on that page. This is to expedite the location of a supply with particular characteristics.

### How to use the tables

- Note how the supplies are listed.  
Amplitude-regulated supplies are in order of maximum output voltage. Where this is the same, they are in order of increasing power output.  
Frequency-regulated supplies (both fixed and adjustable) are in order of maximum frequency. Where this is the same, they are in order of increasing power output.
- Select the most likely candidates.
- Obtain supplementary data from the manufacturer.  
Manufacturers' addresses, together with Reader Service numbers for specific power supply types, are given in the master cross index at the front of the issue.



# Ac supplies (amplitude-regulated)

115-120 v

	Mfr.	Model	OUTPUT				INPUT		REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Power K VA	Min. Volts	Max. Volts	Line %	Load %	Response Time				
AC 1	Microdot Sola	2R510	115	115	4.4	0.5	103	127	0.1	0.1	ina	yes	C	ina	d,j
		23-90-150	115	115	7.5	0.5	100	130	$\pm 1^2$	1.5 <sup>2</sup>	25 $\mu$ s	yes	C	275	d,k
	Microdot	2R1010	115	115	8.7	1	103	127	0.1	0.1	ina	yes	C	ina	d,j
	Microdot	2R2010	115	115	17.4	2	103	127	0.1	0.1	ina	yes	C	ina	d,j
	Microdot	2R3010	115	115	26	3	103	127	0.1	0.1	ina	yes	C	ina	d,j
	Tel Inst	601	115 <sup>6</sup>	115 <sup>6</sup>	30	3.6	115 <sup>6</sup>	115 <sup>6</sup>	ina	ina	100 ms/v	yes	C or R	390	
	Microdot	2R5010	115	115	43.4	5	103	125	0.1	0.1	ina	yes	C	ina	d,j
	Gen Radio	1571-A	115 <sup>6</sup>	115 <sup>6</sup>	50	5.8	115 <sup>6</sup>	115 <sup>6</sup>	0.25	0.25	25 ms/v	none	R	650	c
Gen Radio	1581-A	115 <sup>6</sup>	115 <sup>6</sup>	50	5.8	6	6	0.25	0.25	25 ms/v	none	C or R	530	c	
Sola	59-13-260	115 <sup>6</sup>	115 <sup>6</sup>	50	6	105	135	$\pm 0.2^2$	$\pm 0.2^2$	100 ms/v	none	R	385	c	
AC 2	Tel Inst	603	115 <sup>6</sup>	115 <sup>6</sup>	50	6	115 <sup>6</sup>	115 <sup>6</sup>	ina	ina	100 ms/v	yes	C or R	425	
	Gen Radio	1582-A	115 <sup>6</sup>	115 <sup>6</sup>	85	9.8	115 <sup>6</sup>	115 <sup>6</sup>	0.25	0.25	50 ms/v	none	C or R	590	c
	Tel Inst	605	115 <sup>6</sup>	115 <sup>6</sup>	100	12	115 <sup>6</sup>	115 <sup>6</sup>	ina	ina	200 ms/v	yes	C or R	525	
	Tel Inst	607	115 <sup>6</sup>	115 <sup>6</sup>	250	30	115 <sup>6</sup>	115 <sup>6</sup>	ina	ina	800 ms/v	yes	C or R	705	
	Pwr Srcs	120A-251FM	117	117	3.5	0.25	105	125	$\pm 3^2$	$\pm 3^2$	ina	yes	R	1305	k
	Pwr Srcs	24A-251FM	117	117	18	0.25	23.5	28.5	$\pm 3^2$	$\pm 3^2$	ina	yes	R	1230	k
	Pwr Srcs	48A-501FM	117	117	16	0.5	44	52	$\pm 3^2$	$\pm 3^2$	ina	yes	R	1995	k
	Pwr Srcs	24A-501FM	117	117	32	0.5	23.5	28.5	$\pm 3$	$\pm 3$	ina	yes	R	1820	k
	Pwr Srcs	120A-501M	117	117	7	0.5	105	125	$\pm 3^2$	$\pm 3^2$	ina	yes	R	2290	k
	Pwr Srcs	120A-102FM	117	117	13	1	105	125	$\pm 3^2$	$\pm 3^2$	ina	yes	R	2525	k
Pwr Srcs	48A-102FM	117	117	32	1	44	52	$\pm 3^2$	$\pm 3^2$	ina	yes	R	2320	k	
AC 3	Pwr Srcs	24A-102FM	117	117	65	1	23.5	28.5	$\pm 3^2$	$\pm 3^2$	ina	yes	R	2320	k
	Pwr Srcs	120B-202FM	117	117	26	2	105	125	$\pm 3^2$	$\pm 3^2$	ina	yes	R	2930	k
	Pwr Srcs	48B-202FM	117	117	65	2	44	52	$\pm 3^2$	$\pm 3^2$	ina	yes	R	2930	k
	GE	9T91Y3021	118	118	ina	0.5	95 <sup>14</sup>	130 <sup>14</sup>	0.2	0.1	3 cycles	none	R	390	a
	GE	9T91Y3022	118	118	ina	1	95 <sup>14</sup>	130 <sup>14</sup>	0.2	0.1	3 cycles	none	R	460	a
	Sorensen	150S	110	120	ina	0.15 <sup>1</sup>	95	130	$\pm 0.1$	$\pm 0.1$	50 ms	none	C or R	245	a,b
	Superior	IE51002	110	120	2.2	0.25	95	135	$\pm 0.1$	$\pm 0.15$	3-10 cycles	none	C or R	345	b
	Superior	IET51002	110	120	2.2	0.25	95	135	500 mv	500 mv	3-10 cycles	none	C or R	410	j
	Twinco	ACR6-250M	110	120	ina	0.25	95	135	ina	ina	200 ms	yes	C or R	470	a,d,k
	Sorensen	500S	110	120	ina	0.5 <sup>1</sup>	95	130	$\pm 0.1$	$\pm 0.1$	50 ms	yes	C or R	297	a,b,k
AC 4	Sorensen	ACR500	110	120	ina	0.5	95	130	$\pm 0.1$	$\pm 0.1$	30 ms	yes	C	312	k
	Superior	IE51005	110	120	4.5	0.5	95	135	$\pm 0.1$	$\pm 0.15$	50 ms	none	C or R	370	b
	Superior	IEL51005	110	120	4.5	0.5	95 <sup>12</sup>	135 <sup>12</sup>	$\pm 0.1$	$\pm 0.15$	50 ms	none	C or R	450	b
	Superior	IET51005	110	120	4.5	0.5	95	135	250 mv	250 mv	50 ms	none	C or R	430	j
	Twinco	ACR6-500M	110	120	ina	0.5	95	135	ina	ina	200 ms	yes	C or R	560	a,d,k
	Sorensen	FRLD750	110	120	ina	0.75	105	125	$\pm 0.25^2$	$\pm 0.25^2$	20 ms	yes	C or R	990	b,k
	IERC	LC-1000B	110	120	ina	1	95	135	$\pm 0.05$	0.05	50 $\mu$ s	yes	R	1425	k
	Perkin	MLR1000	110	120	8.5	1 <sup>1</sup>	95	135	$\pm 0.02$	+0.02	100 ms	yes	C	372	d,i,k
	Sorensen	1000S	110	120	ina	1 <sup>1</sup>	95	130	$\pm 0.1$	$\pm 0.1$	100 ms	yes	C or R	327	a,b,k
	Sorensen	ACR1000	110	120	ina	1	95	130	$\pm 0.1$	$\pm 0.1$	30 ms	yes	R	362	k
AC 5	Sorensen	1001	110	120	ina	1 <sup>1</sup>	95	130	$\pm 0.01$	$\pm 0.01$	100 ms	none	C or R	570	b,k
	Superior	IE5101	110	120	8.5	1	95	135	$\pm 0.1$	$\pm 0.15$	100 ms	none	C or R	430	b
	Superior	IEL5101	110	120	8.5	1	95 <sup>12</sup>	135 <sup>12</sup>	$\pm 0.1$	$\pm 0.15$	100 ms	none	C or R	485	b
	Superior	IET5101	110	120	8.5	1	95	135	250 mv	250 mv	100 ms	none	C	510	j
	Superior	IEH5101R	110	120	8.5	1	95 <sup>13</sup>	130 <sup>13</sup>	$\pm 0.1$	$\pm 0.15$	100 ms	none	R	535	b
	Twinco	ACR6-1000M	110	120	ina	1	95	135	ina	ina	200 ms	yes	C or R	740	a,d,k
	Sorensen	2000S	110	120	ina	2 <sup>1</sup>	95	130	$\pm 0.1$	$\pm 0.1$	200 ms	yes	R	412	a,b
	Sorensen	ACR2000	110	120	ina	2	95	130	$\pm 0.1$	$\pm 0.1$	30 ms	yes	R	457	k
Superior	EMT4102	110	120	17.5	2	95	135	$\pm 1^2$	$\pm 1^2$	75 ms/v	yes	C or R	475	c,i,j,k	
AC 6	Twinco	ACR6-2000M	110	120	ina	2	95	135	ina	ina	200 ms	yes	C or R	1040	a,d,k
	Sorensen	2501	110	120	ina	2.5 <sup>1</sup>	95	130	$\pm 0.01$	$\pm 0.01$	200 ms	none	C or R	785	b
	Superior	EMK4105	110	120	21.5	2.5	95	135	$\pm 1^2$	$\pm 1^2$	20 ms/v	yes	C	520	c,k
	Superior	IE5102	110	120	22	2.5	95	135	$\pm 0.1$	$\pm 0.15$	200 ms	none	C or R	660	b
	Perkin	MLR3000	110	120	25.5	3	95	135	$\pm 0.5$	$\pm 0.5$	0.4 sec	yes	R	669	d,i,j,k
	Sorensen	ACR3000	110	120	ina	3	95	130	$\pm 0.1$	$\pm 0.1$	30 ms	yes	R	577	k
	Sorensen	3000S	110	120	ina	3 <sup>1</sup>	95	130	$\pm 0.1$	$\pm 0.1$	200 ms	yes	R	512	a,b,k
	Twinco	ACR6-3000	110	120	ina	3	95	135	ina	ina	200 ms	yes	C or R	1525	a,d,k
	Superior	EMT4104	110 <sup>9</sup>	120 <sup>9</sup>	35	4.2	108	137	$\pm 1^2$	$\pm 1^2$	100 ms/v	yes	C	550	c,i,j,k
	Perkin	MLR5000	110	120	43.5	5	95	135	$\pm 0.5$	$\pm 0.5$	0.2 sec	yes	R	747	d,i,j,k

Notes, abbreviations and manufacturers' index at end of this section.

# Ac supplies (amplitude-regulated)

120-240 v

	Mfr.	Model	OUTPUT				INPUT		REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Power K VA	Min. Volts	Max. Volts	Line %	Load %	Response Time				
AC 7	Sorensen	5000S	110	120	ina	5 <sup>1</sup>	95	130	±0.1	±0.1	200 ms	yes	R	677	a,b,k
	Sorensen	ACR5000	110	120	ina	5	95	130	±0.1	±0.1	30 ms	yes	R	737	k
	Superior	IE5105	110	120	43.5	5	95	135	±0.1	±0.15	200 ms	none	C or R	770	b
	Superior	IEL5105	110	120	43.5	5	95 <sup>1,2</sup>	135 <sup>1,2</sup>	±0.1	±0.15	ina	none	C	760	b
	Superior	EMK4105R	110	120	43	5	105	125	±1 <sup>2</sup>	±1 <sup>2</sup>	40 ms/v	yes	R	490	a,c,k
	Twincor	ACR6-5000	110	120	ina	5	95	135	ina	ina	200 ms	yes	C or R	1965	d,k
	El Meas	260A	110	120 <sup>7</sup>	ina	6	115	115	ina	ina	6.6 ms/v	yes	R	445	k
	Superior	EMT4106B	110	120	52	6	95	135	±1 <sup>2</sup>	±1 <sup>2</sup>	75 ms/v	yes	C or R	550	c,j,k
	Superior	EMT4112B	110 <sup>9</sup>	120 <sup>9</sup>	52	6	95	135	±1 <sup>2</sup>	±1 <sup>2</sup>	75 ms/v	yes	C or R	550	c,j,k
	Sorensen	ACR7500	110	120	ina	7.5	95	130	±0.1	±0.1	30 ms	yes	R	872	k
AC 8	Sorensen	10000S	110	120	ina	10 <sup>1</sup>	95	130	±0.1	±0.1	300 ms	yes	C	1272	a,b,k
	Sorensen	ACR10000	110	120	ina	10	95	130	±0.1	±0.1	30 ms	yes	R	1222	k
	Superior	IE5110	110	120	87	10	95	135	±0.1	±0.15	300 ms/v	none	C	1640	b
	Superior	IEL5110	110	120	87	10	95 <sup>1,2</sup>	135 <sup>1,2</sup>	±0.1	±0.15	300 ms/v	none	C	1720	b
	Sorensen	ACR15000	110	120	ina	15	95	130	±0.1	±0.1	30 ms	yes	R	1522	k
	Sorensen	15000S	110	120	ina	15 <sup>1</sup>	95	130	±0.1	±0.1	300 ms	yes	C	2242	a,b,k
	Superior	EMT4115	110	120	130	15	95	135	±1 <sup>2</sup>	±1 <sup>2</sup>	150 ms/v	yes	R	700	c,k
	Superior	EMS41100	110	120	833	100	103.5	126.5	±1 <sup>2</sup>	±1 <sup>2</sup>	650 ms/v	ina	C	2055	c,j
	Superior	EMS42110	110	120	417	100	114	126	±1 <sup>2</sup>	±1 <sup>2</sup>	100 ms/v	ina	C	1990	a,c,j
	Tel Inst	650	105	123	10	ina	105	125	ina	ina	33 ms/v	yes	C or R	240	c,k
AC 9	Superior	IE5101MR	115	125	8.3	1	105	135	250 mv	350 mv	100 ms	none	R	715	
	Superior	IEH5101MR	115	125	8.3	1	105 <sup>1,3</sup>	135 <sup>1,3</sup>	250 mv	350 mv	100 ms	none	R	715	
	Superior	EM4108MCR	115	125	66.6	8	105	135	±1 <sup>2</sup>	±1 <sup>2</sup>	100 ms/v	none	R	630	c
	Superior	EMS14225	115	125 <sup>7</sup>	104	25	102	138	±1 <sup>2</sup>	±1 <sup>2</sup>	30 ms/v	yes	C	1945	a,c,j,k
	Superior	EMS14260	115	125 <sup>7</sup>	250	60	204	276	±1 <sup>2</sup>	±1 <sup>2</sup>	30 ms/v	yes	C	2745	c,j,k
	Superior	EMS16290Y	115	125 <sup>7</sup>	250	90 <sup>5</sup>	102	138	±1 <sup>2</sup>	±1 <sup>2</sup>	140 ms/v	yes	C	3510	a,c,j,k
	Superior	EMS162190Y	115	125 <sup>7</sup>	525	190 <sup>5</sup>	95	135	±1 <sup>2</sup>	±1 <sup>2</sup>	370 ms/v	yes	C	8510	c,j,k
	Sorensen	FRI1000	104	126	ina	1 <sup>1</sup>	95	135	±0.05 <sup>2</sup>	±0.05 <sup>2</sup>	50 μs	yes	R	1425	k
	Sorensen	FRI1010	104	126	ina	1 <sup>1</sup>	190	270	±0.05 <sup>2</sup>	±0.05 <sup>2</sup>	50 μs	yes	R	1650	k
	Sorensen	FRI1020	104	126	ina	1 <sup>1</sup>	95	135	±0.05 <sup>2</sup>	±0.05 <sup>2</sup>	50 μs	yes	R	1525	k
AC 10	Sorensen	FRI1030	104	126	ina	1 <sup>1</sup>	190	270	±0.05 <sup>2</sup>	±0.05 <sup>2</sup>	50 μs	yes	R	1650	k
	Behl-Invar	503A	0	130	ina	0.02	115	115	±0.5	1	100 μs	yes	R	1390	k
	Sola	ARV-50T	0	135	50	ina	105	125	±0.25	±0.25	74 ms/v	yes	R	750	c,k
	Superior	EM10009	203	213	14	5	187 <sup>5,13</sup>	229 <sup>5,13</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	ina	yes	R	1210	
	Superior	EMS16290Y	191	217 <sup>7</sup>	250	90 <sup>5</sup>	177	239	±1 <sup>2</sup>	±1 <sup>2</sup>	80 ms/v	yes	C	3510	a,c,j,k
	Superior	EMS162190Y	191	217	525	190 <sup>5</sup>	165	233	±1 <sup>2</sup>	±1 <sup>2</sup>	220 ms/v	yes	C	8510	c,j,k
	Tel Inst	602	208 <sup>6</sup>	230 <sup>6</sup>	10	2.4	208 <sup>6</sup>	230 <sup>6</sup>	ina	ina	50 ms/v	yes	C or R	405	
	Tel Inst	604	208 <sup>6</sup>	230 <sup>6</sup>	20	5	208 <sup>6</sup>	230 <sup>6</sup>	ina	ina	50 ms/v	yes	C or R	450	
	Tel Inst	606	208 <sup>6</sup>	230 <sup>6</sup>	40	10	208 <sup>6</sup>	230 <sup>6</sup>	ina	ina	100 ms/v	yes	C or R	555	
	Tel Inst	608	208 <sup>6</sup>	230 <sup>6</sup>	125	30	208 <sup>6</sup>	230 <sup>6</sup>	ina	ina	800 ms/v	yes	C or R	740	
AC 11	Tel Inst	651	200	234	4	ina	200	236	ina	ina	16 ms/v	yes	C or R	264	c,k
	GE	9T91Y3023	118	236	ina	2	95	135 <sup>1,4</sup>	0.2	0.1	3 cycles	none	R	615	a
	GE	9T91Y3027	118	236	ina	5	95	260	0.2	0.1	3 cycles	none	R	1320	a
	GE	9T91Y3030	118	236	ina	10	190	520	0.2	0.1	3 cycles	none	R	2040	a
	Superior	IE52002	220	240	1.1	0.25	195	225	±0.1	±0.15	50 ms	none	C or R	345	b
	Superior	IE52005	220	240	2.2	0.5	195	225	±0.1	±0.15	100 ms	none	C or R	370	b
	Superior	IEL52005	220	240	2.2	0.5	195 <sup>1,2</sup>	225 <sup>1,2</sup>	±0.1	±0.15	100 ms	none	C or R	450	b
	Superior	IE5201	220	240	4.5	1	195	255	±0.1	±0.15	100 ms	none	C or R	430	b
	Superior	IEL5201	220	240	4.5	1	195 <sup>1,2</sup>	225 <sup>1,2</sup>	±0.1	±0.15	100 ms	none	C or R	485	b
	Superior	IE5202	220	240	11	2.5	195	255	±0.1	±0.15	200 ms	none	C or R	625	b
AC 12	Superior	IEL5202	220	240	11	2.5	195 <sup>1,2</sup>	225 <sup>1,2</sup>	±0.1	±0.15	200 ms	none	C or R	665	b
	Sorensen	3000-2S	220	240	ina	3 <sup>1</sup>	190	260	±0.1	±0.1	200 ms	yes	R	602	k
	Sorensen	5000-2S	220	240	ina	5 <sup>1</sup>	190	260	±0.1	±0.1	200 ms	yes	R	792	k
	Superior	IE5205	220	240	22	5	195	255	±0.1	±0.15	200 ms	none	C or R	725	b
	Superior	IEL5205	220	240	22	5	195 <sup>1,2</sup>	255 <sup>1,2</sup>	±0.1	±0.15	200 ms	none	C or R	765	b
	El Meas	260A	220	240 <sup>7</sup>	ina	6	230	230	ina	ina	6.6 ms/v	yes	R	445	k
	Superior	EMT4207	220	240	32.5	7.5	195	255	±1 <sup>2</sup>	±1 <sup>2</sup>	83 ms/v	yes	C	600	c,j,k
	Sorensen	10000-2S	220	240	ina	10 <sup>1</sup>	190	260	±0.1	±0.1	300 ms	yes	C	1850	k
	Superior	IE5210	220	240	43.5	10	195	255	±0.1	±0.15	300 ms	none	C	1640	b
	Superior	IEL5210	220	240	43.5	10	195 <sup>1,2</sup>	255 <sup>1,2</sup>	±0.1	±0.15	300 ms	none	C	1720	b

Notes, abbreviations and manufacturers' index at end of this section.



## Ac supplies (amplitude-regulated)

240-480 v

	Mfr.	Model	OUTPUT				INPUT		REGULATION			Meters	Mounting	Price \$	Notes
			Min. Volts	Max. Volts	Max. Amps	Power K VA	Min. Volts	Max. Volts	Line %	Load %	Response Time				
AC 13	Superior	EMT6210Y	220	240	25	10	195 <sup>5</sup>	225 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	83 ms/v	yes	C	1055	c,j,k
	Sorensen	15000-2S	220	240	ina	15 <sup>1</sup>	190	260	±0.1	±0.1	300 ms	yes	C	2850	k
	Superior	EMT6215Y	220	240	38	15	195 <sup>5</sup>	225 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	83 ms/v	yes	C	1100	c,j,k
	Superior	EMT6220Y	220	240	50	20	195 <sup>5</sup>	225 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	83 ms/v	yes	C	1200	c,j,k
	Superior	EMT10138	220	240	87	20	195	255	±1 <sup>2</sup>	±1 <sup>2</sup>	83 ms/v	yes	C	750	a,c,j,k
	Superior	EMT4228B	220	240	120	27.5	205	250	±1 <sup>2</sup>	±1 <sup>2</sup>	111 ms/v	yes	C	700	c,j,k
	Superior	EMT6245Y	220	240	113	45	195	255	±1 <sup>2</sup>	±1 <sup>2</sup>	320 ms/v	yes	C	1620	c,j,k
	Superior	EMS14260	220	240 <sup>7</sup>	250	60	204	276	±1 <sup>2</sup>	±1 <sup>2</sup>	60 ms/v	yes	C	2745	c,j,k
	Superior	EMT6270D	220	240	175	70	195	255	±1 <sup>2</sup>	±1 <sup>2</sup>	320 ms/v	yes	C	2000	c,j,k
	Superior	EMS42100	220	240	435	100	218.5	241.5	±1 <sup>2</sup>	±1 <sup>2</sup>	220 ms/v	yes	C	1350	c,j,k
AC 14	Superior	EMS142100	220	240	417	100	228	252	±1 <sup>2</sup>	±1 <sup>2</sup>	210 ms/v	yes	C	1990	a,c,j,k
	Superior	EMS62135Y	220	240	339	135 <sup>5</sup>	203	257	±1 <sup>2</sup>	±1 <sup>2</sup>	220 ms/v	yes	C	3250	a,c,j,k
	Superior	EMS14225	230	250 <sup>7</sup>	104	25	204	276	±1 <sup>2</sup>	±1 <sup>2</sup>	60 ms/v	yes	C	1945	a,c,j,k
	Superior	EMT4407	440	480	15	6.6	400	520	±1 <sup>2</sup>	±1 <sup>2</sup>	41 ms/v	yes	C	715	c,j,k
	Superior	EMT6412Y	440	480	16	12.5 <sup>5</sup>	400 <sup>5</sup>	520 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	41 ms/v	yes	C	1140	c,j,k
	Superior	EMT6417Y	440	480	22	17.5 <sup>5</sup>	40 <sup>5</sup>	520 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	41 ms/v	yes	C	1225	a,c,j,k
	Superior	EMT4418	440	480	40	17.6	400	520	±1 <sup>2</sup>	±1 <sup>2</sup>	41 ms/v	yes	C	800	a,c,j,k
	Superior	EMT6425Y	440	480	33	25 <sup>5</sup>	400 <sup>5</sup>	520 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	41 ms/v	yes	C	1245	a,c,j,k
	Superior	EMT6450Y	440	480	66	50 <sup>5</sup>	400 <sup>5</sup>	520 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	125 ms/v	yes	C	1760	a,c,j,k
	Superior	EMT6475Y	440	480	100	75 <sup>5</sup>	400 <sup>5</sup>	520 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	125 ms/v	yes	C	1900	a,c,j,k
AC 15	Superior	EMT64100Y	440	480	131	100 <sup>5</sup>	420 <sup>5</sup>	500 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	188 ms/v	yes	C	2000	a,c,j,k
	Superior	EMS64180Y	440	480	230	180 <sup>5</sup>	445 <sup>5</sup>	495 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	300 ms/v	yes	C	3310	a,c,j,k
	Superior	EMS64275Y	440	480	347	275 <sup>5</sup>	445 <sup>5</sup>	495 <sup>5</sup>	±1 <sup>2</sup>	±1 <sup>2</sup>	300 ms/v	yes	C	3400	a,c,j,k

Notes, abbreviations and manufacturers' index at end of this section.

## Ac supplies (frequency-regulated, fixed-frequency)

50 cps

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min. cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %	Response Time				
										Line %	Load %						
AC 16	CML	SG31A-T30A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4010A-1-A	50	50	1	1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	510	
	RFL	2120A	50	50	ina	0.06	0	1500	100	0.05	0.1	0.5	ina	none	C or R	3250	f
	CML	SG31A-T150A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	150 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4025B-1-A	50	50	1	1	90	130	250 <sup>5</sup>	0.5	0	1	ina	yes	C	830	
	CML	SG31A-T300A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	300 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	CML	SG31A-T500A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4050-1-A	50	50	1	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1515	
	Tel Inst	4100-1-A	50	50	1	1	100	150	1000 <sup>5</sup>	0.5	0	1	ina	yes	C	2215	
	CML	SG31A-T1200A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	1200 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
AC 17	CML	SG31A-T1750A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	1750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG31A-T2500A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	2500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4250-1-A	50	50	1	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3465	g
	CML	SG31A-T5000A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	5000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4500-1-A	50	50	1	1	100	150	5000 <sup>5</sup>	0.5	0	1	ina	yes	C	5365	h

Notes, abbreviations and manufacturers' index at end of this section.

# Ac supplies (frequency-regulated, fixed-frequency)

50-400 cps

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Dis-tortion %	Response Time				
										Line %	Load %						
AC 18	CML	SG31A-T1000A	50	50	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	10,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG31A-T1500A	50	50	ina	±0.25	0	217 <sup>10</sup>	15,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG32A-T30A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4010A-1-B	60	60	1	1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	510	
	RFL	2120A	60	60	ina	0.06	0	1500	100	0.05	0.1	0.5	ina	none	C or R	3250	f
	Behl-Invar	123A	45	60	0.1	0.05	0	130	120	±0.5	1	1	ina	yes	R	ina	f
	CML	SG32A-T1150A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	150 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Behl-Invar	161A	45	60	0.1	0.05	0	130	160	±0.5	1	1	ina	yes	R	ina	f
	Tel Inst	4025B-1-B	60	60	1	1	90	130	250 <sup>5</sup>	0.5	0	1	ina	yes	C	830	
	CML	SG32A-T300A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	300 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
AC 19	Behl-Invar	351A	45	60	0.1	0.05	0	130	350	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	503A	45	60	0.1	0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
	CML	SG32A-T500A	60	60	ina	±0.25	0	217 <sup>10</sup>	500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4050-1-B	60	60	1	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1515	
	Behl-Invar	751A	45	60	0.1	0.05	0	130	750	±0.5	1	1	ina	yes	R	ina	f,g
	CML	SG32A-T750A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4100-1-B	60	60	1	1	100	150	1000 <sup>5</sup>	0.5	0	1	ina	yes	C	2215	
	CML	SG32A-T1200A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	1200 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Behl-Invar	1501A	45	60	0.1	0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
	CML	SG32A-T1750A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	1750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
AC 20	Tel Inst	4250-1-B	60	60	1	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3465	g
	Behl-Invar	3501A	45	60	0.1	0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	5001A	45	60	0.1	0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h
	CML	SG32A-T2500A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	5000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4500-1-B	60	60	1	1	100	150	5000 <sup>5</sup>	0.5	0	1	ina	yes	C	5365	h
	CML	SG32A-T1000A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	10,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG32A-T15000A	60	60	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	15,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Ind Test	20-SF	45	400	0.1	0.2	0	120	20	0.5	10	0.5	ina	none	R	314	e
	North Hills	VS-60	400	400	ina	±0.01	0	125	25	±0.005	±0.005	0.1	ina	yes	R	2195	j,k
	CML	SG34A-T30A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
AC 21	Ind Test	80-SF	45	400	0.1	0.2	0	130	80	0.5	0.5	0.5	ina	none	R	490	e
	RFL	2120A	400	400	ina	0.06	0	1500	100	0.05	0.1	0.5	ina	none	C or R	3250	f
	Tel Inst	4010A-1-C	400	400	0.25	0.1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	470	
	Behl-Invar	123A	45	400	±0.1	±0.05	0	130	120	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	151-C-1E	400	400	0.5	ina	0	130	150	ina	1	1	ina	yes	C	485	k
	CML	SG34A-T150A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	150 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Behl-Invar	161A	45	400	±0.1	±0.05	0	130	160	±0.5	1	1	ina	yes	R	ina	f
	Ind Test	150-SF	400	400	0.1	0.2	0	130	160	±0.5	1	1	ina	none	R	525	
	Ind Test	160	400	400	0.1	0.2	0	130	160	±0.5	±0.5	0.5	ina	none	C	560	
	Ind Test	160-SF	45	400	0.1	0.2	0	130	160	0.5	0.5	0.5	ina	none	R	575	e
AC 22	Ind Test	250-SF	45	400	0.1	0.2	0	130	250	0.5	0.5	0.5	ina	none	R	765	e
	Tel Inst	4025B-1-C	400	400	0.25	0.1	90	130	250 <sup>5</sup>	0.5	0	1	ina	yes	C	795	
	CML	SG34A-T300A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	300 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Behl-Invar	351A	45	400	±0.1	±0.05	0	130	350	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	503A	45	400	±0.1	±0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
	CML	SG34A-T500A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Ind Test	500-SF	45	400	0.1	0.2	0	130	500	0.5	0.5	1	ina	yes	C	1500	e,k
	Tel Inst	4050-1-C	400	400	1	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1365	
	Behl-Invar	751A	45	400	±0.1	±0.05	0	130	750	±0.5	1	1	ina	yes	R	ina	f,g
	CML	SG34A-T750A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
AC 23	Ind Inst	1000-SF	45	400	0.1	0.2	0	130	1000	0.5	0.5	1	ina	yes	C	2000	e,i,k
	Tel Inst	4100-1-C	400	400	1	1	100	150	1000 <sup>5</sup>	0.5	0	1	ina	yes	C	1915	
	CML	SG34A-T1200A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	1200 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Behl-Invar	1501A	45	400	±0.1	±0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
	CML	SG34A-T1750A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	1750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG34A-T2500A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	2500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4250-1-C	400	400	1	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3315	g
	Ind Test	3000-SF	45	400	0.1	0.2	0	130	3000	0.5	0.5	1	ina	yes	C	3700	e,i,k
	Behl-Invar	3501A	45	400	±0.1	±0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	5001A	45	400	±0.1	±0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h

Notes, abbreviations and manufacturers' index at end of this section.



# Ac supplies (frequency-regulated, fixed-frequency)

400-20,000 cps

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %	Response Time				
										Line %	Load %						
AC 24	CML	SG34A-T5000A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	5000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4500-1-C	400	400	1	1	100	150	5000 <sup>5</sup>	0.5	0	1	ina	yes	C	5265	h
	CML	SG34A-T10000A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	10,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG34A-T15000A	400	400	ina	±0.25 <sup>B</sup>	0	217 <sup>10</sup>	15,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	North Hills	VS-64	800	800	±20 cps	±0.1	10	15	30	0.1	0.1	1	ina	ina	R	request	
	RFL	2120A	800	800	ina	0.06	0	1500	100	0.05	0.1	0.5	ina	none	C or R	3250	f
	RFL	2120A	1000	1000	ina	0.06	0	1500	100	0.05	0.1	0.5	ina	none	C or R	3250	f
	Tel Inst	4010A-1-D	1600	1600	0.25	0.1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	470	
Tel Inst	4025B-1-D	1600	1600	0.25	0.1	90	130	250 <sup>5</sup>	0.5	0	1	ina	yes	C	795		
Tel Inst	4050-1-D	1600	1600	1	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1445		
AC 25	Tel Inst	4100-1-D	1600	1600	1	1	100	150	1000 <sup>5</sup>	0.5	0	1	ina	yes	C	1915	g
	Tel Inst	4250-1-D	1600	1600	1	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3315	g
	Tel Inst	4500-1-D	1600	1600	1	0.1	100	150	5000 <sup>5</sup>	0.5	0	1	ina	yes	C	5265	h
	IERC	MA-150	200	2400	0.1	0.1	18	500	50 <sup>5</sup>	0.1	0.1	0.2	ina	none	R	ina	e
	RFL	2120A	2400	2400	ina	0.06	0	1500	100	0.05	0.1	0.5	ina	none	C or R	3250	f
	IERC	MA-1150	200	2400	0.1	0.1	18	500	150 <sup>5</sup>	0.1	0.1	0.2	ina	none	R	ina	e
	Ind Test	1040-SF	100	3000	0.1	0.2	0	120	3	1	20	1	ina	none	C	129	e
	Ind Test	1040A-SF	100	3000	0.1	0.2	0	120	8	1	10	1	ina	none	C	199	e
RFL	250	40	3000	ina	0.05	105	130	250	0.2	0.2	0.5	50 μs	yes	C or R	1340	k	
North Hills	VS-61	4800	4800	±50 cps	±0.01	5	10 <sup>7</sup>	5	0.01	0.01	0.5	ina	ina	R	request		
AC 26	Ind Test	20-SF	45	5000	0.1	0.2	0	120	20	0.5	10	0.5	ina	none	R	299	e
	Ind Test	80-SF	45	5000	0.1	0.2	0	130	80	0.5	0.5	0.5	ina	none	R	475	e
	Behl-Invar	123A	45	5000	0.01	0.05	0	130	120	0.5	1	1	ina	yes	R	ina	e,f
	Behl-Invar	161A	45	5000	0.01	0.05	0	130	160	0.5	1	1	ina	yes	R	ina	e,f
	Ind Test	160-SF	45	5000	0.1	0.2	0	130	160	0.5	0.5	0.5	ina	none	R	560	e
	Ind Test	250-SF	45	5000	0.1	0.2	0	130	250	0.5	0.5	1	ina	yes	R	750	e,k
	Behl-Invar	351A	45	5000	0.01	0.05	0	130	350	0.5	1	1	ina	yes	R	ina	e,f
	Behl-Invar	503A	45	5000	0.01	0.05	0	130	500	0.5	1	1	ina	yes	R	ina	e,f
Ind Test	500-SF	45	5000	0.1	0.2	0	130	500	0.5	0.5	1	ina	yes	R	1450	e,k	
Behl-Invar	751A	45	5000	0.01	0.05	0	130	750	0.5	1	1	ina	yes	R	ina	e,f,g	
AC 27	Ind Test	1000-SF	45	5000	0.1	0.2	0	130	1000	0.5	0.5	1	ina	yes	R	1950	e,h,k
	Behl-Invar	1501A	45	5000	0.01	0.05	0	130	1500	0.5	1	1	ina	yes	R	ina	e,f,h
	Ind Test	3000-SF	45	5000	0.1	0.2	0	130	3000	0.5	0.5	1	ina	yes	R	3650	e,h,k
	Behl-Invar	3501A	45	5000	0.01	0.05	0	130	3500	0.5	1	1	ina	yes	C	ina	e,f,h
	Behl-Invar	5001A	45	5000	0.01	0.05	0	130	5000	0.5	1	1	ina	yes	C	ina	e,f,h
	IERC	GK1-102	200	10,000	0.1	0.1	10	300	2	0.1	0.1	0.15	200 μs	none	R	ina	e
	IERC	RK-102	200	10,000	0.1	0.1	10	300	2	0.1	0.1	0.1	200 μs	none	R	395	e
	IERC	GK1-106	200	10,000	0.1	0.1	10	300	6	0.1	0.1	0.2	200 μs	none	R	395	e
IERC	RK-106	200	10,000	0.1	0.1	10	300	6	0.1	0.1	0.15	200 μs	none	R	495	e	
IERC	RK-115	200	10,000	0.1	0.1	10	300	15	0.1	0.1	0.2	200 μs	none	R	675	e	
AC 28	IERC	RK-125	200	10,000	0.1	0.1	10	300	25	0.1	0.1	0.2	200 μs	none	R	ina	e
	IERC	RK-135	200	10,000	0.1	0.1	10	300	35	0.1	0.1	0.2	200 μs	none	R	845	e
	Behl-Invar	QAP-41	45	10,000	0.1	0.05	0	130	40	0.1	0.5	0.5	50 μs	yes	½R	ina	e
	IERC	MK-150	200	10,000	0.1	0.2	0	130	50	0.1	0.1	0.2	200 μs	none	R	1950	e
	IERC	RK-150	200	10,000	0.1	0.1	10	300	50	0.1	0.1	0.2	200 μs	none	R	875	e
	Ind Test	160-SF	45	20,000	0.1	0.2	0	130	160	0.5	0.5	0.5	ina	none	R	760	e
Ind Test	250-SF	45	20,000	0.1	0.2	0	130	250	0.5	0.5	0.5	ina	none	R	950		

Notes, abbreviations and manufacturers' index at end of this section.



# Ac supplies (frequency-regulated, adjustable-frequency)

53-450 cps

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %	Response Time				
										Line %	Load %						
AC 29	Twinc	ACRS-250M	47	53	ina	ina	110	120	250	±1	±1	3	200 ms	yes	C or R	450	k
	Twinc	ACRS-500M	47	53	ina	ina	110	120	500	±1	±1	3	200 ms	yes	C or R	530	k
	Twinc	ACRS-1000M	47	53	ina	ina	110	120	1000	±1	±1	3	200 ms	yes	C or R	760	k
	Twinc	ACRS-2000M	47	53	ina	ina	110	120	2000	±1	±1	3	200 ms	yes	C or R	1070	k
	Ind Test	80-VP	55	65	0.2	0.2	0	130	80	0.5	0.5	0.5	ina	none	R	525	
	Ind Test	160-VP	55	65	0.2	0.2	0	130	160	0.5	0.5	0.5	ina	none	R	610	
	Ind Test	250-VP	55	65	0.2	0.2	0	130	250	0.5	0.5	0.5	ina	none	R	800	
	Ind Test	500-VP	55	65	0.2	0.2	0	130	500	0.5	0.5	1	ina	yes	C	1700	k
	Ind Test	1000-VP	55	65	0.2	0.2	0	130	1000	0.5	0.5	1	ina	yes	C	2200	h,k
	Ind Test	3000-VP	55	65	0.2	0.2	0	130	3000	0.5	0.5	1	ina	yes	C	3900	h,k
AC 30	CML	SG33A-T30A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4010A-1-J	50	70	3	1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	620	
	CML	SG33A-T150A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	150 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4025B-1-J	50	70	3	1	90	130	250	0.5	0	1	ina	yes	C	940	
	CML	SG33A-T300A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	300 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	CML	SG33A-T500A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Tel Inst	4050-1-J	50	70	3	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1595	g
	CML	SG33A-T750A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4100-1-J	50	70	3	1	100	150	1000 <sup>5</sup>	0.5	0	1	ina	yes	C	2295	g
	CML	SG33A-T1200A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	1200 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
AC 31	CML	SG33A-T1750A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	1750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG33A-T2500A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	2500	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4250-1-J	50	70	3	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3545	g
	CML	SG33A-T5000A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	5000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4500-1-J	50	70	3	1	100	150	5000	0.5	0	1	ina	yes	C	5445	h
	CML	SG33A-T10000A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	10,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG33A-T15000A	45	70	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	15,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Behl-Invar	123A	45	75	0.1	0.05	0	130	120	+0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	161A	45	75	0.1	0.05	0	130	160	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	351A	45	75	0.1	0.05	0	130	350	+0.5	1	1	ina	yes	R	ina	f
AC 32	Behl-Invar	503A	45	75	0.1	0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	751A	45	75	0.1	0.05	0	130	750	±0.5	1	1	ina	yes	R	ina	f,g
	Behl-Invar	1501A	45	75	0.1	0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
	Behl-Invar	3501A	45	75	0.1	0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	5001A	45	75	0.1	0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h
	NJE	TFC-26-100	380	420	±0.5	0.2	24	30	100	±0.5	±4	5	30 ms	yes	R	390	j,k
	NJE	TFC-115-100	380	420	±0.5	0.2	105	130	100	±0.5	±1	5	30 ms	yes	R	370	j,k
	NJE	TFC-26-200	380	420	±0.5	0.2	24	30	200	±0.5	±4	5	30 ms	yes	R	590	j,k
	NJE	TFC-115-200	380	420	±0.5	0.2	105	130	200	±0.5	±1	5	30 ms	yes	R	570	j,k
	NJE	FC-26-500	380	420	±0.25	0.2	24	30	500	±0.5	±4	5	100 ms	yes	R	1150	j,k
AC 33	NJE	FC-115-500	380	420	±0.25	0.2	95	135	500	±0.5	±1	5	100 ms	yes	R	1120	j,k
	NJE	FC-115-1000	380	420	±0.25	0.2	95	135	1000	±0.5	±1	5	100 ms	yes	R	1920	j,k
	Twinc	ACR4-1000M	380	420	ina	ina	110	120	1000	±0.25	±0.25	3	50 ms	yes	C	575	
	Sorensen	FCD500	360	440	ina	±1	105	125	500	±1	±1	5	200 ms	none	C	1460	
	Sorensen	FCD3P1000	360	440	ina	±1	115	200	1000	±1	±1	5	100 ms	none	C	4900	g
	Sorensen	FCD3P2000	360	440	ina	±1	115	200	2000	±1	±1	5	500 ms	none	C	3275	g
	CML	SG35A-T30A	350	450	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Ind Test	80	350	450	0.3	0.2	0	130	80	0.5	0.5	ina	ina	none	R	475	
	Tel Inst	4010A-1-E	350	450	3	1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	580	
	Behl-Invar	123A	45	450	±0.1	±0.05	0	130	120	±0.5	1	1	ina	yes	R	ina	f
AC 34	CML	SG35A-T150A	350	450	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	150 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Behl-Invar	161A	45	450	±0.1	+0.05	0	130	160	+0.5	1	1	ina	yes	R	ina	f
	Ind Test	150	350	450	0.3	0.2	0	130	160	0.5	1	ina	ina	none	R	525	
	Ind Test	160	350	450	0.3	0.2	0	130	160	0.5	0.5	ina	ina	none	R	560	
	Ind Test	250	350	450	0.3	0.2	0	130	250	0.5	0.5	ina	ina	none	C	750	
	Tel Inst	4025B-1-E	350	450	3	1	90	130	250 <sup>5</sup>	0.5	0	1	ina	yes	C	905	
	CML	SG35A-T300A	350	450	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	300 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Behl-Invar	351A	45	450	±0.1	±0.05	0	130	350	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	503A	45	450	±0.1	±0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
	CML	SG35A-T500A	350	450	ina	±0.25 <sup>11</sup>	0	217 <sup>10</sup>	500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k

Notes, abbreviations and manufacturers' index at end of this section.



# Ac supplies (frequency-regulated, adjustable-frequency)

450-1800 cps

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min. cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %	Response Time				
										Line %	Load %						
AC 35	Ind Test	500-VN	350	450	0.3	0.2	0	130	500	0.5	1	ina	ina	yes	C	1600	k
	Tel Inst	4050-1-E	350	450	3	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1445	g
	Behl-Invar	751A	45	450	±0.1	±0.05	0	130	750	±0.5	1	1	ina	yes	R	ina	f,g
	CML	SG35A-T750A	350	450	ina	±0.25 <sup>1</sup>	0	217 <sup>10</sup>	750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Ind Test	1000-VN	350	450	0.3	0.2	0	130	1000	0.5	1	ina	ina	yes	C	2100	i,k
	Tel Inst	4100-1-E	350	450	3	1	100	150	1000 <sup>5</sup>	0.5	0	1	ina	yes	C	1995	g
	CML	SG35A-T1200A	350	450	ina	±0.25 <sup>1</sup>	0	217 <sup>10</sup>	1200 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Behl-Invar	1501A	45	450	±0.1	±0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
	CML	SG35A-T1750A	350	450	ina	±0.25 <sup>1</sup>	0	217 <sup>10</sup>	1750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
CML	SG35A-T2500A	350	450	ina	±0.25 <sup>1</sup>	0	217 <sup>10</sup>	2500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k	
AC 36	Tel Inst	4250-1-E	350	450	3	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3395	g
	Ind Test	3000-VN	350	450	0.3	0.2	0	130	3000	0.5	1	ina	ina	yes	C	3800	i,k
	Behl-Invar	3501A	45	450	±0.1	±0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	5001A	45	450	±0.1	±0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h
	CML	SG35A-T5000A	350	450	ina	±0.25 <sup>1</sup>	0	217 <sup>10</sup>	5000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4500-1-E	350	450	3	1	100	150	5000 <sup>5</sup>	0.5	0	1	ina	yes	C	5345	h
	CML	SG35A-T10000A	350	450	ina	±0.25 <sup>1</sup>	0	217 <sup>10</sup>	10,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG35A-T15000A	350	450	ina	±0.25 <sup>1</sup>	0	217 <sup>10</sup>	15,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Ind Test	80-VM	300	500	0.4	0.2	0	130	80	0.5	0.5	0.5	ina	none	R	525	f
Behl-Invar	123A	300	500	0.1	0.05	0	130	120	±0.5	1	1	ina	yes	R	ina	f	
AC 37	Behl-Invar	161A	300	500	0.1	0.05	0	130	160	±0.5	1	1	ina	yes	R	ina	f
	Ind Test	160-VM	300	500	0.4	0.2	0	130	160	0.5	0.5	0.5	ina	none	R	610	f
	Ind Test	250-VM	300	500	0.4	0.2	0	130	250	0.5	0.5	0.5	ina	none	R	800	f
	Behl-Invar	351A	300	500	0.1	0.05	0	130	350	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	503A	300	500	0.1	0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
	Ind Test	500-VM	300	500	0.4	0.2	0	130	500	0.5	0.5	1	ina	yes	C	1700	k
	Behl-Invar	751A	300	500	0.1	0.05	0	130	750	±0.5	1	1	ina	yes	R	ina	f,g
	Ind Test	1000-VM	300	500	0.4	0.2	0	130	1000	0.5	0.5	1	ina	yes	C	2200	i,k
	Behl-Invar	1501A	300	500	0.1	0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
Ind Test	3000-VM	300	500	0.4	0.2	0	130	3000	0.5	0.5	1	ina	yes	C	3900	i,k	
AC 38	Behl-Invar	3501A	300	500	0.1	0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	5001A	300	500	0.1	0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h
	Horlick	281-B	150	1000	0.5	ina	105	125	100	ina	3	5	ina	none	C	275	f
	Sorensen	FCR250	320	1000	ina	±1	105	125	250	±1	±1	5	100 ms	none	C or R	1300	f
	Behl-Invar	123A	150	1350	0.1	0.05	0	130	120	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	123A	50	1350	0.1	0.05	0	130	120	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	161A	150	1350	0.1	0.05	0	130	160	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	161A	50	1350	0.1	0.05	0	130	160	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	351A	150	1350	0.1	0.05	0	130	350	±0.5	1	1	ina	yes	R	ina	f
Behl-Invar	351A	50	1350	0.1	0.05	0	130	350	±0.5	1	1	ina	yes	R	ina	f	
AC 39	Behl-Invar	503A	150	1350	0.1	0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	503A	50	1350	0.1	0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	751A	150	1350	0.1	0.05	0	130	750	±0.5	1	1	ina	yes	R	ina	f,g
	Behl-Invar	751A	50	1350	0.1	0.05	0	130	750	±0.5	1	1	ina	yes	R	ina	f,g
	Behl-Invar	1501A	150	1350	0.1	0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
	Behl-Invar	1501A	50	1350	0.1	0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
	Behl-Invar	3501A	150	1350	0.1	0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	3501A	50	1350	0.1	0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	5001A	150	1350	0.1	0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h
Behl-Invar	5001A	50	1350	0.1	0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h	
AC 40	Ind Test	80-VH	45	1500	1	0.5	0	130	80	0.5	0.5	0.5	ina	none	R	545	k
	Ind Test	160-VH	45	1500	1	0.5	0	130	160	0.5	0.5	0.5	ina	none	R	630	k
	Ind Test	250-VH	45	1500	1	0.5	0	130	250	0.5	0.5	0.5	ina	none	R	820	k
	Ind Test	500-VH	45	1500	1	0.5	0	130	500	0.5	0.5	1	ina	yes	C	1850	k
	Ind Test	1000-VH	45	1500	1	0.5	0	130	1000	0.5	0.5	1	ina	yes	C	2350	i,k
	Ind Test	3000-VH	45	1500	1	0.5	0	130	3000	0.5	0.5	1	ina	yes	C	4350	i,k
	Tel Inst	4010A-1-F	1400	1800	3	1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	580	g
	Tel Inst	4025B-1-F	1400	1800	3	1	90	130	250 <sup>5</sup>	0.5	0	1	ina	yes	C	905	g
	Tel Inst	4050-1-F	1400	1800	3	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1445	g
	Tel Inst	4100-1-F	1400	1800	3	1	100	150	1000 <sup>5</sup>	0.5	0	1	ina	yes	C	1995	g

Notes, abbreviations and manufacturers' index at end of this section.

# Ac supplies (frequency-regulated, adjustable-frequency)

1800-5000 cps

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min. cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %	Response Time				
										Line %	Load %						
AC 41	Tel Inst	4250-1-F	1400	1800	3	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3395	g
	Tel Inst	4500-1-F	1400	1800	3	1	100	150	5000 <sup>5</sup>	0.5	0	1	ina	yes	C	5345	h
	CML	SG36A-T30A	300	2000	ina	±0.25	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Ind Test	80-VW	45	2000	1	0.5	0	130	80	0.5	0.5	0.5	ina	none	R	545	
	Sorensen	FCR100	45	2000	ina	±1	0	130	100	±1	±1	1	100 ms	none	C or R	690	
	Tel Inst	4010A-1-G	350	2000	3	1	50	75	100 <sup>5</sup>	0.5	0	1	ina	yes	C	580	
	Behl-Invar	123A	300	2000	0.1	0.05	0	130	120	±0.5	1	1	ina	yes	R	ina	f
	CML	SG36A-T150A	300	2000	ina	±0.25	0	217 <sup>10</sup>	150 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
AC 42	Behl-Invar	161A	300	2000	0.1	0.05	0	130	160	±0.5	1	1	ina	yes	R	ina	f
	Ind Test	160-VW	45	2000	1	0.5	0	130	160	0.5	0.5	0.5	ina	none	R	630	
	Ind Test	250-VW	45	2000	1	0.5	0	130	250	0.5	0.5	0.5	ina	none	R	820	
	Tel Inst	4025B-1-G	350	2000	3	1	90	130	250 <sup>5</sup>	0.5	0	1	ina	yes	C	940	
	CML	SG36A-T300A	300	2000	ina	±0.25	0	217 <sup>10</sup>	300 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Sorensen	FCR3P300	45	2000	ina	±1	115	200	300	±1	±1	2	100 ms	none	C	2260	
	Behl-Invar	351A	300	2000	0.1	0.05	0	130	350	±0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	503A	300	2000	0.1	0.05	0	130	500	±0.5	1	1	ina	yes	R	ina	f
AC 43	CML	SG36A-T500A	300	2000	ina	±0.25	0	217 <sup>10</sup>	500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Ind Test	500-VW	45	2000	1	0.5	0	130	500	0.5	0.5	1	ina	yes	C	1800	k
	Tel Inst	4050-1-G	350	2000	3	1	100	150	500 <sup>5</sup>	0.5	0	1	ina	yes	C	1795	g
	CML	SG36A-T1200A	300	2000	ina	±0.25	0	217 <sup>10</sup>	1200 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Behl-Invar	1501A	300	2000	0.1	0.05	0	130	1500	±0.5	1	1	ina	yes	R	ina	f,h
	CML	SG36A-T1750A	300	2000	ina	±0.25	0	217 <sup>10</sup>	1750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG36A-T2500A	300	2000	ina	±0.25	0	217 <sup>10</sup>	2500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4250-1-G	350	2000	3	1	100	150	2500 <sup>5</sup>	0.5	0	1	ina	yes	C	3945	g
AC 44	Ind Test	3000-VW	45	2000	1	0.5	0	130	3000	0.5	0.5	1	ina	yes	C	4300	i,k
	Behl-Invar	3501A	300	2000	0.1	0.05	0	130	3500	±0.5	1	1	ina	yes	C	ina	f,h
	Behl-Invar	5001A	300	2000	0.1	0.05	0	130	5000	±0.5	1	1	ina	yes	C	ina	f,h
	CML	SG36A-T5000A	300	2000	ina	±0.25	0	217 <sup>10</sup>	5000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Tel Inst	4500-1-G	350	2000	3	1	100	150	5000 <sup>5</sup>	0.5	0	1	ina	yes	C	5995	h
	CML	SG36A-T10000A	300	2000	ina	±0.25	0	217 <sup>10</sup>	10,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG36A-T15000A	300	2000	ina	±0.25	0	217 <sup>10</sup>	15,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	Ind Test	80-VL	300	3000	1	0.5	0	130	80	0.5	0.5	0.5	ina	none	R	575	
AC 45	Ind Test	160-VL	300	3000	1	0.5	0	130	160	0.5	0.5	0.5	ina	none	R	660	
	Ind Test	250-VL	300	3000	1	0.5	0	130	250	0.5	0.5	0.5	ina	none	R	850	
	Ind Test	500-VL	300	3000	1	0.5	0	130	500	0.5	0.5	1	ina	yes	C	1850	k
	Ind Test	1000-VL	300	3000	1	0.5	0	130	1000	0.5	0.5	1	ina	yes	C	2350	i,k
	Ind Test	3000-VL	300	3000	1	0.5	0	130	3000	0.5	0.5	1	ina	yes	C	4350	i,k
	Tel Inst	4010A-1-h	350	4000	3	1	50	75	100 <sup>5</sup>	0.5	0	2	ina	yes	C	580	
	Tel Inst	4025B-1-h	350	4000	3	1	90	130	250 <sup>5</sup>	0.5	0	2	ina	yes	C	940	
	Tel Inst	4050-1-h	350	4000	3	1	100	150	500 <sup>5</sup>	0.5	0	2	ina	yes	C	1795	g
AC 46	Tel Inst	4100-1-h	350	4000	3	1	100	150	1000 <sup>5</sup>	0.5	0	2	ina	yes	C	2545	g
	Tel Inst	4250-1-h	350	4000	3	1	100	150	2500 <sup>5</sup>	0.5	0	2	ina	yes	C	3945	g
	Tel Inst	4500-1-h	350	4000	3	1	100	150	5000 <sup>5</sup>	0.5	0	2	ina	yes	C	5995	h
	Ind Test	80-VG	45	4500	1	0.5	0	130	80	0.5	0.5	0.5	ina	none	R	675	
	Ind Test	160-VG	45	4500	1	0.5	0	130	160	0.5	0.5	0.5	ina	none	R	710	
	Ind Test	250-VG	45	4500	1	0.5	0	130	250	0.5	0.5	0.5	ina	none	R	900	
	Ind Test	500-VG	45	4500	1	0.5	0	130	500	0.5	0.5	1	ina	yes	C	1950	k
	Ind Test	1000-VG	45	4500	1	0.5	0	130	1000	0.5	0.5	1	ina	yes	C	2550	h,k
AC 46	Ind Test	3000-VG	45	4500	1	0.5	0	130	3000	0.5	0.5	1	ina	yes	C	4650	h,k
	IERC	RA-1100	45	5000	ina	ina	100	130	100	±0.1	0.25	0.25	ina	none	R	645	
	Behl-Invar	123A	45	5000	0.1	0.05	0	130	120	0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	161A	45	5000	0.1	0.05	0	130	160	0.5	1	1	ina	yes	R	ina	f
	IERC	1160A	45	5000	ina	ina	105	125	160	±0.5	1	1	ina	none	R	475	
	Behl-Invar	351A	45	5000	0.1	0.05	0	130	350	0.5	1	1	ina	yes	R	ina	f
	Behl-Invar	503A	45	5000	0.1	0.05	0	130	500	0.5	1	1	ina	yes	R	ina	f
	IERC	1500	45	5000	ina	ina	105	125	500	±0.2	0.75	0.75	ina	ina	R	1450	

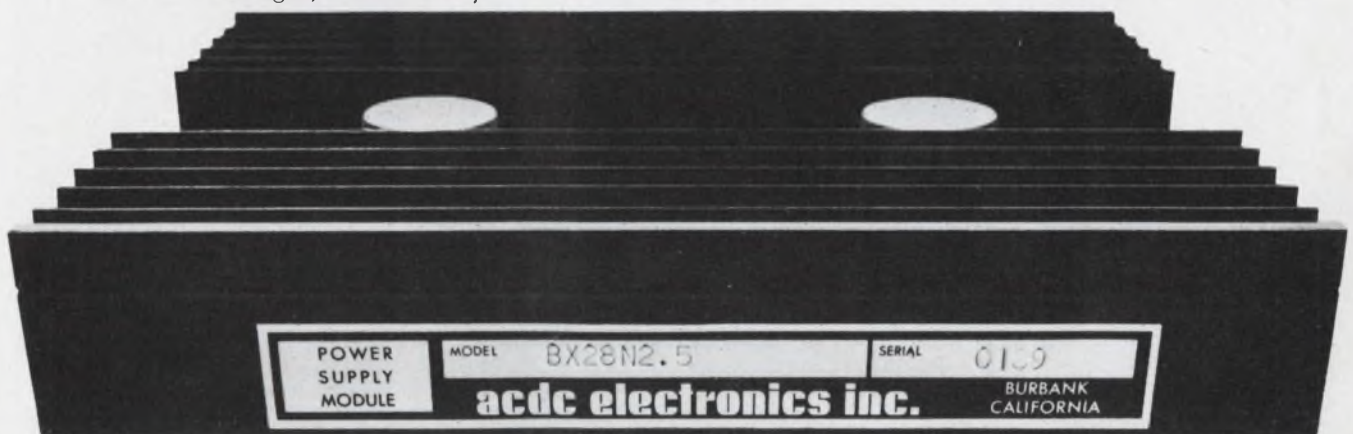
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# ACDC POWER SUPPLIES ARE GUARANTEED FOREVER.

## WE SHOULD CLARIFY THIS:

Your catalog ACDC silicon power supply is guaranteed forever. Against power surges, spikes, breakage, abuse, civil disobedience, anything. If it is in need of service or calibration at any time, return it directly to the factory and we'll adjust it to meet its original specifications, free of charge. And that means we'll pay the freight, too. Both ways.



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ON READER-SERVICE CARD CIRCLE 27

# Ac supplies (amplitude-regulated)

5000-40,000 cps

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min. cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %	Response Time				
										Line %	Load %						
AC 47	Behl-Invar	751A	45	5000	0.1	0.05	0	130	750	0.5	1	1	ina	yes	R	ina	f,g
	Behl-Invar	1501A	45	5000	0.1	0.05	0	130	1500	0.5	1	1	ina	yes	R	ina	f,h
	Behl-Invar	3501A	45	5000	0.1	0.05	0	130	3500	0.5	1	1	ina	yes	R	ina	f,h
	Behl-Invar	5001A	45	5000	0.1	0.05	0	130	5000	0.5	1	1	ina	yes	R	ina	f,h
	CML	SG37A-T30A	45	6000	ina	±0.25	0	217 <sup>10</sup>	30 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	CML	SG37A-T150A	45	6000	ina	±0.25	0	217 <sup>10</sup>	150 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	CML	SG37A-T300A	45	6000	ina	±0.25	0	217 <sup>10</sup>	300 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k
	Singer Metrics	VP-410	47	6000	±1	±0.5	75	150	400	ina	2	±1	10 ms	yes	C	1440	g,k
CML	SG37A-T500A	45	6000	ina	±0.25	0	217 <sup>10</sup>	500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	k	
CML	SG37A-T750A	45	6000	ina	±0.25	0	217 <sup>10</sup>	750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k	
AC 48	Singer Metrics	VP-1000	47	6000	±1	±0.5	75	300	1000	ina	2	±1	10 ms	yes	C	2435	g,k
	CML	SG37A-T1200A	45	6000	ina	±0.25	0	217 <sup>10</sup>	1200 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG37A-T1750A	45	6000	ina	±0.25	0	217 <sup>10</sup>	1750 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG37A-T2500A	45	6000	ina	±0.25	0	217 <sup>10</sup>	2500 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG37A-T5000A	45	6000	ina	±0.25	0	217 <sup>10</sup>	5000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG37A-T10000A	45	6000	ina	±0.25	0	217 <sup>10</sup>	10,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	CML	SG37A-T15000A	45	6000	ina	±0.25	0	217 <sup>10</sup>	15,000 <sup>5</sup>	0.5	0.5	3	50 μs	yes	R	request	h,i,k
	RFL	2120A	50	40,000	ina	0.06	0	1500	100	0.05	0.1	0.5	ina	none	C or R	3250	

## Additional ac supplies (frequency-regulated, fixed-frequency)

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Distortion %	Response Time				
										Line %	Load %						
AC 49	CML	N300A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	300	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N500A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	500	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N750A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	750	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1000A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	1000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1500A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	1500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N2000A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	2000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N5000A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	5000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N15000A-SG11A	50	50	ina	±0.25 <sup>B</sup>	0	125	15 K	±0.5	0.5	3	50 μs	yes	C	request	k,m
CML	LRS-200	60	60	0.5 <sup>15</sup>	ina	105	125	200 <sup>1</sup>	±0.5	0.5	3	ina	yes	R	request		
Advanced	FLD-5A	60	60	ina	0.01	115	115	250	±3	±3	8	ina	none	C	request		
AC 50	CML	N300A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	300	±0.5	0.5	-	50 μs	yes	C	request	k
	CML	N500A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	500	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	LRS-500	60	60	0.5 <sup>15</sup>	ina	105	125	500 <sup>1</sup>	±0.5	0.5	3	ina	yes	R	request	
	CML	N750A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	750	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1000A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	1000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	LRS-1000	60	60	0.5 <sup>15</sup>	ina	105	125	1000 <sup>1</sup>	±0.5	0.5	3	ina	yes	R	request	
	CML	N1500A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	1500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	LRS-2000	60	60	0.5 <sup>15</sup>	ina	105	125	2000 <sup>1</sup>	±0.5	0.5	3	ina	yes	R	request	
	CML	N2000A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	2000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N5000A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	5000	±0.5	0.5	3	50 μs	yes	C	request	k,m
AC 51	CML	N15000A-SG12A	60	60	ina	±0.25 <sup>B</sup>	0	125	15 K	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	CR-50	400	400	0.5 <sup>15</sup>	ina	105	125	50 <sup>1</sup>	±0.5	0.5	1	ina	yes	R	request	
	CML	CRS-100	400	400	0.5 <sup>15</sup>	ina	105	125	100 <sup>1</sup>	±0.5	0.5	1	ina	yes	R	request	
	CML	CRS-250	400	400	0.5 <sup>15</sup>	ina	105	125	250 <sup>1</sup>	±0.5	0.5	1	ina	yes	R	request	
	CML	N300A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	300	±0.5	0.5	3	50 μs	yes	C	request	k
	Advanced	UTL-411	400	400	ina	0.01	115	115	500	±3	±3	5	ina	none	C	request	
	CML	CRS-500	400	400	0.5 <sup>15</sup>	ina	105	125	500 <sup>1</sup>	±0.5	0.5	1	ina	yes	R	request	
	CML	N500A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	500	±0.5	0.5	3	50 μs	yes	C	request	k
CML	N750A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	750	±0.5	0.5	3	50 μs	yes	C	request	k,m	
CML	CRS-1000	400	400	0.5 <sup>15</sup>	ina	105	125	1000 <sup>1</sup>	±0.5	0.5	1	ina	yes	R	request		
AC 52	CML	N1000A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	1000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1500A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	1500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	CRS-2000	400	400	0.5 <sup>15</sup>	ina	105	125	2000 <sup>1</sup>	±0.5	0.5	1	ina	yes	R	request	
	CML	N2000A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	2000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N5000A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	5000	±0.5	0.5	3	50 μs	yes	C	request	k,m
CML	N15000A-SG14A	400	400	ina	±0.25 <sup>B</sup>	0	125	15 K	±0.5	0.5	3	50 μs	yes	C	request	k,m	

Notes, abbreviations and manufacturers' index at end of this section.



## Additional ac supplies (frequency-regulated, adjustable-frequency)

	Mfr.	Model	FREQUENCY				OUTPUT							Meters	Mounting	Price \$	Notes
			Min cps	Max. cps	Accuracy %	Stability - %	Min. Volts	Max. Volts	Power VA	REGULATION		Dis-tortion %	Response Time				
										Line %	Load %						
AC 53	CML	N300A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	300	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N500A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	500	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N750A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	750	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1000A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	1000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1500A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	1500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N2000A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	2000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N5000A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	5000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N15000A-SG13A	45	70	ina	±0.25 <sup>11</sup>	0	125	15 K	±0.5	0.5	3	50 μs	yes	C	request	k,m
	Del	ATA400RS-100	398	402	ina	ina	105	125	100	±0.5	0.5	0.8	ina	yes	R	request	
	Del	ATA400RS-500	398	402	ina	ina	105	125	500	±0.5	0.5	0.8	ina	yes	R	request	
AC 54	Del	ATA400RS-1000	398	402	ina	ina	105	125	1000	±0.5	0.5	0.8	ina	yes	R	request	
	CML	N300A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	300	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N500A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	500	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N750A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	750	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1000A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	1000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1500A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	1500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N2000A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	2000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N5000A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	5000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N15000A-SG15A	350	450	ina	±0.25 <sup>11</sup>	0	125	15 K	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N300A-SG16A	300	2000	ina	±0.25	0	125	300	±0.5	0.5	3	50 μs	yes	C	request	k
AC 55	CML	N500A-SG16A	300	2000	ina	±0.25	0	125	500	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N750A-SG16A	300	2000	ina	±0.25	0	125	750	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1000A-SG16A	300	2000	ina	±0.25	0	125	1000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1500A-SG16A	300	2000	ina	±0.25	0	125	1500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N2000A-SG16A	300	2000	ina	±0.25	0	125	2000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N5000A-SG16A	300	2000	ina	±0.25	0	125	5000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N15000A-SG16A	300	2000	ina	±0.25	0	125	15 K	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N300A-SG17A	45	6000	ina	±0.25	0	125	300	±0.5	0.5	3	50 μs	yes	C	request	k
	CML	N500A-SG17A	45	6000	ina	±0.25	0	125	500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N750A-SG17A	45	6000	ina	±0.25	0	125	750	±0.5	0.5	3	50 μs	yes	C	request	k,m
AC 56	CML	N1000A-SG17A	45	6000	ina	±0.25	0	125	1000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N1500A-SG17A	45	6000	ina	±0.25	0	125	1500	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N2000A-SG17A	45	6000	ina	±0.25	0	125	2000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N5000A-SG17A	45	6000	ina	±0.25	0	125	5000	±0.5	0.5	3	50 μs	yes	C	request	k,m
	CML	N15000A-SG17A	45	6000	ina	±0.25	0	125	15 K	±0.5	0.5	3	50 μs	yes	C	request	k,m

Notes, abbreviations and manufacturers' index at end of this section.

### Notes

- a. 50 or 60 cps, ±10%.
- b. Electronic: uses vacuum tubes, dc reference and feedback to saturable reactor.
- c. Electro-mechanical: uses servo-driven transformer.
- d. Magnetic: uses tuned self-saturating transformer.
- e. Any 1 fixed-frequency within this range.
- f. This model available in a variety of standard frequencies which appear elsewhere in this section.
- g. Input: 230 v, 50/60 cps, single phase.
- h. Input: 230 v, 50/60 cps, three phase.
- i. Input: 208 v, 50/60 cps, three phase.
- j. Solid state.
- k. Price includes meters.
1. Power factor: Lagging 0.7.
2. Total regulation.
3. Single or 3 phase output.

4. 2 phase.
5. 3 phase.
6. ±10%.
7. Dual range output.
8. ±0.1%, ±0.01% & ±0.001% stability available.
9. Series or parallel.
10. Also 0 - 125 v output.
11. ±0.1% stability available.
12. 50 cps.
13. 400 cps.
14. Also 190 - 230 v.
15. Frequency regulation and stability to ±0.001% available.

### Abbreviations

- C Cabinet  
R Rack  
ina Information not available



# Index of Manufacturers and Model Numbers

(keyed to table locator symbols)

**Advanced Electronics Corp (Advanced)**  
Fixed Frequency  
FLD-5A [AC-49]  
UTL-411 [AC-51]

**Behlman-Invar (Behl-Invar)**  
Amplitude Regulated  
503A [AC-10]

Fixed Frequency  
123A [AC-18,21,26]  
161A [AC-18,21,26]  
351A [AC-19,22,26]  
503A [AC-19,22,26]  
751A [AC-19,22,26]  
1501A [AC-19,23,27]  
3501A [AC-20,23,27]  
5001A [AC-20,23,27]  
151C-IE [AC-21]  
QAP-41 [AC-28]

Adjustable Frequency  
123A [AC-31,33,36,38,41,46]  
161A [AC-31,34,37,38,42,46]  
351A [AC-31,34,37,38,41,46]  
503A [AC-32,34,37,39,42,46]  
751A [AC-32,35,37,39,42,47]  
1501A [AC-32,35,37,39,43,47]  
3501A [AC-32,36,38,39,43,47]  
5001A [AC-32,36,38,39,44,47]

**CML, Inc (CML)**  
Fixed Frequency  
CR-50 [AC-51]  
CRS-100 [AC-51]  
CRS-250 [AC-51]  
CRS-500 [AC-51]  
CRS-1000 [AC-51]  
CRS-2000 [AC-52]  
LRS-200 [AC-49]  
LRS-500 [AC-50]

LRS-1000 [AC-50]  
LRS-2000 [AC-50]  
N300A-SG11A [AC-49]  
N300A-SG12A [AC-50]  
N300A-SG14A [AC-51]  
N500A-SG11A [AC-49]  
N500A-SG12A [AC-50]  
N500A-SG13A [AC-51]  
N500A-SG14A [AC-51]  
N750A-SG11A [AC-49]  
N750A-SG12A [AC-51]  
N750A-SG14A [AC-51]  
N1000A-SG11A [AC-49]  
N1000A-SG12A [AC-50]  
N1000A-SG14A [AC-52]  
N1500A-SG11A [AC-49]  
N1500A-SG12A [AC-50]  
N1500A-SG14A [AC-52]  
N2000A-SG11A [AC-49]  
N2000A-SG12A [AC-50]  
N2000A-SG14A [AC-52]  
N5000A-SG11A [AC-49]  
N5000A-SG12A [AC-50]  
N5000A-SG14A [AC-52]  
N15000A-SG11A [AC-49]  
N15000A-SG12A [AC-51]  
N15000A-SG14A [AC-52]  
SG31A-T300A [AC-16]  
SG31A-T500A [AC-16]  
SG31A-T1200A [AC-16]  
SG31A-T1750A [AC-17]  
SG31A-T2500A [AC-17]  
SG31A-T5000A [AC-17]  
SG31A-T10000A [AC-18]  
SG31A-T15000A [AC-18]  
SG32A-T300A [AC-18]  
SG32A-T300A [AC-18]  
SG32A-T500A [AC-19]  
SG32A-T750A [AC-19]  
SG32A-T1150A [AC-18]  
SG32A-T1200A [AC-19]  
SG32A-T1750A [AC-19]  
SG32A-T2500A [AC-20]  
SG32A-T10000A [AC-20]  
SG32A-T15000A [AC-20]  
SG34A-T300A [AC-20]  
SG34A-T150A [AC-21]  
SG34A-T300A [AC-22]  
SG34A-T500A [AC-22]  
SG34A-T750A [AC-22]  
SG34A-T1200A [AC-23]  
SG34A-T1750A [AC-23]  
SG34A-T2500A [AC-23]  
SG34A-T5000A [AC-24]  
SG34A-T10000A [AC-24]

SG31A-T300A [AC-16]  
SG31A-T500A [AC-16]  
SG31A-T1200A [AC-16]  
SG31A-T1750A [AC-17]  
SG31A-T2500A [AC-17]  
SG31A-T5000A [AC-17]  
SG31A-T10000A [AC-18]  
SG31A-T15000A [AC-18]  
SG32A-T300A [AC-18]  
SG32A-T300A [AC-18]  
SG32A-T500A [AC-19]  
SG32A-T750A [AC-19]  
SG32A-T1150A [AC-18]  
SG32A-T1200A [AC-19]  
SG32A-T1750A [AC-19]  
SG32A-T2500A [AC-20]  
SG32A-T10000A [AC-20]  
SG32A-T15000A [AC-20]  
SG34A-T300A [AC-20]  
SG34A-T150A [AC-21]  
SG34A-T300A [AC-22]  
SG34A-T500A [AC-22]  
SG34A-T750A [AC-22]  
SG34A-T1200A [AC-23]  
SG34A-T1750A [AC-23]  
SG34A-T2500A [AC-23]  
SG34A-T5000A [AC-24]  
SG34A-T10000A [AC-24]

SG34A-T15000A [AC-24]  
Adjustable Frequency  
N300A-SG13A [AC-53]  
N300A-SG15A [AC-54]  
N300A-SG16A [AC-54]  
N300A-SG17A [AC-55]  
N500A-SG13A [AC-53]  
N500A-SG15A [AC-54]  
N500A-SG16A [AC-55]  
N500A-SG17A [AC-55]  
N750A-SG13A [AC-53]  
N750A-SG15A [AC-54]  
N750A-SG16A [AC-55]  
N750A-SG17A [AC-55]  
N1000A-SG13A [AC-53]  
N1000A-SG15A [AC-54]  
N1000A-SG16A [AC-55]  
N1000A-SG17A [AC-56]  
N1500A-SG13A [AC-53]  
N1500A-SG15A [AC-54]  
N1500A-SG16A [AC-55]  
N1500A-SG17A [AC-56]  
N2000A-SG13A [AC-53]  
N2000A-SG15A [AC-54]  
N2000A-SG16A [AC-55]  
N2000A-SG17A [AC-56]  
N5000A-SG13A [AC-53]  
N5000A-SG15A [AC-54]  
N5000A-SG16A [AC-55]  
N5000A-SG17A [AC-56]  
N15000A-SG13A [AC-53]  
N15000A-SG15A [AC-54]  
N15000A-SG16A [AC-55]  
N15000A-SG17A [AC-56]

SG35A-T15000A [AC-36]  
SG36A-T300A [AC-41]  
SG36A-T150A [AC-41]  
SG36A-T300A [AC-42]  
SG36A-T500A [AC-42]  
SG36A-T750A [AC-43]  
SG36A-T1200A [AC-43]  
SG36A-T1750A [AC-43]  
SG36A-T2500A [AC-43]  
SG36A-T5000A [AC-44]  
SG36A-T10000A [AC-44]  
SG36A-T15000A [AC-44]  
SG37A-T300A [AC-47]  
SG37A-T150A [AC-47]  
SG37A-T300A [AC-47]  
SG37A-T500A [AC-47]  
SG37A-T750A [AC-47]  
SG37A-T1200A [AC-48]  
SG37A-T1750A [AC-48]  
SG37A-T2500A [AC-48]  
SG37A-T5000A [AC-48]  
SG37A-T10000A [AC-48]  
SG37A-T15000A [AC-48]

1040A-SF [AC-25]  
3000-SF [AC-23,27]  
Adjustable Frequency  
80 [AC-33]  
150 [AC-34]  
160 [AC-34]  
250 [AC-34]  
80-VG [AC-45]  
160-VG [AC-45]  
250-VG [AC-45]  
500-VG [AC-46]  
1000-VG [AC-46]  
3000-VG [AC-46]  
80-VH [AC-40]  
160-VH [AC-40]  
250-VH [AC-40]  
500-VH [AC-40]  
1000-VH [AC-40]  
3000-VH [AC-40]  
80-VL [AC-44]  
160-VL [AC-44]  
250-VL [AC-44]  
500-VL [AC-44]  
1000-VL [AC-44]  
3000-VL [AC-44]  
80-VM [AC-36]  
160-VM [AC-37]  
250-VM [AC-37]  
500-VM [AC-37]  
1000-VM [AC-37]  
3000-VM [AC-37]  
500-VN [AC-35]  
1000-VN [AC-35]  
3000-VN [AC-36]  
80-VP [AC-29]  
160-VP [AC-29]  
250-VP [AC-29]  
500-VP [AC-29]  
1000-VP [AC-29]  
3000-VP [AC-29]  
80VW [AC-41]  
160VW [AC-41]  
250VW [AC-41]  
500VW [AC-42]  
1000VW [AC-43]  
3000VW [AC-43]

**Del Electronics (Del)**  
Adjustable Frequency  
ATA400RS-100 [AC-53]  
ATA400RS-500 [AC-53]  
ATA400RS-1000 [AC-54]

**Electronic Measurement Co Div Rowan Controller Corp (EI Meas)**  
Amplitude Regulated  
260A [AC-7, 12]

**Empire Products Singer Metrics Div (Singer/Empire)**  
Adjustable Frequency  
VP-410 [AC-47]  
VP-1000 [AC-48]

**General Electric Co Specialty Transformer Dept (GE)**  
Amplitude Regulated  
9T91Y3021 [AC-3]  
9T91Y3022 [AC-3]  
9T91Y3023 [AC-11]  
9T91Y3027 [AC-11]  
9T91Y3030 [AC-11]

**General Radio (Gen Radio)**  
Amplitude Regulated  
1571-A [AC-1]  
1581-A [AC-1]  
1582-A [AC-2]

**William I. Horlick Co, Inc (Horlick)**  
Adjustable Frequency  
281-B [AC-38]

**Industrial Test Equipment Co (Ind Test)**  
Fixed Frequency  
20-SF [AC-20,26]  
80-SF [AC-21,26]  
150-SF [AC-21]  
160 [AC-21]  
160-SF [AC-21,26,28]  
250-SF [AC-22,26,28]  
500-SF [AC-22,26]  
1000-SF [AC-23,27]  
1010-SF [AC-25]

**International Electronic Research Corp (IERC)**

Fixed Frequency  
LC-1000B [AC-4]  
MA-150 [AC-25]  
MA-1150 [AC-25]  
GK1-102 [AC-27]  
RK-102 [AC-27]  
GK1-106 [AC-27]  
RK-106 [AC-27]  
RK-115 [AC-27]  
RK-125 [AC-28]  
RK-135 [AC-28]  
MK-150 [AC-28]  
RK-150 [AC-28]

Adjustable Frequency  
RA-1100 [AC-46]  
1160A [AC-46]  
1500 [AC-46]

**Microdot Magnetics, Inc (Microdot)**  
Amplitude Regulated  
2R510 [AC-1]  
2R1010 [AC-1]  
2R2010 [AC-1]  
2R3010 [AC-1]  
2R5010 [AC-1]

**NJE Corp (NJE)**  
Adjustable Frequency  
FC-26-500 [AC-32]  
FC-115-500 [AC-33]  
FC-115-1000 [AC-33]  
TFC-26-100 [AC-32]  
TFC-26-200 [AC-32]  
TFC-115-100 [AC-32]  
TFC-115-200 [AC-32]

**North Hills Electronics, Inc (North Hills)**  
Fixed Frequency  
VS-60 [AC-20]  
VS-61 [AC-25]  
VS-64 [AC-24]

**Perkin Electronics Corp (Perkin)**  
Amplitude Regulated  
MLR3000 [AC-6]  
MLR5000 [AC-6]  
MLTR1000 [AC-4]



**Smallest 3-Phase Electronic Frequency Converters Ever Made!**

Now, from CML, comes a series of the smallest 3-phase Electronic Frequency Converters ever made... featuring fixed or adjustable plug-in oscillators at frequencies ranging from 45 to 6,000 cycles. Write today for details on Models T500A through T2500A!

Model	3 Ø Output VA	Dimensions (For standard 19" relay rack mounting)
T500A	500	8¾" h x 21" d
T750A	750	14" h x 21" d
T1200A	1200	14" h x 21" d
T1750A	1750	14" h x 21" d
T2500A	2500	14" h x 21" d

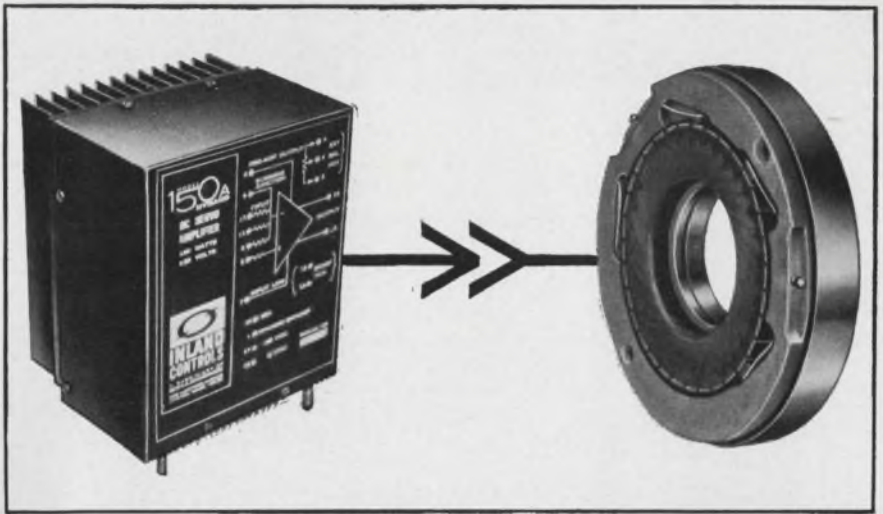
**CML, Inc.**  
A Subsidiary of Tenney Engineering, Inc.  
350 Leland Avenue • Plainfield, New Jersey  
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ON READER-SERVICE CARD CIRCLE 28

Manufacturers' addresses and literature offerings in master cross index at front of issue.



# NEW TORQUE MOTOR DRIVER



## Cut costs and time with off-the-shelf HYBAND DC Servo Power Amplifiers by INLAND

Inland Controls specializes in the design and manufacture of reversible polarity, wide bandwidth DC servo power amplifiers that help you:

- ELIMINATE design and development costs
- ACCELERATE delivery schedules
- AVOID motor/amplifier interface problems

Ranging from 50 watts to 3000 watts, these amplifiers, designed specifically for driving Inland Motor\* DC torque motors, are available in either compact modular design or standard rack-mounted design. Current-limiting, short-circuit protection, multiple summing inputs, high gain preamplifier, and provisions for servo compensation networks are built-in standard features of the HYBAND amplifiers.

To avoid your interface problem entirely, why not let Inland Controls supply guaranteed matching amplifiers, or complete amplifier and torque motor blocks? We can do this

and satisfy your most demanding needs. Don't let interface and transfer function problems get you down . . . call on the INLAND team and relax . . . our amplifiers offer proven and outstanding compatibility, reliability, and availability.

A Condensed Selection guide offering detailed information on the HYBAND amplifiers is available immediately and we will be happy to send you a copy.



This Demonstrator Kit, designed to illustrate exactly how these amplifiers operate in a closed-loop servo, can be shown in your plant at your convenience. All it takes is a call or letter from you.

\*Inland Motor Corporation is also a subsidiary of Kollmorgen



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Telephone: 617 254-0442 TWX: 710 330-0143

**Power Sources  
(Pwr Srccs)**  
Amplitude Regulated  
120A-251FM [AC-2]  
24A-251FM [AC-2]  
48A-501FM [AC-2]  
24A-501FM [AC-2]  
120A-501FM [AC-2]  
120A-102FM [AC-2]  
48A-102FM [AC-2]  
24A-102FM [AC-3]  
120B-202FM [AC-3]  
48B-202FM [AC-3]

**Radio Frequency  
Laboratories, Inc  
(RFL)**  
Fixed Frequency  
2120A [AC-16,18,  
21,24,25]  
250 [AC-25]

Adjustable Frequency  
2120A [AC-48]

**Sola Electric Co  
Div of Basic Prod-  
ucts Corp.  
(Sola)**  
Amplitude Regulated  
23-90-150 [AC-1]  
59-13-260 [AC-1]  
ARV-50T [AC-10]

**Sorensen Company,  
Inc  
(Sorensen)**  
Amplitude Regulated  
150S [AC-3]  
500S [AC-3]  
1000S [AC-4]  
1001 [AC-5]  
2000S [AC-5]  
2501 [AC-6]  
3000S [AC-6]  
5000S [AC-7]  
10000S [AC-7]  
15000S [AC-8]  
3000-2S [AC-12]  
5000-2S [AC-12]  
10000-2S [AC-12]  
15000-2S [AC-13]  
ACR500 [AC-4]  
ACR1000 [AC-4]  
ACR2000 [AC-5]  
ACR3000 [AC-6]  
ACR5000 [AC-7]  
ACR7500 [AC-7]  
ACR10000 [AC-8]  
ACR15000 [AC-8]  
FR1000 [AC-9]  
FR1010 [AC-9]  
FR1020 [AC-9]  
FR1030 [AC-10]  
FRLD750 [AC-4]

Adjustable Frequency  
FCD500 [AC-33]  
FCD3P1000 [AC-33]  
FCD3P2000 [AC-33]  
FCR100 [AC-41]  
FCR250 [AC-38]  
FCR3P300 [AC-42]

**Superior Electric Co  
(Superior)**  
Amplitude Regulated  
EM10009 [AC-10]  
EM4108MCR [AC-9]  
EMK4105 [AC-6]  
EMK4105R [AC-7]  
EMS41100 [AC-8]  
EMS42100 [AC-13]  
EMS62135Y [AC-14]  
EMS64180Y [AC-15]  
EMS64275Y [AC-15]  
EMS14225 [AC-9,14]  
EMS14260 [AC-9,13]  
EMS142100 [AC-14]  
EMS142100 [AC-8]  
EMS16290Y  
[AC-9,10]  
EMS162190Y  
[AC-9,10]  
EMT10138 [AC-13]  
EMT4102 [AC-5]  
EMT4104 [AC-6]  
EMT4106B [AC-7]  
EMT4112B [AC-7]  
EMT4115 [AC-8]  
EMT4207 [AC-12]  
EMT4228B [AC-13]  
EMT4407 [AC-14]  
EMT4418 [AC-14]  
EMT6210Y [AC-13]  
EMT6215Y [AC-13]  
EMT6220Y [AC-13]  
EMT6245Y [AC-13]  
EMT6270D [AC-13]  
EMT6412Y [AC-14]  
EMT6417Y [AC-14]  
EMT6425Y [AC-14]  
EMT6450Y [AC-14]  
EMT6475Y [AC-14]  
EMT64100Y [AC-15]  
IE5101 [AC-5]  
IE5101MR [AC-9]

**Tel-Instrument Elec-  
tronics Corp  
(Tel-Inst)**  
Amplitude Regulated  
601 [AC-1]  
602 [AC-10]  
603 [AC-2]  
604 [AC-10]  
605 [AC-2]  
606 [AC-10]  
607 [AC-2]  
608 [AC-10]  
650 [AC-8]  
651 [AC-11]

Fixed Frequency  
4010A-1-A [AC-16]  
4010A-1-B [AC-18]  
4025B-1-A [AC-16]  
4050-1-A [AC-16]  
4100-1-A [AC-16]  
4250-1-A [AC-17]  
4500-1-A [AC-17]  
4025B-1-B [AC-18]  
4050-1-B [AC-19]  
4100-1-B [AC-19]  
4250-1-B [AC-20]  
4500-1-B [AC-20]  
4010A-1-C [AC-21]  
4025B-1-C [AC-22]  
4050-1-C [AC-22]  
4100-1-C [AC-23]  
4250-1-C [AC-23]  
4500-1-C [AC-24]  
4010A-1-D [AC-24]  
4025B-1-D [AC-24]  
4050-1-D [AC-24]  
4100-1-D [AC-25]  
4250-1-D [AC-25]  
4500-1-D [AC-25]

Adjustable Frequency  
4010A-1-E [AC-33]  
4025B-1-E [AC-34]  
4050-1-E [AC-35]  
4100-1-E [AC-35]  
4250-1-E [AC-36]  
4500-1-E [AC-36]  
4010A-1-F [AC-40]  
4025B-1-F [AC-40]  
4050-1-F [AC-40]  
4100-1-F [AC-40]  
4250-1-F [AC-41]  
45001-F [AC-41]  
4010A-1-G [AC-41]  
4025B-1-G [AC-42]  
4050-1-G [AC-42]  
4100-1-G [AC-43]  
4250-1-G [AC-43]  
4500-1-G [AC-44]  
4010A-1-h [AC-45]  
4010A-1-J [AC-30]  
4025B-1-h [AC-45]  
4025B-1-J [AC-30]  
4050-1-h [AC-45]  
4100-1-h [AC-45]  
4250-1-h [AC-45]  
4500-1-h [AC-45]  
4050-1-J [AC-30]  
4100-1-J [AC-30]  
4250-1-J [AC-31]  
4500-1-J [AC-31]

**TwincO, Inc  
(TwincO)**  
Amplitude Regulated  
ACR6-250M [AC-3]  
ACR6-500M [AC-4]  
ACR6-1000M [AC-5]  
ACR6-2000M [AC-6]  
ACR6-3000 [AC-6]  
ACR6-5000 [AC-7]

Adjustable Frequency  
ACR4-1000M  
[AC-33]  
ACR5-250M [AC-29]  
ACR5-500M [AC-29]  
ACR5-1000M  
[AC-29]  
ACR5-2000M  
[AC-29]

Adjustable Frequency  
ACR4-1000M  
[AC-33]  
ACR5-250M [AC-29]  
ACR5-500M [AC-29]  
ACR5-1000M  
[AC-29]  
ACR5-2000M  
[AC-29]

Adjustable Frequency  
ACR4-1000M  
[AC-33]  
ACR5-250M [AC-29]  
ACR5-500M [AC-29]  
ACR5-1000M  
[AC-29]  
ACR5-2000M  
[AC-29]

# Modular DC Power Supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
1 MO	Acopian	1B10	1	0.1	0.05	0.25	70	c
	Tech Pwr	M-65 Series	0.5-1.1	0.375-25	±0.5	±0.5	135-380	a,b,h,i
	Elcor	AQC1-200	0.8-1.2	0.2	0.02	0.02	184	
	Ferro	M-1.5	1.5 <sup>2</sup>	0.04	3	3	35	b
	Acopian	1.5B Series	1.5 <sup>2</sup>	0.2-0.7	0.05-1.5	0.5-2	70-85	c
	Elcor <sup>4</sup>	AQC1.34-200	1.1-1.6	0.2	0.02	0.02	184	
	Lambda	LMB2	2	3.4	0.05	0.03	119	b
	Lambda	LMC2	2	4.9	0.05	0.03	139	b
2 MO	Lambda	LMD2	2	13.1	0.05	0.03	199	b
	Lambda	LME2	2	18	0.05	0.03	269	b
	Lambda	LMF2	2	44	0.05	0.03	425	b
	Lambda	LMG2	2	90	0.05	0.03	575	b
	Tech Pwr	M-65 Series	1.1-2 <sup>3</sup>	0.375-25	±0.5	±0.5	135-380	a,b,h,i
	Acopian	2.5B Series	2.5 <sup>2</sup>	0.2-0.7	0.05-0.1	0.5-1	70-85	c
	Elcor	AQC2-200	1.5-2.5	0.2	0.02	0.02	184	
	Tech Pwr	M-65 Series	2-2.8	0.375-25	±0.5	±0.5	130-375	a,b,h,i
Ferro	M-3	3	0.05	3	3	35	b	
Ferro	MA-3	3 <sup>1</sup>	0.05	3	3	50	b	

The table in this section lists the specifications for modular dc power supplies. These supplies cover the voltage range from 0v to 30 kv. Unless otherwise noted in the table, all have input-voltage requirements of 95-130 vac, 1 phase.

Because of the great number of modular units available, it was impossible to list every supply separately. So in many cases a series of supplies having only moderately different characteristics are listed as a single entry in the table.

Prices indicated in the table are subject to change by the manufacturer.

An index of manufacturers and models is included at the end of the table. The index is alphabetical, by manufacturer, and it lists the various modular dc power supplies of each manufacturer.

A location key is included after each model. This permits easy spotting in the table of the specifications for that supply, by means of the location-key column (1 above).

## How the table is arranged

Specifications for the modular dc power supplies are given in separate, appropriately headed, columns. The complete specifications for any one supply can thus be read across the page.

Within the table, the supplies are listed in ascending order of maximum output voltage (2 above).

Where the maximum output voltage of several supplies is the same, the units are listed in order of increasing output-voltage swing (3 above).

Manufacturers are identified in the *Mfr* column by an abbreviation (4 above). The complete name of each manufacturer can be found in the index at the end of the section. For manufacturers' addresses and Reader Service literature offerings, see the master cross index at the front of the issue.

All notes and symbols used in the table are defined at the end of the section.

At the top of each page of the table, reference is made to the output voltage range covered by the supplies on that page. This is to expedite the location of a supply with particular characteristics.

## How to use the tables

- Note how the supplies are listed. They are in ascending order of maximum output voltage. Where this is the same, they are in order of increasing output-voltage swing.
- Select the most likely candidates.
- Obtain supplementary data from the manufacturer.

Manufacturers' addresses, together with Reader Service numbers for specific supply types, are given in the master cross index at the front of the issue.



# Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 1	Acopian	1B10	1	0.1	0.05	0.25	70	c
	Tech Pwr	M-65 Series	0.5-1.1	0.375-25	±0.5	±0.5	135-380	a,b,h,i
	Elcor	AQC1-200	0.8-1.2	0.2	0.02	0.02	184	
	Ferro	M-1.5	1.5	0.04	3	3	35	b
	Acopian	1.5B Series	1.5 <sup>2</sup>	0.2-0.7	0.05-1.5	0.5-2	70-85	c
	Elcor	AQC1.34-200	1.1-1.6	0.2	0.02	0.02	184	
	Lambda	LMB2	2	3.4	0.05	0.03	119	b
	Lambda	LMC2	2	4.9	0.05	0.03	139	b
MO 2	Lambda	LMD2	2	13.1	0.05	0.03	199	b
	Lambda	LME2	2	18	0.05	0.03	269	b
	Lambda	LMF2	2	44	0.05	0.03	425	b
	Lambda	LMG2	2	90	0.05	0.03	575	b
	Tech Pwr	M-65 Series	1.1-2	0.375-25	±0.5	±0.5	135-380	a,b,h,i
	Acopian	2.5B Series	2.5 <sup>2</sup>	0.2-0.7	0.05-0.1	0.5-1	70-85	c
	Elcor	AQC2-200	1.5-2.5	0.2	0.02	0.02	184	
	Tech Pwr	M-65 Series	2-2.8	0.375-25	±0.5	±0.5	130-375	a,b,h,i
MO 3	Ferro	M-3	3	0.05	3	3	35	b
	Ferro	MA-3	3 <sup>1</sup>	0.05	3	3	50	b
	PMC	SRA-3	3	0.5	30 mv	100 mv	60	b
	PMC	SR-3	3	0.5	50 mv	180 mv	50	b
	Acopian	3B Series	3 <sup>2</sup>	0.2-0.7	0.05-0.1	0.5-1	70-85	c
	D-B	15-3S	3	0.75	5 mv	5 mv	90	
	PMC	SRA-3-1	3	1	50 mv	100 mv	60	b
	PMC	SR-3-1	3	1	50 mv	350 mv	50	b
MO 4	D-B	20-3S	3	1.4	5 mv	5 mv	105	
	Glentron	30101	3	2	1	1	149	b
	Pwr Des	UPM-3 Series	3	2	0.04	0.04	147	b
	D-B	30-3S	3	3	5 mv	5 mv	140	
	Lambda	LMB3	3	3.4	0.05	0.03	119	b
	Lambda	LMC3	3	4.9	0.05	0.03	139	b
	D-B	41-3S	3	6	5 mv	5 mv	160	
	Perkin	MS3 Series	3	0.75-9	±0.025	±0.025	ina	b,d
MO 5	D-B	51-3S	3	12.9	5 mv	5 mv	225	
	Lambda	LMD3	3	13.1	0.05	0.03	199	b
	Lambda	LME3	3	18	0.05	0.03	269	b
	D-B	61-3S	3	24	5 mv	5 mv	290	
	Lambda	LMF3	3	44	0.05	0.03	425	b
	Lambda	LMG3	3	85	0.05	0.03	575	b
	Trans Dev	GM-2	2-3	3	0.25	0.25	ina	e
	Trans Dev	STR Series	1-3	0.25-5	±5 mv	±5 mv	ina	b

Notes, abbreviations and manufacturers' index at end of this section.

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 6	ERA	SR Series	1-3	15, 25, 40	±0.01	±0.05	430-635	b
	ACDC	BX2N1.2	0-3	1.2	0.01	0.01	158	
	ACDC	BC2N1.2	0-3	1.2	0.5	0.5	130	
	PMC	RB Series	0-3	0.375-25	±0.5	±0.5	94-360	b
	Tech Pwr	M-65 Series	2.8-3.2	0.375-25	±0.5	±0.5	50-295	a,b,h,i
	Tech Pwr	M-65 Series	3.2-3.5	0.375-25	±0.5	±0.5	50-300	a,b,h,i
	Tech Pwr	M-65A Series	3.2-3.5	0.375-25	±0.05	±0.05	60-320	a,b,h,i
	PMC	R Series	3-3.5	0.5, 1	0.05	0.15, 0.5	88, 97	b
MO 7	Sorensen	QMA3-3.3	2.8-3.5	3.3	±0.05	+ 0.05	165	b
	Elasco	M3 Series	2.8-3.5	0.1-0.5	0.05	0.05	ina	h
	Elcor	AQC3-200	2.5-3.5	0.2	0.02	0.02	184	
	Trygon	PS3-1.5F	2.5-3.5	1.5	0.01	0.02	90	b
	Sorensen	QMA3-1	2.8-3.7	1	±0.05	±0.05	85	b
	Tech Pwr	M-65 Series	3.5-3.9	0.375-25	±0.5	±0.5	50-305	a,b,h,i
	Tech Pwr	M-65A Series	3.5-3.9	0.375-25	±0.05	±0.05	60-325	a,b,h,i
	Ferro	MA-4	4 <sup>1</sup>	0.05	2.5	2.5	50	b
MO 8	Ferro	M-4	4	0.05	3	3	35	b
	Acopian	4B Series	4 <sup>2</sup>	0.2-0.7	0.05-0.1	0.04-1	70-80	c
	Lambda	LMB4	4	3.4	0.05	0.03	119	b
	Lambda	LMC4	4	4.9	0.05	0.03	139	b
	Lambda	LMD4	4	13.1	0.05	0.03	199	b
	Lambda	LME4	4	17	0.05	0.03	269	b
	Lambda	LMF4	4	44	0.05	0.03	425	b
	Lambda	LMG4	4	77	0.05	0.03	575	b
MO 9	Trans Dev	GM Series	3-4	0.375-3	0.25	0.25	ina	e
	Behl-Invar	W Series	1-4	1.8-25	15 mv	10 mv	175-440	
	Trygon	PHR Series	0-4	3, 5, 7.5	0.01	0.01	255-349	a
	Tech Pwr	M-65 Series	3.9-4.3	0.375-25	±0.5	±0.5	50-310	a,b,h,i
	Tech Pwr	M-65A Series	3.9-4.3	0.375-25	±0.05	±0.05	60-330	a,b,h,i
	Lambda	LMB4P5	4.5	3.3	0.05	0.03	119	b
	Lambda	LMC4P5	4.5	4.9	0.05	0.03	139	b
	Con Cir	4.5A Series	4.5	0.375-6	±0.05	±0.05	85-260	g
MO 10	Con Cir	4.5B Series	4.5	0.375-6	±0.5	±0.5	75-240	g
	Lambda	LMD4P5	4.5	13.1	0.05	0.03	199	b
	Lambda	LME4P5	4.5	16	0.05	0.03	269	b
	Lambda	LMF4P5	4.5	44	0.05	0.03	425	b
	Lambda	LMG4P5	4.5	72	0.05	0.03	575	b
	Elasco	M4 Series	3.5-4.5	0.1-0.75	0.05	0.05	ina	h
	Elcor	AQC4-200	3.4-4.6	0.2	0.02	0.02	184	
	Tech Pwr	M-65 Series	4.3-4.7	0.375-25	±0.5	±0.5	55-315	a,b,h,i

## Modular dc supplies

4.7-6 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 11	Tech Pwr	M-65A Series	4.3-4.7	0.375-25	±0.05	±0.05	65-335	a,b,h,i
	Ferro	SM-5	5	0.04	2	2	40	b
	Ferro	MA-515	1.5, 5 <sup>1</sup>	0.05	2	2	55	b
	Ferro	MSM-5	5	0.05	1.5	1.5	60	b
	Ferro	MA-5	5 <sup>1</sup>	0.05	2	2	50	b
	Ferro	HM-5	5	0.05	2	2	42	b
	Ferro	M-5	5	0.05	3	3	35	b
	ERA	CV5	5	0.015	±1	1	45	b
MO 12	ERA	SV5	5	0.015	±0.5	0.5	65	b
	PMC	SR-5	5	0.5	60 mv	340 mv	50	b
	PMC	SRA-5	5	1	50 mv	120 mv	60	b
	Acopian	5A210	5 <sup>2</sup>	2.1	0.5	0.5	145	c
	Acopian	5B Series	5 <sup>2</sup>	0.2-1	0.05-0.1	0.3-1	70-95	c
	Lambda	LMB5	5	3.3	0.05	0.03	119	b
	Lambda	LMC5	5	4.8	0.05	0.03	139	b
	Con Cir	5A Series	5	0.375-6	±0.05	±0.05	85-260	g
MO 13	Con Cir	5B Series	5	0.375-6	±0.5	±0.5	75-240	g
	Lambda	LMD5	5	12.6	0.05	0.03	199	b
	Lambda	LME5	5	16	0.05	0.03	269	b
	Lambda	LMF5	5	44	0.05	0.03	425	b
	Lambda	LMG5	5	68	0.05	0.03	575	b
	Sorensen	QMA4.4-0.9	3.7-5	0.9	±0.05	±0.05	75	b
	Sorensen	QMA4.4-3.5	3.5-5	3.5	±0.05	±0.05	135	b
	Elasco	SV4 Series	3-5	1-10	0.05	0.05	ina	h
MO 14	PMC	RA Series	3-5 <sup>2</sup>	0.375-25	±0.05	±0.05	60-300	b
	PMC	RB Series	3-5 <sup>2</sup>	0.375-25	±0.5	±0.5	50-280	b
	ERA	SR Series	3-5	15, 25, 40	±0.01	±0.05	430-635	b
	Trans Dev	AM3	3-5	3	±6 mv	±6 mv	ina	e
	Trans Dev	EM-5	3-5	0.5	±5 mv	±7 mv	ina	b
	Trans Dev	SM-5	3-5	0.5	±5 mv	±15 mv	ina	b
	Trans Dev	STR Series	3-5	0.25-2	±5 mv	±5 mv	ina	b,i
	Trans Dev	TMA-5	3-5	0.25	15 mv	±10 mv	ina	b
MO 15	ITI	231A	0-5	0.75	±0.02	±0.02	139	b
	ITI	331A	0-5	1.5	±0.02	±0.02	146	b
	ERA	ME Series	0-5	0.2-2	±0.01	0.05	135-240	b
	ITI	431A	0-5	3.5	±0.02	±0.02	155	b
	ITI	531A	0-5	7	±0.02	±0.02	168	b
	ERA	TR Series	0-5	0.2-8	±0.05	±0.05	155-325	b
	ERA	SR Series	0-5	0.2-8	±0.01	±0.05	175-390	b
	ITI	631A	0-5	12	±0.02	±0.02	188	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 16	Dynage	D-5A Series	4.7-5.2	0.2-5	0.05	0.05	65-215	
	Dynage	D-5 Series	4.7-5.2	0.2-5	0.5	0.5	55-205	
	Abbott	V Series	4.7-5.3	1,2,4,6,12	±0.2	±0.5	175-260	a
	Tech Pwr	M-65 Series	4.7-5.3	0.375-25	±0.5	±0.5	55-315	a,b,h,i
	Tech Pwr	M-65A Series	4.7-5.3	0.375-25	±0.05	±0.05	65-335	a,b,h,i
	Con Cir	5.5A Series	5.5	0.375-6	±0.05	±0.05	85-260	g
	Con Cir	5.5B Series	5.5	0.375-6	±0.5	±0.5	75-240	g
	Elasco	M5 Series	4.5-5.5	0.1-0.75	0.05	0.05	ina	h
MO 17	Nucor	NP Series	3.5-5.5	1, 4	0.02	0.05	145, 285	b
	Con Av	HT5A Series	0-5.5	0.75-8	0.025	0.025	97-237	
	Dynage	D5.5 Series	5.3-5.8	0.2-5	0.5	0.5	55-205	
	Dynage	D-5.5A Series	5.3-5.8	0.2-5	0.05	0.05	65-220	
	Tech Pwr	M-65 Series	5.3-5.8	0.375-25	±0.5	±0.5	55-325	a,b,h,i
	Tech Pwr	M-65A Series	5.3-5.8	0.375-25	±0.05	±0.05	65-345	a,b,h,i
	Abbott	V Series	5.3-5.9	0.9-10.8	±0.2	±0.5	210-310	a
	Ferro	MSM-6	6	0.05	1.5	1.5	60	b
MO 18	Ferro	HM-6	6	0.05	1.5	1.5	42	b
	Ferro	M-6	6	0.05	2	2	35	b
	Ferro	MA-6	6 <sup>1</sup>	0.055	2	2	50	b
	Ferro	MM-6	6 <sup>1</sup>	0.055	1.5	1.5	60	b
	Eng Elect	ZA-741	6	0.25	0.1	0.1	295	
	D-B	15-6S	6	0.7	5 mv	5 mv	90	
	Plug-In	SPS-2029-P	6	0-0.9	±0.1	±0.15	71	b
	D-B	20-6S	6	1.4	5 mv	5 mv	105	
MO 19	Acopian	6B Series	6 <sup>2</sup>	0.1-1.5	0.05	0.05-0.3	60-115	c
	Glentron	30102	6	2	1	1	149	b
	Pwr Des	UPM-3 Series	6	2	0.04	0.04	147	b
	Acopian	6A Series	6 <sup>2</sup>	0.05-2.1	0.5	0.5	45-145	c
	D-B	30-6S	6	2.8	5 mv	5 mv	140	
	Lambda	LMB6	6	3.2	0.05	0.03	119	b
	Mid-East	SC6-4	6	4	0.05	0.05	198	b
	Lambda	LMC6	6	4.6	0.05	0.03	139	b
MO 20	Trans Dev	RP-6	6	5	5 mv	12 mv	ina	b
	D-B	41-6S	6	5.8	5 mv	5 mv	160	
	Con Cir	6.0B Series	6	0.375-6	±0.5	±0.5	75-240	g
	Con Cir	6.0A Series	6	0.375-6	±0.05	±0.05	85-260	g
	D-B	51-6S	6	10.5	5 mv	5 mv	225	
	Perkin	MS6 Series	6	0.65-11.2	±0.025	±0.025	ina	b,d
	Lambda	LMD6	6	12.4	0.05	0.03	199	b
	Lambda	LME6	6	15	0.05	0.03	269	b

Notes, abbreviations and manufacturers' index at end of this section.



## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 21	Burton	TPS Series	6	0.8-16	5 mv	5 mv	105-315	
	D-B	61-6S	6	21	5 mv	5 mv	290	
	Lambda	LMF6	6	43	0.05	0.03	425	b
	Lambda	LMG6	6	60	0.05	0.03	525	b
	ERA	TR Series	5-6	4, 8	±0.05	0.05	255, 295	b
	ERA	SR Series	5-6	4, 8	±0.01	0.05	290, 390	b, f
	Elcor	AQC5-150	4-6	0.15	0.02	0.02	184	
	Elcor	ATM5-150	4-6	0.15	0.2	0.2	109	
MO 22	Elasco	V4 Series	3-6	0.1-0.75	0.05	0.05	ina	h
	Trans Dev	STR Series	3-6	0.25-4	±0.05	±0.1	ina	b
	Trans Dev	AM6	6.3	3	±6 mv	±6 mv	ina	e
	Trans Dev	GSM6.3-7	6.3	7	±10 mv	±10 mv	ina	b
	Kepeco	PRM Series	6.3	15, 25	±1	0.7, 0.6 v	99, 119	
	Trygon	FT-FTR6-25	6.3	25	±1	600 mv	119-149	
	Atlas	TB1047	6.3	30	±1	±2	ina	
	Tech Pwr	M-65 Series	5.8-6.3	0.375-25	±0.5	±0.5	55-335	a, b, h, i
MO 23	Tech Pwr	M-65A Series	5.8-6.3	0.375-25	±0.05	±0.05	65-355	a, b, h, i
	Dynage	D6.1 Series	5.8-6.4	0.2-5	0.5	0.5	55-215	
	Dynage	D6.1A Series	5.8-6.4	0.2-5	0.05	0.05	65-225	
	Con Av	HT6 Series	5.5-6.5	0.5-8	0.25	0.25	65-200	
	Con Av	HT6A Series	5.5-6.5	0.5-8	0.025	0.025	75-215	
	Numec	A6	5-6.5	1.3	±0.01	ina	92	
	Numec	AS6	5-6.5	2.5	±0.01	ina	154	
	Nucor	NP Series	3.5-6.5	2, 8	0.02	0.05	175, 375	b
MO 24	Glentron	40103	0-6.5	2	0.5	0.5	227	b
	Glentron	70101	0-6.5	3	0.1	0.1	265	b
	Con Cir	6.6A Series	6.6	0.1-4	±0.05	±0.05	75-260	g
	Con Cir	6.6B Series	6.6	0.1-4	±0.5	±0.5	70-250	g
	Abbott	V Series	5.9-6.6	0.8-9.6	±0.2	±0.5	210-305	a
	Ferro	HCV-6	4.9-6.8	1	0.4	0.4	95	b
	Tech Pwr	M-65 Series	6.3-6.9	0.2-25	±0.5	±0.5	50-395	a, b, h, i
	Tech Pwr	M-65A Series	6.3-6.9	0.2-25	±0.05	±0.05	60-415	a, b, h, i
MO 25	Arnold	SCH-6.3	4-6.9	3	1	1	159	
	Ferro	MA-712	7, 12 <sup>1</sup>	0.05	2	2	55	b
	Ferro	M-7	7	0.05	2	2	35	b
	Ferro	MA-7	7 <sup>1</sup>	0.055	1.5	1.5	50	b
	Ferro	MC-7	7	0.175	1.3	1.3	55	b
	Ferro	MCH-7	7	0.3	1.7	1.7	60	b
	Acopian	7B Series	7 <sup>2</sup>	0.1-1.5	0.05	0.05-0.3	60-115	c
	Acopian	7A Series	7 <sup>2</sup>	0.05-2.1	0.5	0.5	45-145	c

## 6-7.5 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 26	Dynage	D6.7 Series	6.4-7	0.2-3	0.5	0.5	55-185	
	Dynage	D6.7A Series	6.4-7	0.2-3	0.05	0.05	65-195	
	ERA	TR Series	6-7	4, 8	±0.05	0.05	270, 310	b
	ERA	SR Series	6-7	4, 8	±0.01	0.05	310, 405	b
	Elcor	AQC6-150	5-7	0.15	0.02	0.02	184	
	Elcor	ATM6-150	5-7	0.15	0.2	0.2	109	
	Trans Dev	TMA-7	5-7	0.25	5 mv	±10 mv	ina	b
	Trans Dev	EM-7	5-7	0.5	±5 mv	±7 mv	ina	b
MO 27	Elasco	M6 Series	5-7	0.1-0.75	0.05	0.05	ina	h
	Trans Dev	STR Series	5-7	0.25-2	±5 mv	±5 mv	ina	b, i
	ERA	SR Series	5-7	0.05, 1, 2	±0.01	0.05	115-195	b
	ERA	ME Series	5-7	0.5, 1, 2	±0.01	0.05	150-205	b
	ERA	TR Series	5-7	0.5, 1, 2	±0.05	0.05	90-165	b
	Elasco	SV6 Series	5-7	1-10	0.05	0.05	ina	h
	PMC	RA Series	5-7 <sup>2</sup>	0.2-25	±0.05	±0.05	60-326	b
	PMC	RB Series	5-7 <sup>2</sup>	0.375-25	±0.5	±0.5	50-316	b
MO 28	ERA	SR Series	5-7	15, 25, 40	±0.01	±0.05	430-645	b
	Behl-Invar	W Series	4-7	1.8-25	15 mv	10 mv	175-440	
	Chalco	7V Series	3-7	5-75	±1	±1	150-520	
	Chalco	7V Series	3-7	5-75	±0.1	±0.1	165-565	
	Lambda	LM201	0-7	0.85	0.05	0.03	79	b
	Kepeco	PAX7-1	0-7	1	0.05	0.05	89	b, d
	Lambda	LM202	0-7	1.7	0.05	0.03	79	b
	Kepeco	PBX7-2	0-7	2	0.01	0.01	105	b, d
MO 29	Lambda	LM225	0-7	4	0.05	0.03	139	b
	ERA	MS Series	0-7	0.5-8	±0.01	0.05	315-595	b, f
	Nucor	NP Series	0-7	1, 2, 4, 8	0.02	0.05	155-375	b
	Lambda	LM234	0-7	8, 3	0.05	0.03	199	b
	Sorensen	QMA6.3-8	5-7.1	0.8	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	75	b
	Con Cir	7.3A Series	7.3	0.1-3	±0.05	±0.05	75-225	g
	Con Cir	7.3B Series	7.3	0.1-3	±0.5	±0.5	70-215	g
	Abbott	V Series	6.6-7.4	0.7-8.4	±0.2	±0.5	205-305	a
MO 30	Con Av	HT7 Series	6.5-7.5	0.5-8	0.25	0.25	65-200	
	Con Av	HT7A Series	6.5-7.5	0.5-8	0.025	0.025	75-215	
	Sorensen	QMA6.3-4.8	5.5-7.5	4.8	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	185	b
	ITI	231B	5-7.5	0.5	±0.02	±0.02	139	b
	ITI	331B	5-7.5	1	±0.02	±0.02	146	b
	ITI	431B	5-7.5	2.5	±0.02	±0.02	155	b
	Sorensen	QMA6.3-2.8	5-7.5	2.8	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	135	b
	ITI	531B	5-7.5	5	±0.02	±0.02	168	b

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

7.5-10 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 31	ITI	631B	5-7.5	10	±0.02	±0.02	188	b
	Tech Pwr	M-65 Series	6.9-7.6	0.2-25	±0.5	±0.5	50-400	a,b,h,i
	Tech Pwr	M-65A Series	6.9-7.6	0.2-25	±0.05	±0.05	60-420	a,b,h,i
	Dynage	D7.3 Series	7-7.7	0.15-3	0.5	0.5	50-185	
	Dynage	D7.3A Series	7-7.7	0.15-3	0.05	0.05	60-195	
	Ferro	M-8	8	0.05	2	2	35	b
	Acopian	8B Series	8 <sup>2</sup>	0.2-1.5	0.05	0.05-0.3	60-125	c
	Acopian	8A Series	8 <sup>2</sup>	0.1-2.1	0.5	0.5	45-150	c
MO 32	Lambda	LMB8	8	3	0.05	0.03	119	b
	Lambda	LMC8	8	4.4	0.05	0.03	139	b
	Perkin	MS8 Series	8	0.6-10	±0.025	±0.025	ina	b,d
	Lambda	LMD8	8	12.2	0.05	0.03	199	b
	Lambda	LME8	8	14	0.05	0.03	269	b
	Lambda	LMF8	8	40	0.05	0.03	425	b
	Lambda	LMG8	8	59	0.05	0.03	525	b
	ERA	TR Series	7-8	4, 8	±0.05	0.05	270, 310	b
MO 33	ERA	SR Series	7-8	4, 8	±0.01	±0.05	310, 405	b
	Elcor	AQC7-150	6-8	0.15	0.02	0.02	184	
	Elcor	ATM7-150	6-8	0.15	0.2	0.2	109	
	Trygon	PS Series	4-8	0.5, 1	0.01	0.01	84, 89	b
	Nucor	NP Series	4-8	1, 2	0.02	0.05	145, 170	b
	Con Cir	8.1A Series	8.1	0.1-3	±0.05	±0.05	75-225	g
	Con Cir	8.1B Series	8.1	0.1-3	±0.5	±0.5	70-215	g
	Abbott	V Series	7.4-8.3	0.63-7.56	±0.2	±0.5	205-300	c
MO 34	Dynage	D8.1 Series	7.7-8.5	0.15-3	0.5	0.5	50-185	
	Dynage	D8.1A Series	7.7-8.5	0.15-3	0.05	0.05	60-195	
	Tech Pwr	M-65 Series	7.6-8.5	0.2-25	±0.5	±0.5	50-405	a,b,h,i
	Tech Pwr	M-65A Series	7.6-8.5	0.2-25	±0.05	±0.05	60-425	a,b,h,i
	Con Av	HT8 Series	7.5-8.5	0.5-8	0.25	0.25	65-200	
	Con Av	HT8A Series	7.5-8.5	0.5-8	0.025	0.025	75-215	
	Nucor	NP Series	5.5-8.5	1, 2, 4, 8	0.02	0.05	145-355	b
	Con Cir	8.9A Series	8.9	0.1-3	±0.05	±0.05	75-225	g
MO 35	Con Cir	8.9B Series	8.9	0.1-3	±0.5	±0.5	70-215	g
	Ferro	M-9	9	0.05	1.6	1.6	35	b
	Plug-In	SPS-2017-P	9	0-0.175	±0.05	±0.1	48	b
	Scint	RW4.0-9	9	0.4	0.05	0.05	89	b
	Scint	PC6-9	9	0.6	2 mv	5 mv	49	
	Scint	RS-5-6-9	9	0.6	0.05	0.05	59	b
	Acopian	9A Series	9 <sup>2</sup>	0.1-2.1	0.5	0.5	45-150	c
	Acopian	9B Series	9 <sup>2</sup>	0.2-2.1	0.05	0.05-0.3	60-125	c

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 36	Lambda	LMB9	9	2.7	0.05	0.03	119	b
	Lambda	LMC9	9	4.2	0.05	0.03	139	b
	Lambda	LMD9	9	11.3	0.05	0.03	199	b
	Lambda	LME9	9	13.5	0.05	0.03	269	b
	Lambda	LMF9	9	38	0.05	0.03	425	b
	Lambda	LMG9	9	58	0.05	0.03	525	b
	ERA	TR Series	8-9	4, 8	±0.05	0.05	270, 310	b
	ERA	SR Series	8-9	4, 8	±0.01	0.05	310, 405	b
MO 37	Elcor	ATM8-150	7-9	0.15	0.2	0.2	100	
	Elcor	AQC8-150	7-9	0.15	0.02	0.02	184	
	Elasco	M8 Series	7-9	0.1-0.75	0.05	0.05	ina	h
	ERA	TR Series	7-9	0.5, 1, 2	±0.05	0.05	105, 180	b
	Elasco	SV8 Series	7-9	1-10	0.05	0.05	ina	h
	PMC	RA Series	7-9 <sup>2</sup>	0.2-25	±0.05	±0.05	60-397	b
	PMC	RB Series	7-9 <sup>2</sup>	0.2-25	±0.5	±0.5	50-377	b
	ERA	SR Series	7-9	0.5, 1, 2	±0.01	0.05	130-210	b
MO 38	ERA	SR Series	7-9	15, 25, 40	±0.01	±0.05	430-645	b
	Tech Pwr	M-65 Series	8.5-9.3	0.2-25	±0.5	±0.5	50-405	a,b,h,i
	Tech Pwr	M-65A Series	8.5-9.3	0.2-25	±0.05	±0.05	60-425	a,b,h,i
	Abbott	V Series	8.3-9.3	0.57-6.48	±0.2	±0.5	205-300	a
	Dynage	D8.9 Series	8.5-9.4	0.15-3	0.5	0.5	50-185	
	Dynage	D8.9A Series	8.5-9.4	0.15-3	0.05	0.05	60-195	
	Con Av	HT9 Series	8.5-9.5	0.5-8	0.25	0.25	65-200	
	Con Av	HT9A Series	8.5-9.5	0.5-8	0.025	0.025	75-215	
MO 39	Nucor	NP Series	6.5-9.5	1, 2, 4, 8	0.02	0.05	145-355	b
	Con Cir	9.8A Series	9.8	0.1-3	±0.05	±0.05	75-230	g
	Con Cir	9.8B Series	9.8	0.1-3	±0.5	±0.5	70-220	g
	ERA	CV10	10	0.015	±1	1	45	b
	ERA	SV10	10	0.015	±0.5	0.5	65	b
	Ferro	SM-10	10	0.04	2	2	40	b
	Ferro	M-10	10	0.05	1.6	1.6	35	b
	Ferro	MSM-10	10	0.05	1	1	60	b
MO 40	Ferro	HM-10	10	0.055	1	1	42	b
	Ferro	MA-10	10 <sup>1</sup>	0.055	1.5	1.5	50	b
	Ferro	MM-10	10 <sup>1</sup>	0.06	1.3	1.3	60	b
	Glentron	21060	10	0.1	±0.001	±0.001	375	a
	Ferro	HMC-10	10 <sup>1</sup>	0.15	1.5	1.5	90	b
	Ferro	MC-10	10	0.175	1.5	1.5	55	b
	Plug-in	SPS-2048-P	10	0-0.175	±0.02	±0.05	50	b
	Ferro	HMJ-10	10 <sup>1</sup>	0.05, 0.025	1.5, 2	1.5, 2	85	b

Notes, abbreviations and manufacturers' index at end of this section.



# Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 41	Atlas	TB 1062	10	0.25	±0.01	±0.01	140	
	Ferro	MCH-10	10	0.3	1.5	1.5	60	b
	PMC	SR-10	10	0.5	50 mv	180 mv	50	b
	PMC	SRA-10	10	0.5	80 mv	100 mv	60	b
	D-B	15-10S	10	0.55	5 mv	5 mv	90	
	PMC	SRA-10-1	10	1	30 mv	100 mv	60	b
	PMC	SR-10-1	10	1	60 mv	200 mv	50	b
	D-B	20-10S	10	1.1	5 mv	5 mv	105	
MO 42	Acopian	10B Series	10 <sup>2</sup>	0.2-1.5	0.05	0.05-0.3	50-125	c
	Glentron	30103	10	2	1	1	149	b
	Acopian	10A Series	10 <sup>2</sup>	0.1-2.1	0.5	0.5	45-150	c
	D-B	30-10S	10	2.25	5 mv	5 mv	140	
	Lambda	LMB10	10	2.6	0.05	0.03	119	b
	Lambda	LMC10	10	4	0.05	0.03	139	b
	Mid-East	SC10-4	10	4	0.05	0.05	198	b
	D-B	41-10S	10	4.8	5 mv	5 mv	160	
MO 43	Trans Dev	GSM10-6	10	6	±5 mv	±10 mv	ina	b
	D-B	51-10S	10	8.6	5 mv	5 mv	225	
	Perkin	MS10 Series	10	0.5-9	±0.025	±0.025	ina	b,d
	Lambda	LMD10	10	10.8	0.05	0.03	199	b
	Lambda	LME10	10	13	0.05	0.03	269	b
	D-B	61-10S	10	16	5 mv	5 mv	290	
	Lambda	LMF10	10	36	0.05	0.03	425	b
	Lambda	LMG10	10	56	0.05	0.03	525	b
MO 44	Trans Dev	GM Series	9-10	0.375-3	0.25	0.25	ina	e
	ERA	TR Series	9-10	4, 8	±0.05	0.05	270, 310	b
	ERA	SR Series	9-10	4, 8	±0.01	0.05	310, 405	b
	Elcor	ATM9-150	8-10	0.15	0.2	0.2	100	
	Trans Dev	GS-10	7-10	0.25	±0.05	±0.1	ina	b
	Trans Dev	STR 10	7-10	0.25	±0.02	±0.05	ina	b
	Trans Dev	TMA-10	7-10	0.25	±0.025	±0.05	ina	b
	Trans Dev	STR 10-5	7-10	0.5	±0.05	±0.1	ina	b,i
MO 45	Trans Dev	EM-10	7-10	0.5	±0.025	±0.05	ina	b
	Numeq	A9	7-10	1.0	±0.01	ina	92	
	Trans Dev	STR Series	7-10	1, 2	±0.05	±0.05	ina	b,i
	Numeq	AS9	7-10	2	±0.01	ina	154	
	Behl-Invar	W Series	7-10	1.5-25	15 mv	10 mv	175-440	
	Trans Dev	SCR-10-3	6-10	2.5	±100 mv	±100 mv	ina	
	Trans Dev	SCR-10-5	6-10	5	±100 mv	±100 mv	ina	
	Nucor	NP Series	6-10	6-10	0.02	0.05	285, 355	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 46	ERA	TR5A	5-10	0.2	±0.5	0.5	60	b
	ERA	ME5P2	5-10	0.2	±0.01	0.05	130	b
	ERA	SR5P2	5-10	0.2	±0.1	0.1	90	b
	ERA	SR5P2R	5-10	0.2	±0.01	0.05	145	b
	Elasco	V8 Series	5-10	0.1-0.5	0.05	0.05	ina	h
	Trans Dev	SM-10	5-10	0.5	±5 mv	±15 mv	ina	b
	PMC	R Series	5-10	0.5, 1	0.05	0.1, 0.3	88, 113	b
	Tech Pwr	SCR-80 Series	5-10	12, 25, 50	±0.5	±0.5	180-330	b,d
MO 47	ERA	MS Series	0-10	0.05, 0.25	±0.01	0.05	220, 285	b,f
	ERA	ME Series	0-10	0.05, 0.25	±0.01	0.05	130, 145	b
	ERA	SR Series	0-10	0.05, 0.25	±0.01	0.05	135, 195	b
	Lambda	LH118S	0-10	4	0.015	0.015	175	b
	Lambda	LH119S	0-10	9	0.015	0.015	289	b
	Con Av	XR5-14	0-10	14	0.02	0.05	315	
	Tech Pwr	R-80 Series	0-10	12, 25	±0.1	±0.3	175, 225	b
	Tech Pwr	SWR-80 Series	0-10	12, 25	±0.01	±0.03	340, 470	b
MO 48	Dynage	D9.8 Series	9.4-10.3	0.15-3	0.5	0.5	50-185	
	Dynage	D9.8A Series	9.4-10.3	0.15-3	0.05	0.05	60-200	
	Tech Pwr	M-65 Series	9.3-10.3	0.2-25	±0.5	±0.5	50-410	a,b,h,i
	Tech Pwr	M-65A Series	9.3-10.3	0.2-25	±0.05	±0.05	60-430	a,b,h,i
	Abbott	V Series	9.3-10.4	0.52-12.60	±0.2	±0.5	195-395	a
	Endevco	4201	9.5-10.5	0.1	0.01	0.02	125	
	Con Av	HT10 Series	9.5-10.5	0.5-8	0.25	0.25	65-200	
	Con Av	HT10A Series	9.5-10.5	0.5-8	0.025	0.025	75-215	
MO 49	Nucor	NP Series	7.5-10.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Sorensen	QMA9-0.55	7.1-10.7	0.55	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	70	b
	Con Cir	10.8A Series	10.8	0.1-3	±0.05	±0.05	75-230	g
	Con Cir	10.8B Series	10.8	0.1-3	±0.5	±0.5	70-220	g
	Acopian	11B Series	11 <sup>2</sup>	0.2-1.5	0.05	0.05-0.3	60-125	c
	Acopian	11A210	11 <sup>2</sup>	2.1	0.5	0.5	150	c
	ERA	TR Series	10-11	4, 8	±0.05	0.05	270, 310	b
	ERA	SR Series	10-11	4, 8	±0.01	0.05	310, 405	b
MO 50	Elcor	AQC10-150	9-11	0.15	0.02	0.02	184	
	Elcor	ATM10-150	9-11	0.15	0.2	0.2	100	
	Elasco	M10 Series	9-11	0.1-1.75	0.05	0.05	ina	h
	ERA	SR Series	9-11	0.5, 1, 2	±0.01	0.05	130, 210	b
	ERA	TR Series	9-11	0.5, 1, 2	±0.05	0.05	105-180	b
	Elasco	SV10 Series	9-11	1-10	0.05	0.05	ina	h
	PMC	RA Series	9-11 <sup>2</sup>	0.2-25	±0.05	±0.05	60-397	b
	PMC	RB Series	9-11 <sup>2</sup>	0.2-25	±0.5	±0.5	50-377	b

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

11-12 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 51	ERA	SR Series	9-11	15, 25, 40	±0.01	±0.05	445-660	b
	ITI	231C	7.5-11	0.4	±0.02	±0.02	139	b
	ITI	331C	7.5-11	0.75	±0.02	±0.02	146	b
	ITI	431C	7.5-11	1.8	±0.02	±0.02	155	b
	ITI	531C	7.5-11	3.7	±0.02	±0.02	168	b
	ITI	631C	7.5-11	7	±0.02	±0.02	188	b
	Chalco	11V Series	5-11	5-75	±1	±1	180-590	
	Chalco	11V Series	5-11	5-75	±0.1	±0.1	205-630	
MO 52	Sorensen	QMA9-2.0	7.5-11.2	2	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	120	b
	Sorensen	QMA9-3.85	7.5-11.2	3.85	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	180	b
	Dynage	D10.8 Series	10.3-11.4	0.1-3	0.5	0.5	50-185	
	Dynage	D10.8A Series	10.3-11.4	0.1-3	0.05	0.05	60-200	
	Tech Pwr	M-65 Series	10.3-11.4	0.2-25	±0.5	±0.5	50-415	a,b,h,i
	Tech Pwr	M-65A Series	10.3-11.4	0.2-25	±0.05	±0.05	60-435	a,b,h,i
	Con Av	HT11 Series	10.5-11.5	0.5-8	0.25	0.25	65-200	
	Con Av	HT11A Series	10.5-11.5	0.5-8	0.025	0.025	75-215	
MO 53	Nucor	NP Series	8.5-11.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Abbott	V Series	10.4-11.6	0.45-10.92	±0.2	±0.5	200-395	a
	Ferro	HCV-10	8.5-11.8	1	0.4	0.4	95	b
	Ferro	MA-122	12, 24 <sup>1</sup>	0.04	1.5	1.5	60	b
	Ferro	MA-122	12, 24 <sup>1</sup>	0.04	1.5	1.5	60	b
	Ferro	SM-12	12	0.04	2	2	40	b
	Ferro	M-12	12	0.045	1.3	1.3	35	b
	Ferro	MSM-12	12	0.05	1	1	60	b
MO 54	Ferro	MA-12	12 <sup>1</sup>	0.055	1.5	1.5	50	b
	Ferro	HM-12	12	0.055	1	1	42	b
	Ferro	MM-12	12 <sup>1</sup>	0.06	1.2	1.2	60	b
	Ferro	HMC-12	12 <sup>1</sup>	0.14	1.5	1.5	90	b
	Ferro	MC-12	12	0.150	1.3	1.3	55	b
	Plug-In	SPS-2010-P	12	0-0.175	±0.05	±0.1	48	b
	Ferro	HMJ-12	12 <sup>1</sup>	0.05, 0.25	1.5, 2	1.5, 2	85	b
	Ferro	MCH-12	12	0.28	1.5	1.5	60	b
MO 55	Trygon	PSD12-300	12	0.3	0.1	0.1	115	b
	Acopian	12C30	12 <sup>2</sup>	0.3	0.05	0.05	75	c
	Eng Elect	ZA-723	12	0.3	0.1	0.1	140	
	Scint	RW3.0-12	12	0.3	0.05	0.05	89	b
	Plug-In	SPS-2025-P	12	0-0.45	±0.05	±0.1	67	b
	Scint	PC5-12	12	0.5	2 mv	5 mv	49	
	Scint	RS-5-5-12	12	0.5	0.05	0.05	59	b
	D-B	15-12S	12	0.5	5 mv	5 mv	90	

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 56	Ferro	MA-712	12, 7 <sup>1</sup>	0.05	2	2	55	b
	Eng Elect	PR-101	12, 6	0.1-1	±3	±3	107	
	Eng Elect	PR-102	12	0.1-1	±3	±3	99	
	Eng Elect	PR-103	12	1	±3	±3	95	
	Eng Elect	ZA721A	12	1	0.16	0.16	120	
	Eng Elect	ZA-735	12	1	0.05	0.1	130	
	D-B	20-12S	12	1	5 mv	5 mv	105	
	Acopian	12B Series	12 <sup>2</sup>	0.2-1.5	0.05	0.05-0.3	60-125	c
MO 57	Pwr Des	UPM-3 Series	12	2	0.04	0.04	147	b
	D-B	30-12S	12	2	5 mv	5 mv	140	
	Atlas	TB1057	12	2	±0.5	±0.5	ina	
	Acopian	12A Series	12 <sup>2</sup>	0.1-2.1	0.5	0.5	45-150	c
	Lambda	LMB12	12	2.4	0.05	0.03	119	b
	Eng Elect	ZA-724	12	3	0.1	0.1	216	
	Trans Dev	AM12	12	3	±0.02	±0.05	ina	e
	Con Cir	12.0A Series	12	0.1-3	±0.05	±0.05	75-235	g
MO 58	Con Cir	12.0B Series	12	0.1-3	±0.5	±0.5	70-220	g
	Lambda	LMC12	12	3.8	0.05	0.03	139	b
	Mid-East	SC12-4	12	4	0.05	0.05	198	b
	D-B	41-12S	12	4.5	5 mv	5 mv	160	
	GE	9T66Y51	12	5	±1	6	135	
	Trans Dev	GSM12-5	12	5	±0.02	±0.05	ina	b
	D-B	51-12S	12	7.8	5 mv	5 mv	225	
	Perkin	MS12 Series	12	0.45-8	±0.025	±0.025	ina	b,d
MO 59	Lambda	LMD12	12	10	0.05	0.03	199	b
	Lambda	LME12	12	12	0.05	0.03	269	b
	Trans Dev	RP-5	12	12	±0.02	±0.05	ina	b
	Burton	TPS Series	12	0.6-12	5 mv	5 mv	105-315	
	D-B	61-12S	12	14.5	5 mv	5 mv	290	
	GE	9T66Y53	12	15	±1	7	162	
	Kepeco	PRM Series	12	10, 15	±1	1, 0.8 v	99, 119	
	Trygon	FT-FTR12-15	12	15	1	1 v	119-149	
MO 60	Tabtron	B12V15ACM	12	15	±2	±2	190	
	Lambda	LMF12	12	30	0.05	0.03	425	b
	Lambda	LMG12	12	48	0.05	0.03	525	b
	ERA	TR Series	11-12	4, 8	±0.05	0.05	255, 295	b
	ERA	SR Series	11-12	4, 8	±0.01	0.05	295, 390	b
	ERA	MS Series	11-12	4, 6, 8	±0.01	0.05	455-595	b,f
	Elcor	AQC11-150	10-12	0.15	0.02	0.02	184	
	Elcor	ATM11-150	10-12	0.15	0.2	0.2	100	

Notes, abbreviations and manufacturers' index at end of this section.



# Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 61	Pwr Des	UPM-1	3-12 <sup>3</sup>	1	0.03	0.03	199	b
	Kepco	PWR12-7	0-12	7	0.005	0.05	209	
	Con Av	HT12A Series	11.5-12.5	0.5-8	0.025	0.025	75-215	
	Con Av	HT12 Series	11.5-12.5	0.5-8	0.25	0.25	65-200	
	Tech Pwr	M-65 Series	11.4-12.5	0.2-25	±0.5	±0.5	50-420	a,b,h,i
	Tech Pwr	M-65A Series	11.4-12.5	0.2-25	±0.05	±0.05	60-440	a,b,h,i
	Nucor	NP Series	9.5-12.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Trygon	PS Series	0-12.5	2, 4	0.01	0.01	160, 175	a
MO 62	Dynage	D12 Series	11.4-12.6	0.1-3	0.5	0.5	50-190	
	Dynage	D12A Series	11.4-12.6	0.1-3	0.05	0.05	85-200	
	Acopian	13B Series	13 <sup>2</sup>	0.2-1	0.05	0.05-0.2	65-95	c
	Acopian	13A Series	13 <sup>2</sup>	0.1-2.1	0.5	0.5	45-150	c
	ERA	TR Series	12-13	4, 8	±0.05	0.05	275, 320	b
	ERA	SR Series	12-13	4, 8	±0.01	0.05	315, 410	b
	Abbott	V Series	11.6-1.3	0.4-19.44	±0.2	±0.5	190-480	a
	Elcor	AQC12-150	11-13	0.15	0.02	0.02	184	
MO 63	Elcor	ATM12-150	11-13	0.15	0.2	0.2	100	
	Elasco	M12 Series	11-13	0.1-0.75	0.05	0.05	ina	h
	ERA	TR Series	11-13	0.5, 1, 2	±0.05	0.05	90-165	b
	ERA	MS Series	11-13	0.5, 1, 2	±0.01	0.05	315-395	b,f
	ERA	ME Series	11-13	0.5, 1, 2	±0.01	0.05	150-205	b
	ERA	SR Series	11-13	0.5, 1, 2	±0.01	0.05	115-195	b
	Elasco	SV12 Series	11-13	1-10	0.05	0.05	ina	h
	Con Av	XR12-11	11-13	11	0.02	0.05	295	
MO 64	PMC	RA Series	11-13 <sup>2</sup>	0.1-25	±0.05	±0.05	55-412	b
	PMC	RB Series	11-13 <sup>2</sup>	0.1-25	±0.5	±0.5	50-392	b
	ERA	SR Series	11-13	15, 25, 40	±0.01	±0.05	445-660	b
	Plug-In	SPS-2052P	9-13	0-0.2	2 mv	5 mv	62	b
	Plug-In	SPS-2052-S	9-13	0-0.2	2 mv	5 mv	63	b
	Con Cir	13.1A Series	13.1	0.1-3	±0.05	±0.05	75-245	g
	Con Cir	13.1B Series	13.1	0.1-3	±0.5	±0.5	70-225	g
	Con Av	HT13 Series	12.5-13.5	0.45-6.5	0.25	0.25	65-200	
MO 65	Con Av	HT13A Series	12.5-13.5	0.45-6.5	0.025	0.025	75-215	
	Tech Pwr	M-65 Series	12.5-13.7	0.1-25	±0.5	±0.5	50-420	a,b,h,i
	Tech Pwr	M-65A Series	12.5-13.7	0.1-25	±0.05	±0.05	55-445	a,b,h,i
	Dynage	D13.2 Series	12.6-13.9	0.075-2	0.5	0.5	50-190	
	Dynage	D13.2A Series	12.6-13.9	0.075-2	0.05	0.05	55-195	
	Acopian	14B Series	14 <sup>2</sup>	0.2-1	0.05	0.05-0.2	65-95	c
	Acopian	14A Series	14 <sup>2</sup>	0.05-2.1	0.5	0.5	45-150	c
	ERA	TR Series	13-14	4, 8	±0.05	0.05	275, 320	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 66	ERA	SR Series	13-14	4, 8	±0.01	0.05	315, 410	b
	Trygon	PS Series	10-14	0.5, 0.9	0.01	0.01	79, 89	b
	Nucor	NP Series	10-14	1, 2, 4, 8	0.02	0.05	145-375	b
	Behl-Invar	W Series	10-14	1.4-25	15 mv	10 mv	175-440	
	Lambda	LM217	8.5-14	2.1	0.05	0.03	119	b
	Lambda	LM226	8.5-14	3.3	0.05	0.03	139	b
	Lambda	LM235	8.5-14	7.7	0.05	0.03	199	b
	Lambda	LM203	0-14	0.45	0.05	0.03	79	b
	Lambda	LM204	0-14	0.9	0.05	0.03	79	b
	Con Cir	14.5B Series	14.5	0.1-3	±0.5	±0.5	70-225	g
MO 67	Con Cir	14.5A Series	14.5	0.05-3	±0.05	±0.05	70-245	g
	Con Av	HT14 Series	13.5-14.5	0.45-6.5	0.25	0.25	65-200	
	Con Av	HT14A Series	13.5-14.5	0.45-6.5	0.025	0.025	75-215	
	Nucor	NP Series	11.5-14.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Ferro	HCV-12	11-14.5	1	0.4	0.4	95	b
	Abbott	V Series	13-14.8	0.36-17.28	±0.2	±0.5	190-480	a
	ERA	CV15	15	0.015	±1	1	45	b
	ERA	SV15	15	0.015	±0.5	0.5	65	b
	Philbrick	PR-30	15 <sup>1</sup>	0.03	0.03	0.03	98	
	Ferro	SM-15	15	0.04	2	2	40	b
MO 68	Ferro	MSM-15	15	0.045	1.5	1.5	60	b
	Ferro	M-15	15	0.045	1.8	1.8	38	b
	Ferro	MA-515	5, 15 <sup>1</sup>	0.05	2	2	55	b
	Ferro	MA-15	15 <sup>1</sup>	0.05	1.5	1.5	50	b
	Ferro	HM-15	15	0.05	1	1	42	b
	Ferro	MM-15	15 <sup>1</sup>	0.055	1	1	60	b
	B-B	501	15	0.1	0.1	0.1	148	
	Plug-In	SPS-2018-P	15	0-0.125	±0.04	±0.08	48	b
	Ferro	HMC-15	15 <sup>1</sup>	0.125	1.5	1.5	90	b
	Ferro	MC-15	15	0.14	1.3	1.3	55	b
MO 69	Acopian	15C15	15 <sup>2</sup>	0.15	0.01	0.05	70	c
	Ferro	HMJ-15	15 <sup>1</sup>	0.05, 0.2	1.5, 2	1.5, 2	85	b
	Scint	RW2.5-15	15	0.25	0.05	0.05	89	b
	Ferro	MCH-15	15	0.28	1.5	1.5	60	b
	Trygon	PSD15-300	15	0.3	0.1	0.1	115	b
	Philbrick	PR-300	15 <sup>1</sup>	0.3	250 μV	250 μV	285	
	Plug-In	SPS-2039-P	15	0-0.35	±0.05	±0.1	67	b
	B-B	503	15	0.4	0.1	0.1	246	
	Scint	PC4-15	15	0.4	2 mv	5 mv	49	
	Scint	RS-5-4-15	15	0.4	0.05	0.05	59	b

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 71	D-B	15-15S	15	0.4	5 mv	5 mv	90	
	D-B	20-15S	15	0.8	5 mv	5 mv	105	
	Pwr Des	UPM-X6	15 <sup>1</sup>	1	0.04	0.04	230	b
	D-B	30-15S	15	1.7	5 mv	5 mv	140	
	Acopian	15B Series	15 <sup>2</sup>	0.1-2	0.05	0.05-0.4	60-160	c
	Lambda	LMB15	15	2.1	0.05	0.03	119	b
	Acopian	15A Series	15 <sup>2</sup>	0.05-2.1	0.5	0.5	45-150	c
	Mid-East	SC15-3	15	3	0.05	0.05	198	b
MO 72	Lambda	LMC15	15	3.4	0.05	0.03	139	b
	D-B	41-15S	15	4	5 mv	5 mv	160	
	Perkin	MS15 Series	15	0.4-6.8	±0.025	±0.025	ina	b,d
	D-B	51-15S	15	7.1	5 mv	5 mv	225	
	Lambda	LMD15	15	9	0.05	0.03	209	b
	Trygon	FT-FTR15-10	15	10	1	900 mv	119-149	
	Lambda	LME15	15	11	0.05	0.03	269	b
	Burton	TPS Series	15	0.575-11	5 mv	5 mv	105-315	
MO 73	D-B	61-15S	15	14.5	5 mv	5 mv	290	
	Lambda	LMF15	15	25	0.05	0.03	425	b
	Lambda	LMG15	15	39	0.05	0.03	525	b
	ERA	TR Series	14-15	4, 8	±0.05	0.05	275, 320	b
	ERA	SR Series	14-15	4, 8	±0.01	0.05	315-410	b
	Elasco	M14 Series	13-15	0.1-0.75	0.05	0.05	ina	h
	ERA	TR Series	13-15	0.5, 1, 2	±0.05	0.05	110-185	b
	ERA	SR Series	13-15	0.5, 1, 2	±0.01	0.05	135-215	b
MO 74	Elasco	SV14 Series	13-15	1-10	0.05	0.05	ina	h
	PMC	RA Series	13-15 <sup>2</sup>	0.1-25	±0.05	±0.05	55-425	b
	PMC	RB Series	13-15 <sup>2</sup>	0.1-25	±0.5	±0.5	50-405	b
	ERA	SR Series	13-15	15, 25, 40	±0.01	±0.05	445-675	b
	Numeq	A12	12-15	0.7	±0.01	ina	92	
	Numeq	AS12	12-15	1.5	±0.01	ina	154	
	Trans Dev	TMA-15	10-15	0.25	±0.025	±0.05	ina	b
	ITI	231D	10-15	0.3	±0.02	±0.02	139	b
MO 75	Trans Dev	STR Series	10-15	0.25, 0.5	±0.02	±0.05	ina	b,i
	Trans Dev	EM-15	10-15	0.5	±0.025	±0.05	ina	b
	Trans Dev	SM-15	10-15	0.5	±5 mv	±15 mv	ina	b
	ITI	331D	10-15	0.6	±0.02	±0.02	146	b
	Elasco	V12 Series	10-15	0.5-0.75	0.05	0.05	ina	h
	Trans Dev	STR15-1	10-15 <sup>6</sup>	1	±0.02	±0.05	ina	b,i
	PMC	R Series	10-15	0.5, 1	0.05	0.1, 0.2	88, 114	b
	ITI	431D	10-15	1.5	±0.02	±0.02	155	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 76	Trans Dev	STR15-2	10-15 <sup>6</sup>	2	±0.02	±0.05	ina	b,i
	Trans Dev	SCR-15-3	10-15	2.5	±100 mv	±100 mv	ina	
	ITI	531D	10-15	3	±0.02	±0.02	168	b
	Trans Dev	SCR-15-5	10-15	5	±100 mv	±100 mv	ina	
	ITI	631D	10-15	6	±0.02	±0.02	188	b
	Grafix	488	6-15	1.2	0.1	0.2	487	
	Endevco	4203	1-15	0.2	0.01	0.01	155	
	Endevco	SR200EP	0-15	0.2	0.01	0.01	172	
MO 77	Kepeco	PAX15-0.75	0-15	0.75	0.05	0.05	89	b,d
	Kepeco	PBX15-1.5	0-15	1.5	0.01	0.01	105	b,d
	Kepeco	PWR15-6	0-15	6	0.005	0.05	209	
	Tech Pwr	M-65 Series	13.7-15.2	0.1-25	±0.5	±0.5	50-420	a,b,h,i
	Tech Pwr	M-65A Series	13.7-15.2	0.1-25	±0.05	±0.05	55-445	a,b,h,i
	Dynage	D14.6 Series	13.9-15.3	0.075-2	0.5	0.5	45-185	
	Dynage	D14.6A Series	13.9-15.3	0.075-2	0.05	0.05	55-195	
	Con Av	HT15 Series	14.5-15.5	0.45-6.5	0.25	0.25	65-200	
MO 78	Con Av	HT15A Series	14.5-15.5	0.45-6.5	0.025	0.025	75-215	
	Nucor	NP Series	12.5-15.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Con Cir	15.8A Series	15.8	0.05-2	±0.05	±0.05	70-245	g
	Con Cir	15.8B Series	15.8	0.1-2	±0.5	±0.5	70-225	g
	Acopian	16B Series	16 <sup>2</sup>	0.1-1	0.05	0.05-0.2	60-100	c
	Acopian	16A Series	16 <sup>2</sup>	0.05-2.1	0.5	0.5	45-150	c
	ERA	TR Series	15-16	4, 8	±0.05	0.05	275, 320	b
	ERA	SR Series	15-16	4, 8	±0.01	0.05	315, 410	b
MO 79	Elcor	AQC15-120	14-16	0.12	0.02	0.02	184	
	Elcor	ATM15-120	14-16	0.12	0.2	0.2	100	
	Con Av	XR15-10	14-16	10	0.02	0.05	295	
	Sorensen	QMA12-0.41	10.7-16	0.41	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	65	b
	Chalco	16V Series	8-16	5-75	±1	±1	215-610	
	Chalco	16V Series	8-16	5-75	±0.1	±0.1	230-690	
	Con Av	HT16 Series	15.5-16.5	0.4-6	0.25	0.25	65-200	
	Con Av	HT16A Series	15.5-16.5	0.4-6	0.025	0.025	75-215	
MO 80	Tech Pwr	M-65 Series	15.2-16.5	0.1-25	±0.5	±0.5	50-420	a,b,h,i
	Tech Pwr	M-65A Series	15.2-16.5	0.1-25	±0.05	±0.05	55-445	a,b,h,i
	Nucor	NP Series	13.5-16.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Abbott	V Series	14.8-16.6	0.32-15.36	±0.2	±0.5	185-470	a
	Sorensen	QMA12-1.5	11.2-16.7	1.5	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	120	b
	Sorensen	QMA12-2.9	11.2-16.7	2.9	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	165	b
	Dynage	D16.1 Series	15.3-16.9	0.075-2	0.5	0.5	45-185	
	Dynage	D16.1A Series	15.3-16.9	0.075-2	0.05	0.05	55-195	

Notes, abbreviations and manufacturers' index at end of this section.



## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 81	Acopian	17B Series	17 <sup>2</sup>	0.2-2	0.05	0.05-0.4	65-160	c
	Acopian	17A Series	17 <sup>2</sup>	0.1-2.1	0.5	0.5	50-150	c
	ERA	TR Series	16-17	4, 8	±0.05	0.05	275, 320	b
	ERA	SR Series	16-17	4, 8	±0.01	0.05	315, 410	b
	Elasco	M16 Series	15-17	0.1-0.75	0.05	0.05	ina	h
	ERA	TR Series	15-17	0.5, 1, 2	±0.05	0.05	110-185	b
	ERA	SR Series	15-17	0.5, 1, 2	±0.01	0.05	135-215	b
	Elasco	SV16 Series	15-17	1-10	0.05	0.05	ina	h
MO 82	PMC	RA Series	15-17 <sup>2</sup>	0.1-25	±0.05	±0.05	55-425	b
	PMC	RB Series	15-17 <sup>2</sup>	0.1-25	±0.5	±0.5	50-405	b
	ERA	SR Series	15-17	15, 25, 40	±0.01	±0.05	445-675	b
	Plug-In	SPS-2053-P	13-17	0-0.175	2 mv	5 mv	62	b
	Plug-In	SPS-2053-S	13-17	0-0.175	2 mv	5 mv	63	b
	Trygon	PS15-800F	13-17	0.8	0.01	0.01	92	b
	Con Cir	17.5B Series	17.5	0.1-2	±0.5	±0.5	70-225	g
	Con Cir	17.5A Series	17.5	0.5-2	±0.05	±0.05	70-245	g
MO 83	Con Av	HT17 Series	16.5-17.5	0.4-6	0.25	0.25	65-200	
	Con Av	HT17A Series	16.5-17.5	0.4-6	0.025	0.025	75-215	
	Nucor	NP Series	14.5-17.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Ferro	M-18	18	0.045	1.5	1.5	40	b
	Ferro	MM-18	18 <sup>1</sup>	0.05	1.2	1.2	65	b
	Ferro	MA-18	18 <sup>1</sup>	0.05	1.5	1.5	58	b
	Ferro	HM-18	18	0.05	1.3	1.3	45	b
	Plug-In	SPS-2019-P	18	0-0.1	±0.04	±0.08	48	b
MO 84	Ferro	MC-18	18	0.14	1.3	1.3	55	b
	Scint	RW2.0-18	18	0.2	0.05	0.05	89	b
	Ferro	MCH-18	18	0.25	1.5	1.5	60	b
	Scint	PC3-18	18	0.3	2 mv	5 mv	49	
	Scint	RS-5-3-18	18	0.3	0.05	0.05	59	b
	Acopian	18B Series	18 <sup>2</sup>	0.1-1	0.5	0.05-0.2	60-100	c
	Trans Dev	RP-7	18	1.2	±0.5	±0.5	ina	b
	Lambda	LMB18	18	1.8	0.05	0.03	119	b
MO 85	Acopian	18A Series	18 <sup>2</sup>	0.05-2.1	0.5	0.5	50-150	c
	Trans Dev	AM18	18	2.5	±0.02	±0.05	ina	e
	Mid-East	SC18-2.9	18	2.9	0.05	0.05	198	b
	Lambda	LMC18	18	3	0.05	0.03	139	b
	GE	9T66Y61	18	5	±1	5	ina	
	Perkin	MS18 Series	18	0.3-5.8	±0.025	±0.025	ina	b,d
	Lambda	LMD18	18	7.9	0.05	0.03	209	b
	Kepeco	PRM Series	18	6.7, 10	±1	1.3, 0.9 v	99, 119	

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 86	Trygon	FT-FTR18-10	18	10	1	900 mv	119-149	
	Lambda	LME18	18	10.5	0.05	0.03	269	b
	Burton	TPS Series	18	0.55-11	5 mv	5 mv	105-315	
	Trans Dev	RP-1	18	12	±0.02	±0.05	ina	b
	Lambda	LMF18	18	23	0.05	0.03	395	b
	Lambda	LMG18	18	32	0.05	0.03	525	b
	ERA	MS Series	17-18	4, 6, 8	±0.01	0.05	455-595	b,f
	ERA	TR Series	17-18	4, 8	±0.05	0.05	260, 305	b
MO 87	ERA	SR Series	17-18	4, 8	±0.01	0.05	300, 395	b
	Numec	A18	15-18	0.62	±0.01	ina	92	
	Numec	AS18	15-18	1.4	±0.01	ina	154	
	Ferro	HCV-15	14-18	0.8	0.4	0.4	95	b
	Behl-Invar	W Series	14-18	1-25	15 mv	10 mv	175-440	
	D-B	110-18	0-18	1	5 mv	5 mv	175	
	Harrison	MOD Series	0-18	0.3, 1, 2.5	0.03	0.03	120-225	b,d
	Con Av	HT18 Series	17.5-18.5	0.4-6	0.25	0.25	65-200	
MO 88	Con Av	HT18A Series	17.5-18.5	0.4-6	0.025	0.025	75-215	
	Tech Pwr	M-65 Series	16.5-18.5	0.1-25	±0.5	±0.5	50-420	a,b,h,i
	Tech Pwr	M-65A Series	16.5-18.5	0.1-25	±0.05	±0.05	55-450	a,b,h,i
	Nucor	NP Series	15.5-18.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Abbott	V Series	16.6-18.6	0.28-13.68	±0.2	±0.5	185-470	a
	Dynage	D17.8 Series	16.9-18.7	0.075-2	0.5	0.5	45-185	
	Dynage	D17.8A Series	16.9-18.7	0.075-2	0.05	0.05	55-195	
	Acopian	19B Series	19 <sup>2</sup>	0.2-2	0.05	0.05-0.4	70-160	c
MO 89	ERA	TR Series	18-19	4, 8	±0.05	0.05	275, 320	b
	ERA	SR Series	18-19	4, 8	±0.01	0.05	315, 410	b
	Elasco	M18 Series	17-19	0.1-0.75	0.05	0.05	ina	h
	ERA	TR Series	17-19	0.5, 1, 2	±0.05	0.05	95-170	b
	ERA	ME Series	17-19	0.5, 1, 2	±0.01	0.05	155-210	b
	ERA	MS Series	17-19	0.5, 1, 2	±0.01	0.05	315-395	b,f
	ERA	SR Series	17-19	0.5, 1, 2	±0.01	0.05	120-200	b
	Elasco	SV18 Series	17-19	1-10	0.05	0.05	ina	h
MO 90	PMC	RA Series	17-19 <sup>2</sup>	0.1-25	±0.05	±0.05	55-430	b
	PMC	RB Series	17-19 <sup>2</sup>	0.1-25	±0.5	±0.5	50-410	b
	ERA	SR Series	17-19	15, 25, 40	±0.01	±0.05	430-675	b
	Con Cir	19.2B Series	19.2	0.1-2	±0.5	±0.5	70-225	g
	Con Cir	19.2A Series	19.2	0.05-2	±0.05	±0.05	70-245	g
	ERA	CV20	20	0.015	±1	1	45	b
	Ferro	SM-20	20	0.04	1.7	1.7	45	b
	Ferro	M-20	20	0.045	1.5	1.5	40	b

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 91	Ferro	MA-20	20 <sup>1</sup>	0.05	1.5	1.5	58	b
	Ferro	MM-20	20 <sup>1</sup>	0.05	1.2	1.2	65	b
	Ferro	HM-20	20	0.05	1.5	1.5	45	b
	Ferro	MC-20	20	0.14	1.3	1.3	55	b
	ERA	SV20P	20	0.015	±0.1	0.1	65	b
	Ferro	HMC-20	20 <sup>1</sup>	0.1	1.5	1.5	90	b
	Plug-In	SPS-2047-P	20	0-0.105	±0.03	±0.06	48	b
	Ferro	MCH-20	20	0.25	1.5	1.5	60	b
MO 92	D-B	15-20S	20	0.35	5 mv	5 mv	90	
	PMC	SR-20	20	0.5	150 mv	180 mv	50	b
	PMC	SRA-20	20	0.5	80 mv	100 mv	60	b
	D-B	20-20S	20	0.65	5 mv	5 mv	105	
	Glenatron	30104	20	1	1	1	149	
	D-B	30-20S	20	1.45	5 mv	5 mv	140	
	Lambda	LMB20	20	1.6	0.05	0.03	119	b
	Acopian	20B Series	20 <sup>2</sup>	0.1-2	0.05	0.05-0.4	60-160	c
MO 93	Acopian	20A Series	20 <sup>2</sup>	0.05-2.1	0.5	0.5	50-150	c
	Trans Dev	AM20	20	2.5	±0.02	±0.05	ina	e
	Lambda	LMC20	20	2.9	0.05	0.03	139	b
	Trans Dev	RP-3	20	3	±0.02	±0.05	ina	b
	D-B	41-20S	20	3.4	5 mv	5 mv	160	
	Trans Dev	RP-12	20	4.5	±0.1	±0.1	ina	b
	Trans Dev	RP-8	20	5	±0.02	±0.05	ina	b
	Trans Dev	GSM20-5	20	5	±0.02	±0.05	ina	b
MO 94	Trans Dev	RP-13	20	6	±0.1	±0.1	ina	b
	D-B	51-20S	20	6.1	5 mv	5 mv	225	
	Lambda	LMD20	20	7.4	0.05	0.03	209	b
	Lambda	LME20	20	10	0.05	0.03	269	b
	D-B	61-20S	20	12.5	5 mv	5 mv	290	
	Lambda	LMF20	20	21	0.05	0.03	395	b
	Lambda	LMG20	20	30	0.05	0.03	525	b
	ERA	TR Series	19-20	4, 8	±0.05	0.05	275, 320	b
MO 95	ERA	SR Series	19-20	4, 8	±0.01	0.05	315, 410	b
	Numec	A20	18-20	0.58	±0.01	ina	92	
	Numec	AS20	18-20	1.3	±0.01	ina	154	
	Con Av	XR18-8.5	17-20	8.5	0.02	0.05	295	
	Trygon	PS18-800F	16-20	0.8	0.01	0.01	92	b
	Nucor	NP Series	16-20	1, 2, 4, 8	0.02	0.05	145-375	b
	Trans Dev	TMA-20	15-20	0.25	±0.025	±0.05	ina	b
	Trans Dev	STR Series	15-20	0.25, 0.5	±0.02	±0.05	ina	b,i

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 96	Elasco	V18-500	15-20	0.5	0.05	0.05	ina	h
	Trans Dev	EM-20	15-20	0.5	±0.025	±0.05	ina	b
	PMC	R Series	15-20	0.5, 1	0.05	0.1, 0.2	94, 114	b
	Trans Dev	STR20-1	15-20 <sup>6</sup>	1	±0.02	±0.05	ina	b,i
	Trans Dev	STR20-2	15-20 <sup>6</sup>	2	±0.02	±0.05	ina	b,i
	Trans Dev	SCR-20-3	15-20	2.5	±100 mv	±100 mv	ina	
	Trans Dev	SCR-20-5	15-20	5	±100 mv	±100 mv	ina	
	ERA	SR10P2	10-20	0.2	±0.1	0.1	90	b
MO 97	ERA	TR10A	10-20	0.2	±0.5	0.5	65	b
	ERA	ME Series	10-20	0.05-0.25	±0.01	0.05	120-140	b
	ERA	MS Series	10-20	0.05, 0.25	±0.01	0.05	220, 285	b,f
	Elasco	V15 Series	10-20	0.1-0.25	0.05	0.05	ina	h
	ERA	SR Series	10-20	0.05, 0.25	±0.01	0.05	130, 145	b
	Tech Pwr	SCR-80 Series	10-20	6-50	±0.5	±0.5	180-440	b,d
	Chalco	20V Series	10-20	5-75	±1	±1	215-695	
	Chalco	20V Series	10-20	5-75	±0.1	±0.1	230-745	
MO 98	Glenatron	40101	6.5-20	1	0.5	0.5	207	b
	Glenatron	40104	6.5-20	2	0.5	0.5	239	b
	Glenatron	70102	6.5-20	2	0.1	0.1	265	b
	PMC	R Series	5-20	0.2, 0.3, 0.4	0.05	0.5-0.7	80-89	b
	Trygon	P20-2	0-20	0.2	0.05	0.05	184	b
	Lambda	LH121S	0-20	2.4	0.015	0.015	159	b
	Trygon	PS Series	0-20	0.4-3	0.01	0.01	90-153	a,b
	Lambda	LH122S	0-20	5.7	0.015	0.015	260	b
MO 99	Trygon	PHR Series	0-20	5, 10	0.01	0.01	255, 325	a
	Trygon	PHR Series	0-20	5, 10	0.01	0.01	255, 325	
	Tech Pwr	R-80 Series	0-20	6, 12, 25	±0.1	±0.3	140-280	b
	Tech Pwr	SWR-80 Series	0-20	6-25	±0.01	±0.03	325-540	b
	Tech Pwr	M-65 Series	18.5-20.2	0.1-25	±0.5	±0.5	50-425	a,b,h,i
	Tech Pwr	M-65A Series	18.5-20.2	0.1-25	±0.05	±0.05	55-450	a,b,h,i
	Nucor	NP Series	17.5-20.5	1, 2, 4, 8	0.02	0.05	145-375	b
	Dynage	D19.6 Series	18.7-20.6	0.075-2	0.5	0.5	45-185	
MO 100	Dynage	D19.6A Series	18.7-20.6	0.075-2	0.05	0.05	55-195	
	Abbott	V Series	18.6-20.8	0.255-12.24	±0.2	±0.5	185-470	a
	Ferro	M-21	21	0.045	1.5	1.5	40	b
	Acopian	21B Series	21 <sup>2</sup>	0.2-1	0.05	0.05-0.2	70-100	c
	Acopian	21A Series	21 <sup>2</sup>	0.1-2.1	0.5	0.5	55-150	c
	ERA	TR Series	20-21	4, 8	±0.05	0.05	275, 320	b
	ERA	SR Series	20-21	4, 8	±0.01	0.05	315, 410	b
	Elasco	M20 Series	19-21	0.1-0.75	0.05	0.05	ina	h

Notes, abbreviations and manufacturers' index at end of this section.



# Here's a Great New Way to Buy Silicon DC Power Modules



MODEL  
LC 322

*Introducing ERA's All-New, Wide-Range  
Variable, 71°C, All-Silicon, Fully Repairable  
DC Power Modules at Exceptionally Low Prices*

ERA's new Value-Engineered DC Transpac® power modules provide, for the first time, all-silicon, high performance DC power in a wide range, variable, *low cost* module.

All units can be set to desired voltages by a simple external tap change and users will find that a single model can serve many voltage requirements. Stocking problems are reduced to a minimum and power module obsolescence is practically eliminated.

#### SPECIFICATIONS

**Input:** 105-125 VAC, 50-400 cps  
**Ripple:** Less than 800 microvolts  
**RMS or .005%**, whichever is greater  
**Line Regulation:** Better than  $\pm 0.01\%$  or 5 mv for full input change  
**Load Regulation:** Better than 0.05% or 8 mv for 0-100% load change  
**Voltage Adjustment:** Taps and screw driver adjustment  
**Short Circuit Protected:** Automatic recovery  
**Vernier Voltage:** External provision  
**Transient Response:** Less than 50 microseconds  
**Operating Temperature:**  $-20^{\circ}\text{C}$  to  $+71^{\circ}\text{C}$  free air, full ratings  
**Maximum Case Temperature:**  $130^{\circ}\text{C}$   
**Temperature Coefficient:** Less than 0.01% per degrees C or 3 millivolts  
**Long-Term Stability:** Within 8 millivolts (8 hours reference)

Output Voltage (DC)	Current 71°C	Size WxDxH (inches)	Weight (lbs.)	Model	Price
4-32	0-750 MA	4 x 4 x 6½	6.2	LC32P7	\$ 89.00
4-32	0-2 amps	5 x 5 x 7	8.5	LC322	\$115.00
4-32	0-5 amps	6¾ x 8½ x 7¼	16.8	LC325	\$179.00
4-32	0-10 amps	8¾ x 9½ x 7½	29.0	LC3210	\$215.00
30-60	0-1 amp	5 x 5 x 7	8.5	LC601	\$145.00

Over-Voltage Protector Option: Add \$35.00 to above prices and Suffix V to Model No. (i.e. LC325V, etc.).

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ON READER-SERVICE CARD CIRCLE 30

## Modular dc supplies

21-24 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 101	ERA	TR Series	19-21	0.5, 1, 2	±0.05	0.05	110-185	b
	ERA	SR Series	19-21	0.5, 1, 2	±0.01	0.05	135-215	b
	Con Av	HT20 Series	19-21	0.35-5.6	0.25	0.25	65-200	
	Con Av	HT20A Series	19-21	0.35-5.6	0.025	0.025	75-215	
	Elasco	SV20 Series	19-21	1-10	0.05	0.05	ina	h
	ERA	SR Series	19-21	15, 25, 40	±0.01	±0.05	445-675	b
	Plug-In	SPS-2054-P	17-21	0-0.15	2 mv	5 mv	62	b
	Plug-In	SPS-2054-S	17-21	0-0.15	2 mv	5 mv	63	b
MO 102	ITI	231E	15-21	0.25	±0.02	±0.02	139	b
	ITI	331E	15-21	0.5	±0.02	±0.02	146	b
	ITI	431E	15-21	1.1	±0.02	±0.02	155	b
	ITI	531E	15-21	2.2	±0.02	±0.02	168	b
	ITI	631E	15-21	5	±0.02	±0.02	188	b
	Kepeco	PAX21-0.5	0-21	0.5	0.05	0.05	89	b,d
	Kepeco	PBX21-1	0-21	1	0.01	0.01	105	b,d
	Con Cir	21.2A Series	21.2	0.05-2	±0.05	±0.05	70-245	g
MO 103	Con Cir	21.2B Series	21.2	0.1-2	±0.5	±0.5	70-225	g
	Nucor	NP Series	18.5-21.5	1, 2, 4, 8	0.02	0.05	145-395	b
	Ferro	MA-22	22 <sup>1</sup>	0.045	1.5	1.5	58	b
	Ferro	M-22	22	0.045	1.5	1.5	40	b
	Ferro	B-224	22, 45 <sup>1</sup>	0.05	1.5	1.5	65	b
	Ferro	MC-22	22	0.13	1.3	1.3	55	b
	Ferro	MCH-22	22	0.25	1.5	1.5	60	b
	Acopian	22B Series	22 <sup>2</sup>	0.1-2	0.05	0.05-0.4	60-160	c
MO 104	Acopian	22A Series	22 <sup>2</sup>	0.05-2.1	0.5	0.5	50-150	c
	ERA	SR Series	21-22	4, 8	±0.01	0.05	315, 410	b
	ERA	TR Series	21-22	4, 8	±0.05	0.05	275, 320	b
	Con Av	HT22 Series	21-22	0.3-5	0.25	0.25	65-200	
	PMC	RA Series	19-22 <sup>2</sup>	0.1-25	±0.05	±0.05	55-430	b
	PMC	RB Series	19-22 <sup>2</sup>	0.1-25	±0.5	±0.5	50-410	b
	Elcor	ATM20-90	18-22	0.09	0.2	0.2	100	
	Elcor	AQC20-90	18-22	0.09	0.02	0.02	184	
MO 105	Behl-Invar	W Series	18-22	1-22	15 mv	10 mv	175-440	
	Trans Dev	SM-22	15-22	0.375	±5 mv	±15 mv	ina	b
	Endevco	4251	0-22	0.025	0.02	ina	175	
	Tech Pwr	M-65 Series	20.2-22.3	0.1-25	±0.5	±0.5	50-435	a,b,h,i
	Tech Pwr	M-65A Series	20.2-22.3	0.1-25	±0.05	±0.05	55-460	a,b,h,i
	Plug-In	SPS-2020-P	22.5	0-0.09	±0.02	±0.05	48	b
	Nucor	NP Series	19.5-22.5	1, 2, 4, 8	0.02	0.05	150-395	b
	Dynage	D21.6 Series	20.6-22.7	0.05-2	0.5	0.5	45-185	

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 106	Dynage	D21.6A Series	20.6-22.7	0.05-2	0.05	0.05	55-195	
	Ferro	M-23	23	0.04	1.5	1.5	40	b
	Ferro	MC-23	23	0.13	1.3	1.3	55	b
	Acopian	23B Series	23 <sup>2</sup>	0.2-1	0.05	0.05-0.2	70-100	c
	Acopian	23A Series	23 <sup>2</sup>	0.1-2.1	0.5	0.5	55-150	c
	ERA	TR Series	22-23	4, 8	±0.05	0.05	275, 320	b
	ERA	SR Series	22-23	4, 8	±0.01	0.05	315, 410	b
	Elasco	M22 Series	21-23	0.1-0.75	0.05	0.05	ina	h
MO 107	ERA	TR Series	21-23	0.5, 1, 2	±0.05	0.05	110-185	b
	ERA	SR Series	21-23	0.5, 1, 2	±0.01	0.05	135-215	b
	Con Av	HT22B Series	21-23	0.3-5	0.025	0.025	75-215	
	Elasco	SV22 Series	21-23	1-10	0.05	0.05	ina	h
	ERA	SR Series	21-23	15, 25, 40	±0.01	±0.05	445-675	b
	Lambda	LM218	13-23	1.5	0.05	0.03	119	b
	Lambda	LM227	13-23	2.3	0.05	0.03	139	b
	Lambda	LM236	13-23	5.8	0.05	0.03	209	b
MO 108	Con Cir	23.3A Series	23.3	0.05-2	±0.05	±0.05	70-255	g
	Con Cir	23.3B Series	23.3	0.1-2	±0.5	±0.5	70-235	g
	Abbott	V Series	20.8-23.3	0.23-11.02	±0.2	±0.5	180-460	a
	Nucor	NP Series	20.5-23.5	1, 2, 4, 8	0.02	0.05	150-395	b
	Ferro	MA-24	24 <sup>1</sup>	0.04	1.3	1.3	58	b
	Ferro	M-24	24	0.04	1.5	1.5	40	b
	Ferro	MM-24	24 <sup>1</sup>	0.045	1.2	1.2	65	b
	Ferro	HM-24	24	0.045	1.5	1.5	45	b
MO 109	Plug-In	SPS-2011-P	24	0-0.09	±0.02	±0.05	48	b
	Ferro	HMC-24	24 <sup>1</sup>	0.1	1.5	1.5	90	b
	Allison	666	24	0.1	±1	2	55	
	Ferro	MC-24	24	0.125	1.3	1.3	55	b
	Scint	RW1.5-24	24	0.15	0.05	0.05	89	b
	Ferro	MCH-24	24	0.225	2	2	60	b
	Plug-In	SPS-2026-P	24	0-0.225	±0.02	±0.05	67	b
	Sorensen	QMA21-0.24	16, 24	0.24	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	65	b
MO 110	Scint	RS-5-2.5-24	24	0.25	0.05	0.05	59	b
	D-B	15-24S	24	0.3	5 mv	5 mv	90	
	D-B	20-24S	24	0.6	5 mv	5 mv	105	
	Pwr Des	UPM-4 Series	24	1	0.04	0.04	147	b
	D-B	30-24S	24	1.25	5 mv	5 mv	140	
	Lambda	LMB24	24	1.3	0.05	0.03	119	b
	Pwr Des	UPM-X2	24	1.5	0.04	0.04	157	b
	Scint	PC2-24	24	2	2 mv	5 mv	49	

Notes, abbreviations and manufacturers' index at end of this section.



# Modular dc supplies

24-26 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 111	Acopian	24B Series	24 <sup>2</sup>	0.05-2	0.05	0.05-0.3	60-160	c
	Acopian	24A Series	24 <sup>2</sup>	0.05-2.1	0.5	0.5	50-150	c
	Mid-East	SC24-2.3	24	2.3	0.05	0.05	198	b
	GE	9T66Y987	24	2.5	±1	6	117	
	Lambda	LMC24	24	2.5	0.05	0.03	139	b
	Trans Dev	AM24	24	2.5	±0.02	±0.05	ina	e
	D-B	41-24S	24	3.1	5 mv	5 mv	160	
	Trans Dev	GSM24-5	24	5	±0.02	±0.05	ina	b
MO 112	Perkin	MS24 Series	24	0.25-5	±0.025	±0.025	ina	b,d
	D-B	51-24S	24	5.4	5 mv	5 mv	225	
	GE	9T66Y988	24	6	±1	5	138	
	Lambda	LMC24	24	6.7	0.05	0.03	219	b
	Trygon	FT-FTR24-8	24	8	1	1 v	119-149	
	Keppo	PRM Series	24	5, 8	±1	1.7, 0.9 v	99, 119	
	Lambda	LME24	24	9	0.05	0.03	269	b
	Burton	TPS Series	24	0.45-9	5 mv	5 mv	105-315	
MO 113	GE	9T66Y989	24	10	±1	5	161	
	D-B	61-24S	24	10.5	5 mv	5 mv	290	
	Lambda	LMF24	24	18	0.05	0.03	380	b
	GE	9T66Y990	24	20	±1	5	210	
	Lambda	LMG24	24	27	0.05	0.03	480	b
	GE	9T66Y991	24	50	±1	5	360	
	ERA	MS Series	23-24	4, 6, 8	±0.01	0.05	455-595	b,f
	ERA	TR Series	23-24	4, 8	±0.05	0.05	260, 305	b
MO 114	ERA	SR Series	23-24	4, 8	±0.01	0.05	300, 395	b
	Ferro	HCV-20	18-24	0.7	0.4	0.4	110	b
	Ferro	MS-242	12-24	0.08	2	2	150	b
	Ferro	MS-248	6.2-24	0.03	2	2	150	b
	Endevco	SR200EHM	0-24	0.2	0.1	0.1	125	
	Keppo	PWR24-4	0-24	4	0.005	0.05	209	
	Tech Pwr	M-65 Series	22.3-24.4	0.1-25	±0.5	±0.5	50-460	a,b,h,i
	Tech Pwr	M-65A Series	22.3-24.4	0.1-25	±0.05	±0.05	60-470	a,b,h,i
MO 115	Nucor	NP Series	21.5-24.5	1, 2, 4, 8	0.02	0.05	150-395	b
	ERA	SV25	25	0.015	±0.1	0.1	70	b
	ERA	CV25	25	0.015	±1	1	45	b
	Ferro	M-25	25	0.04	1.5	1.5	40	b
	Ferro	MA-25	25 <sup>1</sup>	0.04	1.5	1.5	58	b
	Ferro	MC-25	25	0.125	1.3	1.3	55	b
	Acopian	25A Series	25 <sup>2</sup>	0.05-0.7	0.5	0.5	55-80	c
	Acopian	25B Series	25 <sup>2</sup>	0.1-1	0.05	0.05-0.25	65-155	c

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 116	ERA	TR Series	24-25	4, 8	±0.05	0.05	280, 330	b
	ERA	SR Series	24-25	4, 8	±0.01	0.05	320, 410	b
	Elasco	M24 Series	23-25	0.1-0.75	0.05	0.05	ina	h
	ERA	TR Series	23-25	0.5, 1, 2	±0.05	0.05	95-170	b
	ERA	ME Series	23-25	0.5, 1, 2	±0.01	0.05	155-210	b
	ERA	MS Series	23-25	0.5, 1, 2	±0.01	0.05	315-395	b,f
	ERA	SR Series	23-25	0.5, 1, 2	±0.01	0.05	120-200	b
	Con Av	HT24A Series	23-25	0.3-5	0.025	0.025	75-215	
MO 117	Con Av	HT24 Series	23-25	0.3-5	0.25	0.25	65-200	
	Elasco	SV24 Series	23-25	1-10	0.05	0.05	ina	h
	ERA	SR Series	23-25	15, 25, 40	±0.01	±0.05	445-685	b
	Dynage	D23.8 Series	22.7-25	0.05-2	0.5	0.5	45-190	
	Dynage	D23.8A Series	22.7-25	0.05-2	0.05	0.05	55-200	
	PMC	RA Series	22-25 <sup>2</sup>	0.1-25	±0.05	±0.05	55-440	b
	PMC	RB Series	22-25 <sup>2</sup>	0.1-25	±0.5	±0.5	50-420	b
	Trans Dev	TMA-25	20-25	0.25	±0.025	±0.05	ina	b
MO 118	Elasco	V22-500	20-25	0.5	0.05	0.05	ina	h
	PMC	R2025-500	20-25	0.5	0.05	0.05	103	b
	Trans Dev	STR Series	20-25	0.25-0.5	±0.02	±0.05	ina	b,i
	Trans Dev	EM-25	20-25	0.5	±0.025	±0.05	ina	b
	Trans Dev	STR25-1	20-25 <sup>6</sup>	1	±0.02	±0.05	ina	b,i
	Trans Dev	STR25-2	20-25 <sup>6</sup>	2	±0.02	±0.05	ina	b,i
	Trans Dev	SCR-25-3	20-25	2.5	±0.5	±0.5	ina	
	Trans Dev	SCR-25-5	20-25	5	±0.5	±0.5	ina	
MO 119	Sorensen	QMA21-0.86	16.7-25	0.86	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	90	b
	Sorensen	QMA21-1.7	16.7-25	1.7	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	145	b
	Acopian	C-525	5-25 <sup>2</sup>	0.1	0.05	0.1	75	
	Acopian	C-125	1-25 <sup>2</sup>	0.1	0.5	0.5	60	
	Harrison	801C	0-25	0.2	2 mv	2 mv	149	
	Con Cir	25.7A Series	25.7	0.05-2	±0.05	±0.05	70-255	g
	Con Cir	25.7B Series	25.7	0.1-2	±0.5	±0.5	70-235	g
	Ferro	M-26	26	0.04	1.5	1.5	40	b
MO 120	Ferro	MC-26	26	0.125	1.3	1.3	55	
	Ferro	MCH-26	26	0.225	2	2	60	b
	D-B	15-26S	26	0.275	5 mv	5 mv	90	
	D-B	20-26S	26	0.55	5 mv	5 mv	105	
	D-B	30-26S	26	1.1	5 mv	5 mv	140	
	Acopian	26A Series	26 <sup>2</sup>	0.05-2	0.5	0.5	55-165	c
	Acopian	26B Series	26 <sup>2</sup>	0.1-2	0.05	0.05-0.3	65-175	c
	D-B	41-26S	26	2.9	5 mv	5 mv	160	

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

26-28.8 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 121	D-B	51-26S	26	5	5 mv	5 mv	245	
	D-B	61-26S	26	10	5 mv	5 mv	315	
	ERA	TR Series	25-26	4, 8	±0.05	0.05	280, 330	b
	ERA	SR Series	25-26	4, 8	±0.01	0.05	320, 410	b
	Numecc	A25	24-26	0.48	±0.01	ina	92	
	Numecc	AS25	24-26	1.2	±0.01	ina	154	
	Trygon	PS24-700F	22-26	0.7	0.01	0.01	92	b
Con Av	XR24-7	22-26	7	0.02	0.05	295		
MO 122	Nucor	NP Series	22-26	1, 2, 4, 8	0.02	0.05	150-395	b
	Abbott	V Series	23.3-26.1	0.205-9.84	±0.2	±0.5	180-460	a
	Nucor	NP Series	23.5-26.5	1, 2, 4, 8	0.02	0.05	150-395	b
	Tech Pwr	M-65 Series	24.4-26.8	0.1-25	±0.5	±0.5	50-460	a,b,h,i
	Tech Pwr	M-65A Series	24.4-26.8	0.1-25	±0.05	±0.05	60-485	a,b,h,i
	Ferro	M-27	27	0.04	1.5	1.5	40	b
	Ferro	MM-27	27 <sup>1</sup>	0.045	1	1	65	b
Ferro	HMC-27	27 <sup>1</sup>	0.1	1.5	1.5	90	b	
MO 123	Ferro	MC-27	27	0.125	1.3	1.3	55	b
	Ferro	MCH-27	27	0.2	2	2	60	b
	Acopian	27A Series	27 <sup>2</sup>	0.1-0.7	0.5	0.5	60-80	c
	Acopian	27B Series	27 <sup>2</sup>	0.2-1.5	0.05	0.05-0.25	70-150	c
	ERA	TR Series	26-27	4, 8	±0.05	0.05	280, 330	b
	ERA	SR Series	26-27	4, 8	±0.01	0.05	320, 410	b
	ERA	SR Series	25, 27	0.5, 1, 2	±0.01	0.05	135, 220	b
	Elasco	M26 Series	25-27	0.1-0.75	0.05	0.05	ina	h
MO 124	ERA	TR Series	25-27	0.5, 1, 2	±0.05	0.05	110-190	b
	Con Av	HT26 Series	25-27	0.25-4.4	0.25	0.25	65-200	
	Con Av	HT26A Series	25-27	0.25-4.4	0.025	0.025	75-215	
	Elasco	SV26 Series	25-27	1-10	0.05	0.05	ina	h
	ERA	SR Series	25-27	15, 25, 40	±0.01	±0.05	445-685	b
	Elcor	AQC25-75	23-27	0.075	0.02	0.02	184	
	Elcor	ATM25-75	23-27	0.075	0.2	0.2	100	
Behl-Invar	W Series	22-27	0.8-21	15 mv	10 mv	175-440		
MO 125	Nucor	NP Series	24.5-27.5	1, 2, 4, 8	0.02	0.05	150-395	b
	Dynage	D26.2 Series	25-27.6	0.05-2	0.5	0.5	45-190	
	Dynage	D26.2A Series	25-27.6	0.05-2	0.05	0.05	55-200	
	Ferro	M-28	28	0.04	1.5	1.5	40	b
	Ferro	MM-28	28 <sup>1</sup>	0.045	1.4	1.4	65	b
	Ferro	HM-28	28	0.045	1.5	1.5	45	b
	Plug-In	SPS-2021-P	28	0-0.075	±0.02	±0.05	48	b
Ferro	HMC-28	28 <sup>1</sup>	0.1	1.5	1.5	90	b	

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 126	Ferro	MC-28	28	0.125	1.3	1.3	55	b
	Ferro	MCH-28	28	0.2	2	2	60	b
	D-B	15-28S	28	0.275	5 mv	5 mv	90	
	D-B	20-28S	28	0.55	5 mv	5 mv	105	
	D-B	30-28S	28	1.1	5 mv	5 mv	140	
	Lambda	LMB28	28	1.2	0.05	0.03	119	b
	Acopian	28A Series	28 <sup>2</sup>	0.05-2	0.5	0.5	55-165	c
Acopian	28B Series	28 <sup>2</sup>	0.1-2	0.05	0.05-0.3	65-175	c	
MO 127	Mid-East	SM28-2	28	2	0.5	0.5	88	
	Trans Dev	AM28	28	2	±0.02	±0.05	ina	e
	Microdot	ACPS-1	28	2	ina	±1	ina	
	Mid-East	SC28-2.1	28	2.1	0.05	0.05	198	b
	Lambda	LMC28	28	2.3	0.05	0.03	139	b
	Lambda	LMD28	28	6	0.05	0.03	219	b
	D-B	41-28S	28	2.8	5 mv	5 mv	160	
Mid-East	SM28-4	28	4	0.5	0.5	250		
MO 128	Perkin	MS28 Series	28	0.23-4.4	±0.025	±0.025	ina	b,d
	D-B	51-28S	28	4.9	5 mv	5 mv	225	
	Trans Dev	GSM28-5	28	5	±0.02	±0.05	ina	b
	Grafix	271	28	6	0.05	5	280	
	Trygon	FT-FTR28-7	28	7	1	900 mv	119-149	
	Kepeco	PRM Series	28	4.3, 7	±1	2, 0.9 v	99, 119	
	GE	9T66Y83	28	8	±1	5	153	
Trans Dev	RP-10	28	8	±0.02	±0.05	ina	b	
MO 129	Burton	TPS Series	28	0.4-8	5 mv	5 mv	105-315	
	Lambda	LME28	28	8.5	0.05	0.03	269	b
	D-B	61-28S	28	9.5	5 mv	5 mv	290	
	Tabtron	B28V15ARM	28	15	±5	±5	189	
	Lambda	LMF28	28	17	0.05	0.03	380	b
	Lambda	LMG28	28	25	0.05	0.03	480	b
	Tabtron	B28V30ARM	28	30	±5	±5	333	
ERA	MS Series	27, 28	4, 6, 8	±0.01	0.05	455-595	b,f	
MO 130	ERA	TR Series	27-28	4, 8	±0.05	0.05	265, 315	b
	ERA	SR Series	27-28	4, 8	±0.01	0.05	305, 395	b
	PMC	RA Series	25-28 <sup>2</sup>	0.1-2	±0.05	±0.05	60-330	b
	PMC	RB Series	25-28 <sup>2</sup>	0.1-2	±0.5	±0.5	55-315	b
	Acopian	M-2028	20-28 <sup>2</sup>	0.5	0.05	0.1	80	
	Kepeco	PWR28-3.3	0-28	3.3	0.005	0.05	209	
	Con Cir	28.8A Series	28.8	0.05-2	±0.05	±0.05	70-255	g
Con Cir	28.8B Series	28.8	0.1-2	±0.5	±0.5	70-235	g	

Notes, abbreviations and manufacturers' index at end of this section.



## Modular dc supplies

29-30 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 131	Acopian	29A Series	29 <sup>2</sup>	0.1-0.4	0.5	0.5	60-70	c
	Acopian	29B Series	29 <sup>2</sup>	0.2-1	0.05	0.05-0.15	70-105	c
	ERA	TR Series	28-29	4, 8	±0.05	0.05	280, 330	b
	ERA	SR Series	28-29	4, 8	±0.01	0.05	320, 480	b
	Elasco	M28 Series	27-29	0.1-0.75	0.05	0.05	ina	h
	ERA	TR Series	27-29	0.5, 1, 2	±0.05	0.05	95-175	b
	ERA	ME Series	27-29	0.5, 1, 2	±0.01	0.05	155-215	b
	ERA	MS Series	27-29	0.5, 1, 2	±0.01	0.05	315-395	b,f
MO 132	ERA	SR Series	27-29	0.5, 1, 2	±0.01	0.05	120-205	b
	Con Av	HT28A Series	27-29	0.25-4.4	0.025	0.025	75-215	
	Con Av	HT28 Series	27-29	0.25-4.4	0.25	0.25	65-200	
	Elasco	SV28 Series	27-29	1-10	0.05	0.05	ina	h
	ERA	SR Series	27-29	15, 25, 40	±0.01	±0.05	445-685	b
	Acopian	C-1529	15-29 <sup>2</sup>	0.2	0.05	0.1	75	
	Acopian	M-1529	15-29 <sup>2</sup>	0.3	0.05	0.1	80	
	Tech Pwr	M-65 Series	26.8-29.2	0.1-25	±0.5	±0.5	50-470	a,b,h,i
MO 133	Tech Pwr	M-65A Series	26.8-29.2	0.1-25	±0.05	±0.05	60-495	a,b,h,i
	Abbott	V Series	26.1-29.2	0.18-8.64	±0.2	±0.5	175-445	a
	Nucor	NP Series	26.5-29.5	1, 2, 4, 8	0.02	0.05	150-395	
	Nucor	NP 288	26.5-29.5	8	0.02	0.05	395	b
	ERA	SV30	30	0.015	±0.5	0.5	70	b
	ERA	CV30	30	0.015	±1	1	45	b
	Ferro	SM-30	30	0.03	2.5	2.5	45	b
	Ferro	M-30	30	0.04	1.5	1.5	40	b
MO 134	Ferro	MM-30	30 <sup>1</sup>	0.045	1.4	1.4	65	b
	Ferro	HM-30	30	0.045	1.5	1.5	45	b
	Ferro	MC-30	30	0.1	1.5	1.5	55	b
	Scint	PC1-30	30	0.1	2 mv	5 mv	49	
	Scint	RW1.0-30	30	0.1	0.05	0.05	89	b
	Ferro	MCH-30	30	0.175	2	2	60	b
	Scint	RS-5-2-30	30	0.2	0.05	0.05	59	b
	D-B	15-30S	30	0.225	5 mv	5 mv	90	
MO 135	Acopian	30A Series	30 <sup>2</sup>	0.1-0.4	0.5	0.5	60-70	c
	Glentron	30105	30	0.5	1	1	149	
	Trygon	FT-FTR300-500	30	0.5	1	10 v	119-149	
	D-B	20-30S	30	0.5	5 mv	5 mv	105	
	PMC	SR-30	30	0.5	200 mv	180 mv	50	b
	PMC	SRA-30	30	0.5	90 mv	60 mv	60	b
	D-B	30-30S	30	0.975	5 mv	5 mv	140	
	Pwr Des	UPM-X1	30	1	0.04	0.04	147	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 136	Acopian	30B Series	30 <sup>2</sup>	0.05-2	0.05	0.05-0.3	60-175	c
	Trans Dev	AM30	30	2	±0.02	±0.05	ina	e
	D-B	41-30S	30	2.6	5 mv	5 mv	175	
	Trans Dev	GSM30-4	30	4	±0.02	±0.05	ina	b
	D-B	51-30S	30	4.6	5 mv	5 mv	245	
	D-B	61-30S	30	9	5 mv	5 mv	315	
	ERA	TR Series	29-30	4, 8	±0.05	0.05	280, 330	b
	ERA	SR Series	29-30	4, 8	±0.01	0.05	320-410	b
MO 137	Ferro	HCV-28	26-30	0.6	0.25	0.25	110	b
	Elcor	AQC28-70	26-30	0.07	0.02	0.02	184	
	Nucor	NP Series	26-30	1, 2, 4	0.02	0.05	150-295	b
	Con Av	XR28-7	26-30	7	0.02	0.05	295	
	Trygon	PS28-600F	26-30	0.6	0.01	0.01	85	b
	Trans Dev	TMA-30	25-30	0.25	±0.025	±0.05	ina	b
	Elasco	V28-500	25-30	0.5	0.05	0.05	ina	h
	Trans Dev	STR Series	25-30	0.25-0.5	±0.02	±0.05	ina	b,i
MO 138	Acopian	M-2530	25-30 <sup>2</sup>	0.5	0.05	0.1	80	
	PMC	R2530-500	25-30	0.5	0.05	0.03	103	b
	Trans Dev	EM-30	25-30	0.5	±0.025	±0.05	ina	b
	Trans Dev	STR30-1	25-30 <sup>6</sup>	1	±0.02	±0.05	ina	b,i
	Trans Dev	STR30-2	25-30 <sup>6</sup>	2	±0.02	±0.05	ina	b,i
	Trans Dev	SCR-30-3	25-30	2.5	±0.5	±0.5	ina	
	Trans Dev	SCR-30-5	25-30	5	±0.5	±0.5	ina	
	ITI	231F	21-30	0.15	±0.02	±0.02	139	b
MO 139	ITI	331F	21-30	0.3	±0.02	±0.02	146	b
	ITI	431F	21-30	0.75	±0.02	±0.02	155	b
	ITI	531F	21-30	1.5	±0.02	±0.02	168	b
	ITI	631F	21-30	3	±0.02	±0.02	188	b
	ERA	TR20A	20-30	0.15	±0.5	0.5	70	b
	ERA	SR20P1	20-30	0.15	±0.1	0.1	90	b
	Elasco	V25 Series	20-30	0.05-0.25	0.05	0.05	ina	h
	ERA	ME Series	20-30	0.05-0.25	±0.01	0.05	120-140	b
MO 140	ERA	MS Series	20-30	0.05, 0.25	±0.01	0.05	220, 285	b,f
	ERA	SR Series	20-30	0.05-0.25	±0.01	0.05	130-145	b
	Acopian	C-130	1-30 <sup>2</sup>	0.05	0.5	0.5	60	
	Endevco	4204	1-30	0.1	0.01	0.01	160	
	Endevco	SR1000EP	0-30	1	0.01	0.01	395	
	Trans Dev	VSTR30-2	0-30	2	±0.02	±0.05	ina	b
	ERA	SR Series	0-30	0.5-8	±0.01	±0.02	150-410	b

Notes, abbreviations and manufacturers' index at end of this section.



## Modular dc supplies

30.4-35 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 141	Dynage	D29 Series	27.6-30.4	0.05-2	0.5	0.5	45-190	
	Dynage	D29A Series	27.6-30.4	0.05-2	0.05	0.05	55-200	
	Nucor	NP Series	27.5-30.5	1, 2, 4, 8	0.02	0.05	150-395	b
	Acopian	31A20	31 <sup>2</sup>	0.2	0.5	0.5	65	c
	Acopian	31B Series	31	0.1-0.9	0.05	0.05-0.15	65-105	c
	ERA	SR Series	30-31	4, 8	±0.01	0.05	320, 410	b
	ERA	TR Series	30-31	4, 8	±0.05	0.05	280, 330	b
	Endevco	4202	29-31	0.1	0.01	0.02	125	
MO 142	Elasco	M30 Series	29-31	0.1-0.75	0.05	0.05	ina	h
	ERA	SR Series	29-31	0.5, 1, 2	±0.01	0.05	135-220	b
	ERA	TR Series	29-31	0.5, 1, 2	±0.05	0.05	110-190	b
	Con Av	HT30 Series	29-31	0.2-4	0.25	0.25	65-200	
	Con Av	HT30A Series	29-31	0.2-4	0.025	0.025	75-215	
	Elasco	SV30 Series	29-31	1-10	0.05	0.05	ina	h
	ERA	SR Series	29-31	15, 25, 40	±0.01	±0.05	445-685	b
	Con Cir	31.5A Series	31.5	0.05-2	±0.05	±0.05	70-255	g
MO 143	Con Cir	31.5B Series	31.5	0.1-2	±0.5	±0.5	70-235	g
	Nucor	NP Series	28.5-31.5	1, 2, 4, 8	0.02	0.05	155-395	b
	Acopian	32A10	32 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	32B Series	32 <sup>2</sup>	0.1-1.5	0.05	0.05-0.3	65-175	c
	Mid-East	SC32-1.9	32	1.9	0.05	0.05	198	b
	Perkin	MS32 Series	32	0.18-4	±0.025	±0.025	ina	b,d
	ERA	MS324	31-32	4	±0.01	0.05	455	b,f
	ERA	SR Series	31-32	4, 8	±0.01	0.05	305, 395	b
MO 144	ERA	TR Series	31-32	4, 8	±0.05	0.05	265, 315	b
	Con Av	HT31 Series	30-32	0.2-4	0.25	0.25	65-200	
	Con Av	HT31A Series	30-32	0.2-4	0.025	0.025	75-215	
	Numec	A30	28-32	0.4	±0.01	ina	92	
	Elcor	ATM30-65	28-32	0.065	0.2	0.2	100	
	Elcor	AQC30-65	28-32	0.065	0.02	0.02	184	
	Numec	AS30	28-32	1.0	±0.01	ina	154	
	PMC	RA Series	28-32 <sup>2</sup>	0.05-12	±0.05	±0.05	55-340	b
MO 145	PMC	RB Series	28-32 <sup>2</sup>	0.05-12	±0.5	±0.5	50-325	b
	Tech Pwr	M-65A Series	28-32	0.375-25	±0.05	±0.05	50-295	a,b,h,i
	Behl-Invar	W Series	27-32	0.8-20	15 mv	10 mv	175-440	
	Lambda	LM219	22-32	1.2	0.05	0.03	119	b
	Lambda	LM228	22-32	2	0.05	0.03	139	b
	Lambda	LM237	22-32	5	0.05	0.03	219	b
	Trans Dev	SM-32	22-32	0.25	±5 mv	±15 mv	ina	b
	Lambda	LM205	0-32	0.25	0.05	0.03	79	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 146	Lambda	LM206	0-32	0.5	0.05	0.03	79	b
	Trygon	P32-1.5	0-32	1.5	0.05	0.05	184	b
	Trygon	PS Series	0-32	1.25, 2.5	0.01	0.01	165, 180	a,b
	Nucor	NP Series	29.5-32.5	1, 2, 4, 8	0.02	0.05	155-399	b
	Abbott	V Series	29.2-32.6	0.16-7.68	±0.2	±0.5	190-470	a
	Tech Pwr	M-65 Series	29.2-32.7	0.05-12	±0.5	±0.5	50-365	a,b,h,i
	Tech Pwr	M-65A Series	29.2-32.7	0.05-12	±0.05	±0.05	55-390	a,b,h,i
	ERA	SR334	32-33	4	±0.01	0.05	360	b
MO 147	Elasco	M32 Series	31-33	0.1-0.75	0.05	0.05	ina	h
	ERA	ME Series	31-33	0.5, 1, 2	±0.01	0.05	155, 215	b
	ERA	MS Series	31-33	0.5, 1, 2	±0.01	0.05	315-395	b,f
	ERA	SR Series	31-33	0.5, 1, 2	±0.01	0.05	120-205	b
	ERA	TR Series	31-33	0.5, 1, 2	±0.05	0.05	95-175	b
	Elasco	SV32 Series	31-33	1-10	0.05	0.05	ina	h
	Arnold	SCH-30	15-33	0.65	1	1	159	
	Chalco	33V Series	15-33	5-50	±1	±1	220-625	
MO 148	Chalco	33V Series	15-33	5-50	±0.1	±0.1	235-670	
	Dynage	D32 Series	30.4-33.6	0.05-1.5	0.5	0.5	50-155	
	Dynage	D32A Series	30.4-33.6	0.05-1.5	0.05	0.05	60-165	
	Acopian	34A10	34 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	34B Series	34 <sup>2</sup>	0.1-1.5	0.05	0.05-0.3	65-175	c
	ERA	SR344	33-34	4	±0.01	0.05	360	b
	Nucor	NP Series	30-34	30-34	0.02	0.05	155-399	b
	Acopian	G-2734	27-34 <sup>2</sup>	0.7	0.05	0.2	98	
MO 149	Con Cir	34.5A Series	34.5	0.05-2	±0.05	±0.05	70-255	g
	Con Cir	34.5B Series	34.5	0.1-2	±0.5	±0.5	70-235	g
	Nucor	NP Series	31.5-34.5	1, 2, 4	0.02	0.05	155-305	b
	Ferro	M-35	35	0.035	1.5	1.5	42	b
	Acopian	35A10	35 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	35B Series	35 <sup>2</sup>	0.1	0.05	0.05-0.15	65-105	c
	Trans Dev	RP-14	35	0.8	±0.1	±0.1	ina	b
	ERA	SR354	34-35	4	±0.01	0.05	360	b
MO 150	Elasco	M34 Series	33-35	0.1-0.75	0.05	0.05	ina	h
	ERA	SR Series	33-35	0.5, 1, 2	±0.01	0.05	165-255	b
	Elasco	SV34 Series	33-35	1-5	0.05	0.05	ina	h
	Trans Dev	TMA-35	30-35	0.2	±0.025	±0.05	ina	b
	Elasco	V32-250	30-35	0.25	0.05	0.05	ina	h
	Trans Dev	EM-35	30-35	0.35	±0.025	±0.05	ina	b
	PMC	R3035-500	30-35	0.5	0.05	0.025	116	b
	Trans Dev	RP-2	30-35	0.6	±0.02	±0.02	ina	b

Notes, abbreviations and manufacturers' index at end of this section.



# Modular dc supplies

35-40 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 151	Acopian	L-2535	25-35 <sup>2</sup>	0.1	0.05	0.05	75	
	Acopian	G-2535	25-35 <sup>2</sup>	0.6	0.05	0.02	98	
	PMC	R2035-300	20-35	0.3	0.05	0.05	87	b
	Nucor	NP Series	32.5-35.5	1, 2, 4	0.02	0.05	185-305	
	Acopian	36A10	36 <sup>2</sup>	0.1	0.5	0.5	60	c
	Pwr Des	UPM-4 Series	36	0.5	0.04	0.04	147	b
	Lambda	LMB36	36	1.1	0.05	0.03	129	b
	Acopian	36B Series	36 <sup>2</sup>	0.1-1.5	0.05	0.05-0.3	65-175	c
MO 152	Mid-East	SC36-1.7	36	1.7	0.05	0.05	198	b
	Lambda	LMC36	36	2	0.05	0.03	149	b
	Perkin	MS36 Series	36	0.15-3.6	±0.025	±0.025	ina	b,d
	Kepeco	PRM Series	36	3.3, 5	±1	2.4, 1.3 v	99, 119	
	Lambda	LMD36	36	5.4	0.05	0.03	239	b
	Burton	TPS Series	36	0.3-6	5 mv	5 mv	105-315	
	Lambda	LME36	36	6.8	0.05	0.03	279	b
	Lambda	LMF36	36	13	0.05	0.03	395	b
MO 153	Lambda	LMG36	36	22	0.05	0.03	525	b
	ERA	SR364	35-36	4	±0.01	0.05	360	b
	Numec	A36	32-36	0.33	±0.01	ina	92	
	Numec	AS36	32-36	0.8	±0.01	ina	154	
	Con Av	XR34-5.5	32-36	5.5	0.02	0.05	295	
	PMC	RA Series	32-36 <sup>2</sup>	0.05-12	±0.05	±0.05	55-365	b
	PMC	RB Series	32-36 <sup>2</sup>	0.05-12	±0.5	±0.5	50-345	b
	Sorensen	QMA28-0.18	24-36	0.18	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	60	b
MO 154	Glenron	40102	20-36	1	0.5	0.5	212	b
	Glenron	70103	20-36	1	0.1	0.1	265	b
	Glenron	40105	20-36	2	0.5	0.5	245	b
	Pwr Des	UPM-5	0-36	0.5	0.04	0.04	147	b
	D-B	110-36	0-36	0.5	5 mv	5 mv	175	
	Harrison	Mod Series	0-36	0.15-1.5	0.02	0.02	120-225	b,d
	Kepeco	PAX36-0.3	0-36	0.3	0.05	0.05	89	b,d
	Tech Pwr	M-65 Series	32.7-36.2	0.05-12	±0.5	±0.5	50-375	a,b,h,i
MO 155	Tech Pwr	M-65A Series	32.7-36.2	0.05-12	±0.05	±0.05	55-400	a,b,h,i
	Nucor	NP Series	33.5-36.5	1, 2, 4	0.02	0.05	185-310	b
	Abbott	V Series	32.6-36.5	0.145-6.96	±0.2	±0.5	210-490	a
	Acopian	37A10	37 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	37B Series	37 <sup>2</sup>	0.1-0.8	0.05	0.05-0.15	65-105	c
	ERA	SR374	36-37	4	±0.01	0.05	360	b
	Elasco	M36 Series	35-37	0.1-0.75	0.05	0.05	ina	h
	ERA	SR Series	35-37	0.5, 1, 2	±0.01	0.05	165-255	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 156	Elasco	SV36 Series	35-37	1-5	0.05	0.05	ina	h
	Dynage	D35.2 Series	33.6-37	0.05-1.5	0.5	0.5	50-160	
	Dynage	D35.2A Series	33.6-37	0.05-1.5	0.05	0.05	60-170	
	Elcor	ATM35-55	33-37	0.055	0.2	0.2	100	
	Con Av	HT35 Series	33-37	0.28-3.6	0.25	0.25	77-215	
	Con Av	HT35A Series	33-37	0.28-3.6	0.025	0.025	87-230	
	Behl-Invar	W Series	32-37	0.7-18	15 mv	10 mv	175-440	
	Sorensen	QMA28-0.64	25-37	0.64	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	90	b
MO 157	Sorensen	QMA28-1.25	25-37	1.25	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	120	b
	Nucor	NP Series	34.5-37.5	1, 2, 4	0.02	0.05	185-310	b
	Acopian	38A10	38 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	38B Series	38 <sup>2</sup>	0.1-0.7	0.05	0.05-0.1	65-105	c
	Con Cir	38.0A Series	38	0.05-2	±0.05	±0.05	70-255	g
	Con Cir	38.0B Series	38	0.1-2	±0.5	±0.5	70-235	g
	ERA	SR384	37-38	4	±0.01	0.05	360	b
	Elcor	AQC36-55	34-38	0.055	0.02	0.02	184	
MO 158	Nucor	NP Series	35.5-38.5	1, 2, 4	0.02	0.05	185-310	b
	Acopian	39A10	39 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	39B Series	39 <sup>2</sup>	0.1-0.6	0.05	0.05-0.1	65-105	c
	ERA	SR394	38-39	4	±0.01	0.05	360	b
	Elasco	M38 Series	37-39	0.1-0.75	0.05	0.05	ina	h
	ERA	SR Series	37-39	0.5, 1, 2	±0.01	0.05	165-255	b
	Elasco	SV38 Series	37-39	1-5	0.05	0.05	ina	h
	Nucor	NP Series	36.5-39.5	1, 2, 4	0.02	0.05	185-310	b
MO 159	Ferro	M-40	40	0.035	1.5	1.5	42	b
	Acopian	40A10	40 <sup>2</sup>	0.1	0.5	0.5	60	c
	D-B	15-40S	40	0.175	5 mv	5 mv	100	
	D-B	20-40S	40	0.375	5 mv	5 mv	105	
	PMC	SR-40	40	0.5	250 mv	180 mv	50	b
	PMC	SRA-40	40	0.5	100 mv	70 mv	60	b
	D-B	30-40S	40	0.8	5 mv	5 mv	140	
	Mid-East	SC40-1.5	40	1.5	0.05	0.05	198	b
MO 160	D-B	41-40S	40	2.1	5 mv	5 mv	175	
	Perkin	MS40 Series	40	0.13-3.2	±0.025	±0.025	ina	b,d
	D-B	51-40S	40	3.6	5 mv	5 mv	245	
	Burton	TPS Series	40	0.3-6	5 mv	5 mv	105-315	
	D-B	61-40S	40	7	5 mv	5 mv	315	
	Acopian	40B Series	40 <sup>2</sup>	0.1-0.5	0.05	0.05-0.1	65-95	c
	ERA	SR404	39-40	4	±0.01	0.05	360	b
	Tech Pwr	M-65 Series	36.2-40	0.05-12	±0.5	±0.5	50-385	a,b,h,i

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 161	Tech Pwr	M-65A Series	36.2-40	0.05-12	±0.05	±0.05	55-410	a,b,h,i
	PMC	RA Series	36-40 <sup>2</sup>	0.05-12	±0.05	±0.05	55-365	b
	PMC	RB Series	36-40 <sup>2</sup>	0.05-12	±0.5	±0.5	50-345	b
	Trans Dev	TMA-40	35-40	0.2	±0.025	±0.05	ina	b
	Elasco	V38-250	35-40	0.25	0.05	0.05	ina	h
	Trans Dev	EM-40	35-40	0.3	±0.025	±0.05	ina	b
	PMC	R3540-500	35-40	0.5	0.05	0.02	116	b
	Elasco	V35 Series	30-40	0.05-0.1	0.05	0.05	ina	h
MO 162	ERA	SR30P1	30-40	0.15	±0.1	0.1	95	b
	Trans Dev	STR-40	30-40	0.15	±0.02	±0.05	ina	b,i
	ERA	TR30A	30-40	0.15	±0.5	0.5	70	b
	ERA	MS Series	30-40	0.05, 0.25	±0.01	0.05	235, 295	b,f
	ERA	SR Series	30-40	0.05-0.25	±0.01	0.05	135-145	b
	ERA	ME Series	30-40	0.05, 1, 2	±0.01	0.05	120, 140	b
	Tech Pwr	SCR-80 Series	20-40	3-50	±0.5	±0.5	160-550	b,d
	Lambda	LH124S	0-40	1.3	0.015	0.015	154	b
MO 163	Kepco	PBX40-0.5	0-40	0.5	0.01	0.01	105	b,d
	Lambda	LH125S	0-40	3	0.015	0.015	269	b
	Trygon	PHR Series	0-40	3, 5, 7.5	0.01	0.01	255-325	b
	Tech Pwr	R-80 Series	0-40	3-25	±0.1	±0.3	140-355	b
	Tech Pwr	SWR-80 Series	0-40	3-25	±0.01	±0.03	245-590	b
	Nucor	NP Series	37.5-40.5	1, 2, 4	0.02	0.05	185-340	b
	Dynage	D38.8 Series	37-40.8	0.05-1.5	0.5	0.5	50-170	b
	Dynage	D38.8A Series	37-40.8	0.05-1.5	0.05	0.05	60-180	b
MO 164	Abbott	V Series	36.5-40.9	0.13-6.24	±0.2	±0.5	220-530	a
	Acopian	41A10	41 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	41B Series	41 <sup>2</sup>	0.1-0.4	0.05	0.05-0.1	70-95	c
	ERA	SR414	40-41	4	±0.01	0.05	360	b
	Elasco	M40 Series	39-41	0.1-0.5	0.05	0.05	ina	h
	Mag Res	63-121-0	39-41	2	0.05	0.05	295	b
	ERA	SR Series	39-41	4	±0.01	0.05	360	b
	Elasco	SV40 Series	39-41	1-5	0.05	0.05	ina	h
MO 165	Con Av	HT39 Series	37-41	0.26-3.5	0.25	0.25	77-220	b
	Con Av	HT39A Series	37-41	0.26-3.5	0.025	0.025	87-235	b
	Nucor	NP Series	38.5-41.5	1, 2, 4	0.02	0.05	185-340	b
	Con Cir	42.0A Series	42	0.05-2	±0.05	±0.05	75-255	g
	Con Cir	42.0B Series	42	0.1-2	±0.5	±0.5	70-235	g
	Acopian	42A10	42 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	42B Series	42 <sup>2</sup>	0.1-0.4	0.05	0.05-0.1	70-95	c
	ERA	SR424	41-42	4	±0.01	0.05	360	b

## 40-45 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 166	Elcor	AQC40-50	38-42	0.05	0.02	0.02	184	
	Elcor	ATM40-50	38-42	0.05	0.2	0.2	100	
	Nucor	NP Series	39.5-42.5	1, 2, 4	0.02	0.05	185-340	b
	Acopian	43A10	43 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	43B Series	43 <sup>2</sup>	0.1-0.3	0.05	0.05-0.1	70-95	c
	ERA	SR434	42-43	4	±0.01	0.05	360	b
	Elasco	M42 Series	41-43	0.1-0.5	0.05	0.05	ina	h
	ERA	SR Series	41-43	0.5, 1, 2	±0.01	0.05	165-255	b
MO 167	Elasco	SV42 Series	41-43	1-5	0.05	0.05	ina	h
	Nucor	NP Series	40.5-43.5	1, 2, 4	0.02	0.05	185-340	b
	Acopian	44A10	44 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	44B Series	44 <sup>2</sup>	0.1-0.3	0.05	0.05-0.1	70-95	c
	ERA	SR444	43-44	4	±0.01	0.05	360	b
	Tech Pwr	M-65 Series	40-44	0.05-12	±0.5	±0.5	50-400	a,b,h,i
	Tech Pwr	M-65A Series	40-44	0.05-12	±0.05	±0.05	60-425	a,b,h,i
	Nucor	NP Series	41.5-44.5	1, 2, 4	0.02	0.05	185-340	b
MO 168	Ferro	HV-45	45	0.04	1.5	1.5	55	b
	Ferro	HHV-45	45 <sup>1</sup>	0.04	1.5	1.5	75	b
	Ferro	B-456	45, 67 <sup>1</sup>	0.04	1.5	1.5	70	b
	Ferro	B-224	45, 22 <sup>1</sup>	0.05	1.5	1.5	65	b
	Ferro	MC-45	45	0.09	1.5	1.5	55	b
	Acopian	45A10	45 <sup>2</sup>	0.1	0.5	0.5	60	c
	Ferro	MSM-45	45	0.1	1.5	1.5	75	b
	Ferro	MCH-45	45	0.14	2	2	60	b
MO 169	Acopian	45B Series	45 <sup>2</sup>	0.1-0.3	0.05	0.05-0.1	70-95	c
	ERA	MS454	44-45	4	±0.01	0.05	575	b,f
	ERA	SR454	44-45	4	±0.01	0.05	345	b
	Elasco	M44 Series	43-45	0.1-0.5	0.05	0.05	ina	h
	ERA	SR Series	43-45	0.5, 1, 2	±0.01	0.05	165-255	b
	Elasco	SV44 Series	43-45	1-5	0.05	0.05	ina	h
	Con Av	HT43 Series	41-45	0.24-3.3	0.25	0.25	77-225	b
	Con Av	HT43A Series	41-45	0.24-3.3	0.025	0.025	87-240	b
MO 170	Dynage	D42.8 Series	40.8-45	0.025-1	0.5	0.5	45-160	b
	Dynage	D42.8A Series	40.8-45	0.025-1	0.05	0.05	55-170	b
	Trans Dev	TMA-45	40-45	0.15	±0.025	±0.05	ina	b
	Elasco	V42-250	40-45	0.25	0.05	0.05	ina	h
	PMC	R4045-500	40-45	0.5	0.05	0.015	116	b
	PMC	RA Series	40-45 <sup>2</sup>	0.05-12	±0.05	±0.05	60-375	b
	PMC	RB Series	40-45 <sup>2</sup>	0.05-12	±0.5	±0.5	55-355	b
	ITI	231G	30-45	0.1	±0.02	±0.02	139	b

Notes, abbreviations and manufacturers' index at end of this section.



## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 171	ITI	331G	30-45	0.2	±0.02	±0.02	146	b
	ITI	431G	30-45	0.55	±0.02	±0.02	155	b
	ITI	531G	30-45	1.1	±0.02	±0.02	168	b
	ITI	631G	30-45	2.2	±0.02	±0.02	188	b
	Chalco	45V Series	22-45	5-40	±0.1	±0.1	260-615	
	Chalco	45V Series	22-45	5-40	±1	±1	235-595	
	Acme	PS-6757	0-45	2.5	ina	5	123	
Nucor	NP Series	42.5-45.5	1, 2, 4	0.02	0.05	190-340	b	
MO 172	Abbott	V Series	40.9-45.8	0.115-5.52	±0.2	±0.5	235-540	a
	Acopian	46A10	46 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	46B Series	46 <sup>2</sup>	0.1-0.3	0.05	0.05-0.1	70-95	c
	Con Cir	46.0A Series	46	0.05-2	±0.05	±0.05	75-255	g
	Con Cir	46.0B Series	46	0.05-2	±0.5	±0.5	70-235	g
	ERA	ME Series	44-46	0.5, 1	±0.01	0.05	160, 205	b
	ERA	MS Series	44-46	0.5, 1, 2	±0.01	0.05	390-430	b, f
ERA	SR Series	44-46	0.5, 1, 2	±0.01	0.05	150-240	b	
MO 173	Con Av	XR44-4.5	42-46	4.5	0.02	0.05	295	
	Nucor	NP Series	43.5-46.5	1, 2, 4	0.02	0.05	190-345	b
	Acopian	47A10	47 <sup>2</sup>	0.1	0.5	0.5	60	c
	Acopian	47B Series	47 <sup>2</sup>	0.1-0.3	0.05	0.05-0.3	70-95	c
	Elasco	M46 Series	45-47	0.1-0.5	0.05	0.05	ina	h
	Elasco	SV46 Series	45-47	1-5	0.05	0.05	ina	h
	Nucor	NP Series	44.5-47.5	1, 2, 4	0.02	0.05	190-345	b
Acopian	48A10	48 <sup>2</sup>	0.1	0.5	0.5	60	c	
MO 174	PMC	SR-48	48	0.5	350 mv	180 mv	50	b
	PMC	SRA-48	48	0.5	120 mv	80 mv	60	b
	Pwr Des	UPM-4 Series	48	0.5	0.04	0.04	147	b
	Acopian	48B Series	48 <sup>2</sup>	0.1-0.6	0.05	0.05-0.2	70-130	c
	Lambda	LMB48	48	0.9	0.05	0.03	129	b
	Lambda	LMC48	48	1.6	0.05	0.03	149	b
	GE	9T66Y93	48	4	±1	5	122	
	Trygon	FT-FTR48-4	48	4	1	1.4 v	119-149	
MO 175	Kepeco	PRM Series	48	2.5, 4	±1	3.1, 1.8 v	99, 119	
	Lambda	LMD48	48	4.1	0.05	0.03	239	b
	Lambda	LME48	48	5	0.05	0.03	299	b
	GE	9T66Y94	48	10	±1	4	180	
	Lambda	LMF48	48	10	0.05	0.03	425	b
	Trans Dev	RP-9	48	12	±1	ina	ina	
	Lambda	LMG48	48	17	0.05	0.03	575	b
	ERA	SR Series	46-48	0.5, 1	±0.01	0.05	185, 240	b

## 45-50 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 176	Tech Pwr	M-65 Series	44-48	0.05-12	±0.5	±0.5	50-420	a, b, h, i
	Tech Pwr	M-65A Series	44-48	0.05-12	±0.05	±0.05	60-445	a, b, h, i
	Elcor	AQC45-45	42-48	0.045	0.02	0.02	184	
	Elcor	ATM45-45	42-48	0.045	0.2	0.2	100	
	Pwr Des	UPM-2	24-48 <sup>4</sup>	0.25-0.5	0.03	0.03	199	b
	Kepeco	PWR48-2	0-48	2	0.005	0.05	209	
	Nucor	NP Series	45.5-48.5	1, 2, 4	0.02	0.05	190-345	b
Acopian	49A10	49 <sup>2</sup>	0.1	0.5	0.5	60	c	
MO 177	Acopian	49B Series	49 <sup>2</sup>	0.1-0.3	0.05	0.05-0.1	70-95	c
	Elasco	M48 Series	47-49	0.1-0.5	0.05	0.05	ina	h
	Elasco	SV48 Series	47-49	1-5	0.05	0.05	ina	h
	Nucor	NP Series	46.5-49.5	2, 4	0.02	0.05	235, 345	b
	Dynage	D47.2 Series	45-49.5	0.025-1	0.5	0.5	45-160	
	Dynage	D47.2A Series	45-49.5	0.025-1	0.05	0.05	55-170	
	Ferro	HHV-50	50 <sup>1</sup>	0.04	1.5	1.5	55	b
Ferro	HHV-50	50 <sup>1</sup>	0.04	1.5	1.5	75	b	
MO 178	Acopian	50A10	50 <sup>2</sup>	0.1	0.5	0.5	60	c
	D-B	15-50S	50	0.15	5 mv	5 mv	100	
	ERA	CV50	50	0.015	±1	1	45	b
	ERA	SV50	50	0.015	±0.5	0.5	70	b
	D-B	20-50S	50	0.3	5 mv	5 mv	105	
	Glentron	30106	50	0.5	1	1	149	b
	Acopian	50B Series	50 <sup>2</sup>	0.1-0.5	0.05	0.05-0.1	70-135	c
D-B	30-50S	50	0.6	5 mv	5 mv	140		
MO 179	D-B	41-50S	50	1.6	5 mv	5 mv	175	
	Con Cir	50.0A Series	50	0.05-2	±0.05	±0.05	75-260	g
	Con Cir	50.0B Series	50	0.05-2	±0.5	±0.5	70-240	g
	Perkin	MS50 Series	50	0.1-2.4	±0.025	±0.025	ina	b, d
	D-B	51-50S	50	2.8	5 mv	5 mv	245	
	Trans Dev	GSM50-3	50	3	±0.02	±0.05	ina	b
	Burton	TPS Series	50	0.25-5	5 mv	5 mv	105-315	
D-B	61-50S	50	5.5	5 mv	5 mv	315		
MO 180	ERA	SR Series	48-50	0.5, 1	±0.01	0.05	185-240	b
	Trygon	PS48-400F	46-50	0.4	0.01	0.01	87	b
	Nucor	NP 481	46-50	1	0.02	0.05	190	b
	Con Av	XR48-4.5	46-50	4.5	0.02	0.05	295	
	Trans Dev	TMA-50	45-50	0.15	±0.025	±0.05	ina	b
	Numeco	A50	45-50	0.24	±0.01	ina	101	
	Elasco	V48-250	45-50	0.25	0.05	0.05	ina	h
	PMC	R4550-500	45-50	0.5	0.05	0.007	116	b

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 181	Numec	AS50	45-50	0.6	±0.01	ina	154	
	PMC	RA Series	45-50 <sup>2</sup>	0.05-12	±0.05	±0.05	60-270	b
	PMC	RB Series	45-50 <sup>2</sup>	0.05-12	±0.5	±0.5	55-370	b
	Elasco	V45 Series	40-50	0.05-0.1	0.05	0.05	ina	h
	ERA	SR40P1	40-50	0.15	±0.1	0.1	95	b
	ERA	TR40A	40-50	0.15	±0.5	0.5	70	b
	Trans Dev	STR-50	40-50	0.15	±0.02	±0.05	ina	b,i
	ERA	ME Series	40-50	0.05-0.25	±0.01	0.05	120, 140	b
MO 182	ERA	MS Series	40-50	0.05, 0.25	±0.01	0.05	235, 295	b,f
	ERA	SR Series	40-50	0.05-0.25	±0.01	0.05	145-165	b
	PMC	R3550-300	35-50	0.3	0.05	0.05	94	b
	Trans Dev	SCR-50-2	30-50	1.6	±0.5	±0.5	ina	
	Trans Dev	SCR-50-4	30-50	4	±0.5	±0.5	ina	
	PMC	R1550-200	15-50	0.2	0.05	0.05	94	b
	Un Elect	M Series	5-50 <sup>6</sup>	0.25-3	±0.05	±0.05	105-195	b
	CEA	500D Series	0.5-50	0.1-1	0.0005	0.0005	190-1160	
MO 183	CEA	600D Series	0.5-50	0.1-1	0.0005	0.0005	195-1410	
	Trygon	P50-750	0-50	0.75	0.05	0.05	184	b
	ACDC	BX50P1.2	0-50	1.2	0.01	0.01	216	
	Trygon	PS Series	0-50	0.15-1.5	0.01	0.01	89-185	a,b
	Nucor	NP Series	47.5-50.5	1, 2, 4	0.02	0.05	190-375	b
	Elasco	M50 Series	49-51	0.1-0.5	0.05	0.05	ina	h
	ACDC	BC50N1.2	49-51	1.2	0.5	0.5	130	
	ACDC	BX50N1.2	49-51	1.2	0.01	0.01	158	
MO 184	Elasco	SV50 Series	49-51	1-5	0.05	0.05	ina	h
	Con Av	HT48 Series	45-51	0.21-2.9	0.25	0.25	77-225	
	Con Av	HT48A Series	45-51	0.21-2.9	0.025	0.025	87-240	
	Abbott	V Series	45.8-51.4	0.103-4.56	±0.2	±0.5	245-565	a
	Nucor	NP Series	48.5-51.5	1, 2	0.02	0.05	190, 250	b
	ERA	SR Series	50-52	0.5, 1	±0.01	0.05	185, 240	b
	Tech Pwr	M-65 Series	48-52	0.05-12	±0.5	±0.5	50-440	a,b,h,i
	Tech Pwr	M-65A	48-52	0.05-12	±0.05	±0.05	60-465	a,b,h,i
MO 185	Elasco	M52 Series	51-53	0.1-0.25	0.05	0.05	ina	h
	Elcor	AQC50-40	47-53	0.04	0.02	0.02	184	
	Elcor	ATM50-40	47-53	0.04	0.2	0.2	100	
	Sorensen	QMA48-0.1	36-53	0.1	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	60	b
	ERA	SR Series	52-54	0.5, 1	±0.01	0.05	185-240	b
	Dynage	D52 Series	49.5-54.5	0.025-1	0.5	0.5	45-165	
	Dynage	D52A Series	49.5-54.5	0.025-1	0.05	0.05	55-175	
	Ferro	HV-55	55	0.04	1.5	1.5	55	b

Notes, abbreviations and manufacturers' index at end of this section.

## 50-60 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 186	Ferro	HHV-55	55 <sup>1</sup>	0.04	1.5	1.5	75	b
	Acopian	55B Series	55 <sup>2</sup>	0.05-0.5	0.05	0.05-0.1	65-140	c
	Elasco	M54 Series	53-55	0.05-0.25	0.05	0.05	ina	h
	ERA	TR50A	50-55	0.15	±0.5	0.5	70	b
	Elasco	V52-250	50-55	0.25	0.05	0.05	ina	h
	Sorensen	QMA48-0.37	37-55	0.37	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	80	b
	Sorensen	QMA48-0.75	37-55	0.75	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	120	b
	PMC	RA Series	50-56 <sup>2</sup>	0.05-6	±0.05	±0.05	60-270	b
MO 187	PMC	RB Series	50-56 <sup>2</sup>	0.05-6	±0.5	±0.5	55-250	b
	Con Cir	56.0A Series	56	0.05-1	±0.05	±0.05	80-245	g
	Con Cir	56.0B Series	56	0.05-1	±0.5	±0.5	75-235	g
	ERA	VS Series	54-56	0.5, 1	±0.01	0.05	185, 240	b
	Elasco	M56 Series	55-57	0.05-0.25	0.05	0.05	ina	h
	ERA	SR Series	56-58	0.5, 1	±0.01	0.05	185, 240	b
	Elasco	M58 Series	57-59	0.05-0.25	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	52-59	0.05-12	±0.5	±0.5	55-465	a,b,h,i
MO 188	Tech Pwr	M-65A Series	52-59	0.05-12	±0.05	±0.05	65-490	a,b,h,i
	Abbott	V Series	51.4-59	0.091-4.4	±0.2	±0.5	260-565	a
	Ferro	HV-60	60	0.04	1.5	1.5	55	b
	Ferro	HHV-60	60 <sup>1</sup>	0.04	1.5	1.5	75	b
	Ferro	HVA-60	60	0.09	1.5	1.5	75	b
	Acopian	60B Series	60 <sup>2</sup>	0.05-0.4	0.05	0.05-0.1	75-140	c
	Mid-East	SM60-1	60	1	0.5	0.5	87.50	
	Kepeco	PRM Series	60	2, 3	±1	3.8, 1.8 v	99, 119	
MO 189	Mid-East	SM60-4	60	4	0.5	0.5	250	
	Burton	TPS Series	60	0.2-4	5 inv	5 mv	105-315	
	ERA	MS604	59-60	4	±0.01	0.05	575	b,f
	ERA	SR Series	58-60	0.5, 1	±0.01	0.05	185, 240	b
	Elasco	V58-250	55-60	0.25	0.05	0.05	ina	h
	Dynage	D57.2 Series	54.5-60	0.025-1	0.5	0.5	60-200	
	Dynage	D57.2A Series	54.5-60	0.025-1	0.05	0.05	70-215	
	Elasco	V55 Series	50-60	0.05-0.1	0.05	0.05	ina	h
MO 190	ERA	SR50P1	50-60	0.15	±0.1	0.1	95	b
	ERA	MS Series	50-60	0.05, 0.25	±0.01	0.05	235, 350	b,f
	ERA	ME Series	50-60	0.05-0.25	±0.01	0.05	120-140	b
	ERA	SR Series	50-60	0.5-0.25	±0.01	0.05	155-175	b
	Glentron	70104	36-60	0.5	0.1	0.1	265	b
	Lambda	LM220	30-60	0.7	0.05	0.03	129	b
	Lambda	LM229	30-60	1.1	0.05	0.03	149	b
	Lambda	LM238	30-60	2.6	0.05	0.03	239	b



# Modular dc supplies

60-80 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 191	Chalco	60V Series	30-60	3-25	±1	±1	260-470	
	Chalco	60V Series	30-60	3-25	±0.1	±0.1	275-510	
	Lambda	LM207	0-60	0.13	0.05	0.03	79	b
	Lambda	LM208	0-60	0.25	0.05	0.03	79	b
	Lambda	LH127S	0-60	0.9	0.015	0.015	184	b
	Kepeco	PWR60-1.5	0-60	1.5	0.005	0.05	209	
	Lambda	LH128S	0-60	2.4	0.015	0.015	315	
	Trygon	PHR Series	0-60	2.5, 5	0.01	0.01	295, 329	
MO 192	Trygon	PHR Series	0-60	2.5, 5	0.01	0.01	295-329	a
	ERA	SR Series	0-60	0.5-8	±0.01	±0.02	215-495	b
	Elasco	M60 Series	59-61	0.05-0.25	0.05	0.05	ina	h
	ERA	MS60P5	59-61	0.5	±0.01	0.05	305	b
	ERA	ME Series	59-61	0.5, 1	±0.01	0.05	175, 235	b
	ERA	SR Series	59-61	0.5, 1	±0.01	0.05	170, 225	b
	ERA	MS Series	59-61	1, 2	±0.01	0.05	405, 430	b
	Con Cir	62.0A Series	62	0.05-1	±0.05	±0.05	95-300	g
MO 193	Con Cir	62.0B Series	62	0.05-1	±0.5	±0.5	85-275	g
	PMC	RA Series	56-62 <sup>2</sup>	0.05-6	±0.05	±0.05	65-355	b
	PMC	RB Series	56-62 <sup>2</sup>	0.05-6	±0.5	±0.5	60-355	b
	Elasco	M62 Series	61-63	0.05-0.25	0.05	0.05	ina	h
	Elcor	AQC60-30	57-63	0.03	0.02	0.02	184	
	Ferro	HHV-65	65 <sup>1</sup>	0.04	1.5	1.5	75	b
	Acopian	65B Series	65 <sup>2</sup>	0.05-0.3	0.05	0.05-0.1	75-125	c
	Elasco	M64 Series	63-65	0.05-0.25	0.05	0.05	ina	h
MO 194	Elasco	V62-250	60-65	0.25	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	59-65	0.05-12	±0.5	±0.5	65-495	a,b,h,i
	Tech Pwr	M-65A Series	59-65	0.05-12	±0.05	±0.05	75-520	a,b,h,i
	Abbott	HA Series	59-66	0.082-1.97	±0.2	±1.5	260-465	a
	Abbott	HCL24D-63A	59-66	3.94	±0.2	±2.5	565	a
	Ferro	HV-67	67	0.04	1.5	1.5	55	b
	Ferro	HHV-67	67 <sup>1</sup>	0.04	1.5	1.5	75	b
	Ferro	B-456	67, 45 <sup>1</sup>	0.04	1.5	1.5	70	b
MO 195	Acopian	67B Series	67 <sup>2</sup>	0.05-0.3	0.05	0.05-0.1	75-125	c
	Elasco	M66 Series	65-67	0.05-0.25	0.05	0.05	ina	h
	ITI	231H	45-67	0.07	±0.02	±0.02	139	b
	ITI	331H	45-67	0.15	±0.02	±0.02	146	b
	ITI	431H	45-67	0.25	±0.02	±0.02	155	b
	ITI	531H	45-67	0.5	±0.02	±0.02	168	b
	ITI	631H	45-67	1	±0.02	±0.02	188	b
	Con Cir	68.0A Series	68	0.05-0.75	±0.05	±0.05	105-280	g

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 196	Con Cir	68.0B Series	68	0.05-0.75	±0.5	±0.5	95-265	g
	Elasco	M68 Series	67-69	0.05-0.25	0.05	0.05	ina	h
	PMC	RA Series	62-69 <sup>2</sup>	0.05-6	±0.05	±0.05	75-365	b
	PMC	RB Series	62-69 <sup>2</sup>	0.05-6	±0.5	±0.5	ina	b
	Ferro	HHV-70	70 <sup>1</sup>	0.04	1.5	1.5	75	b
	Ferro	HV-70	70	0.04	1.5	1.5	55	b
	Acopian	70B Series	70 <sup>2</sup>	0.05-0.3	0.05	0.05-0.1	75-125	c
	Elasco	V68-250	65-70	0.25	0.05	0.05	ina	h
MO 197	ERA	ME60P1	60-70	0.1	±0.01	0.05	175	b
	ERA	MS60P1	60-70	0.1	±0.01	0.05	315	b,f
	ERA	SR60P1	60-70	0.1	±0.1	0.1	105	b
	ERA	SR60P1R	60-70	0.1	±0.01	0.05	155	b
	Elasco	V65 Series	60-70	0.05-0.1	±0.05	0.05	ina	h
	Trans Dev	STR-70	50-70	0.075	±0.02	±0.05	ina	b,i
	Elasco	M70 Series	69-71	0.05-0.25	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	65-72	0.05-12	±0.5	±0.5	75-395	a,b,h,i
MO 198	Tech Pwr	M-65A Series	65-72	0.05-12	±0.05	±0.05	85-420	a,b,h,i
	Kepeco	PAX72-0.15	0-72	0.15	0.05	0.05	89	b,d
	Kepeco	PBX72-0.3	0-72	0.3	0.01	0.01	105	b,d
	Elasco	M72 Series	71-73	0.05-0.25	0.05	0.05	ina	h
	Abbott	HA Series	66-74	0.071-1.72	±0.2	±1.5	260-465	a
	Abbott	HCL24D-70A	66-74	3.44	±0.2	±2.5	565	a
	ERA	CV75	75	0.02	±2	2	45	b
	ERA	SV75	75	0.02	±1.5	1.5	80	b
MO 199	Ferro	HV-75	75	0.06	1.3	1.3	65	b
	Acopian	75B Series	75 <sup>2</sup>	0.05-0.2	0.05	0.05	85-125	c
	Elasco	M74 Series	73-75	0.05-0.25	0.05	0.05	ina	h
	Elasco	V72-250	70-75	0.25	0.05	0.05	ina	h
	Numec	A75	60-75	0.16	±0.01	ina	154	
	Numec	AS75	60-75	0.4	±0.01	ina	228	
	PMC	HR Series	50-75	0.1, 0.3	0.005	0.3, 0.5	90, 115	b
	Trans Dev	SCR-75-1	50-75	1.2	±0.5	±0.5	ina	
MO 200	Trans Dev	SCR-75-3	50-75	2.5	±0.5	±0.5	ina	
	Con Cir	76.0A Series	76	0.05-0.75	±0.05	±0.05	115-295	g
	Con Cir	76.0B Series	76	0.05-0.75	±0.5	±0.5	105-280	g
	PMC	RA Series	69-76 <sup>2</sup>	0.05-6	±0.05	±0.05	80-385	b
	PMC	RB Series	69-76 <sup>2</sup>	0.05-6	±0.5	±0.5	70-365	b
	Elasco	M76 Series	75-77	0.05-0.1	0.05	0.05	ina	h
	Elasco	M78 Series	77-79	0.05-0.1	0.05	0.05	ina	h
	Acopian	80B Series	80 <sup>2</sup>	0.35-0.2	0.05	0.05	85-125	c

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 201	Elasco	V78-250	75-80	0.25	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	72-80	0.05-12	±0.5	±0.5	80-425	a,b,h,i
	Tech Pwr	M-65A Series	72-80	0.05-12	±0.05	±0.05	90-450	a,b,h,i
	ERA	ME70P1	70-80	0.1	±0.01	0.05	175	b
	ERA	MS70P1	70-80	0.1	±0.01	0.05	315	b,f
	ERA	SR70P1	70-80	0.1	±0.1	0.1	105	b
	ERA	SR70P1R	70-80	0.1	±0.01	0.05	155	b
	Elasco	V75 Series	70-80	0.05-0.1	0.05	0.05	ina	h
MO 202	Tech Pwr	SCR-80 Series	40-80	1.5-25	±0.5	±0.5	180-570	b,d
	Tech Pwr	R-80 Series	0-80	1.5-25	±0.1	±0.3	140-515	b
	Tech Pwr	SWR-80 Series	0-80	1.5-25	±0.01	±0.03	220-845	b
	Elasco	M80 Series	79-81	0.05-0.1	0.05	0.05	ina	h
	Elasco	M82 Series	81-83	0.05-0.1	0.05	0.05	ina	h
	Abbott	HA Series	74-83	0.063-1.52	±0.2	±1.5	260-465	a
	Abbott	HCL24D-79A	74-83	3.04	±0.2	±2.5	565	a
	Sorensen	QMHV75-4	53-83	0.4	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	115	
MO 203	Con Cir	84.0A Series	84	0.05-0.75	±0.05	±0.05	125-310	g
	Con Cir	84.0B Series	84	0.05-0.75	±0.5	±0.5	110-290	g
	Elcor	AQC80-20	76-84	0.02	0.02	0.02	184	
	PMC	RA Series	76-84	0.05-6	±0.05	±0.05	85-420	b
	PMC	RB Series	76-84	0.05-6	±0.5	±0.5	75-400	b
	Acopian	85B Series	85 <sup>2</sup>	0.05-0.2	0.05	0.05	90-135	c
	Elasco	M84 Series	83-85	0.05-0.1	0.05	0.05	ina	h
	Elasco	V82-250	80-85	0.25	0.05	0.05	ina	h
MO 204	Elasco	M86 Series	85-87	0.05-0.1	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	80-88	0.05-6	±0.5	±0.5	85-455	a,b,h,i
	Tech Pwr	M-65A Series	80-88	0.05-6	±0.05	±0.05	95-480	a,b,h,i
	Elasco	M88 Series	87-89	0.05-0.1	0.05	0.05	ina	h
	Ferro	HV-90	90	0.06	1.2	1.2	65	b
	Acopian	90B Series	90 <sup>2</sup>	0.05-0.2	0.05	0.05	95-135	c
	Elasco	V88-250	85-90	0.25	0.05	0.05	ina	h
	ERA	ME80P1	80-90	0.1	±0.01	0.05	185	b
MO 205	ERA	MS80P1	80-90	0.1	±0.01	0.05	315	b,f
	ERA	SR80P1	80-90	0.1	±0.1	0.1	105	b
	ERA	SR80P1R	80-90	0.1	±0.01	0.05	155	b
	Elasco	V85 Series	80-90	0.05-0.1	0.05	0.05	ina	h
	Trans Dev	STR-90	70-90	0.075	±0.02	±0.05	ina	b,i
	Chalco	90V Series	44-90	1-20	±1	±1	220-575	
	Chalco	90V Series	44-90	1-20	±0.1	±0.1	240-630	
	Elasco	M90 Series	89-91	0.05-0.1	0.05	0.05	ina	h

## 80-100 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 206	Con Cir	92.0A Series	92	0.05-0.75	±0.05	±0.05	130-320	g
	Con Cir	92.0B Series	92	0.05-0.75	±0.5	±0.5	120-300	g
	Elasco	M92 Series	91-93	0.05-0.1	0.05	0.05	ina	h
	PMC	RA Series	84-93	0.05-6	±0.05	±0.05	87-455	b
	PMC	RB Series	84-93	0.05-6	±0.5	±0.5	77-430	b
	Abbott	HA Series	83-93	0.057-1.38	±0.2	±1.5	260-465	a
	Abbott	HCL24D-88A	83-93	2.76	±0.2	±2.5	565	a
	Acopian	95B Series	95 <sup>2</sup>	0.02-0.2	0.05	0.05	95-135	c
MO 207	Elasco	M94 Series	93-95	0.05-0.1	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	88-96	0.05-6	±0.5	±0.5	90-485	a,b,h,i
	Tech Pwr	M-65A Series	88-96	0.05-6	±0.05	±0.05	100-510	a,b,h,i
	Elasco	M96 Series	95-97	0.05-0.1	0.05	0.05	ina	h
	Elasco	M98 Series	97-99	0.05-0.1	0.05	0.05	ina	h
	Ferro	MSV-100	100	0.05	1.5	1.5	90	b
	Ferro	HV-100	100	0.06	1.5	1.5	65	b
	D-B	15-100S	100	0.065	5 mv	5 mv	100	
MO 208	Ferro	HVA-100	100	0.1	1.5	1.5	90	b
	D-B	20-100S	100	0.15	5 mv	5 mv	135	
	Acopian	100B Series	100 <sup>2</sup>	0.02-0.2	0.02	0.02	95-145	c
	D-B	30-100S	100	0.3	5 mv	5 mv	140	
	Con Cir	100A Series	100	0.05-0.75	±0.05	±0.05	135-335	g
	Con Cir	100B Series	100	0.05-0.75	±0.5	±0.5	125-315	g
	D-B	41-100S	100	0.8	8 mv	8 mv	175	
	Perkin	MS100 Series	100	0.1-1.2	±0.025	±0.025	ina	b,d
MO 209	D-B	51-100S	100	1.5	8 mv	8 mv	245	
	D-B	61-100S	100	3	8 mv	8 mv	315	
	ERA	ME90P1	90-100	0.1	±0.01	0.05	195	b
	ERA	MS90P1	90-100	0.1	±0.01	0.05	315	b,f
	ERA	SR90P1	90-100	0.1	±0.1	0.1	115	b
	ERA	SR90P1R	90-100	0.1	±0.01	0.05	155	b
	Elasco	V95 Series	90-100	0.05-0.1	0.05	0.05	ina	h
	PMC	HR Series	75-100	0.1, 0.3	0.005	0.03, 0.05	90, 115	b
MO 210	Numec	A100	75-100	0.12	±0.01	ina	154	
	Numec	AS100	75-100	0.25	±0.01	ina	228	
	Trans Dev	SCR-100-2	75-100	0.8	±0.5	±0.5	ina	
	Trans Dev	SCR-100-2	75-100	2	±0.5	±0.5	ina	
	ITI	231I	67-100	0.05	±0.02	±0.02	139	b
	ITI	331I	67-100	0.1	±0.02	±0.02	146	b
	ITI	431I	67-100	0.15	±0.02	±0.02	155	b
	ITI	531I	67-100	0.33	±0.02	±0.02	168	b

Notes, abbreviations and manufacturers' index at end of this section.



# Modular dc supplies

100-150 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 211	ITI	6311	67-100	0.65	±0.02	±0.02	188	b
	PMC	HR50100-150	50-100	0.15	0.005	0.05	115	b
	CEA	500C Series	1-100	0.1-10	0.0025	0.0025	95-980	
	CEA	600C Series	1-100	0.1-10	0.0025	0.0025	100-1190	
	Kepeco	PAX100-0.1	0-100	0.1	0.05	0.05	89	b,d
	Kepeco	PBX100-0.2	0-100	0.2	0.01	0.01	105	b,d
	Trygon	PS100-750	0-100	0.75	0.01	0.01	195	a
	Elasco	M100 Series	99-103	0.05-0.1	0.05	0.05	ina	h
MO 212	PMC	RA Series	93-103	0.05-6	±0.05	±0.05	92-475	b
	PMC	RB Series	93-103	0.05-6	±0.5	±0.5	82-450	b
	Abbott	HA Series	93-104	0.05-1.2	±0.2	±1.5	260-465	a
	Abbott	HCL24D-99A	93-104	2.4	±0.2	±2.5	565	a
	ERA	CV105	105	0.02	±2	2	45	b
	ERA	SV105	105	0.02	±1.5	1.5	80	b
	Acopian	105B Series	105 <sup>2</sup>	0.1-0.2	0.05	0.05	130-145	c
	Tech Pwr	M-65 Series	96-105	0.05-6	±0.5	±0.5	95-515	a,b,h,i
MO 213	Tech Pwr	M-65A Series	96-105	0.05-6	±0.05	±0.05	105-540	a,b,h,i
	Elcor	AQC100-16	95-105	0.016	0.02	0.02	184	
	Elasco	M105 Series	103-108	0.05-0.1	0.05	0.05	ina	h
	Acopian	110B Series	110 <sup>2</sup>	0.1-0.2	0.05	0.05	135-145	c
	Con Cir	110A Series	110	0.05-0.75	±0.05	±0.05	140-345	g
	Con Cir	110B Series	110	0.05-0.75	±0.5	±0.5	130-325	g
	ERA	ME100P1	100-110	0.1	±0.01	0.05	195	b
	ERA	MS100P1	100-110	0.1	±0.01	0.05	315	b,f
MO 214	ERA	SR100P1	100-110	0.1	±0.1	0.1	115	b
	ERA	SR100P1R	100-110	0.1	±0.01	0.05	155	b
	ERA	TR100A	100-110	0.1	±0.5	0.5	90	b
	Elasco	V105 Series	100-110	0.05-0.1	0.05	0.05	ina	h
	Trygon	PS-100-200F	90-110	0.2	0.01	0.01	119	b
	ACDC	BX100N0.4	90-110	0.4	0.01	0.01	ina	
	Elasco	M110 Series	108-113	0.05-0.1	0.05	0.05	ina	h
PMC	RA Series	103-114	0.05-6	±0.05	±0.05	95-110	b	
MO 215	PMC	RB Series	103-114	0.05-6	±0.5	±0.5	85-485	b
	Tech Pwr	M-65 Series	105-115	0.05-6	±0.5	±0.5	100-550	a,b,h,i
	Tech Pwr	M-65A Series	105-115	0.05-6	±0.05	±0.05	110-575	a,b,h,i
	Abbott	HA Series	104-116	0.045-1.092	±0.2	±1.5	260-465	a
	Abbott	HCL24D-110A	104-116	2.184	±0.2	±2.5	565	a
	Elasco	M115 Series	113-118	0.05-0.1	0.05	0.05	ina	h
	Ferro	HV-120	120	0.055	1.3	1.3	70	b
	Acopian	120B Series	120 <sup>2</sup>	0.05-0.1	0.05	0.05	135-145	c

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 216	Con Cir	120A Series	120	0.05-0.5	±0.05	±0.05	150-320	g
	Con Cir	120B Series	120	0.05-0.5	±0.5	±0.5	140-300	g
	Trans Dev	GSM120-1.2	120	1.2	±0.02	±0.05	ina	b
	Kepeco	PRM Series	120	1, 1.5	±1	7.3, 3.6 v	99, 119	
	Elasco	V115 Series	110-120	0.05-0.1	0.05	0.05	ina	h
	Lambda	LH130S	0-120	0.5	0.015	0.015	225	b
	Lambda	LH131S	0-120	1.2	0.015	0.015	320	b
	Sorensen	QMHV100-3	81-122	0.3	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	130	
MO 217	Elasco	M120 Series	118-123	0.05-0.1	0.05	0.05	ina	h
	Acopian	125B Series	125 <sup>2</sup>	0.05-0.1	0.05	0.05	135-145	c
	GE	9T66Y980	125	2	±1	3	134	
	Tech Pwr	M-65 Series	115-125	0.05-6	±0.5	±0.5	105-590	a,b,h,i
	Tech Pwr	M-65A Series	115-125	0.05-6	±0.05	±0.05	115-615	a,b,h,i
	PMC	HR Series	100-125	0.1, 0.2	0.005	0.05	125, 145	b
	PMC	HR100125-200	100-125	0.2	0.005	0.05	145	b
	Deltron	MP12 Series	75-125	0.05-0.8	0.05	0.05	86-274	
MO 218	PMC	HR50125-500	50-125	0.1	0.005	0.04	145	b
	PMC	RA Series	114-126	0.05-6	±0.05	±0.05	110-580	b
	PMC	RB Series	114-126	0.05-6	±0.5	±0.5	87-530	b
	Elasco	M125 Series	123-128	0.05-0.1	0.05	0.05	ina	h
	Elasco	V125 Series	120-130	0.05-0.1	0.05	0.05	ina	h
	Abbott	HA Series	116-130	0.04-0.972	±0.2	±1.5	260-465	a
	Abbott	HCL24D-123A	116-130	1.944	±0.2	±2.5	565	a
	Elasco	M130 Series	128-133	0.05-0.1	0.05	0.05	ina	h
MO 219	Con Cir	135A Series	135	0.05-0.5	±0.05	±0.05	155-350	g
	Con Cir	135B Series	135	0.05-0.5	±0.5	±0.5	140-330	g
	Elasco	M135 Series	133-138	0.05-0.1	0.05	0.05	ina	h
	PMC	RA Series	126-139	0.05-6	±0.05	±0.05	110-580	b
	PMC	RB Series	126-139	0.05-6	±0.5	±0.5	100-550	b
	Elasco	V135 Series	130-140	0.05-0.1	0.05	0.05	ina	h
	Elasco	M140 Series	138-143	0.05-0.1	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	125-144	0.05-3	±0.5	±0.5	110-405	a,b,h,i
MO 220	Tech Pwr	M-65A Series	125-144	0.05-3	±0.05	±0.05	120-430	a,b,h,i
	Elasco	M145 Series	143-148	0.05-0.1	0.05	0.05	ina	h
	Abbott	HA Series	130-148	0.036-0.864	±0.2	±1.5	260-455	a
	Abbott	HCL24D-138A	130-148	1.728	±0.2	±2.5	550	a
	ERA	CV150	150	0.02	±2	2	45	b
	ERA	SV150	150	0.02	±1.5	1.5	85	b
	Ferro	HV-150	150	0.045	1	1	75	b
	Acopian	150B Series	150 <sup>2</sup>	0.05-0.1	0.05	0.05	145-155	c

Notes, abbreviations and manufacturers' index at end of this section.

## Modular dc supplies

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 221	Ferro	HVA-150	150	0.12	1.5	1.5	100	b
	Trans Dev	STR-150	150	0.2	±0.1	±0.1	ina	b
	Trans Dev	GSM150-1	150	1	±0.02	±0.05	ina	b
	Trygon	FT-FTR150-1	150	1	1	5 v	119-149	
	GE	9T66Y981	150	2	±1	3	144	
	Elasco	V145 Series	140-150	0.05-0.1	0.05	0.05	ina	h
	PMC	HR Series	125-150	0.1, 0.2	0.005	0.03, 0.05	125, 145	b
	ITI	231J	100-150	0.035	±0.02	±0.02	139	b
MO 222	ITI	331J	100-150	0.065	±0.02	±0.02	146	b
	ITI	431J	100-150	0.1	±0.02	±0.02	155	b
	PMC	HR100150-150	100-150	0.15	0.005	0.05	145	b
	ITI	531J	100-150	0.2	±0.02	±0.02	168	b
	ITI	631J	100-150	0.4	±0.02	±0.02	188	b
	Chalco	150V Series	74-150	1-10	±0.1	±0.1	340-540	
	Chalco	150V Series	74-150	1-10	±1	±1	320-495	
	D-B	110-150	0-150	0.2	5 mv	20 mv	235	
MO 223	Con Cir	152A Series	152	0.05-0.375	±0.05	±0.05	160-360	g
	Con Cir	152B Series	152	0.05-0.375	±0.5	±0.5	150-340	g
	Elasco	M150 Series	148-153	0.05-0.1	0.05	0.05	ina	h
	PMC	RA Series	139-153	0.05-3	±0.05	±0.05	110-400	b
	PMC	PB Series	139-153	0.05-3	±0.5	±0.5	100-375	b
	Elasco	M155 Series	153-158	0.05-0.1	0.05	0.05	ina	h
	ERA	ME150P1	150-160	0.1	±0.01	0.05	235	b
	ERA	MS150P1	150-160	0.1	±0.01	0.05	395	b,f
MO 224	ERA	SR150P1R	150-160	0.1	±0.01	0.05	175	b
	ERA	TR Series	150-160	0.1	±0.05	0.05	130	a
	Elasco	V155 Series	150-160	0.05-0.1	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	144-160	0.05-3	±0.5	±0.5	115-425	a,b,h,i
	Tech Pwr	M-65A Series	144-160	0.05-3	±0.05	±0.05	125-450	a,b,h,i
	Trygon	PS150-120F	140-160	0.12	0.01	0.01	135	b
	Tech Pwr	SCR-80 Series	80-160	0.75-12	±0.5	±0.5	210-550	b,d
	Harrison	6354A	0-160	0.4	0.005	0.005	259	d
MO 225	Trygon	PS160-500	0-160	0.5	0.01	0.01	200	a
	Trygon	PHR Series	0-160	2	0.01	0.01	425	
	Trygon	PHR160-2B	0-160	2	0.01	0.01	425	a
	Tech Pwr	R-80 Series	0-160	0.75-12	±0.1	±0.3	140-515	b
	Tech Pwr	SWR-80 Series	0-160	0.75-12	±0.01	±0.03	295-875	b
	Elasco	M160 Series	158-163	0.05-0.1	0.05	0.05	ina	h
	Abbott	HA Series	148-166	0.032-0.768	±0.2	±1.5	260-445	a
Abbott	HCL24D-157A	148-166	1.536	±0.2	±2.5	540	a	

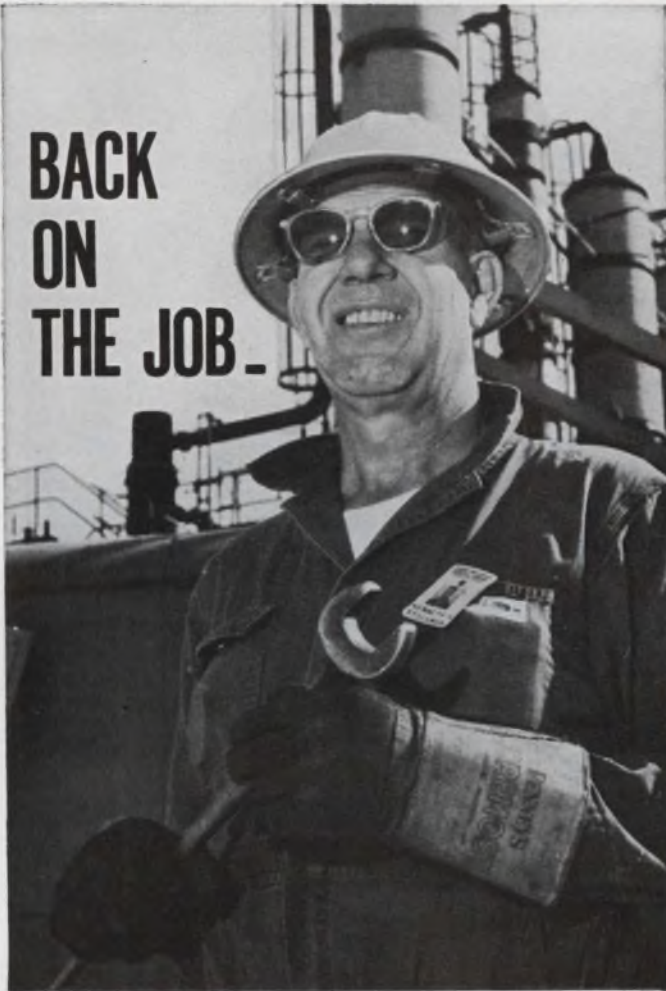
Notes, abbreviations and manufacturers' index at end of this section.



# 150-200 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 226	Con Cir	168A Series	168	0.05-0.375	±0.05	±0.05	180-375	g
	Con Cir	168B Series	168	0.05-0.375	±0.5	±0.5	155-355	g
	Elasco	M165 Series	163-168	0.05-0.1	0.05	0.05	ina	h
	PMC	RA Series	153-168	0.05-3	±0.05	±0.05	115-430	b
	PMC	RB Series	153-168	0.05-3	±0.5	±0.5	105-405	b
	Elasco	V165 Series	160-170	0.05-0.1	0.05	0.05	ina	h
	Elasco	M170 Series	168-173	0.05-0.1	0.05	0.05	ina	h
	Ferro	HV-175	175	0.04	1.2	1.2	80	b
MO 227	PMC	HR150175-50	150-175	0.05	0.005	0.03	125	b
	Deltron	MP17 Series	125-175	0.05-0.8	0.05	0.05	86-274	
	Tech Pwr	M-65 Series	160-176	0.05-3	±0.5	±0.5	125-450	a,b,h,i
	Tech Pwr	M-65A Series	160-176	0.05-3	±0.05	±0.05	135-480	a,b,h,i
	Elasco	M175 Series	173-178	0.05-0.1	0.05	0.05	ina	h
	ERA	CV180	180	0.02	±2	2	55	b
	ERA	SV180	180	0.02	±1.5	1.5	85	b
	Elasco	V175 Series	170-180	0.05-0.1	0.05	0.05	ina	h
MO 228	Sorensen	QMHV150-.2	120-181	0.2	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	145	
	Elasco	M180 Series	178-183	0.05-0.1	0.05	0.05	ina	h
	Con Cir	184A Series	184	0.05-0.375	±0.05	±0.05	185-405	g
	Con Cir	184B Series	184	0.05-0.375	±0.5	±0.5	170-385	g
	PMC	RA Series	168-185	0.05-3	±0.05	±0.05	125-450	b
	PMC	RB Series	168-185	0.05-3	±0.5	±0.5	115-425	b
	Abbott	HA Series	166-186	0.028-0.684	±0.2	±1.5	260-430	a
	Abbott	HCL24D-176A	166-186	1.368	±0.2	±2.5	530	a
MO 229	Elasco	M185 Series	183-188	0.05-0.1	0.05	0.05	ina	h
	Elasco	V185 Series	180-190	0.05-0.1	0.05	0.05	ina	h
	Tech Pwr	M-65 Series	176-192	0.05-3	±0.05	±0.05	140-510	a,b,h,i
	Tech Pwr	M-65A Series	176-192	0.05-3	±0.5	±0.5	130-480	a,b,h,i
	Elasco	M190 Series	188-193	0.05-0.1	0.05	0.05	ina	h
	Elasco	M195 Series	193-198	0.05-0.1	0.05	0.05	ina	h
	Ferro	HV-200	200	0.04	1.3	1.3	80	b
	Ferro	HVA-200	200	0.1	1.5	1.5	100	b
MO 230	Trans Dev	STR-200	200	0.2	±0.1	±0.1	ina	b
	Con Cir	200A Series	200	0.05-0.375	±0.05	±0.05	190-425	g
	Con Cir	200B Series	200	0.05-0.375	±0.5	±0.5	180-410	g
	GE	9T6GY982	200	1	±1	3	124	
	Elasco	V195 Series	190-200	0.05-0.1	0.05	0.05	ina	h
	PMC	HR Series	175-200	0.05-0.15	0.005	0.03-0.05	145-165	b
	PMC	HR150200-150	150-200	0.15	0.005	0.05	165	b
	ITI	ACV-121-L	135-200	0.05	0.02	0.05	75	b

**BACK  
ON  
THE JOB.**



## Ken Stockman, Iron Worker, Survived His Heart Attack

Like most heart attack victims, Ken Stockman survived his first attack and went back to his job. Three out of four now do!

Heart Fund dollars invested in research have helped make such progress possible through advances in diagnosis, treatment and rehabilitation.

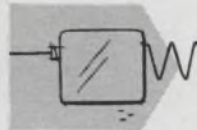
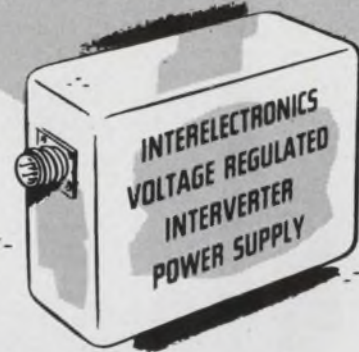
But heart attack still kills 550,000 in the U.S. annually. Fight this Number 1 killer with the best weapon you have — a generous gift to your Heart Fund volunteer.

**GIVE ...**  
so more will live  
**HEART FUND**



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**PROVEN RELIABILITY—  
SOLID-STATE POWER INVERTERS,  
over 260,000 logged operational hours—  
voltage-regulated, frequency-controlled,  
for missile, telemeter, ground support,  
135°C all-silicon units available now—**



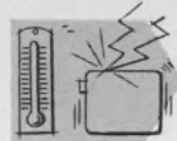
Interelectronics all-silicon thyatron-like gating elements and cubic-grain toroidal magnetic components convert DC to any desired number of AC or DC outputs from 1 to 10,000 watts.



Ultra-reliable in operation (over 260,000 logged hours), no moving parts, unharmed by shorting output or reversing input polarity. High conversion efficiency (to 92%, including voltage regulation by Interelectronics patented reflex high-efficiency magnetic amplifier circuitry.)



Light weight (to 6 watts/oz.), compact (to 8 watts/cu. in.), low ripple (to 0.01 mv. p-p), excellent voltage regulation (to 0.1%), precise frequency control (to 0.2% with Interelectronics extreme environment magnetostrictive standards or to 0.0001% with fork or piezoelectric standards.)



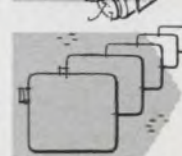
Complies with MIL specs. for shock (100G 11 msec.), acceleration (100G 15 min.), vibration (100G 5 to 5,000 cps.), temperature (to 150 degrees C), RF noise (I-26600).



AC single and polyphase units supply sine waveform output (to 2% harmonics), will deliver up to ten times rated line current into a short circuit or actuate MIL type magnetic circuit breakers or fuses, will start gyros and motors with starting current surges up to ten times normal operating line current.



Now in use in major missiles, powering telemeter transmitters, radar beacons, electronic equipment. Single and polyphase units now power airborne and marine missile gyros, synchros, servos, magnetic amplifiers.



Interelectronics—first and most experienced in the solid-state power supply field produces its own all-silicon solid-state gating elements, all high flux density magnetic components, high temperature ultra-reliable film capacitors and components, has complete facilities and know how—has designed and delivered more working KVA than any other firm!

**INTERELECTRONICS CORPORATION**  
550 U. S. Route 303, Congers, N. Y.  
Telephone: 914 ELmwood 8-8000



## Modular dc supplies

200-330 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 231	PMC	HR125200-100	125-200	0.1	0.005	0.04	145	b
	Chalco	200V Series	99-200	0.5-5	±0.1	±0.1	330-550	
	Chalco	200V Series	99-200	0.5-5	±1	±1	310-520	
	Assoc Spec	12	75-200	0.1	1	1	66	
	Grafix	459	12-200	0.35	0.05	0.25	195	b
	Elasco	M200 Series	198-203	0.05-0.1	0.05	0.05	ina	h
	PMC	RA Series	185-204	0.05-3	±0.05	±0.05	130-490	b
	PMC	RB Series	185-204	0.05-3	±0.5	±0.5	120-465	b
MO 232	Abbott	HA Series	186-208	0.025-0.612	±0.2	±1.5	260-420	a
	Abbott	HCL24D-197A	186-208	1.224	±0.2	±2.5	515	a
	ERA	CV210	210	0.02	±2	2	55	b
	ERA	SV210	210	0.02	±1.5	1.5	95	b
	ERA	MS200P1	200-210	0.1	±0.01	0.05	395	b,f
	ERA	ME200P1	200-210	0.1	±0.01	0.05	235	b
	ERA	SR200P1	200-210	0.1	±0.01	0.05	195	b
ERA	TR Series	200-210	0.1	±0.05	0.05	140	a	
MO 233	Tech Pwr	M-65 Series	192-210	0.05-3	±0.5	±0.5	135-510	a,b,h,i
	Tech Pwr	M-65A Series	192-210	0.05-3	±0.05	±0.05	145-540	a,b,h,i
	ACDC	BX200N0.1	190-210	0.1	0.01	0.01	ina	
	Trygon	PS200-100F	190-210	0.1	0.01	0.01	135	b
	Con Cir	220A Series	220	0.05-0.375	±0.05	±0.05	205-445	g
	Con Cir	220B Series	220	0.05-0.375	±0.5	±0.5	190-425	g
	PMC	RA Series	204-225	0.05-3	±0.05	±0.05	135-510	b
	PMC	RB Series	204-225	0.05-3	±0.5	±0.5	125-485	b
MO 234	Deltron	MP22 Series	175-225	0.05-0.8	0.05	0.05	86-274	
	Tech Pwr	M-65 Series	210-230	0.05-3	±0.5	±0.5	145-540	a,b,h,i
	Tech Pwr	M-65A Series	210-230	0.05-3	±0.05	±0.05	155-570	a,b,h,i
	Abbott	HA Series	208-233	0.023-0.552	±0.2	±1.5	260-405	a
	Abbott	HCL24D-220A	208-233	1.104	±0.2	±2.5	505	a
	Con Cir	240A Series	240	0.05-0.375	±0.05	±0.05	210-400	g
	Con Cir	240B Series	240	0.05-0.375	±0.5	±0.5	195-440	g
ERA	CV250	250	0.02	±2	2	60	b	
MO 235	ERA	SV250	250	0.02	±1.5	1.5	95	b
	Ferro	HV-250	250	0.04	1.5	1.5	85	b
	Ferro	HVA-250	250	0.08	1.5	1.5	120	b
	Trans Dev	STR-250	250	0.2	±0.1	±0.1	ina	b
	Tech Pwr	M-65 Series	230-250	0.05-3	±0.5	±0.5	150-570	a,b,h,i
	Tech Pwr	M-65A Series	230-250	0.05-3	±0.05	±0.05	160-600	a,b,h,i
	PMC	RA Series	225-250	0.05-3	±0.05	±0.05	145-540	b
	PMC	RB Series	225-250	0.05-3	±0.5	±0.5	135-515	b

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 236	ERA	ME250P1	250-260	0.1	±0.01	0.05	255	b
	ERA	MS250P1	250-260	0.1	±0.01	0.05	395	b,f
	ERA	SR250P1	250-260	0.1	±0.01	0.05	225	b
	ERA	TR Series	250-260	0.1	±0.05	0.05	160	a
	Abbott	HA Series	233-261	0.02-0.492	±0.2	±1.5	260-405	a
	Abbott	HCL24D-247A	233-261	0.984	±0.2	±2.5	505	a
	Con Cir	265A Series	265	0.05-0.375	±0.05	±0.05	215-475	g
	Con Cir	265B Series	265	0.05-0.375	±0.5	±0.5	205-460	g
MO 237	Tech Pwr	M-65 Series	250-275	0.05-3	±0.5	±0.5	155-605	a,b,h,i
	PMC	RA Series	250-275	0.05-3	±0.05	±0.05	155-590	b
	PMC	RB Series	250-275	0.05-3	±0.5	±0.5	145-565	b
	Tech Pwr	M-65A Series	250-275	0.05-3	±0.05	±0.05	165-635	a,b,h,i
	Deltron	MP27 Series	225-275	0.05-0.8	0.05	0.05	89-280	
	ITI	ACV-121-M	200-275	0.05	0.02	0.05	75	b
	Sorensen	QMHV200-.15	178-275	0.15	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	16	
Con Cir	290A Series	290	0.05-0.25	±0.05	±0.05	225-440	g	
MO 238	Con Cir	290B Series	290	0.05-0.25	±0.5	±0.5	210-420	g
	Abbott	HA Series	261-292	0.018-0.432	±0.2	±1.5	265-420	a
	Abbott	HCL24D-276A	261-292	0.864	±0.2	±2.5	515	a
	ERA	CV300	300	0.02	±2	2	65	b
	ERA	SV300	300	0.02	±1.5	1.5	105	b
	Ferro	HV-300	300	0.035	1.5	1.5	90	b
	Trans Dev	STR-300	300	0.2	±0.1	±0.1	ina	b
	Trans Dev	GSM300-.6	300	0.6	±0.02	±0.05	ina	b
MO 239	ERA	ME300P1	300-310	0.1	±0.01	0.05	255	b
	ERA	MS300P1	300-310	0.1	±0.01	0.05	395	b,f
	ERA	SR300P1	300-310	0.1	±0.01	0.05	235	b
	ERA	TR Series	300-310	0.1	±0.05	0.05	175	a
	ACDC	BX300N0.2	290-310	0.2	0.01	0.01	ina	
	PMC	RA Series	275-315	0.05-1.5	±0.05	±0.05	160-500	b
	PMC	RB Series	275-315	0.05-1.5	±0.5	±0.5	150-475	b
	Tech Pwr	M-65 Series	275-315	0.05-1.5	±0.5	±0.5	160-505	a,b,h,i
MO 240	Tech Pwr	M-65A Series	275-315	0.05-1.5	±0.05	±0.05	170-525	a,b,h,i
	Tech Pwr	SCR-80 Series	160-320	0.375-6	±0.5	±0.5	230-595	b,d
	Harrison	6357A	0-320	0.2	0.005	0.005	259	d
	Deltron	MP32 Series	275-325	0.05-0.8	0.05	0.05	89-280	
	Assoc Spec	2	200-325	0.1	1	1	50	
	Abbott	HA Series	292-326	0.016-0.384	±0.2	±1.5	270-430	a
	Abbott	HCL24D-310A	292-326	0.768	±0.2	±2.5	530	a
Sorensen	QMHV300-.1	272-330	0.1	±0.05 <sup>5</sup>	±0.05 <sup>5</sup>	175		

Notes, abbreviations and manufacturers' index at end of this section.

# Modular dc supplies

330-3260 v

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 241	Arnold	SCH-300	150-330	0.065	1	1	162	
	PMC	RA Series	315-340	0.05-1.5	±0.05	±0.05	165-510	b
	PMC	RB Series	315-340	0.05-1.5	±0.5	±0.5	155-485	b
	Tech Pwr	M-65 Series	315-340	0.05-1.5	±0.5	±0.5	165-520	a,b,h,i
	Tech Pwr	M-65A Series	315-340	0.05-1.5	±0.05	±0.05	175-540	a,b,h,i
	Grafix	376	300-350	0.2	0.05	0.05	455	b
	ITI	ACV-121-N	275-350	0.05	0.02	0.05	75	b
	Abbott	HA Series	326-365	0.014-0.348	±0.2	±1.5	275-440	a
MO 242	Abbott	HCL24D-346A	326-365	0.696	±0.2	±2.5	550	a
	PMC	RA Series	340-370	0.05-1.5	±0.05	±0.05	170-530	b
	PMC	RB Series	340-370	0.05-1.5	±0.5	±0.5	160-505	b
	Deltron	MP37 Series	325-375	0.05-0.8	0.05	0.05	89-280	
	Ferro	HV-400	400	0.02	1.5	1.5	120	b
	PMC	RA Series	370-400	0.05-1.5	±0.05	±0.05	185-550	b
	PMC	RB Series	370-400	0.05-1.5	±0.5	±0.5	170-525	b
	Abbott	HA Series	365-409	0.013-0.312	±0.2	±1.5	280-455	a
MO 243	Abbott	HCL24D-387A	365-409	0.624	±0.2	±2.5	550	a
	ACDC	BX400N0.4	390-410	0.4	0.01	0.01	ina	
	Deltron	MP42 Series	375-425	0.05-0.8	0.05	0.05	89-280	
	Abbott	HA Series	409-458	0.011-0.276	±0.2	±1.5	290-465	a
	Abbott	HC24D-433A	409-458	0.552	±0.2	±2.5	565	a
	Ferro	HV-500	500	0.015	1.5	1.5	120	b
	CEA	500A Series	1-500	0.1-25	0.25	0.25	40-600	
	CEA	500B Series	1-500	0.1-25	0.025	0.025	50-650	
MO 244	CEA	600A Series	1-500	0.1-25	0.25	0.25	50-725	
	CEA	600B Series	1-500	0.1-25	0.025	0.025	60-790	
	Abbott	HA Series	458-514	0.01-0.228	±0.2	±1.5	305-485	a
	Abbott	HC24D-486A	458-514	0.456	±0.2	±2.5	580	a
	Abbott	HA Series	514-590	0.009-0.22	±0.2	±1.5	315-505	a
	Abbott	HC24D-552A	514-590	0.44	±0.2	±2.5	600	a
	ERA	SV600	600	0.005	±1.5	1.5	145	b
	Harrison	6358A	0-600	0.2	0.01	0.01	450	d
MO 245	Abbott	HA Series	590-660	0.008-0.197	±0.2	±1.5	330-520	a
	Abbott	HC24D-630A	590-660	0.394	±0.2	±2.5	620	a
	Abbott	HA Series	660-740	0.007-0.172	±0.2	±1.5	340-540	a
	Abbott	HC24D-700A	660-740	0.344	±0.2	±2.5	635	a
	Ferro	HV-750	750	0.0085	1.2	1.2	175	b
	Tech Pwr	SCR-80 Series	400-800	0.1-1.5	±0.5	±0.5	250-640	b,d
	Arnold	SCH-750	375-820	0.75	1	1	177	
	Abbott	HA Series	740-830	0.006-0.152	±0.2	±1.5	350-555	a

	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 246	Abbott	HC24D-790A	740-830	0.304	±0.2	±2.5	660	a
	ERA	SV900	900	0.005	±1.5	1.5	155	b
	Abbott	HA Series	830-930	0.005-0.138	±0.2	±1.5	365-575	a
	Abbott	HC24D-880A	830-930	0.276	±0.2	±2.5	685	a
	ERA	SAR1K/.1	1000	0.0001	±0.5	0.5	165	b
	Del	TRA 1-1-1	1000	0.001	±0.05	±0.05	request	
	ERA	SAR1K/2	1000	0.002	±0.2	0.3	295	b
	Del	1RP-1	1000	0.005	0.25	0.25	request	
MO 247	Ferro	HV-1000	1000	0.005	1.3	1.3	180	b
	Abbott	HA Series	930-1040	0.005-0.138	±0.2	±1.5	385-610	a
	Abbott	HC24D-990A	930-1040	0.276	±0.2	±2.5	730	a
	Arnold	SCH-1000	500-1100	0.02	1	1	198	
	Abbott	HAK Series	1040-1160	0.004-0.109	±0.2	±2.5	390-630	a
	Abbott	HCK24D-1100A	1040-1160	0.218	±0.2	±2.5	755	a
	Abbott	HAK Series	1160-1300	0.004-0.097	±0.2	±2.5	400-640	a
	Abbott	HCK24D-1230A	1160-1300	0.194	±0.2	±2.5	780	a
MO 248	Abbott	HAK Series	1300-1480	0.003-0.086	±0.2	±2.5	415-670	a
	Abbott	HCK24D-1380A	1300-1480	0.172	±0.2	±2.5	815	a
	Del	TRA 1.5-1-1	1500	0.001	±0.05	±0.05	request	
	Tech Pwr	SCR-80 Series	800-1600	0.05-0.75	±0.5	±0.5	290-690	b,d
	Arnold	SCH-1500	750-1650	0.013	1	1	220	
	Abbott	HAK Series	1480-1660	0.003-0.076	±0.2	±2.5	425-690	a
	Abbott	HCK24D-1570A	1480-1660	0.152	±0.2	±2.5	840	a
	Abbott	HAK Series	1660-1860	0.002-0.068	±0.2	±2.5	435-710	a
MO 249	Abbott	HCK24D-1760A	1660-1860	0.136	±0.2	±2.5	860	a
	Del	TRA 2-1-1	2000	0.001	±0.05	±0.05	request	
	Abbott	HAK Series	1860-2080	0.002-0.061	±0.2	±2.5	450-725	a
	Abbott	HCK24D-1970A	1860-2080	0.122	±0.2	±2.5	890	a
	Abbott	HAK Series	2080-2330	0.027-0.055	±0.2	±2.5	550-740	a
	Abbott	HCK24D-2200A	2080-2330	0.11	±0.2	±2.5	910	a
	Del	TRA 2.5-1-1	2500	0.001	±0.05	±0.05	request	
	Del	2.5RP4-1	2500	0.004	0.25	0.25	request	
MO 250	Peerless	6648	2600	1.5	2.3	2.3	ina	e
	Abbott	HAK Series	2330-2610	0.024-0.049	±0.2	±2.5	570-760	a
	Abbott	HCK24D-2470A	2330-2610	0.098	±0.2	±2.5	985	a
	Arnold	SCH-2500	1250-2750	0.008	1	1	294	
	ERA	SAR3K/.1	3000	0.0001	±0.5	0.5	230	b
	Del	TRA 3-1-1	3000	0.001	±0.05	±0.05	request	
	ERA	SAR3K/2	3000	0.002	±0.2	0.3	345	b
	Abbott	HAK Series	2920-3260	0.019-0.032	±0.2	±2.5	595-810	a

Notes, abbreviations and manufacturers' index at end of this section.



	Mfr.	Model	OUTPUT		REGULATION		Price \$	Notes
			Volts	Max. Amps	Line %	Load %		
MO 251	Abbott	HCK24D-3100A	2920-3260	0.076	±0.2	±2.5	1020	a
	Del	TRA 3.5-1-1	3500	0.001	±0.05	±0.05	request	ina
	Peerless	6596	3500	0.002	1	1	ina	e
	Abbott	HAK Series	3260-3650	0.017-0.034	±0.2	±2.5	605-835	a
	Abbott	HCK24D-3460A	3260-3650	0.068	±0.2	±2.5	1040	a
	Abbott	HN2D-3870A	3650-4090	0.005	±0.5	±2.5	520	a
	Abbott	HN4D-3870A	3650-4090	0.01	±0.5	±2.5	860	a
	Abbott	HN2D-4330A	4090-4580	0.004	±0.5	±2.5	680	a
	Abbott	HN4D-4330A	4090-4580	0.008	±0.5	±2.5	915	a
MO 252	ERA	SAR5K/.1	5000	0.0001	±0.5	0.5	270	b
	ERA	SAR5K/2	5000	0.002	±0.2	0.3	395	b
	Del	5RP2-1	5000	0.002	0.25	0.25	request	ina
	Un Volt	BPER Series	1-5000	1, 3	±0.25	±0.25	ina	b
	Abbott	HN2D-4860A	4580-5140	0.004	±0.5	±2.5	740	a
	Abbott	HN4D-4860A	4580-5140	0.008	±0.5	±2.5	970	a
	Arnold	SCH-5000	2500-5500	0.004	1	1	378	a
	Abbott	HN2D-5520A	5140-5900	0.003	±0.5	±2.5	800	a
MO 253	Abbott	HN4D-5520A	5140-5900	0.006	±0.5	±2.5	1025	a
	Abbott	HN2D-6300A	5900-6600	0.003	±0.5	±2.5	860	a
	Abbott	HN4D-6300A	5900-6600	0.006	±0.5	±2.5	1090	a
	Abbott	HN2D-7000A	6600-7400	0.002	±0.5	±2.5	920	a
	Abbott	HN4D-7000A	6600-7400	0.004	±0.5	±2.5	1140	a
	Del	7.5RP1.5-1	7500	0.0015	0.25	0.25	request	ina
	Peerless	6578	8000	0.002	2	2	ina	e
	Abbott	HN2D-7900A	7400-8300	0.002	±0.5	±2.5	980	a
	Abbott	HN4D-7900A	7400-8300	0.004	±0.5	±2.5	1190	a
MO 254	Abbott	HN2D-8800A	8300-9300	0.002	±0.5	±2.5	1040	a
	Abbott	HN4D-8800A	8300-9300	0.004	±0.5	±2.5	1250	a
	Del	10RP1-1	10 kv	0.001	0.25	0.25	request	ina
	ERA	SAR10K/1	10 kv	0.001	±0.2	0.3	475	b
	Del	10RP2-1	10 kv	0.002	0.25	0.25	request	ina
	Un Volt	BPER Series	6-10 kv	1, 3	±0.25	±0.25	ina	b
	Abbott	HN2D-9900A	9.3-10.4 kv	0.002	±0.5	±2.5	1105	a
	Abbott	HN4D-9900A	9.3-10.4 kv	0.004	±0.5	±2.5	1315	a
MO 255	Wab Mag	M-810 Series	15 kv	ina	±5	ina	ina	
	Wab Mag	M-845 Series	15 kv	ina	±5	ina	ina	
	Del	15RP1.5-1	15 kv	0.0015	0.25	0.25	request	ina
	Wab Mag	HR-1 Series	15 kv	0.03	±1	±1	ina	
	Un Volt	BPER Series	12-16 kv	1, 3	±0.25	±0.25	ina	b
	Del	20RP1-1	20 kv	0.001	0.25	0.25	request	ina
	Un Volt	BPER Series	18-22 kv	1, 3	±0.25	±0.25	ina	b
	Del	25RP.5-1	25 kv	0.0005	0.25	0.25	request	ina
Del	30RP.5-1	30 kv	0.0005	0.25	0.25	request	ina	

Notes, abbreviations and manufacturers' index at end of this section.

**Notes**

- a. Models with 400 cps input available.
- b. 50 - 440 cps input.
- c. Wide-temperature all-silicon power supplies available.
- d. 115/220 v input.
- e. 400 cps input.
- f. All silicon, germanium models available.
- g. Standard or miniature sizes available.
- h. All germanium, silicon and wide temperature models available.
- i. Mil spec. models available.

- 1. Dual supply.
- 2. Dual outputs available.
- 3. Dual outputs of any combination of 3, 6 or 12 v.
- 4. Dual outputs of any combination of 24, 36 or 48 v.
- 5. Total regulation.
- 6. Specify any voltage within range.
- 7. This model designation covers a series of modular supplies. These supplies are listed in the table according to their output voltages.

**Abbreviations**

ina Information not available.



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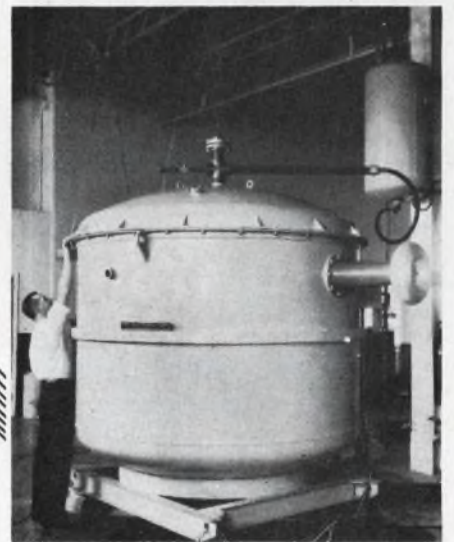


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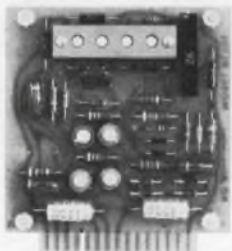
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# 1µV RESOLUTION MICRO/MILLIVOLT STANDARD\*

COMPARE  
performance  
..... price

EDC's dc Millivolt Standard — with 1 microvolt resolution — is an all-solid-state 5-decade precision source with . . .

- Absolute Accuracy . . . . ±0.01%  
(NBS traceability)
- Outputs (2) . . . . .  

111.110mv
(µv steps)
11.1110v
(100 µv steps)
- Stability . . . . . ±0.001%  
(Short term — 8 hrs)
- Output current . . . . . 10 ma
- Delivery . . . . . from stock
- Price . . . . . \$745

Model MV-100-N a direct reading standard has: automatic recovery . . . short circuit and overload proof . . . warm-up time of 30 sec. Designed as a portable standard for production and laboratory applications, it may be used in: thermocouple simulation; simulation of thermal emf; and in calibration of strip chart recorders, oven controllers, furnace controllers, millivolt meters, strain gauge indicators . . . Weighs only 8 pounds. Traceable certification supplied.

\*Other models to 1000 vdc.

Literature available on request.

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- M-30 [MO-133]
- M-35 [MO-149]
- M-40 [MO-159]
- MA-3 [MO-3]
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- MA-5 [MO-11]
- MA-6 [MO-18]
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- MA-10 [MO-40]
- MA-12 [MO-54]
- MA-15 [MO-68]
- MA-18 [MO-83]
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- MA-24 [MO-108]
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- MC-10 [MO-40]
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- MC-20 [MO-91]

Manufacturers' addresses and literature offerings in master cross index at front of issue.



- MC-22 [MO-103]
- MC-23 [MO-106]
- MC-24 [MO-109]
- MC-25 [MO-115]
- MC-26 [MO-120]
- MC-27 [MO-123]
- MC-28 [MO-126]
- MC-30 [MO-134]
- MC-45 [MO-168]
- MCH-7 [MO-25]
- MCH-10 [MO-41]
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- MCH-18 [MO-84]
- MCH-20 [MO-91]
- MCH-22 [MO-103]
- MCH-24 [MO-109]
- MCH-26 [MO-120]
- MCH-27 [MO-123]
- MCH-28 [MO-126]
- MCH-30 [MO-134]
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- MM-10 [MO-40]
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- SM-5 [MO-11]
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- SM-20 [MO-90]
- SM-30 [MO-133]

**General Electric (GE)**

- 9T66Y51 [MO-58]
- 9T66Y53 [MO-59]
- 9T66Y61 [MO-85]
- 9T66Y83 [MO-128]
- 9T66Y93 [MO-174]
- 9T66Y94 [MO-175]
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- 9T66Y987 [MO-111]
- 9T66Y988 [MO-112]
- 9T66Y989 [MO-113]
- 9T66Y990 [MO-113]
- 9T66Y991 [MO-113]

**Glentronics, Inc (Glentron)**

- 21060 [MO-40]
- 30101 [MO-4]
- 30102 [MO-19]
- 30103 [MO-42]
- 30104 [MO-92]
- 30105 [MO-135]
- 30106 [MO-178]
- 40101 [MO-98]
- 40102 [MO-154]
- 40103 [MO-23]
- 40104 [MO-98]
- 40105 [MO-154]
- 70101 [MO-24]
- 70102 [MO-98]
- 70103 [MO-154]
- 70104 [MO-190]

**Grafix, Inc (Grafix)**

- 271 [MO-128]
- 376 [MO-241]
- 459 [MO-231]
- 488 [MO-76]

**Harrison Division Hewlett-Packard (Harrison)**

- MOD Series**
- [MO-87, 154]
  - 6354A [MO-224]
  - 6357A [MO-240]
  - 6358A [MO-244]
  - 801C [MO-119]

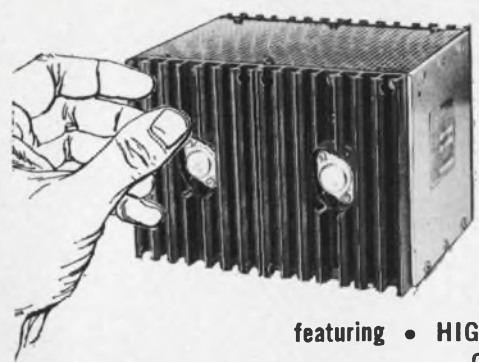
**ITL Electronics, Inc (ITL)**

- ACV-121-L [MO-230]
- ACV-121-M [MO-237]
- ACV-121-N [MO-241]
- 231A [MO-15]
- 231B [MO-30]
- 231C [MO-51]

# OFF THE SHELF

## MIL. SPEC. POWER MODULES

**CERTIFIED . . .** your assurance that NUCOR MIL. spec power modules meet or exceed the Military Environment of:



- MIL-T-21200F
- MIL-E-16400E
- MIL-E-5272E
- MIL-E-5400E
- MIL-STD-242
- MIL-STD-701
- MIL-S-19500

featuring • **HIGHEST MTBF**  
Over 150,000 Hours

- Minimum Volume Sizes
- Custom Designs for Specific Needs

**NEW!**  
Technical data and price BROCHURE. Send for yours today!



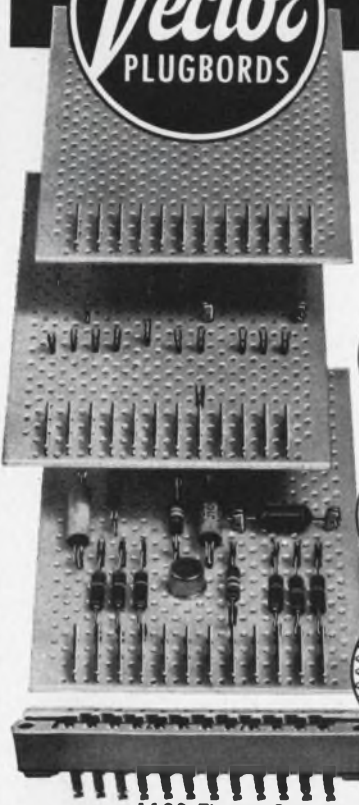
## NUCOR CORPORATION OF AMERICA



2 RICHWOOD PLACE  
DENVER, NEW JERSEY  
(201) OAKWOOD 7-4200

ON READER-SERVICE CARD CIRCLE 40

# CUT CONSTRUCTION TIME...



Make card circuitry *and cheaper* the **FASTER, EASIER, A WAY** with **VECTOR PLUGBORDS**

Ideal for prototypes and moderate production. Easily adapted to printed circuits.



**1** Select a pre-punched plug-board from a large variety of sizes, patterns and materials.



Choose a card connector with "Edgepin," ELCO's "Varicon" or etched contacts.

**2** Lay out your circuit while you breadboard. Push in "Mini-clip" terminals to grip component leads. Transistor leads slip in easily on "Jedec" grid holes. Tube socket mounts also available.



**3** Snap in and solder components leads; cross-connect, and a finished plug-in circuit card is ready for operation.

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ON READER-SERVICE CARD CIRCLE 41





# NEW IDEA

## IN COMPUTER POWER SUPPLIES...



**Nobrush®** Motor Generator Model No. 30-085

"Nobrush" power units—the simple, economical method of providing line isolation in computer and numerical control power supplies. This is the essential reason why computer designers are looking now to "Nobrush" units.

But it's not the only reason. "Nobrush" units are also far simpler than conventional power supplies, smaller and of such rugged design that they bring new meaning to the word "reliability." In addition, they have functional versatility—a single "Nobrush" unit can provide isolated windings for different output voltages (this feature eliminates transformer problems immediately in many cases). Then there's the unique Georator ability to tailor-make to your specific...

But what you don't expect is that the "Nobrush" unit fits right inside the computer cabinet—no special provisions required.

*Take advantage of this in your design, call...*

## GEORATOR CORPORATION

315 Tudor Lane • Manassas, Virginia  
(703) 368-2104

ON READER-SERVICE CARD CIRCLE 42

- 231D [MO-74]
- 231E [MO-102]
- 231F [MO-138]
- 231G [MO-170]
- 231H [MO-195]
- 231I [MO-210]
- 231J [MO-221]
- 331A [MO-15]
- 331B [MO-30]
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- 331D [MO-75]
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- 331G [MO-171]
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- 331I [MO-210]
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- 431B [MO-30]
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- 431D [MO-75]
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- 531A [MO-15]
- 531B [MO-30]
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- 531D [MO-76]
- 531E [MO-102]
- 531F [MO-139]
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- 531I [MO-210]
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- 631J [MO-222]

### Kepeco, Inc

- (Kepeco)
- PAX7-1 [MO-28]
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- [MO-77]
- PAX21-0.5
- [MO-102]
- PAX36-0.3
- [MO-154]
- PAX72-0.15
- [MO-198]
- PAX100-0.1
- [MO-211]
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- PBX15-1.5 [MO-77]
- PBX21-1 [MO-102]
- PBX40-0.5
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- PBX72-0.3
- [MO-198]
- PBX100-0.2
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- PWR15-6 [MO-77]
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### Lambda Electronics Corp

- (Lambda)
- LH118S [MO-47]
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- LMB3 [MO-4]
- LMB4 [MO-8]

### Magnetic Research Corp

- (MAG Res)
- 63-121-0 [MO-164]
- Microdot, Inc.
- (Microdot)
- ACPS-1 [MO-127]

### Mid-Eastern Electronics, Inc.

- (Mid-East)
- SC6-4 [MO-19]
- SC12-4 [MO-58]
- SC15-3 [MO-71]
- SC18-2.9 [MO-85]
- SC24-2.3 [MO-111]
- SC28-2.1 [MO-127]
- SC32-1.9 [MO-143]
- SC36-1.7 [MO-151]
- SC40-1.5 [MO-159]

# AVALANCHE HIGH VOLTAGE SILICON RECTIFIERS

HERMETIC SEAL  
GLASS CONSTRUCTION  
(NO POTTED CHIPS)

5 - 25 - 50 MA TYPES  
3 KV to 50 KV  
AS LOW AS 15c PER KV

SUB-MINIATURE (00 7)  
5 - 25 - 50 - 100 MA  
1000 V to 5000 V

AS LOW AS 25c PER KV  
ALSO IN 3282 - IN 3283 - IN 3284  
IN 3285 - IN 3286 - IN 3992 Types

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AVALANCHE TYPES  
(NO POTTED CHIPS)

150 MA (3 - 24 KV)

HIGH FREQUENCY  
80% MIN. RECT. EFFICIENCY

AT 100 KC  
AVAILABLE IN ALL THREE  
TYPES SHOWN ABOVE  
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COST SAVINGS!

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Div. of Aerological Research, Inc.  
905 Mattison Ave., Asbury Park, N.J.  
(201) 775-1827

ASI . . . now in its 4th year  
as the leader in high quality  
high voltage rectifiers

ON READER-SERVICE CARD CIRCLE 43



SM28-2 [MO-127]  
 SM28-4 [MO-127]  
 SM60-1 [MO-188]  
 SM60-4 [M-189]

**Nuclear Corp of America (Nucor)**  
 NP Series [note 7]  
 NP288 [MO-133]  
 NP481 [MO-180]

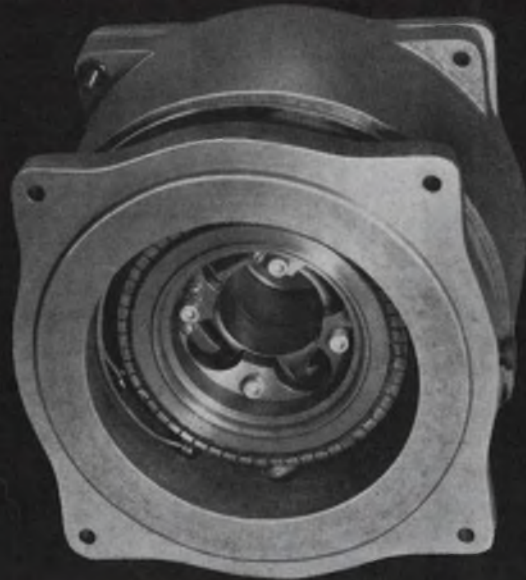
**NumeC Instruments and Controls Corp (NumeC)**  
 A6 [MO-23]  
 A9 [MO-45]  
 A12 [MO-74]  
 A18 [MO-87]  
 A20 [MO-95]  
 A25 [MO-121]  
 A30 [MO-144]  
 A36 [MO-153]  
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 A75 [MO-199]  
 A100 [MO-210]  
 AS6 [MO-23]  
 AS9 [MO-45]  
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 AS18 [MO-87]  
 AS20 [MO-95]  
 AS25 [MO-125]  
 AS30 [MO-144]  
 AS36 [MO-153]  
 AS50 [MO-181]  
 AS75 [MO-199]  
 AS100 [MO-210]

**Peerless Electrical Products Div Alter Lansing Corp (Peerless)**  
 6578 [MO-253]  
 6596 [MO-251]  
 6648 [MO-250]

**Perkin Electronics Corp (Perkin)**  
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 MS10 Series [MO-43]  
 MS12 Series [MO-58]  
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 MS32 Series [MO-143]  
 MS36 Series [MO-152]  
 MS40 Series [MO-160]  
 MS50 Series [MO-179]  
 MS100 Series [MO-208]

**Philbrick Researches, Inc. (Philbrick)**  
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 PR-300 [MO-70]

**Plug-In Instruments, Inc. (Plug-In)**  
 SPS-2010-P [MO-54]  
 SPS-2011-P [MO-109]  
 SPS-2017-P [MO-35]  
 SPS-2018-P [MO-69]  
 SPS-2019-P [MO-83]  
 SPS-2020-P [MO-105]  
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 SPS-2026-P [MO-109]  
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 SPS-2039-P [MO-70]  
 SPS-2047-P [MO-91]  
 SPS-2048-P [MO-40]  
 SPS-2052-P [MO-64]  
 SPS-2052-S



## PIGGYBACK tach/torquer DRIVES NEW N/C MEASURING MACHINE

### Inland Motor Direct-Drive Servo DC Components Simplify Design and Lower Cost of Three-Axis System

In a bold new design, a *standard Inland Motor tach/torquer* combination is used on each of the three axes of a new N/C Measuring Machine designed and built by The Sheffield Corporation, a subsidiary of The Bendix Corporation. The compact design of Inland's torque motors allowed the unique modular packaging concept developed for the application.

All three slides are positioned by precision recirculating ball screws, powered by a unique *Inland Motor* drive coupled directly to a precision leadscrew. Maximum positioning speed is 120 inches per minute with a final positioning accomplished within 4 seconds. Resolution of the measuring system is 0.0001 inch on all three axes with the ability of the drive system to move the slides 0.000030 inch or less.

The inherent smoothness and accuracy of *Inland Motor* torque motors was a major consideration when Sheffield engineers developed the drive system for this high-precision measuring machine. The



simplified direct-drive DC design produced results economically not possible with hydraulic or pneumatic methods of positioning. This is the second series of ultra-precise Sheffield N/C Measuring Machines to utilize *Inland Motor* torque Motors. Another example of how Inland components have solved many unique and exacting servo design problems.



**TORQY SAYS:** If your problems are those of servo design, investigate the advantages of DC direct drive by calling on *Inland Motor*. Our engineers will help keep you up to date on current advances in servo design technology.

## INLAND MOTOR

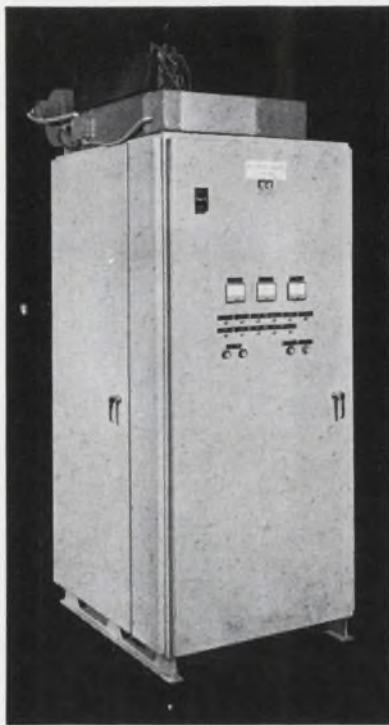
CORPORATION  
 RADFORD, VIRGINIA

703-NE9-3973

SUBSIDIARY OF **HOLLMORGEN**

ON READER-SERVICE CARD CIRCLE 44





# 10 PARTS PER MILLION AT 100 KW D.C.

Regulation and Stability Better Than 0.001% Achieved By 100 KW Spectromagnetic D.C. Power Supply

Three switching magnets, operating in series at 500 amps, 217 V, in Stanford's W. W. Hansen Laboratories, are controlled by this all transistorized, water cooled, current regulated power supply. For over two years, the only service has been replacement of a transistor. This special purpose device embodies many features of the standard line of Spectromagnetic power supplies in service throughout the world.

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- Polarity reversal and negative current for degaussing
- Full two-year Warranty

We can produce precise, high power, current regulated power supplies to meet your requirements and show you economies in the doing. Please write describing your project.

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Hayward 3, California  
(415) 782-1300



ON READER-SERVICE CARD CIRCLE 45  
152

[MO-64]  
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[MO-82]  
SPS-2053-S  
[MO-82]  
SPS-2054-P  
[MO-101]  
SPS-2054-S  
[MO-101]

**Power Designs, Inc.**  
(Pwr Des)

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[MO-4, 19, 57]  
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UPM-X2 [MO-110]  
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**Power Mate Corp**  
(PMC)

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[MO-211]  
HR100125-200  
[MO-217]  
HR100150-150  
[MO-222]  
HR125200-100  
[MO-231]  
HR150175-50  
[MO-227]  
HR150200-150  
[MO-230]  
HR50125-500  
[MO-218]

R Series [MO-6,  
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[MO-182]  
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SRA-10 [MO-41]  
SRA-10-1 [MO-41]  
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SRA-30 [MO-135]  
SRA-40 [MO-159]  
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**Scintillonics, Inc**  
(Scint)

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(Sorensen)

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QMHV200-1.5  
[MO-237]  
QMHV300-1  
[MO-240]

**Technical Apparatus  
Builders**  
(Tabton)

B12V15ACM  
[MO-60]  
B28V15ARM  
[MO-129]  
B28V30ARM  
[MO-129]

**Technipower**  
(Tech Pwr)

M-65 Series  
[note 7]  
M-65A Series  
[note 7]  
R-80 Series  
[note 7]  
SCR-80 Series  
[note 7]  
SWR-80 Series  
[note 7]

**Transistor Devices,  
Inc.**  
(Trans Dev)

AM3 [MO-14]  
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AM18 [MO-85]  
AM20 [MO-93]  
AM24 [MO-111]  
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AM30 [MO-136]  
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RP-13 [MO-94]  
RP-14 [MO-149]  
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SCR-10-5 [MO-45]  
SCR-15-3 [MO-76]  
SCR-15-5 [MO-76]  
SCR-20-3 [MO-96]

# HIGH VOLTAGE POWER SUPPLIES

1,000 to 1,000,000 Volts  
Regulated or Unregulated

Features Available

- Reversible Polarity Output
- Continuously Variable Output Control
- Adjustable Overload Shut-off
- Adjustable Overvoltage Shut-off
- Provisions for External Interlock
- Safety Interlock on HV Cabinet Door
- Zero-start Interlock
- Dual Range Voltage and Current Meters
- Fail-safe Output Shorting Mechanism
- Functional Pilot Lamps
- Circuit Breaker Operation

Write for Catalog



## SPECIAL

Two-in-one power supply  
for  
Mass Spectroscopy

0-20 KV/5 ma positive    0-20 KV/5 ma negative  
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# Last-Minute Entries

Type of Supply	Mfr.	Model	Output Volts	Output Amps	REGULATION		Price \$
					Line %	Load %	
Constant Current	North Hills	CS-151	0-10	0.1-10 ma	5 ppm	5 ppm	ina
	North Hills	CS-152	0-25	0.1-150 ma	5 ppm	5 ppm	ina
DC Voltage Reference	North Hills	VS-35	0-111.1 <sup>1</sup>	0-100 ma	25 ppm	25 ppm	ina
	North Hills	VS-36	0-21.1	0-1	25 ppm	25 ppm	ina
Modular	Litton	5410-2-3	3	0.1-2	0.5	0.5	ina
	Litton	5410-5-3	3	0.25-5	0.5	0.5	ina
	Lambda	LM B3P3	3.3	3.8	0.05 <sup>1</sup>	0.03 <sup>2</sup>	119
	Lambda	LM C3P3	3.3	5.2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	139
	Lambda	LM D3P3	3.3	13.1	0.05 <sup>1</sup>	0.03 <sup>2</sup>	199
	Lambda	LM E3P3	3.3	21	0.05 <sup>1</sup>	0.03 <sup>2</sup>	269
	Lambda	LM F3P3	3.3	44	0.05 <sup>1</sup>	0.03 <sup>2</sup>	425
	Lambda	LM G3P3	3.3	77	0.05 <sup>1</sup>	0.03 <sup>2</sup>	575
	Lambda	LM B3P6	3.6	3.8	0.05 <sup>1</sup>	0.03 <sup>2</sup>	119
	Lambda	LM C3P6	3.6	5.2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	139

A variety of power supplies were introduced by manufacturers either for or at this year's IEEE Show in New York. These units were announced too late to be included in the basic tables. This special section has therefore been added so that the new power supplies can be considered along with all the rest.

The table in this section lists capsule specifications for three types of power supplies: constant-current dc, dc voltage reference, and modular. Within the table the supplies are listed in ascending order of maximum output voltage (see 1 above). Manufacturers are identified in the Mfr. column.

Abbreviations and symbols used in the table are as follows:

1. 0.01 also available.
2. 0.02 also available.
- ina. information not available.

## New special-purpose supplies

In addition to those supplies listed in the table, several new special-purpose power supplies have been introduced by Cober Electronics, Inc. of Stamford, Conn. One of these, the Model 859, is for use with Carcinotrons and other backward-wave oscil-

lators. It provides a heater output of 0-10 volts dc at 0-5 amps; a grid output of 0-200 volts dc at 0-10 ma; and an anode output of 300-3000 volts dc at 0-5 ma.

Another of the Cober special-purpose supplies is the Model 694, which is used to supply power for microwave tubes. It consists of a beam supply having a 0-40-kv dc output at 0-8 amps, and a heater supply having a 0-20-volt dc output at 0-30 amps. For more information on the new Cober special-purpose supplies, circle Reader-Service number 365.

## How to use the table

1. Note how the supplies are listed. Within each group they are in ascending order of maximum output voltage.
2. Select the most likely candidates. These supplies should be considered together with those given in the basic tables.
3. Obtain supplementary data from the manufacturer. Manufacturers' addresses, together with Reader-Service numbers for specific power supply types, are given in the master cross index at the front of the issue.

Type of Supply	Mfr.	Model	Output Volts	Output Amps	REGULATION		Price \$
					Line %	Load %	
Constant Current	North Hills	CS-151	0-10	0.1-10 ma	5 ppm	5 ppm	ina
	North Hills	CS-152	0-25	0.1-150 ma	5 ppm	5 ppm	ina
DC Voltage Reference	North Hills	VS-35	0-111.1	0-100 ma	25 ppm	25 ppm	ina
	North Hills	VS-36	0-21.1	0-1	25 ppm	25 ppm	ina
Modular	Litton	5410-2-3	3	0.1-2	0.5	0.5	ina
	Litton	5410-5-3	3	0.25-5	0.5	0.5	ina
	Lambda	LM B3P3	3.3	3.8	0.05 <sup>1</sup>	0.03 <sup>2</sup>	119
	Lambda	LM C3P3	3.3	5.2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	139
	Lambda	LM D3P3	3.3	13.1	0.05 <sup>1</sup>	0.03 <sup>2</sup>	199
	Lambda	LM E3P3	3.3	21	0.05 <sup>1</sup>	0.03 <sup>2</sup>	269
	Lambda	LM F3P3	3.3	44	0.05 <sup>1</sup>	0.03 <sup>2</sup>	425
	Lambda	LM G3P3	3.3	77	0.05 <sup>1</sup>	0.03 <sup>2</sup>	575
	Lambda	LM B3P6	3.6	3.8	0.05 <sup>1</sup>	0.03 <sup>2</sup>	119
	Lambda	LM C3P6	3.6	5.2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	139
	Lambda	LM D3P6	3.6	13.1	0.05 <sup>1</sup>	0.03 <sup>2</sup>	199
	Lambda	LM E3P6	3.6	21	0.05 <sup>1</sup>	0.03 <sup>2</sup>	269
	Lambda	LM F3P6	3.6	44	0.05 <sup>1</sup>	0.03 <sup>2</sup>	425
	Lambda	LM G3P6	3.6	77	0.05 <sup>1</sup>	0.03 <sup>2</sup>	575
	Litton	5410-2-6	6	0.1-2	0.3	0.3	ina
	Litton	5410-5-6	6	0.25-5	0.3	0.3	ina
	Lambda	LM 251	0-7	0.35	0.05 <sup>1</sup>	0.03 <sup>2</sup>	69
	Lambda	LM 252	0-7	2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	99
	Lambda	LM 253	0-10	0.31	0.05 <sup>1</sup>	0.03 <sup>2</sup>	69
	Lambda	LM 254	0-10	0.65	0.05 <sup>1</sup>	0.03 <sup>2</sup>	79
	Lambda	LM 255	0-10	1.2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	89
	Lambda	LM 256	0-10	1.5	0.05 <sup>1</sup>	0.03 <sup>2</sup>	99
	Litton	5410-2-12	12	0.1-2	0.1	0.1	ina
	Litton	5410-5-12	12	0.25-5	0.1	0.1	ina
	Lambda	LM 257	0-14	0.27	0.05 <sup>1</sup>	0.03 <sup>2</sup>	69
	Lambda	LM 258	0-14	1.2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	99
	Lambda	LM 259	0-24	0.18	0.05 <sup>1</sup>	0.03 <sup>2</sup>	69
	Lambda	LM 260	0-24	0.35	0.05 <sup>1</sup>	0.03 <sup>2</sup>	79
	Lambda	LM 261	0-24	0.7	0.05 <sup>1</sup>	0.03 <sup>2</sup>	89
	Lambda	LM 262	0-24	0.8	0.05 <sup>1</sup>	0.03 <sup>2</sup>	99
	ERA	LC 32P7	4-32	0.75	ina	ina	89
	ERA	LC 322	4-32	2	ina	ina	115
	ERA	LC 325	4-32	5	ina	ina	145
	ERA	LC 3210	4-32	10	ina	ina	215
	Lambda	LM 263	0-32	0.14	0.05 <sup>1</sup>	0.03 <sup>2</sup>	69
	Lambda	LM 264	0-32	0.66	0.05 <sup>1</sup>	0.03 <sup>2</sup>	99
	Lambda	LM B60	60	0.7	0.05 <sup>1</sup>	0.03 <sup>2</sup>	129
	Lambda	LM C60	60	1.1	0.05 <sup>1</sup>	0.03 <sup>2</sup>	149
	Lambda	LM D60	60	2.8	0.05 <sup>1</sup>	0.03 <sup>2</sup>	239
	ERA	LC 60P7	30-60	0.75	ina	ina	145
	Lambda	LM 265	0-60	0.08	0.05 <sup>1</sup>	0.03 <sup>2</sup>	79
	Lambda	LM 266	0-60	0.35	0.05 <sup>1</sup>	0.03 <sup>2</sup>	109
	Lambda	LM B100	100	0.37	0.05 <sup>1</sup>	0.03 <sup>2</sup>	139
	Lambda	LM C100	100	0.55	0.05 <sup>1</sup>	0.03 <sup>2</sup>	164
	Lambda	LM D100	100	1.7	0.05 <sup>1</sup>	0.03 <sup>2</sup>	249
	Lambda	LM E100	100	2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	299
	Lambda	LM G100	100	6.2	0.05 <sup>1</sup>	0.03 <sup>2</sup>	650
	Lambda	LM E120	120	1.7	0.05 <sup>1</sup>	0.03 <sup>2</sup>	299
	Lambda	LM G120	120	4.8	0.05 <sup>1</sup>	0.03 <sup>2</sup>	650
	Del	1.2HRM5P1	0.8-1.2kv	0.005	0.03	0.03	ina
Del	1.7HRM5P1	1.2-1.7kv	0.005	0.03	0.03	ina	
Del	2.5HRM4P1	1.7-2.5kv	0.004	0.03	0.03	ina	
Del	3.5HRM3P1	2.5-3.5kv	0.003	0.03	0.03	ina	
Del	5HRM2P1	3.5-5kv	0.002	0.03	0.03	ina	
Del	7HRM1.5P1	5-7kv	0.0015	0.03	0.03	ina	
Del	10HRM1P1	7-10kv	0.001	0.03	0.03	ina	
Del	15HRM1.5P1	10-15kv	0.0015	0.03	0.03	ina	
Del	20HRM1P1	15-20kv	0.001	0.03	0.03	ina	
Del	30HRM.75P1	20-30kv	0.00075	0.03	0.03	ina	
Del	40HRM.5P1	30-40kv	0.0005	0.03	0.03	ina	
Del	50HRM.5P1	40-50kv	0.0005	0.03	0.03	ina	

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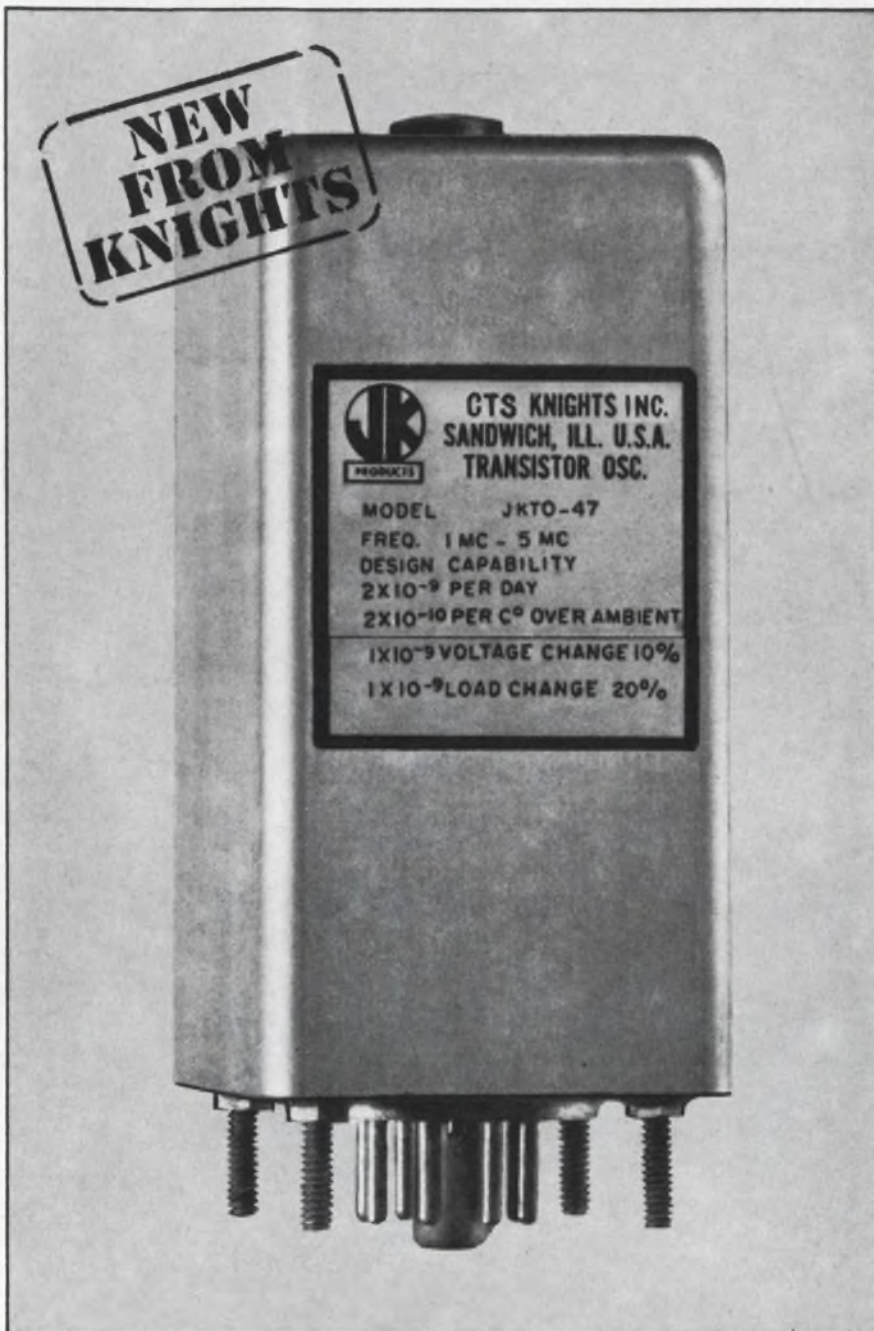
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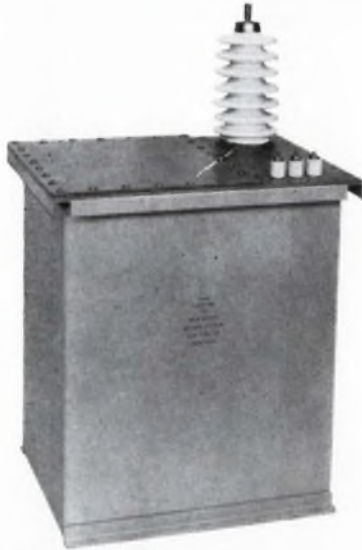
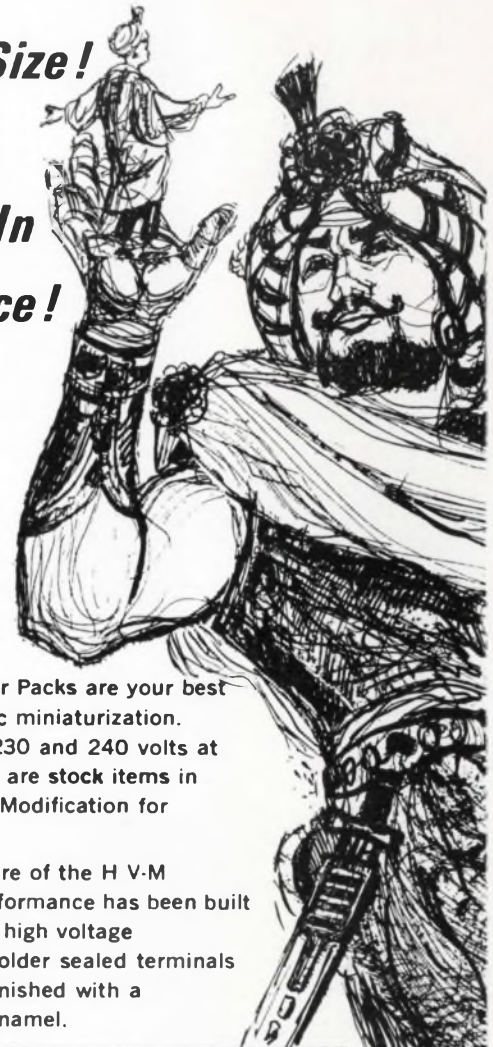


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