

Acopian Power Supplies

2U Switching Regulated

Rack Mounting & Benchtop

AC-DC single & wide adjust output

• Five Year Warranty

RoHS
COMPLIANT



Don't forget these facts about Acopian....

- Fast Shipping? Acopian invented it! For over half a century, Acopian has built and shipped thousands of power supplies within 3-DAYS after receipt of order. And we still do today! View our 3-DAY Shipping Promise: www.acopian.com/3dayship.html
- You ALWAYS talk to a real person when you call Acopian.
- Acopian power supplies last a *very long time!*
- You can email 3day@acopian.com anytime for 24/7 product support.
- The *Online System Builder* (www.acopian.com/SystemBuilder) is a convenient way to get your own custom power supply or power system (and they ship within 9 Days).
- You can order Acopian power supplies factory direct.
- ALL Acopian products are made in the USA.

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POWER SUPPLIES

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Order Factory Direct
Made in USA



single output & wide adjust output

2U SWITCHING REGULATED (to 1400 watts) (Power Factor Correction and Universal Input)

RACK MOUNTING & BENCHTOP
AC-DC

- Five Year Warranty

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STANDARD FEATURES

- Digital Voltage & Current Meters
- Front Panel Controls
- 'AC on' indicator
- Constant voltage and constant current modes
- Universal input
- Power Factor Correction
- Short circuit and overload protection
- Thermal protection
- No minimum load required
- Internal EMI Filter
- Pluggable connectors for input, output and control wiring
- Remote Sensing
- 'Soft start' operation
- Front panel circuit breaker

SPECIFICATIONS

Input Voltage: 100-265 VAC, 49-420 Hz, single phase.
AC Input, max.: 22A (1400W)

Inrush current: Cold start, (thermistor limiter) 66A peak @ 115 VAC (typical); 130A peak @ 230 VAC (typical).

Startup Time: 1 second (typical).

Input Undervoltage: An input of less than 100 VAC will not damage power supply.

Power Factor: 0.97 typical at 115 VAC, 60Hz and full load. Complies with EN61000-3-2.

Regulation (in constant voltage mode):

Output below 60A:

Line Regulation: $\pm 0.1\%$ or 10 mV, whichever is greater.
Load Regulation: $\pm 0.1\%$ or 10 mV, whichever is greater.

Output above 60A:

Line Regulation: $\pm 0.1\%$ or 30 mV, whichever is greater.
Load Regulation: $\pm 0.1\%$ or 30 mV, whichever is greater.

Regulation, Ripple (in constant current mode):

Output below 60A:

Line Regulation: $\pm 0.4\%$ or 60mA.
Load Regulation: $\pm 1\%$ or 200mA.
Current Ripple: 1% rms.

Output above 60A:

Line Regulation: $\pm 1\%$ or 0.5A.
Load Regulation: $\pm 2\%$ or 2A.
Current Ripple: 2% rms.

Ambient Operating Temperature: 0 to +71°C.

Temperature Coefficient (after 30 minute warm-up):

Voltage mode; $\pm 0.04\%/^{\circ}\text{C}$ (typical).
Current mode; $\pm 0.2\%/^{\circ}\text{C}$ (typical).



(Handles optional)

Drift (voltage mode or current mode): $\pm 0.2\%$ (typical) over 8 hours, after 30 minute warmup.

Storage Temperature: -40 to +85°C.

Holdup Time: 10mS minimum with full load.

Efficiency: See table. (Typical, at 115 VAC, with full load.)

Polarity: Output is floating and may be used in either polarity, except in programmable/wide adjust models.

Remote Sensing: Compensates up to 0.5 Vdc drop per output line (or within the limits of the output voltage adjustment range).

Output Adjustment: Voltage and current adjustments are located on the front panel.

Overload/Short Circuit Protection: A short or overload forces the power supply into constant current mode, with automatic recovery.

Overvoltage Protection: Latches power supply OFF, reset by momentarily removing AC input power.*

Thermal Protection: Thermostat(s), self-resetting.*

Internal Failure Protection: Provided by internal fuse.

Switching Frequency: 110 kHz (typical).

EMI: Designed to meet FCC Part 15 and EN55022, Class A.

<u>Dielectric Withstand Voltage</u>	<u>Isolation</u>
Input to output: 4242 Vdc	300 Vdc
Input to case: 2121 Vdc	300 Vdc
Output to case: 750 Vdc	300 Vdc

Cooling: Forced-air cooled. Air enters front of power supply and exits from rear cover. Fan noise rated at 54dB for 1400w models.

Enable: To enable the DC output, the enable terminal must be tied to the -DC output. An open collector or contact closure can be used.

Output Programming (Wide Adjust models):

The output voltage and current may be programmed from 0 to full rating by means of control voltage inputs of 0 to +10 Vdc

***Output may drop to 0v or 1/2 of output set voltage.**

2U SWITCHING REGULATED (to 1400 watts)

SPECIFICATIONS (continued)

Voltage Monitor Terminal: Permits remote monitoring of output voltage, stepped down by a ratio of 10:1 (for 3.3v to 90v models) or 100:1 (for 100v to 135v models). Accuracy is 0.5% of maximum rated output voltage.

For models with 0-5v programming option "C5":
Permits remote monitoring of output voltage, stepped down by a ratio of 10:1 (for 3.3v to 45v models) or 100:1 (for 48v to 135v models). Accuracy is 0.5% of maximum rated output voltage.

Current Monitor Terminal: For models with greater than 10 amps output current: permits remote monitoring of output current, stepped down by a ratio of 100 mV/Amp (accuracy is 3% of maximum rated output current). For models with less than 10 amps output current: permits remote monitoring of output current, stepped down by a ratio of 1000 mV/Amp (accuracy is 3% of maximum rated output current).

For models with 0-5v programming option "C5":
For models with greater than 45 amps output current: permits remote monitoring of output current, stepped down by a ratio of 10 mV/Amp (accuracy is 5% of maximum rated output current). For models with less than 45 amps output current: permits remote monitoring of output current, stepped down by a ratio 100 mV/Amp (accuracy is 3% of maximum rated output current).

Mounting: Rack Mounting models are designed expressly for mounting in standard 19" wide RETMA cabinet racks. Benchtop models rest on four rubber feet.

OPTIONS

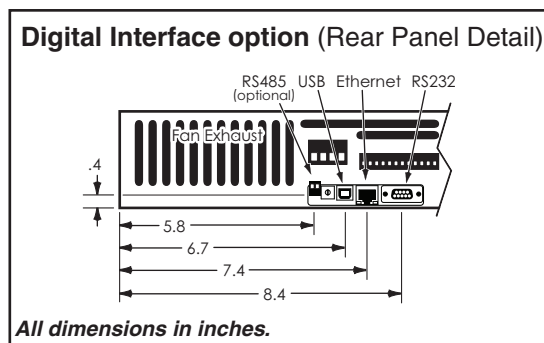
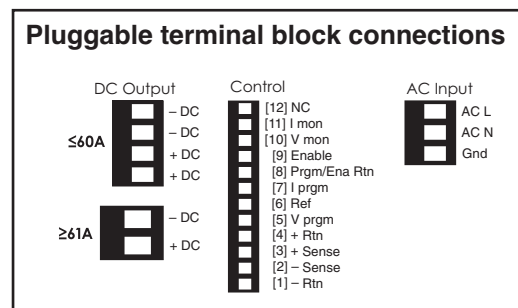
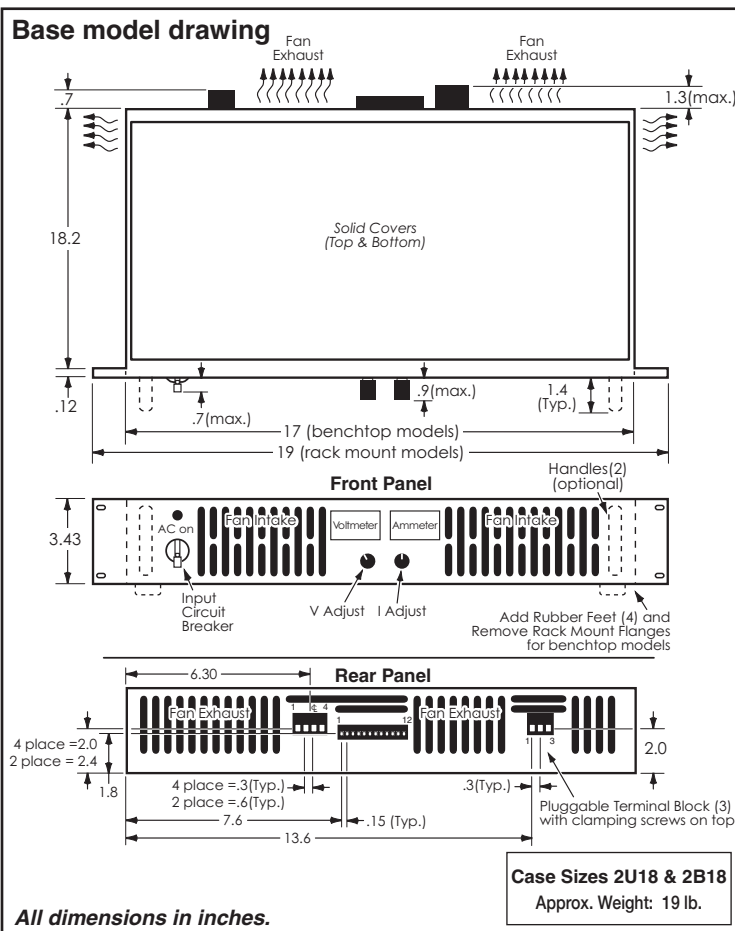
Digital Interface: Can be used to monitor and/or control output voltage and current. Includes isolated Ethernet (10/100Mbps), RS232, and USB interfaces (plus RS485 with option "DIO2"), utilizing 16 bit DAC and ADC. To order, add either suffix "DIO1" to model number, and increase standard price by \$300.00, or suffix "DIO2", and increase standard price by \$330.00.

Handles: To order, add suffix "H" to the model number, and increase standard price by \$45.00.

Relay Alarm Contacts (Single Output models only): NC/C/NO relay contacts that change state when output voltage drops more than 10% below nominal. To order, add suffix "G1" to model number, and increase standard price by \$90.00.

0-5v Programming (Wide Adjust Models - instead of the standard 0-10v Programming): Output voltage and current of standard models may be programmed from 0 to full rating by means of control voltage inputs of 0 to +10Vdc. For programming with 0 to +5Vdc control voltages, add suffix "C5" to the model number, and increase standard price by \$100.00. Voltage mode accuracy: 1%. Current mode accuracy: 5%. Accuracy percentages do not apply below 5% of output rating.

Chassis Slides (Rack Mounting models): For racks having rear mounting rails spaced 20" to 26" behind the front panel. To order, add suffix "S" to the model number and increase standard price by \$90.00.





2U RACK & BENCHTOP

2U SWITCHING REGULATED (to 1400 watts)

SINGLE OUTPUT RACK MOUNTING MODELS

Nominal Output Voltage	Adjust Range ±V	Output Current Amps. at		Ripple mV (@ 25 MHz BW)		Effic. (Typ.) %	(\$)	Model	Case Size
		40°C	71°C	RMS	P-P				
10	.5	120	84	50	150	64	2821	W10LT2U12000	2U18
12	1	120	84	50	150	65	2821	W12LT2U12000	2U18
14	1	100	70	50	150	65	2821	W14LT2U10000	2U18
16	1	90	63	50	150	67	2821	W16LT2U9000	2U18
18	1	80	56	50	150	67	2821	W18LT2U8000	2U18
20	1	72	50.4	50	150	68	2821	W20LT2U7200	2U18
24	1	60	42	50	150	73	2821	W24LT2U6000	2U18
25	1	57.6	40.4	50	150	73	2821	W25LT2U5760	2U18
26	1	55.4	38.8	50	150	73	2821	W26LT2U5540	2U18
28	1	51.4	36	50	150	73	2821	W28LT2U5140	2U18
30	1	48	33.6	58	175	73	2821	W30LT2U4800	2U18
32	1	45	31.6	58	175	73	2821	W32LT2U4500	2U18
34	1	42.4	29.6	58	175	73	2821	W34LT2U4240	2U18
36	1	40	28	58	175	75	2821	W36LT2U4000	2U18
38	1	37.8	26.4	58	175	75	2821	W38LT2U3780	2U18
40	1	36	25.2	58	175	76	2821	W40LT2U3600	2U18
42	1	34.2	24	58	175	76	2821	W42LT2U1710	2U18
45	1	32	22.4	58	175	76	2821	W45LT2U3200	2U18
48	1	30	21	58	175	78	2821	W48LT2U3000	2U18
50	1	28.8	20	58	175	78	2821	W50LT2U2880	2U18
55	1	26.2	18.4	58	175	78	2821	W55LT2U2620	2U18
60	1	24	16.8	58	175	78	2821	W60LT2U2400	2U18
70	1	20.6	14.4	83	250	78	2821	W70LT2U2060	2U18
75	1	19.2	13.4	83	250	78	2821	W75LT2U1920	2U18
80	1	18	12.6	83	250	78	2821	W80LT2U1800	2U18
90	1	16	11.2	83	250	78	2821	W90LT2U1600	2U18
100	1	14.4	10	108	325	78	2821	W100LT2U1440	2U18
110	1	13	9	108	325	78	2821	W110LT2U1300	2U18
120	1	12	8.4	108	325	78	2821	W120LT2U1200	2U18
125	1	11.4	8	108	325	78	2821	W125LT2U1140	2U18
135	1	10.6	7.4	125	375	78	2821	W135LT2U1060	2U18
150	1	9.6	6.7	135	400	78	2821	W150LT2U960	2U18
200	1	7.2	5.1	135	400	78	2821	W200LT2U720	2U18
270	1	5.3	3.7	135	400	78	2821	W270LT2U530	2U18

SINGLE OUTPUT BENCHTOP MODELS

Nominal Output Voltage	Adjust Range ±V	Output Current Amps. at		Ripple mV (@ 25 MHz BW)		Effic. (Typ.) %	(\$)	Model	Case Size
		40°C	71°C	RMS	P-P				
10	.5	120	84	50	150	64	2831	W10LT2B12000	2B18
12	1	120	84	50	150	65	2831	W12LT2B12000	2B18
14	1	100	70	50	150	65	2831	W14LT2B10000	2B18
16	1	90	63	50	150	67	2831	W16LT2B9000	2B18
18	1	80	56	50	150	67	2831	W18LT2B8000	2B18
20	1	72	50.4	50	150	68	2831	W20LT2B7200	2B18
24	1	60	42	50	150	73	2831	W24LT2B6000	2B18
25	1	57.6	40.4	50	150	73	2831	W25LT2B5760	2B18
26	1	55.4	38.8	50	150	73	2831	W26LT2B5540	2B18
28	1	51.4	36	50	150	73	2831	W28LT2B5140	2B18
30	1	48	33.6	58	175	73	2831	W30LT2B4800	2B18
32	1	45	31.6	58	175	73	2831	W32LT2B4500	2B18
34	1	42.4	29.6	58	175	73	2831	W34LT2B4240	2B18
36	1	40	28	58	175	75	2831	W36LT2B4000	2B18
38	1	37.8	26.4	58	175	75	2831	W38LT2B3780	2B18
40	1	36	25.2	58	175	76	2831	W40LT2B3600	2B18
42	1	34.2	24	58	175	76	2831	W42LT2B1710	2B18
45	1	32	22.4	58	175	76	2831	W45LT2B3200	2B18
48	1	30	21	58	175	78	2831	W48LT2B3000	2B18
50	1	28.8	20	58	175	78	2831	W50LT2B2880	2B18
55	1	26.2	18.4	58	175	78	2831	W55LT2B2620	2B18
60	1	24	16.8	58	175	78	2831	W60LT2B2400	2B18
70	1	20.6	14.4	83	250	78	2831	W70LT2B2060	2B18
75	1	19.2	13.4	83	250	78	2831	W75LT2B1920	2B18
80	1	18	12.6	83	250	78	2831	W80LT2B1800	2B18
90	1	16	11.2	83	250	78	2831	W90LT2B1600	2B18
100	1	14.4	10	108	325	78	2831	W100LT2B1440	2B18
110	1	13	9	108	325	78	2831	W110LT2B1300	2B18
120	1	12	8.4	108	325	78	2831	W120LT2B1200	2B18
125	1	11.4	8	108	325	78	2831	W125LT2B1140	2B18
135	1	10.6	7.4	125	375	78	2831	W135LT2B1060	2B18
150	1	9.6	6.7	135	400	78	2831	W150LT2B960	2B18
200	1	7.2	5.1	135	400	78	2831	W200LT2B720	2B18
270	1	5.3	3.7	135	400	78	2831	W270LT2B530	2B18

SWITCHING REGULATED AC-DC



2U SWITCHING REGULATED (to 1400 watts)

WIDE ADJUST OUTPUT RACK MOUNTING MODELS

Output Voltage Range	Output Current Amps. at		Ripple mV (@ 25 MHz BW)		Effic. (Typ.) %*	(\$)	Model	Case Size
	40°C	71°C	RMS	P-P				
0-10	120	84	50	150	64	2871	Y010LX2U12000	2U18
0-12	120	84	50	150	65	2871	Y012LX2U12000	2U18
0-14	100	70	50	150	65	2871	Y014LX2U10000	2U18
0-16	90	63	50	150	67	2871	Y016LX2U9000	2U18
0-18	80	56	50	150	67	2871	Y018LX2U8000	2U18
0-24	60	42	50	150	73	2871	Y024LX2U6000	2U18
0-25	57.6	40	50	150	73	2871	Y025LX2U5760	2U18
0-30	48	32	58	175	73	2871	Y030LX2U4800	2U18
0-35	41	28	58	175	73	2871	Y035LX2U4100	2U18
0-36	40	28	58	175	75	2871	Y036LX2U4000	2U18
0-40	36	24	58	175	76	2871	Y040LX2U3600	2U18
0-50	28.8	20.2	58	175	78	2871	Y050LX2U2880	2U18
0-60	24	16.8	58	175	78	2871	Y060LX2U2400	2U18
0-70	20.5	14.4	83	250	78	2871	Y070LX2U2050	2U18
0-75	19.2	13.4	83	250	78	2871	Y075LX2U1920	2U18
0-80	18	12.6	83	250	78	2871	Y080LX2U1800	2U18
0-90	16	11.2	83	250	78	2871	Y090LX2U1600	2U18
0-100	15	10.5	108	325	78	2871	Y0100LX2U1500	2U18
0-110	13.1	9.1	108	325	78	2871	Y0110LX2U1310	2U18
0-120	12	8.4	108	325	78	2871	Y0120LX2U1200	2U18
0-125	11.4	8	108	325	78	2871	Y0125LX2U1140	2U18
0-135	10.6	7.4	125	375	78	2871	Y0135LX2U1060	2U18
0-150	9.6	6.7	135	400	78	2871	Y0150LX2U960	2U18
0-200	7.2	5.1	135	400	78	2871	Y0200LX2U720	2U18
0-270	5.3	3.7	135	400	78	2871	Y0270LX2U530	2U18

WIDE ADJUST OUTPUT BENCHTOP MODELS

Output Voltage Range	Output Current Amps. at		Ripple mV (@ 25 MHz BW)		Effic. (Typ.) %*	(\$)	Model	Case Size
	40°C	71°C	RMS	P-P				
0-10	120	84	50	150	64	2881	Y010LX2B12000	2B18
0-12	120	84	50	150	65	2881	Y012LX2B12000	2B18
0-14	100	70	50	150	65	2881	Y014LX2B10000	2B18
0-16	90	63	50	150	67	2881	Y016LX2B9000	2B18
0-18	80	56	50	150	67	2881	Y018LX2B8000	2B18
0-24	60	42	50	150	73	2881	Y024LX2B6000	2B18
0-25	57.6	40	50	150	73	2881	Y025LX2B5760	2B18
0-30	48	32	58	175	73	2881	Y030LX2B4800	2B18
0-35	41	28	58	175	73	2881	Y035LX2B4100	2B18
0-36	40	28	58	175	75	2881	Y036LX2B4000	2B18
0-40	36	24	58	175	76	2881	Y040LX2B3600	2B18
0-50	28.8	20.2	58	175	78	2881	Y050LX2B2880	2B18
0-60	24	16.8	58	175	78	2881	Y060LX2B2400	2B18
0-70	20.5	14.4	83	250	78	2881	Y070LX2B2050	2B18
0-75	19.2	13.4	83	250	78	2881	Y075LX2B1920	2B18
0-80	18	12.6	83	250	78	2881	Y080LX2B1800	2B18
0-90	16	11.2	83	250	78	2881	Y090LX2B1600	2B18
0-100	15	10.5	108	325	78	2881	Y0100LX2B1500	2B18
0-110	13.1	9.1	108	325	78	2881	Y0110LX2B1310	2B18
0-120	12	8.4	108	325	78	2881	Y0120LX2B1200	2B18
0-125	11.4	8	108	325	78	2881	Y0125LX2B1140	2B18
0-135	10.6	7.4	125	375	78	2881	Y0135LX2B1060	2B18
0-150	9.6	6.7	135	400	78	2881	Y0150LX2B960	2B18
0-200	7.2	5.1	135	400	78	2881	Y0200LX2B720	2B18
0-270	5.3	3.7	135	400	78	2881	Y0270LX2B530	2B18

ACOPIAN SELLS FACTORY DIRECT WORLDWIDE: We do not use representatives or distributors. Contact Acopian for technical information or a quote.

WARRANTY: Acopian power supplies are warranted to be free from defects in material and workmanship for a period of five years (encapsulated devices, for one year) from date of original shipment. Acopian's obligation under this warranty is limited to repairing any power supply returned to the factory Service Department in Easton, PA or Melbourne, FL, and replacing any defective parts. Mini Encapsulated power supplies are not repairable. Authorization must be obtained from Acopian before a power supply may be returned for repair. Units must be well packed when shipping to Acopian; the repair of any damage incurred during shipment will be charged. Transportation charges are to be paid by the purchaser. A reinspection and handling charge will be applied to returned units found to have no defects. If a failure has been caused by misuse, operation in excess of specifications, or modification by the customer, repairs will be billed at cost; in such cases, a cost estimate will be submitted before work is started.

Acopian reserves the right to make changes or improvements in its products without incurring any obligation to install the same on products previously manufactured.

This warranty is in lieu of all other warranties, obligations, and liabilities, expressed or implied, and is the purchaser's exclusive remedy. Acopian makes no warranty, either express or implied, of merchantability, fitness for a particular purpose or otherwise. In no event shall Acopian be liable whether in contract, tort, or negligence, for special, indirect, incidental or consequential damages of any kind, including loss of business or profits, or any other losses incurred by the purchaser or any third party, the Customer's remedies being limited, at Acopian's option, to replacement, repair or credit at the price on the date of claim.

The validity, performance and construction of all terms and conditions and any sale made by Acopian shall be determined by the law of Pennsylvania, without regard to its conflict of law principles, and all parties to the transaction expressly consent to the jurisdiction of such courts and consent to the venue of the Court of Common Pleas for Northampton County, Pennsylvania.

PRICES: The prices shown are F.O.B. our factory; Easton, PA or Melbourne, FL. ('EXW Factory' if outside the 50 United States.) All prices and specifications are subject to change without notice.

TERMS: Net 30 days, subject to credit approval. Visa, MasterCard and American Express also accepted.

SHIPPING: Location permitting, small shipments are made by United Parcel Service, FedEx, DHL (international orders) or by Parcel Post; larger shipments, by insured motor freight collect. Shipments can be made by air upon request. Risk of loss shall be F.O.B. Our Factory, even in cases where freight may be prepaid or allowed to destination by Acopian. If equipment is received in damaged condition, it is the customer's responsibility to contact the carrier and file a claim for damages.

TIME FOR DELIVERY: The time for delivery quoted by Acopian is the time required to ship from our plants. We will not be liable for delays in delivery caused by any reason beyond our control, including but not limited to acts of God, casualty, civil disturbance, labor disputes, transportation or supply difficulties, or any interruption of our facilities, and the quoted time for delivery shall be extended during the continuance of such conditions and for a reasonable time thereafter. In no event will Acopian be liable for any premium transportation, reprourement, or similar costs incurred by the Customer as a result of conditions beyond Acopian's control resulting in Acopian's inability to deliver product in accordance with customer's requested delivery schedules.

QUANTITY DISCOUNTS: Discounts are available to quantity buyers and are dependent upon the order quantity and the manufacturing scheduling anticipated by the order, and apply only to the quantity and delivery ordered. Partial shipments are considered as separate orders for discounting purposes.

EXPORT ORDERS: A minimum export documentation charge of \$60.00 applies. (A minimum charge of \$25.00 applies on orders to certain U.S. territories requiring customs forms.)

MOISTURE/FUNGUS PROOFING: Power supplies can be furnished with a moisture and fungus resistant varnish applied to interior surfaces. To order, add the suffix letter F to the model number. This option requires two additional days and is not available on High Voltage, Mini Encapsulated, Rack Mounting, and Gold Box Switching models.

TAGGING: Add \$10.00 to price.

TEST DATA: Cost, \$35.00 or 2% of order, whichever is greater.

SPECIAL MODELS/MODIFICATIONS: Cataloged models can be altered at the factory to meet special requirements. Contact the Applications Engineering Department to discuss your needs.

PARTS: The designs used in Acopian power supplies utilize standard components to the greatest practical extent. When replacements are required, the types originally used, or their equivalents, can usually be obtained most quickly from a local electronic components distributor.

Special components, such as transformers, are stocked at the factory warehouses. Contact the Applications Engineering Department for information on the parts required, referencing the model number of the power supply, the circuit designation of the component, and a description.

PURCHASE ORDER ACCEPTANCE: Orders are accepted subject to Acopian's Terms and Conditions. Any Terms and Conditions of any Purchaser's order, agreement, or understanding which are in addition to or inconsistent with Acopian's shall not be binding upon Acopian unless made in writing and accepted over the signature of an authorized officer of Acopian. Orders shall not be considered accepted until entered into production at our plant. Acopian reserves the right to refuse any order. All typographical and clerical errors are subject to correction by Acopian.

RETURNED GOODS: Acopian products are built on a per-order basis, and ordinarily no credit can be extended for their return. No goods will be accepted for return unless authorized in writing by Acopian.

CHANGES: The customer may, by a written notice, request changes within the general scope of the order, in the drawings, designs or specifications; method of shipment; and place of delivery. If any such change causes an increase or decrease in the cost, or the time required for the processing of any part of the order, an equitable adjustment shall be made in the price or delivery schedule, or both, and the order shall be modified in writing accordingly.

CANCELLATION: Suspension or cancellation of orders may be made only upon our written approval and on terms that will indemnify us against all loss.

OVERTIME: It is anticipated that any order will be processed during regular working hours on regular working days. If for any reason the Purchaser requests Acopian to process the order, or any portion of it, outside of such regular working hours, any overtime or other additional expense occasioned thereby shall be billed to and paid by the Purchaser as an extra cost. Acopian reserves the right to decline to process the order outside regular working hours.

CUSTOMER DELAY OF WORK: If the performance of all or any part of the work is delayed or interrupted by Customer's failure to act within the time specified (or within a reasonable time if no time is specified) and such act is not expressed or implied by the order, an adjustment shall be made in the cost of performance of the order caused by such delay or interruption and the order modified in writing accordingly. Adjustment will also be made in the delivery or performance dates and any other contractual provisions affected by such delay or interruption.

GOVERNMENT SPECIFICATIONS: Pricing is based upon industrial-grade construction, marking, packing, and packaging. Exception is taken to any MIL specifications, and to any requirements for the use of special forms, documentation other than quoted, and Government Source Inspection. Acopian must decline to quote on any other basis.

APPLICATIONS ASSISTANCE: *Questions regarding the specifications, features, and use of any Acopian product should be directed to the Applications Engineering Department. A staff of power supply specialists will be pleased to assist you.*

ACOPIAN IS AN ISO 9001 CERTIFIED COMPANY