



Gold Box SWITCHING REGULATED AC-DC single output & wide adjust output

- Shipped Within 9 Days
- U.L. Recognized (3.3v to 48v models)
- Five Year Warranty



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

- 1. We ship within 3 Days (see our 3 Day Shipping Promise below).
- 2. Acopian power supplies last a very long time.
- 3. The Voltage Finder is the quickest way to find a power supply with the specs you need.
- 4. The Online System builder (www.acopian.com/SystemBuilder) is a convenient way to get your own custom Power System (and they ship within 9 Days).
- 5. You always talk to a real person when you call Acopian.
- 6. You can order your Acopian power supplies factory direct.
- 7. You can order your Acopian power supplies online.
- 8. All Acopian products are made in the USA.

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These ruggedly-built power supplies have tightly regulated outputs and low output ripple. Features include status indicator lights, overvoltage protection, EMI filtering, 'soft start' operation and provision for external output inhibiting (TTL-compatible).

SPECIFICATIONS

Input Voltage: 90-132 VAC, 49-61 Hz, single phase. For models W12GT95, W15GT78, W24GT50, W28GT42 and W48GT25, the use of a 30A line is recommended and when operating on 50 Hz input, derate output by 5%.

Startup Time: 400 mS maximum (250 mS typical).

Input Undervoltage: An input of less than 90 VAC (180 VAC with "–230" option) will not damage power supply.

Load Regulation:	Line Regulation:
3.3v to 48v Models: ±0.05%*	3.3v to 48v Models: ±0.05%*
50v to 125v Models: ±0.1%	50v to 125v Models: ±0.1%

Remote Voltage Programming: The output voltage may be controlled by means of an external potentiometer (2500 ohms for single output models; 50,000 ohms for wide adjust output models).

Polarity: Output is floating and may be used in either polarity.

Drift: ±0.1% typical over 8 hours, after 30 minute warmup.

Temperature Coefficient: ±0.02%/°C (Typical).

Holdup Time: 33 mS minimum (At nominal input voltage, with full load).

Transient Response: 300 μ S to return to ±1% of output setting. Maximum of ±3% output excursion following a load step change from 50% to 100%.

Remote Sensing: Compensates up to 0.5 volt drop per output line, within the limits of the output voltage adjustment range.

Overload/Short Circuit Protection: Foldback current limiting with automatic recovery.

Overvoltage Protection: Latches power supply OFF, reset by momentarily removing AC input power. Red indicator lights to indicate latchup.

Output Inhibit: Applying between +2 and +30 Vdc to the inhibit terminal will disable the supply (TTL compatible).

Thermal Protection: Thermostat, self-resetting.



Efficiency: See table. (Typical, at nominal input voltage, with full load.)

Ambient Operating Temperature: 0 to +71°C.

Storage Temperature: -40 to +85°C.

Terminal Strip Cover: Clips on.

Cooling: Forced-air cooled (ball bearing fan); air enters back of power supply and exits from front.

Switching Frequency: 55 kHz (Typical).

Dielectric Withstand Voltage:

Input to output: 1400 Vdc Input to case: 1400 Vdc Output to case: 400 Vdc

Mounting: Threaded mounting holes permit mounting to a chassis, cabinet wall or bracket, or they may be used on a test bench or tabletop. To mount from the power supply side of the mounting surface or for DIN rail mounting, see accessory Mounting Kits on page 91.

OPTIONS

230 Volt Input: For applications where operation on an input of 180-264 VAC, 49-61 Hz, is desired. To order, add suffix "–230" to the model number and \$40.00 to the standard price. The "–230" option requires two additional days.

WIDE ADJUST OUTPUT MODELS

	Output Voltage	Output Current Amps. at 40°C 71°C		Ripple mV (@ 25 MHz BW)		Effic. (Typ.)	(\$)		Case
	Range			RMS P-P		%**	Price	Model	Size
	5-15	23	16	15	100	76	675	W515MT23	WM6
	5-15	36	25	15	100	76	880	W515MT36	WM9
5	5-15	54	38	15	100	76	1090	W515GT54	WG7
22	5-30	13	9	25	150	81	675	W530MT13	WM6
	5-30	19	13	25	150	81	880	W530MT19	WM9
	5-30	30	20	25	150	81	1090	W530GT30	WG7
	15-50	8	5	25	150	82	675	W1550MT8	WM6
	15-50	12	8.5	25	150	82	880	W1550MT12	WM9
	15-50	18	12	25	150	82	1090	W1550GT18	WG7

** At maximum output voltage

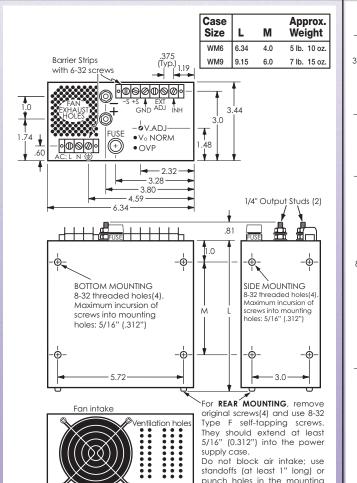
*or 5 mV, whichever is greater



SINGLE OUTPUT MODELS

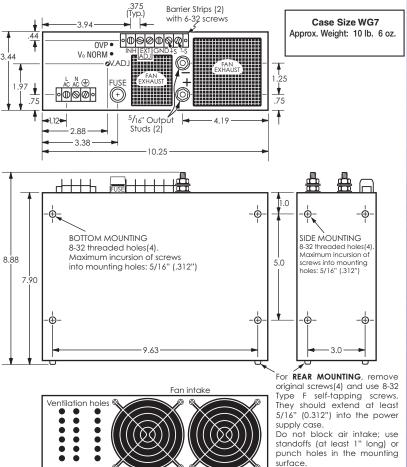
Nominal Output	Adjust Range		Current os. at		le mV IHz BW)	Effic. (Typ.)	(\$)		Case	Nominal Output	/ F
Voltage	±Ϋ	40°C	71°C	RMS	P-P	%	Price	Model	Size	Voltage	
3.3 3.3 3.3	.25 .25 .25	65 100 150	45 70 105	13 13 13	80 80 80	65 65 65	615 825 1030	W3.3MT65 W3.3MT100 W3.3GT150	WM6 WM9 WG7	40 40	
5 5 5 5	.25 .25 .25 .25	65 100 150	45 70 105	13 13 13 13	80 80 80 80	70 70 70 70	615 825 1030	W5MT65 W5MT100 W5GT150	WG7 WM6 WM9 WG7	48 48 48 48	
6 6	.25 .25	56 86	39 60	13 13	80 80	71 71	615 825	W6MT56 W6MT86	WM6 WM9	50* 50*	
8 8	.25 .25	41 63	28 44	15 15	100 100	73 73	615 825	W8MT41 W8MT63	WM6 WM9	50* 55* 55*	-
9 9	.25 .25	37 57	26 40	15 15	100 100	73 73	615 825	W9MT37 W9MT57	WM6 WM9	55* 55* 60*	
10 10	.5 .5	34 52	24 36	15 15	100 100	74 74	615 825	W10MT34 W10MT52	WM6 WM9	60* 60*	
12 12 12 12	.5 .5 .5 .5	29 45 68 95	20 32 47 66	15 15 15 15	100 100 100 100	76 76 76 76	615 825 1030 1135	W12MT29 W12MT45 W12GT68 W12GT95	WM6 WM9 WG7 WG7	70* 70* 70*	
15 15 15 15	.5 .5 .5 .5	23 36 54 78	16 25 38 54	15 15 15 15	100 100 100 100	76 76 76 76	615 825 1030 1135	W15MT23 W15MT36 W15GT54 W15GT78	WM6 WM9 WG7 WG7	75* 75* 75* 80*	
18 18 18	.5 .5 .5	20 31	14 22	15 15 15	100 100 100	78 78 78	615 825	W18MT20 W18MT31	WM6 WM9	80* 80*	
20 20	1 1	19 28	13 19	15 15	100 100	79 79	615 825	W20MT19 W20MT28	WM6 WM9	90* 90* 90*	
24 24 24 24	1 1 1 1	16 25 38 50	11 18 26 35	15 15 15 15	100 100 100 100	81 81 81 81	615 825 1030 1135	W24MT16 W24MT25 W24GT38 W24GT50	WM6 WM9 WG7 WG7	100* 100* 100*	
28 28 28 28	1 1 1	14 21 32 42	10 15 22 29	15 15 15 15	100 100 100 100	81 81 81 81	615 825 1030 1135	W28MT14 W28MT21 W28GT32	WM6 WM9 WG7 WG7	110* 110* 110* 110*	
28 30 30	1 1	42 13 19	29 9 13	25 25	150 150	81 81 81	615 825	W28GT42 W30MT13 W30MT19	WG7 WM6 WM9	120* 120*	
36 36	1 1	10 15	7 11	25 25	150 150	81 81	615 825	W36MT10 W36MT15	WM6 WM9	125* 125* 125*	

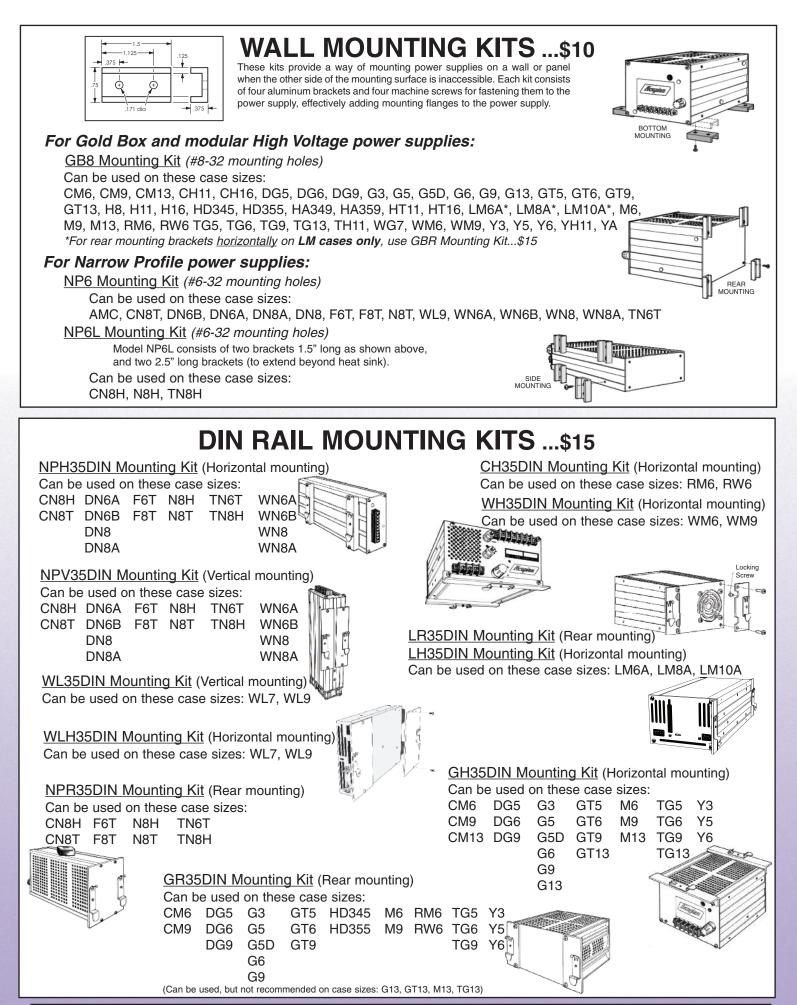
Nominal Output	Adjust Range		Current s. at		le mV /IHz BW)	Effic. (Typ.)	(\$)		Case
Voltage	±Ϋ	40°C 71°C		RMS	P-P	%	Price	Model	Size
40	1	9	6	25	150	82	615	W40MT9	WM6
40	1	14	10	25	150	82	825	W40MT14	WM9
48 48 48 48	1 1 1	8 12 19 25	5 8.5 13 17	25 25 25 25	150 150 150 150	82 82 82 82	615 825 1030 1135	W48MT8 W48MT12 W48GT19 W48GT25	WM6 WM9 WG7 WG7
50*	1	7.7	5.4	50	150	80	615	W50MT7.7	WM6
50*	1	12	8.4	50	150	80	825	W50MT12	WM9
50*	1	18.2	12.8	50	150	80	1030	W50GT18.2	WG7
55*	1	7	4.9	50	150	80	615	W55MT7	WM6
55*	1	10.9	7.6	50	150	80	825	W55MT10.9	WM9
55*	1	16.6	11.6	50	150	80	1030	W55GT16.6	WG7
60*	1	6.4	4.5	50	150	80	615	W60MT6.4	WM6
60*	1	10	7.0	50	150	80	825	W60MT10	WM9
60*	1	15.2	10.6	50	150	80	1030	W60GT15.2	WG7
70*	1	5.5	3.8	67	250	80	615	W70MT5.5	WM6
70*	1	8.6	6	67	250	80	825	W70MT8.6	WM9
70*	1	13	9.1	67	250	80	1030	W70GT13	WG7
75*	1	5.1	3.6	67	250	80	615	W75MT5.1	WM6
75*	1	8	5.6	67	250	80	825	W75MT8	WM9
75*	1	12.2	8.5	67	250	80	1030	W75GT12.2	WG7
80*	1	4.8	3.4	67	250	80	615	W80MT4.8	WM6
80*	1	7.5	5.3	67	250	80	825	W80MT7.5	WM9
80*	1	11.4	8	67	250	80	1030	W80GT11.4	WG7
90*	1	4.3	3	100	250	80	615	W90MT4.3	WM6
90*	1	6.7	4.7	100	250	80	825	W90MT6.7	WM9
90*	1	10.1	7.1	100	250	80	1030	W90GT10.1	WG7
100*	2	3.8	2.7	150	350	80	615	W100MT3.8	WM6
100*	2	6	4.2	150	350	80	825	W100MT6	WM9
100*	2	9.1	6.4	150	350	80	1030	W100GT9.1	WG7
110*	2	3.5	2.4	150	350	80	615	W110MT3.5	WM6
110*	2	5.5	3.8	150	350	80	825	W110MT5.5	WM9
110*	2	8.3	5.8	150	350	80	1030	W110GT8.3	WG7
120*	2	3.2	2.2	150	350	80	615	W120MT3.2	WM6
120*	2	5	3.5	150	350	80	825	W120MT5	WM9
120*	2	7.6	5.3	150	350	80	1030	W120GT7.6	WG7
125*	2	3.1	2.2	150	350	80	615	W125MT3.1	WM6
125*	2	4.8	3.4	150	350	80	825	W125MT4.8	WM9
125*	2	7.3	5.1	150	350	80	1030	W125GT7.3	WG7
*Not U.L. recognized when this catalog was published.									



punch holes in the mounting

. surface.





Online Ordering and Instant Quotes for ALL Acopian power supplies at www.acopian.com P.O. Box 638, Easton, PA 18044 • Phone: (610) 258-5441 • FAX: (610) 258-2842

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About Acopian's 3 Day Shipment Guarantee:

In 1964, Acopian initiated its "3 Day Shipping Guarantee." Since then our product offerings have expanded to include many more lines of power supplies that ship within 3 Days as well as others that ship within 6 or 9 Days. These guarantees apply to every model in the Acopian catalog.

Our unique 3-day shipping guarantee has prompted many questions. Below are some of those most often asked:

What does Acopian's 3-day shipping promise mean?

It means that power modules listed in this catalog are shipped within 3 days after we receive your order. High Voltage, Redundant, Rack Mounting, Systems and certain Switching power supplies are shipped within 9 days.

Has Acopian ever failed to meet this promise? Never.

Do options affect shipping time?

The 230 volt input option and moisture/fungus-proofing option require two additional days. All other options do not affect shipping time.

Is the 3-day promise affected by quantity? Suppose we need 50 or 100 pieces? The 3-day promise applies to orders for five or less modules. (Two or less for 9-day items). If requested, Acopian will ship five pieces of a larger order in 3 days and, with consideration of your requirement, schedule the balance. (Since each shipment is processed and priced as a separate order, for lowest prices request

shipment in one lot.)

What if I need four or five different models? Does the 3-day promise still apply? Yes. Guaranteed 3-day shipment applies to one model or to a combination of models.

Do I have to ask for 3-day shipment of my order?

3-day shipment is automatic. In fact, you must tell us if you want the shipment delayed.

How long after you ship will I have the power supplies?

Transportation time varies with the carrier used. Unless otherwise requested, Acopian ships small orders by UPS Ground.

You say Acopian has never failed to meet the 3-day promise. How do you do it? Our facilities have been designed and equipped to meet our 3-day shipment promise. When your order is received, your power supplies are built specifically for you and shipped within three days. We do not ship from stock. (For this reason, we are unable to accept returns for credit.)

I've seen other power supply manufacturers advertise "same-day shipment." Isn't that better than 3-day shipment?

A typical vendor's "same-day shipment" advertisement can only be fulfilled if the power supplies you need are in stock. Otherwise, a four to six week delay is not unusual before inventory is replenished and your order is shipped.

Acopian's 3-day shipment promise applies to ALL 3 Day models (larger units ship within 9 Days) and is not dependent on the quantity in stock. We build each unit after the order for that unit is received. If an order is needed faster, often times we can ship in less than 3 days.

If you require shipment even earlier than our standard promise, just let us know, we can usually ship sooner. We welcome the opportunity to work with you.

ACOPIAN...

...answers your phone call with a live salesperson

No automated menus. The person who answers your call will courteously and promptly answer your questions, quote price and delivery, expedite your urgent requirements, and offer you immediate access to our engineers. Call toll free 800-523-9478.

...can customize power supplies for you

If a standard power supply does not meet all of your requirements, speak with one of our engineers. We can often modify the specifications, ratings and configuration of a supply. We can also combine several power supplies into a Multiple Output Power System with the operating features you specify (such as meters and switches) and ship it within 9 Days!

... has a 5-year warranty

This is typical: One of our customers sent us an old power supply with a note indicating that the supply had been in continuous use since 1972 (33 years!), but he had recently noticed that the output voltage was low. We found that the capacitors had dried up, replaced them and returned the supply to the customer, who thanked us and said he intends to keep using it. We focus on making power supplies that will last a long time. There are power supplies that cost less than ours, or that are smaller than ours, but you won't find any that last longer than ours. All too often, low-priced supplies are densely packed, run hot, have short lifetimes and short warranties. All Acopian metal-cased power products have a 5-year warranty, but you can expect them to last a lot longer.

Purchase Acopian... 3-day shipment, long lasting power supplies, and unsurpassed customer service.

"In my business, Acopian is referred to as bulletproof. It never fails and lasts forever."

> - Steve Andrews, President Technical Options, Inc.

"If Acopian made automobiles, I'd buy one without question."

- David A. Price, Research Technologist Georgia Tech Research Institute

ORDERING INFORMATION & Terms and Conditions

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 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.. All prices and specifications are subject to change without notice. Minimum order is \$50.00.

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, 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, reprocurement, 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 requiring customs forms for Canadian orders and for orders to certain U.S. territories.)

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. The additional cost is \$25.00 per output and requires two additional days. Not available on High Voltage, Mini Encapsulated, Rack Mounting, and Gold Box Switching models.

TAGGING: Maximum of 15 characters/spaces. 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.

www.acopian.com - Online Ordering and Instant Quotes Online!

ALL ACOPIAN POWER SUPPLIES MADE IN U.S.A.

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Acopian Technical Company P.O. Box 638, Easton, PA 18044 • Phone: (610) 258-5441 • FAX: (610) 258-2842 Call toll free: (800) 523-9478 (International: Country Code 01)

Since 1957



Photo courtesy of the IceCube Project

"At Project IceCube, it's absolutely critical to have a good power supply.

The ice must be as pure and clear as possible. If the power to the ice top sensor system were to fail, we would risk the tank water freezing without being controlled, resulting in bubbles and impurities, and very much reducing the quality of ice and quality of information that we can see with our detectors. We chose Acopian power supplies to power our pumping and degassing systems because of their reputation for reliability. The people at Acopian met all of our highly demanding specifications and, despite very little time until our window to ship to the Pole, they met our schedule. We were 100% satisfied."

> Jim Baccus Cable System Manager Project IceCube (the international high-energy neutrino observatory being built and installed in the ice below South Pole Station)

The world's most demanding environments demand Acopian power systems.

Design your own Acopian power system online with the System Builder at www.acopian.com. Simply enter your requirements, and you'll receive a quotation for fully wired multiple-output power systems, without the need for you to prepare mechanical layouts or search through a power supply catalog.



ALL ACOPIAN POWER SUPPLIES MADE IN U.S.A.

Each system will be completely wired, tested and shipped within 9 days after receipt of the order. Choose Acopian – the power supplies of choice for the world's leading engineers.

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Acopian Technical Company

I-800-523-9478 • www.acopian.com