



Power Supplies

# Rack Mounting

## LINEAR REGULATED

### AC-DC single & dual tracking outputs

- Shipped Within 9 Days
- All Models U.L. Recognized
- Five Year Warranty

 US (single output models)

 (dual tracking output models)




(Meters and Handles optional)

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

- Fast Shipping? Acopian invented it! For over half a century, Acopian has built and shipped millions 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](http://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](mailto:3day@acopian.com) anytime for 24/7 product support.
- The *Online System Builder* ([www.acopian.com/SystemBuilder](http://www.acopian.com/SystemBuilder)) is a convenient way to get your own custom power supply or power system (and most ship within 9 Days).
- You can order Acopian power supplies factory direct.
- ALL Acopian products are made in the USA.



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 Order Factory Direct  
 Made in USA 




single & dual tracking outputs

## Rack Mounting

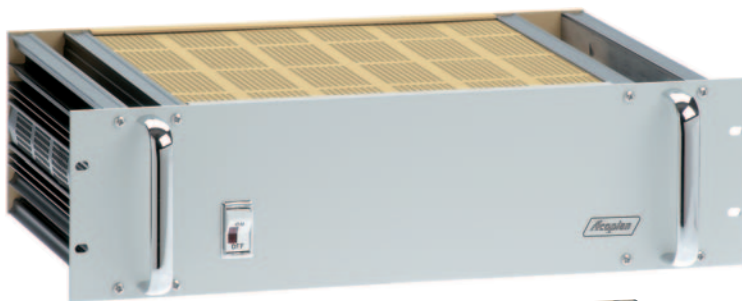
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AC-DC

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**Acopian rack-mounting power supplies** feature excellent regulation and ripple specifications in 101 models with outputs up to 150 volts and 60 amps. Metering and overvoltage protection are available as options. These power supplies are constructed in sturdy extruded aluminum assemblies designed expressly for mounting in standard 19" wide RETMA cabinet racks. The front panels are finished in light gray enamel.



(Meters and handles optional)

### SPECIFICATIONS

**Input Voltage:** 105-125 VAC, 50-400 Hz, single phase.

**Remote Voltage Sensing:** Provision for sensing the output voltage across the load is a standard feature.

#### Polarity:

**Single Output Models:** Output is floating; either positive or negative terminal may be grounded or floated up to 300 volts above ground.

**Dual Output Models:** Positive output, common, negative output.

#### Temperature Coefficient:

**Single Output Models:** 0.015%/°C (Typical).

**Dual Output Models:** 0.02%/°C (Typical).

#### Ambient Operating Temperature:

**Single Output Models:** -20 to +55°C.

**Dual Output Models:** -10 to +55°C.

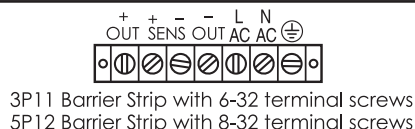
**Storage Temperature:** -55 to +85°C.

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

### CONNECTIONS (Single Output models):

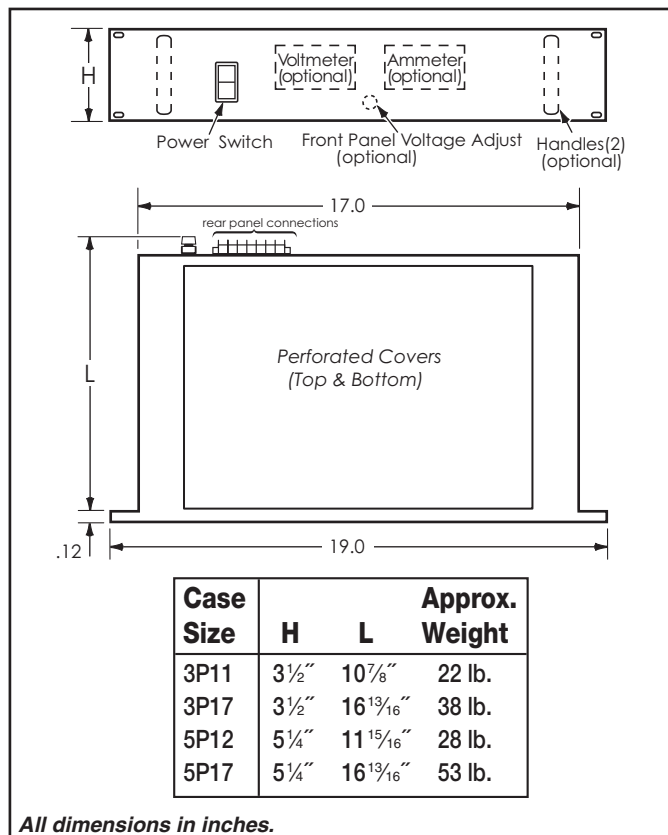
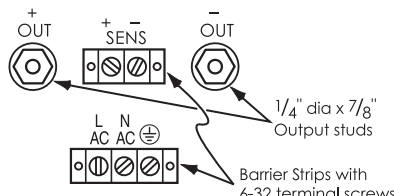
#### Case sizes

**3P11 and 5P12:**

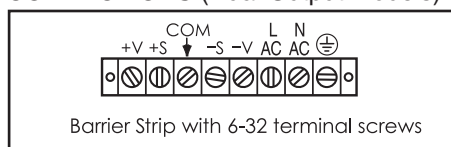


#### Case sizes

**3P17 and 5P17:**



### CONNECTIONS (Dual Output models):



## SINGLE OUTPUT

Nominal Output Voltage	Adjust Range $\pm V$	Output Current Amps. at		Regulation		Ripple mV RMS	Model	Case Size
		40°C	55°C	Load $\pm\%$	Line $\pm\%$			
1.5	.5	20	20	.005	.005	.25	1.5PT20	3P11
1.5	.5	32	27	.005	.005	.25	1.5PH32	5P12
1.5	.25	60	47	.05	.05	1	1.5PH60	5P17
2	.5	20	20	.005	.005	.25	2PT20	3P11
2	.5	30	25	.005	.005	.25	2PH30	5P12
3	.5	20	20	.005	.005	.25	3PT20	3P11
3	.5	30	25	.005	.005	.25	3PH30	5P12
3	.25	60	47	.05	.05	1	3PH60	5P17
3.3	.5	20	20	.005	.005	.25	3.3PT20	3P11
3.3	.5	32	27	.005	.005	.25	3.3PH32	5P12
3.3	.25	60	47	.05	.05	1	3.3PH60	5P17
5	.5	20	20	.005	.005	.25	5PT20	3P11
5	.5	32	27	.005	.005	.25	5PH32	5P12
5	.25	48	37	.05	.05	1	5PT48	3P17
5	.25	60	47	.05	.05	1	5PH60	5P17
6	.5	20	20	.005	.005	.25	6PT20	3P11
6	.5	28	23	.005	.005	.25	6PH28	5P12
6	.25	47	36	.05	.05	1	6PT47	3P17
6	.25	58	45	.05	.05	1	6PH58	5P17
7	.5	20	20	.005	.005	.25	7PT20	3P11
8	.5	20	20	.005	.005	.25	8PT20	3P11
8	.5	28	23	.005	.005	.25	8PH28	5P12
8	.25	54	42	.05	.05	1	8PH54	5P17
9	.5	20	20	.005	.005	.25	9PT20	3P11
9	.5	41	32	.05	.05	1	9PT41	3P17
9	.5	52	41	.05	.05	1	9PH52	5P17
10	.5	20	20	.005	.005	.25	10PT20	3P11
10	.5	25	20	.005	.005	.25	10PH25	5P12
10	.5	50	39	.05	.05	1	10PH50	5P17
12	.5	17	17	.005	.005	.25	12PT17	3P11
12	.5	22	22	.005	.005	.25	12PH22	5P12
12	.5	33	26	.05	.05	1	12PT33	3P17
12	.5	45	35	.05	.05	1	12PH45	5P17
13	.5	16	16	.005	.005	.25	13PT16	3P11
13	.5	43	34	.05	.05	1	13PH43	5P17
14	.5	12	12	.005	.005	.25	14PT12	3P11
15	.5	10	10	.005	.005	.25	15PT10	3P11
15	.5	19	16	.005	.005	.25	15PH19	5P12
15	.5	25	20	.05	.05	1	15PT25	3P17
15	.5	40	31	.05	.05	1	15PH40	5P17
16	.5	10	10	.005	.005	.25	16PT10	3P11
18	.5	10	10	.005	.005	.25	18PT10	3P11
18	.5	18	15	.005	.005	.25	18PH18	5P12
18	.5	24	19	.05	.05	1	18PT24	3P17
18	.5	36	28	.05	.05	1	18PH36	5P17
20	.5	10	10	.005	.005	.25	20PT10	3P11
20	.5	16	14	.005	.005	.25	20PH16	5P12
20	.5	23	18	.05	.05	1	20PT23	3P17
20	.5	32	25	.05	.05	1	20PH32	5P17
22	.5	10	10	.005	.005	.25	22PT10	3P11

\*or 2 mv, whichever is greater.

## DUAL TRACKING OUTPUTS

Nominal Output Voltages	Adjust Range $\pm V$	Amps. per Output at		Regulation		Ripple mV RMS	Model	Case Size
		40°C	55°C	Load $\pm\%$	Line $\pm\%$			
$\pm 12$	.5	7	5.6	.1	.1	1.5	PD12-700	3P11
$\pm 12$	.5	9	7.2	.1	.1	1.5	PD12-900	5P12
$\pm 15$	.5	7	5.6	.1	.1	1.5	PD15-700	3P11
$\pm 15$	.5	9	7.2	.1	.1	1.5	PD15-900	5P12

## OPTIONS

**EXAMPLE:** The Model 5PT20 equipped with all options is designated as the Model V5PT20AFHMP-230. (List suffix letters in alphabetical sequence.)

**Overvoltage Protection:** An internally installed and preset overvoltage protector is available. On dual output models, if either output fails, both outputs are 'crowbarred'. To order, add prefix "V" to the model number.

**Front Panel Voltage Adjustment:** Standard models have a voltage adjustment located at the rear. A voltage control mounted on the front panel is available as an option. To order, add suffix "P" to the model number.

**Handles:** Add suffix "H" to model number.

**Terminal Strip Cover:** Clips on. To order, add suffix "M" to model number.

Nominal Output Voltage	Adjust Range $\pm V$	Output Current Amps. at		Regulation		Ripple mV RMS	Model	Case Size
		40°C	55°C	Load $\pm\%$	Line $\pm\%$			
24	.5	10	10	.005	.005	.25	24PT10	3P11
24	.5	15	13	.005	.005	.25	24PH15	5P12
24	.5	20	16	.05	.05	1	24PT20	3P17
24	.5	30	23	.05	.05	1	24PH30	5P17
25	.5	10	10	.005	.005	.25	25PT10	3P11
26	.5	10	10	.005	.005	.25	26PT10	3P11
28	.5	10	10	.005	.005	.25	28PT10	3P11
28	.5	14	12	.005	.005	.25	28PH14	5P12
28	.5	19	15	.05	.05	1	28PT19	3P17
28	.5	28	22	.05	.05	1	28PH28	5P17
30	.5	10	10	.005	.005	.25	30PT10	3P11
30	.5	14	12	.005	.005	.25	30PH14	5P12
32	.5	5	5	.005	.005	.25	32PT5	3P11
32	.5	10	10	.005	.005	.25	32PT10	5P12
34	.5	5	5	.005	.005	.25	34PT5	3P11
34	.5	10	10	.005	.005	.25	34PT10	5P12
35	.5	5	5	.005	.005	.25	35PT5	3P11
35	.5	10	10	.005	.005	.25	35PT10	5P12
36	.5	5	5	.005	.005	.25	36PT5	3P11
36	.5	10	10	.005	.005	.25	36PT10	5P12
38	.5	5	5	.005	.005	.25	38PT5	3P11
38	.5	10	10	.005	.005	.25	38PT10	5P12
40	.5	5	5	.005	.005	.25	40PT5	3P11
40	.5	10	10	.005	.005	.25	40PT10	5P12
45	.5	5	5	.005	.005	.25	45PT5	3P11
45	.5	10	10	.005	.005	.25	45PT10	5P12
48	.5	5	5	.005	.005	.25	48PT5	3P11
48	.5	10	10	.005	.005	.25	48PT10	5P12
48	.5	15	12	.005	.005	.25	48PT15	5P17
50	.5	5	5	.005	.005	.25	50PT5	3P11
50	.5	10	10	.005	.005	.25	50PT10	5P12
55	.5	5	3.8	.005	.005	.25	55PT5	3P11
55	.5	8	6	.005	.005	.25	55PT8	5P12
60	.5	5	3.8	.005	.005	.25	60PT5	3P11
60	.5	8	6	.005	.005	.25	60PT8	5P12
75	1	4	3	.01	.01	1	75PT4	3P11
75	1	5.6	4.2	.01	.01	1	75PT5	5P12
90	1	3.3	2.5	.01	.01	1	90PT3	3P11
90	1	4.4	3.3	.01	.01	1	90PT4	5P12
100	1	3	2.2	.01	.01	1	100PT3	3P11
100	1	4	3	.01	.01	1	100PT4	5P12
120	1	2.5	1.8	.01	.01	1	120PT2	3P11
120	1	3.5	2.6	.01	.01	1	120PT3	5P12
125	1	2.5	1.8	.01	.01	1	125PT2	3P11
125	1	3.5	2.6	.01	.01	1	125PT3	5P12
150	1	2.3	1.7	.01	.01	1	150PT2	3P11
150	1	3	2.2	.01	.01	1	150PT3	5P12

### Metering (Single Output Models):

**Ammeter:** Add suffix "A" to model number.

**Voltmeter:** Add suffix "F" to model number.

### Metering (Dual Output Models):

**Ammeters:** One for each output. Add suffix "A" to model number.

"A" and "F" options cannot be combined in one power supply.

**Voltmeters:** One for each output. Add suffix "F" to model number.

"A" and "F" options cannot be combined in one power supply.

**Voltmeter and Ammeter:** Each with switch for selecting output to be monitored. Add suffix "G" to model number.

**230 Volt Input:** For operation on inputs of 210 to 250 VAC, 50-400 Hz. Add suffix "-230" to model number. The "-230" option requires two additional days.

**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, procurement, 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**