



Power Supplies

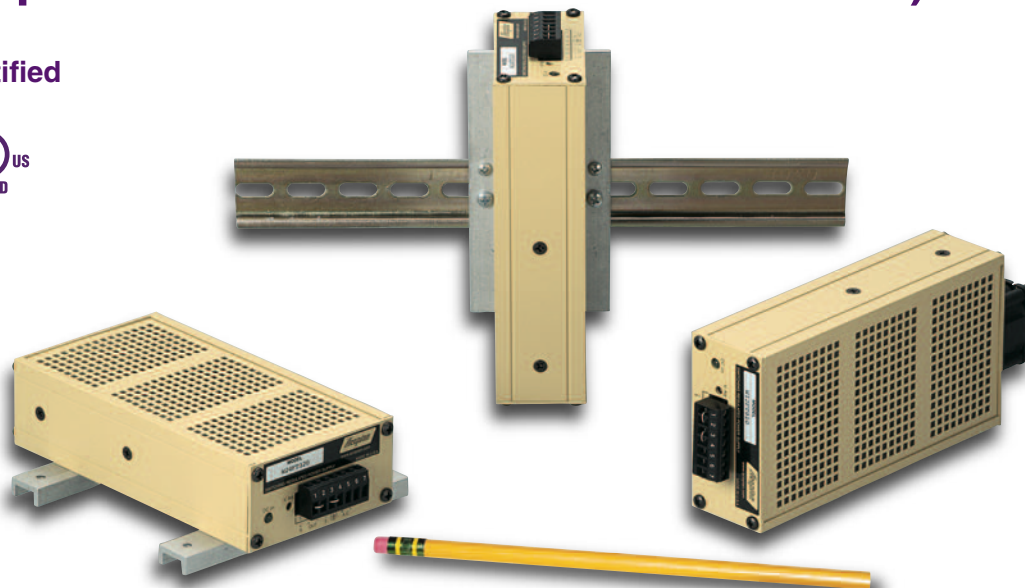
Narrow Profile

SWITCHING REGULATED (to 120 watts)

AC-DC single output

DC-DC (DC input can be used on 230 vac models)

- Shipped Within 3 Days
- UL60950, UL508, CE Certified
- Five Year Warranty



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
- 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 most ship within 9 Days).
- You can order Acopian power supplies factory direct.
- ALL Acopian products are made in the USA.



Easton, PA & Melbourne, FL
 1-800-523-9478 • www.acopian.com
 Order Factory Direct
 Made in USA



Narrow Profile**SWITCHING REGULATED (to 120 watts)**

AC-DC single output

DC-DC (DC input can be used on 230 VAC input models)

- Shipped Within 3 Days
- UL60950, UL508, CE Certified
- Five Year Warranty



This group of **Narrow Profile switchers** includes convection cooled models less than 7" long that provide outputs up to 75 watts and fan cooled models less than 8" long that provide outputs to 120 watts.

STANDARD FEATURES

- Internal EMI Filter and Shielding
- Pluggable Input/output Terminal Block
- Excellent Load/line Regulation
- Overcurrent, Overvoltage Protection
- No Minimum Load Required

SPECIFICATIONS

Input Voltage: 90-132 VAC, 47-420 Hz, single phase. 180-265 VAC input is also available (see Options).

DC Input: Not applicable on 115 VAC models. On 230 VAC models, 200-375 Vdc input can be used. DC input may be connected without regard to polarity.

Inrush current: Cold start, (thermistor limiter) 15A peak @ 115 VAC; 30A peak @ 230 VAC.

Startup Time: 1 second typical.

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

Regulation:

Line: $\pm 0.05\%$ or 5 mV, whichever is greater.

Load: $\pm 0.05\%$ or 5 mV, whichever is greater.

Output Voltage Remote Adjustment: The output voltage may be controlled by means of an external 1K potentiometer.

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

Drift: $\pm 0.1\%$ typical over 8 hours, after 30 minute warmup.

Temperature Coefficient: $\pm 0.02\%/^{\circ}\text{C}$ (Typical).

Holdup Time: 20 mS minimum.

Transient Response: 300 μS to return to $\pm 1\%$ of output setting. Maximum of $\pm 3\%$ 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: Current limiting with automatic recovery.

Overvoltage Protection: Automatic reset.

Output Indicator (DC on): Green LED.

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

Ambient Operating Temperature: 0 to $+71^{\circ}\text{C}$.

Storage Temperature: -40 to $+85^{\circ}\text{C}$.

Cooling: Case size WN6A: forced-air cooled; air enters rear of power supply and exits from top. Case size WN6B: convection cooled.

Switching Frequency: 100 kHz (Typical).

Dielectric Withstand Voltage

	Dielectric Withstand Voltage	Isolation
Input to output:	4242 Vdc	300 Vdc
Input to case:	2121 Vdc	300 Vdc
Output to case:	750 Vdc	300 Vdc

Internal Failure Protection: Provided by internal fuse.

Mounting: Threaded mounting holes permit mounting to a chassis, cabinet wall or bracket. To mount from the power supply side of the mounting surface or for DIN rail mounting, see accessory Mounting Kits on page H3.

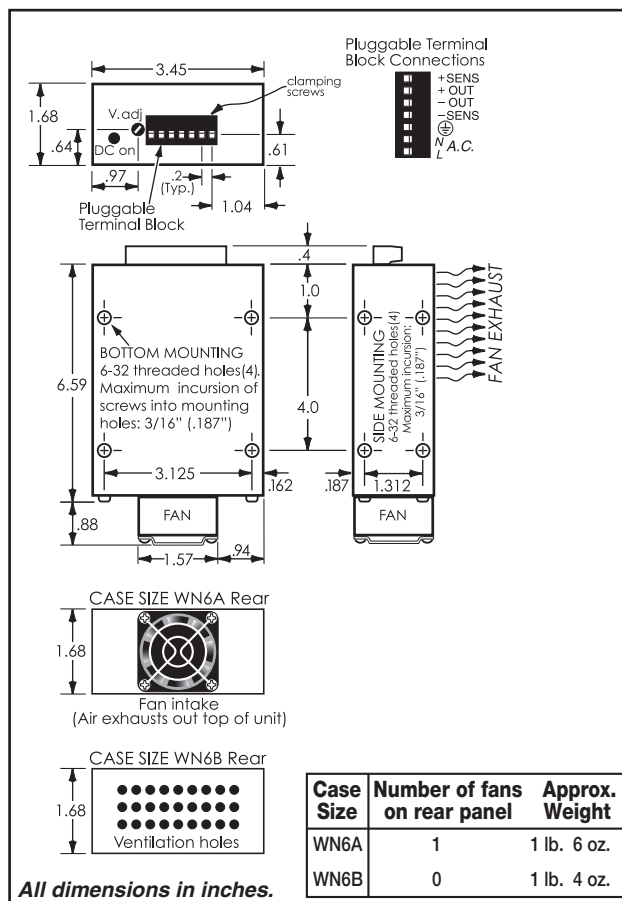
OPTIONS

230 Volt Input: For applications where operation on an input of 180-265 VAC, 47-420 Hz, is desired. To order, add suffix "-230" to the model number. On 230 VAC models, 200-375 Vdc input can also be used.

Narrow Profile SWITCHING REGULATED (to 120 watts)

Nominal Output Voltage	Adjust Range $\pm V$	Output Current Amps. at		Ripple mV (@ 25 MHz BW)		Effic. (Typ.) %	Model	Case Size
		40°C	71°C	RMS	P-P			
3.3	.5	12	8.4	10	50	66	W3.3FT1200	WN6B
3.3	.5	15	10.5	10	50	66	W3.3FT1500	WN6A
5	.5	12	8.4	10	50	70	W5FT1200	WN6B
5	.5	15	10.5	10	50	70	W5FT1500	WN6A
6	.5	10	7	10	50	71	W6FT1000	WN6B
6	.5	12.5	8.6	10	50	71	W6FT1250	WN6A
7	.5	8.5	5.9	10	50	71	W7FT850	WN6B
7	.5	10.6	7.4	10	50	71	W7FT1060	WN6A
8	.5	7.5	5.2	15	100	72	W8FT750	WN6B
8	.5	9.4	6.6	15	100	72	W8FT940	WN6A
9	.5	6.6	4.6	15	100	73	W9FT660	WN6B
9	.5	9.3	6.5	15	100	73	W9FT930	WN6A
10	.5	6	4.2	15	100	73	W10FT600	WN6B
10	.5	9.2	6.4	15	100	73	W10FT920	WN6A
12	.5	5.8	4.0	15	100	76	W12FT580	WN6B
12	.5	9.1	6.3	15	100	76	W12FT910	WN6A
13	.5	5.3	3.7	15	100	76	W13FT530	WN6B
13	.5	8.1	5.6	15	100	76	W13FT810	WN6A
14	.5	4.9	3.4	15	100	76	W14FT490	WN6B
14	.5	7.7	5.4	15	100	76	W14FT770	WN6A
15	.5	4.7	3.3	15	100	76	W15FT470	WN6B
15	.5	7.4	5.2	15	100	76	W15FT740	WN6A
16	.5	4.4	3	15	100	76	W16FT440	WN6B
16	.5	6.8	4.7	15	100	76	W16FT680	WN6A
18	.5	4	2.8	15	100	78	W18FT400	WN6B
18	.5	6	4.2	15	100	78	W18FT600	WN6A
20	.5	3.7	2.6	15	100	78	W20FT370	WN6B
20	.5	5.6	3.9	15	100	78	W20FT560	WN6A

Nominal Output Voltage	Adjust Range $\pm V$	Output Current Amps. at		Ripple mV (@ 25 MHz BW)		Effic. (Typ.) %	Model	Case Size
		40°C	71°C	RMS	P-P			
22	.5	3.4	2.4	15	100	79	W22FT340	WN6B
22	.5	5.3	3.7	15	100	79	W22FT530	WN6A
24	.5	3.2	2.2	15	100	81	W24FT320	WN6B
24	.5	5	3.5	15	100	80	W24FT500	WN6A
25	.5	3	2.1	15	100	81	W25FT300	WN6B
25	.5	4.8	3.3	15	100	80	W25FT480	WN6A
26	.5	2.8	2	15	100	81	W26FT280	WN6B
26	.5	4.6	3.2	15	100	80	W26FT460	WN6A
28	.5	2.7	1.9	15	100	81	W28FT270	WN6B
28	.5	4.2	2.9	15	100	80	W28FT420	WN6A
30	.5	2.5	1.7	25	150	81	W30FT250	WN6B
30	.5	4	2.8	25	150	80	W30FT400	WN6A
32	1	2.3	1.6	25	150	81	W32FT230	WN6B
32	1	3.7	2.5	25	150	80	W32FT370	WN6A
34	1	2.2	1.5	25	150	81	W34FT220	WN6B
34	1	3.5	2.4	25	150	80	W34FT350	WN6A
36	1	2.1	1.4	25	150	81	W36FT210	WN6B
36	1	3.3	2.3	25	150	80	W36FT330	WN6A
38	1	2	1.4	25	150	81	W38FT200	WN6B
38	1	3.1	2.2	25	150	80	W38FT310	WN6A
40	1	1.9	1.3	25	150	82	W40FT190	WN6B
40	1	3	2.1	25	150	81	W40FT300	WN6A
42	1	1.8	1.2	25	150	82	W42FT180	WN6B
42	1	2.8	1.9	25	150	81	W42FT280	WN6A
45	1	1.7	1.2	25	150	82	W45FT170	WN6B
45	1	2.6	1.8	25	150	81	W45FT260	WN6A
48	1	1.6	1.1	25	150	82	W48FT160	WN6B
48	1	2.5	1.7	25	150	81	W48FT250	WN6A



WALL MOUNTING KITS

These kits provide a way of mounting power supplies on a wall or panel when the other side of the mounting surface is inaccessible. Each kit consists of four aluminum brackets and four machine screws for fastening them to the power supply, effectively adding mounting flanges to the power supply.

For 'Gold Box' and (modular) 'High Voltage' power supplies:

GB8 Mounting Kit (#8-32 mounting holes)

Can be used on these case sizes:

CM6, CM9, CM13, CH11, CH16, DG5, DG6, DG9, G3, G5, G5D, G6, G9, G13, GT5, GT6, GT9, GT13, H8, H11, H16, HD345, HD355, HA349, HA359, HT11, HT16, LM6A*, LM8A*, LM10A*, M6, M9, M13, RM6, RW6 TG5, TG6, TG9, TG13, TH11, WG7, WM6, WM9, Y3, Y5, Y6, YH11, YA

*For rear mounting brackets horizontally on **LM cases only**, use GBR Mounting Kit

For 'Narrow Profile' power supplies:

NP6 Mounting Kit (#6-32 mounting holes)

Can be used on these case sizes:

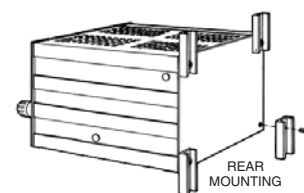
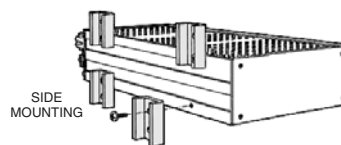
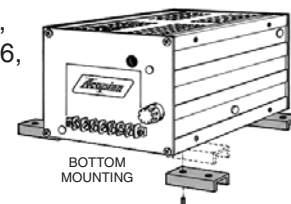
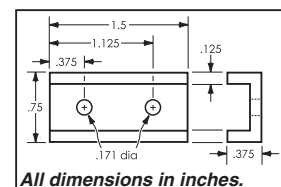
AMC, CN8T, DN6B, DN6A, DN8A, DN8, F6T, F8T, N8T, WL7, WL9, WN6A, WN6B, WN8, WN8A, WN8B, TN6T

NP6L Mounting Kit (#6-32 mounting holes)

Can be used on these case sizes:

CN8H, N8H, TN8H

Model NP6L consists of two brackets 1.5" long as shown above, and two 2.5" long brackets (to extend beyond heat sink).



DIN RAIL MOUNTING KITS

CH35DIN Mounting Kit (Horizontal mounting)

Can be used on these case sizes: RM6, RW6

GH35DIN Mounting Kit (Horizontal mounting)

Can be used on these case sizes:

CM6	DG5	G3	GT5	M6	TG5	Y3
CM9	DG6	G5	GT6	M9	TG6	Y5
CM13	DG9	G5D	GT9	M13	TG9	Y6
		G6	GT13		TG13	
		G9				
		G13				

GR35DIN Mounting Kit (Rear mounting)

Can be used on these case sizes:

CM6	DG5	G3	GT5	HD345	M6	RM6	TG5	Y3
CM9	DG6	G5	GT6	HD355	M9	RW6	TG6	Y5
	DG9	G5D	GT9				TG9	Y6
		G6						
		G9						

(GR35DIN can be used, but is not recommended on case sizes: G13, GT13, M13, TG13)

LR35DIN Mounting Kit (Rear mounting)

LV35DIN Mounting Kit (Vertical mounting)

LH35DIN Mounting Kit (Horizontal mounting)

Can be used on these case sizes: LM6A, LM8A, LM10A

NPH35DIN Mounting Kit (Horizontal mounting)

Can be used on these case sizes:

CN8H	DN6A	F6T	N8H	TN6T	WN6A
CN8T	DN6B	F8T	N8T	TN8H	WN6B
	DN8				WN8
	DN8A				WN8A
					WN8B

NPR35DIN Mounting Kit (Rear mounting)

Can be used on these case sizes:

CN8H	F6T	N8H	TN6T
CN8T	F8T	N8T	TN8H

NPV35DIN Mounting Kit (Vertical mounting)

Can be used on these case sizes:

CN8H	DN6A	F6T	N8H	TN6T	WN6A
CN8T	DN6B	F8T	N8T	TN8H	WN6B
	DN8				WN8
	DN8A				WN8A
					WN8B

WH35DIN Mounting Kit (Horizontal mounting)

Can be used on these case sizes: WM6, WM9

WL35DIN Mounting Kit (Vertical mounting)

WLV35DIN Mounting Kit (Horizontal mounting)

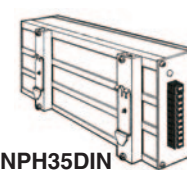
Can be used on these case sizes: WL7, WL9



GH35DIN



LH35DIN



NPH35DIN



GR35DIN



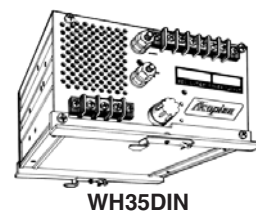
LR35DIN



NPV35DIN



WLH35DIN



WH35DIN



NPR35DIN

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