

150/100/50 WATT FC/FE/FW SERIES

FEATURES

25 watts per cubic inch

High efficiency
typ. 82% @ 5 V

Low profile
0.5 in.

Operating case temp. up to 90°C w/no derating

Calculated MTBF >2 million hours

UL, CSA, TUV recognized

Remote sense

Input-to-output isolation

Single wire parallel operation with forced load sharing for true n+1 redundancy

Remote on/off

Complete input and output filtering

Current limit, overvoltage protection

Within FCC Class A radiated limits



The FC/FE/FW Series 50-150 watt power modules take advantage of AT&T's 60 years of power experience to provide high-quality, highly efficient dc-dc converters at an economical price.

These modules eliminate the need for external filters by providing built-in filtering for both the input and output of each device. You can use multiple modules in parallel with forced load sharing for redundant or enhanced power applications. The sleek, encapsulated package accommodates a heat sink for high-temperature applications.

SELECTION CHART

Input Vdc	Output Power W	Output Vdc	Optional Features
18-36 = C	150	5 = A	9 = Trimmable output voltage
38-60 = E	100	12 = B ¹	
36-72 = W	050	15 = C	
		2.0 = D	
		3.3 = F	
		24 = H ²	

Part No. ↓ ↓ ↓ ↓

F

1. 12 V output is not available at 150 W.

2. 24 V output is only available with 38-60 V input.

Note: Outputs less than 5 V are limited to 30 A for 150 W, 20 A for 100 W, and 10 A for 50 W.

TYPICAL INPUT CHARACTERISTICS

Reflected Ripple Current 20 mA_{p-p}
 Ripple Rejection 60 dB

TYPICAL OUTPUT CHARACTERISTICS

Set Point Accuracy
 2.0-5.2 V Output ±0.5%
 12-24 V Output ±1.0%
 Load Regulation ±0.1%
 Line Regulation ±0.05%
 Output Temperature Drift ±0.01%/°C
 Output Ripple
 2.0-5.2 V Output 30 mV_{p-p}, 11 mV_{rms}
 12 V, 15 V Output 50 mV_{p-p}, 18 mV_{rms}
 24 V Output 150 mV_{p-p}, 50 mV_{rms}
 Overvoltage Clamp Set Point 125%
 Current Limit Inception 115%
 Short Circuit Current 150%
 Efficiency
 2.0-3.3 V Output 74%
 4.6-5.2 V Output 82%
 12 V, 15 V Output 85%
 24 V Output 86%

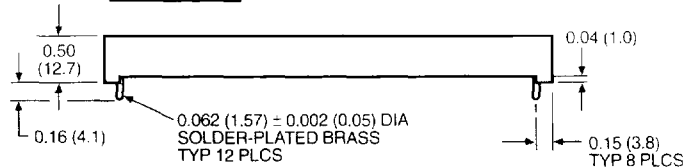
OPTIONS

Trimable Output Voltage ±10%
 Heat sinks – several styles available
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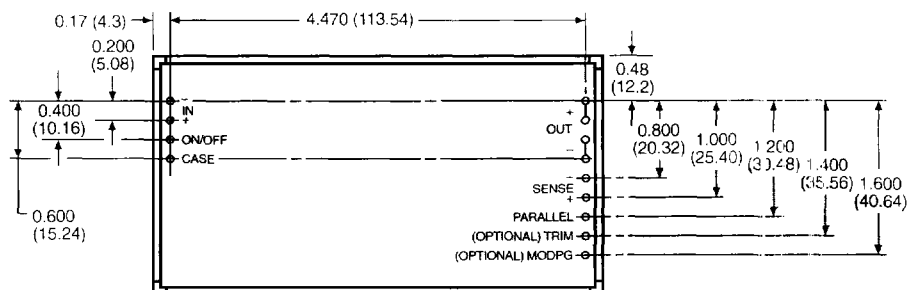
PRODUCT ATTRIBUTES

Isolation
 Voltage 500 Vdc
 Capacitance 1700 pF
 Resistance >10 MΩ
 Operating Case Temp. 0° to 90°C
 Storage Temperature -40° to 110°C
 Maximum Weight 7 oz (200 grams)
 Case Dimensions 4.8" L, 2.5" W, 0.5" H
 Calculated MTBF (40°C case) > 2 million hrs.

Side View



Bottom View



Pins are solder-plated brass, 0.062 (1.57) DIA.
 Dimensions are in inches and (millimeters).

For more specific technical information, call 1-800-526-7819.

For product-specific data sheet and application/technical notes, call 1-800-372-2447.

- **Thermal Energy Management** Tech. Note TN92-004EFS
- **Forced Load Sharing** Tech. Note TN91-006EPS
- **Remote On/Off** App. Note TN91-036EPS