



**FEATURES**

- 90~264 VAC Universal Input
- 180W in 3" X 5" Footprint
- 0.9 to 0.95 Power Factor
- Body Floating (BF) Rated, MOOP Type
- IEC/EN/UL 60601-1 3rd Edition Approvals



**ELECTRICAL SPECIFICATIONS**

Input Voltage ..... 90~264 VAC  
 Input Frequency ..... 47~63 Hz  
 Input Current ..... 3A (rms) max. @ 115 VAC,  
 1.5A (rms) max. @ 230 VAC  
 Inrush Current ..... 50A max. @ 115 VAC, 100A max.  
 @ 230 VAC at cold start +25°C  
 Earth Leakage Current ..... 100 µA max. @ 264 VAC  
 Power Factor ..... >0.95 @ 115 VAC, >0.9 @ 230 VAC  
 Output Power Ratings ..... See table  
 Output Voltage Regulation .. ±3%  
 Ripple and Noise\* ..... 240mV

\* R&N are measured at 20 MHz bandwidth with a 10µF electrolytic capacitor and with a 0.1µF ceramic capacitor in parallel.

**STANDARDS & COMPLIANCES**

EMC Standards ..... EN 60601-1-2, EN 55011 Class B,  
 FCC Part 18 Class B  
 Safety Standards ..... IEC/EN/UL 60601-1 3rd Edition,  
 ANSI/AAMI ES 60601-1: 2005,  
 CAN/CSA C22.2 No. 60601-1:08  
 Agency Approvals ..... CSA, CUS, TUV, CE, CB, FCC  
 Other Compliance ..... RoHS

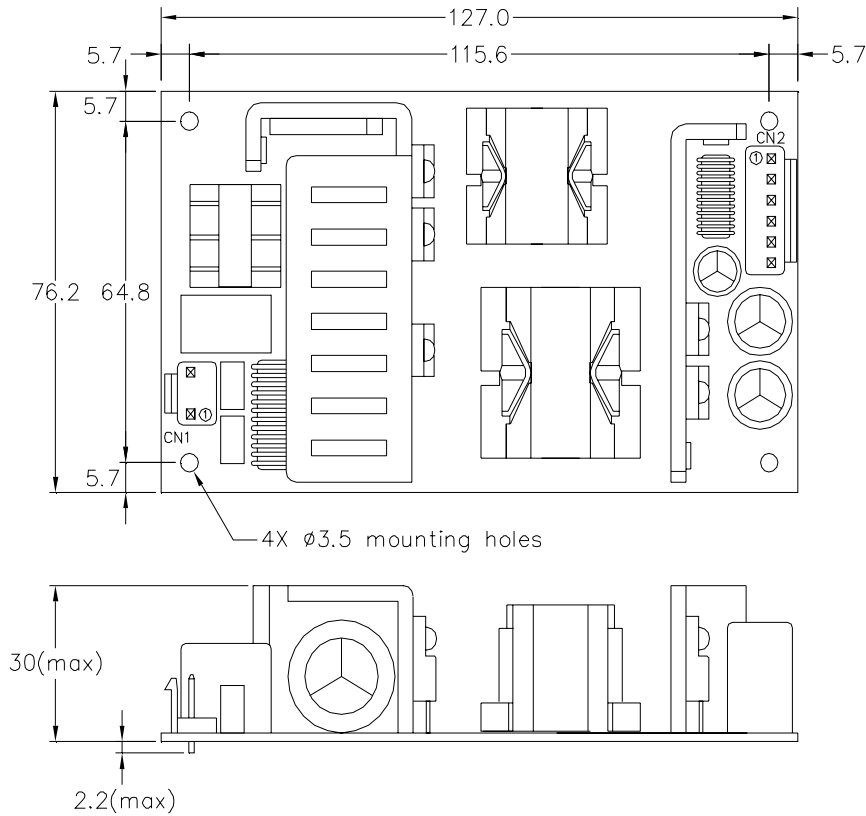
**MODELS LIST**

Product No.	Output Voltage	Maximum Load		Regulation	Max. Output
		@ Convection	@ 15 CFM		
TWM180-12	12V	10A	15A	±3%	180W
TWM180-15	15V	8A	12A	±3%	180W
TWM180-19	19V	6.32A	9.48A	±2%	180W
TWM180-24	24V	5A	7.5A	±2%	180W
TWM180-28	28V	4.29A	6.43A	±2%	180W
TWM180-48	48V	2.5A	3.75A	±2%	180W

**GENERAL SPECIFICATIONS**

Efficiency ..... >87% at full load, 115 VAC  
 Switching Frequency ..... 45~75KHz  
 Hold-up Time ..... >20 ms at 115 VAC, 180W load  
 Operating Temperature ..... 0°C to +60°C  
 Derating ..... Derate linearly 2.5%/°C from  
 +41°C to +60°C @ convection  
 and +51°C to +60°C @ 15 CFM  
 Storage Temperature ..... -40°C to +85°C  
 Operating Humidity ..... 5% to 95% non-condensing  
 Short-Circuit Protection ..... Auto-recovery  
 Overload Protection ..... Set at 110% to 150% of the  
 maximum rating, Auto-recovery  
 Overvoltage Protection ..... Shutdown and latch off, AC  
 recycle  
 Withstand Voltage ..... 4,000 VAC from input to output,  
 1,500 VAC from input to ground,  
 500 VAC from output to ground  
 MTBF ..... 123K hours at full load and  
 25°C ambient temperature  
 calculated per MIL-HDBK-217F

### MECHANICAL SPECIFICATIONS



**Notes:**

1. Dimensions in mm
2. Tolerance:  $\pm 0.5$ mm

### INPUT & OUTPUT CONNECTORS

**CN1: Input Connector**

JST B3P-VH-B (3.96mm pitch) or equivalent; mates with JST VHR-3N or equivalent.

Pin #	Function
1	AC Neutral
2	AC Line

**CN2: Output Connector**

JST B6P-VH-B (3.96mm pitch) or equivalent; mates with JST VHR-6N or equivalent.

Pin #	Function
1, 2, 3	RTN
4, 5, 6	+Vo