

FEATURES

- ◆ 280W in 3" x 5" PCB footprint
- ◆ Full Medical & ITE Approvals
- ◆ Medical Body Floating (BF) rated, MOPP Type
- ◆ Main output and Standby output power ON LED indicators

THREE YEAR WARRANTY

SAFETY CERTIFICATIONS

UL/c-UL/EN 60950-1
 UL/c-UL/EN62368-1
 UL/EN/60601-1 3.1 Edition
 CB IEC 60950-1
 CB IEC 62368-1



STANDARD MODELS

Model Number ^{1,3}	Output Voltage	Output Current ^{2,4} (V1)	Total Regulation	Ripple & Noise (Vp-p)	Standby Supply (V2)	Fan Output (V3)
RD-280P-S12z	12V	17.5A 23.33A	±3%	150mV	5V/0.5A	12V/0.3A
RD-280P-S24z	24V	8.75A 11.66A	±3%	240mV	5V/0.5A	12V/0.3A
RD-280P-S28z	28V	7.5A 10.0A	±2%	280mV	5V/0.5A	12V/0.3A
RD-280P-S36z	36V	5.83A 7.77A	±2%	300mV	5V/0.5A	12V/0.3A
RD-280P-S48z	48V	4.375A 5.83A	±2%	300mV	5V/0.5A	12V/0.3A
RD-280P-S54z	54V	3.88A 5.148A	±2%	400mV	5V/0.5A	12V/0.3A

NOTES:

- Output connector options, substitute z in model number as appropriate:
 Leave blank for connector type, pitch=3.96mm: Suitable for 24V up (standard configuration).
 Replace with T for Terminal Block, pitch 8.25mm: Suitable for all voltages.
 Replace with M for Mini-Fit type, pitch 4.2mm.
- All ratings are for Convection Cooling | 18CFM Forced Cooling.
- All models have total power 210W Max. convection or 280W Max. forced air cooling.
- Derate convection rating to 200W Max. when U-Channel option is selected.

U-Channel Option:

Add -U to end of model number, e.g. RD-280P-S12T-U.

SPECIFICATIONS

Typical at Nominal Line, Full Load and 25°C Unless Otherwise Noted. Subject to change without notice.

INPUT SPECIFICATIONS

Input Operating Range90-264VAC (see derating curve)
 Input Frequency47-63Hz
 Power Factor @ full load.....>0.95 @115VAC, >0.90 @230VAC
 Input Current, RMS.....<3.5A @115VAC, <2.0A @ 230VAC
 Inrush Current, cold start @ 25°C<30A Peak @ 115VAC
 <60A Peak @ 230VAC
 Input EMI Filter.....EN55022 Curve B, FCC20780 pt. 15J Curve B
 Input Protection.....Internal Fuse
 Leakage Current<100µA @ 264VAC

OUTPUT SPECIFICATIONS

Total Output Power, Continuous, Max..... see model table
 Total Regulation¹..... see model table
 Ripple & Noise, Pk-Pk²..... see model table
 Holdup Time, full load @ 115VAC.....>10mS
 Minimum Load.....0A
 Overload Protection.....105-150% Full Load, Auto Recovery
 Overvoltage Protection.....Shutdown, Latch off
 Short Circuit Protection.....Auto Recovery
 5Vsb.....meets ErP 0.5W @ No load
 Remote control.....(Inhibit) function

GENERAL SPECIFICATIONS

Efficiency>91% typical at Full Load, 230VAC
 MTBF @ 25°C.....>200,000 Hours per Telcordia
 EMC / CE.....EN60601-1-2, EN55024, EN 55011 Class B
 EN55022 Class B, FCC Part 15 Class B, FCC Part 18 Class B
 Safety Standards
 Medical.....UL60601-1 Ed. 3.1, CSA22.2 No.60601-1 Ed. 3.1
 EN60601-1 Ed. 3.1
 ITE.....UL/c-UL/IEC62368-1, CB IEC 60950-1/62368-1

ENVIRONMENTAL SPECIFICATIONS

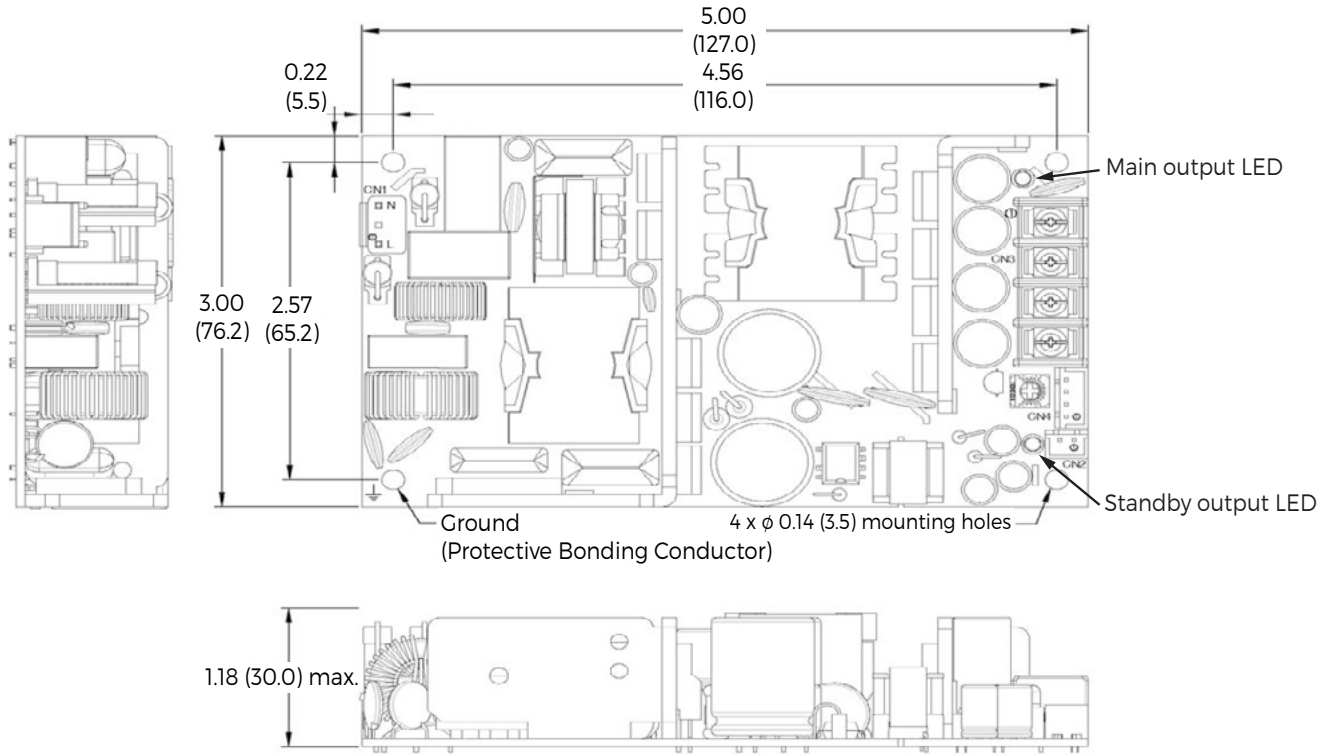
Operating Temperature.....-20°C to 70°C Ambient
 Derating.....see page 2 & 3
 Storage Temperature.....-20°C to 85°C
 Humidity0% to 90%, non-condensing
 Cooling.....Natural Convection or Forced Air

PHYSICAL SPECIFICATIONS

Format.....Open PCB or U-Channel
 Dimensions, inches (mm)
 Open PCB.....5 (127.0) L x 3 (76.2) W x 1.18 (30.0) H
 U-Channel.....5 (127.0) L x 3.28 (83.2) W x 1.5 (38.0) H
 Weight.....Open PCB 0.775lbs (0.35kg)
 U-Channel 1.05lbs (0.475kg)

- NOTES: 1. No load to full load, including line regulation and load regulation.
 2. 20MHz bandwidth, with a 47µF electrolytic capacitor and a 0.1µF ceramic capacitor in parallel at the output connector.

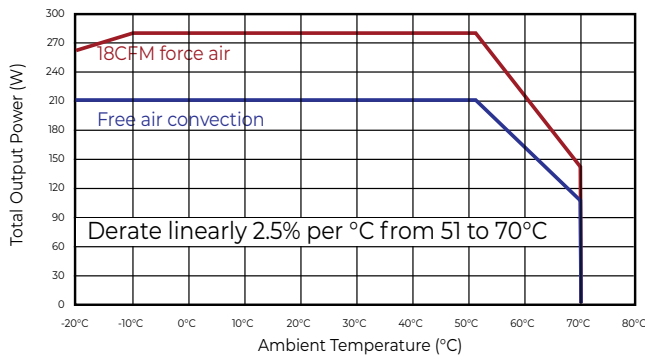
MECHANICAL SPECIFICATIONS - OPEN PCB



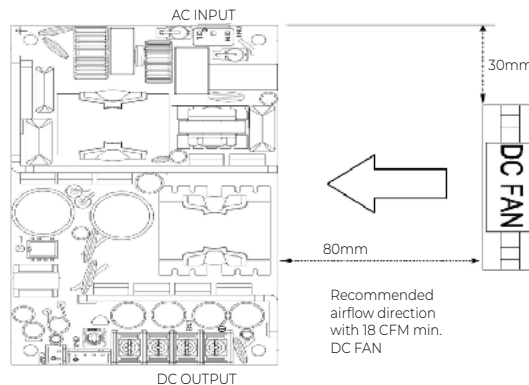
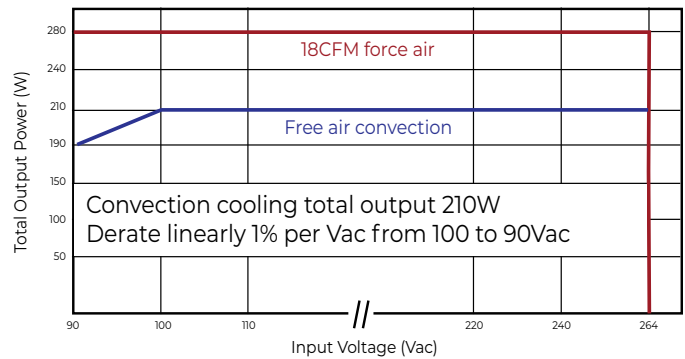
ALL DIMENSIONS IN INCHES (mm).

DERATING - OPEN PCB

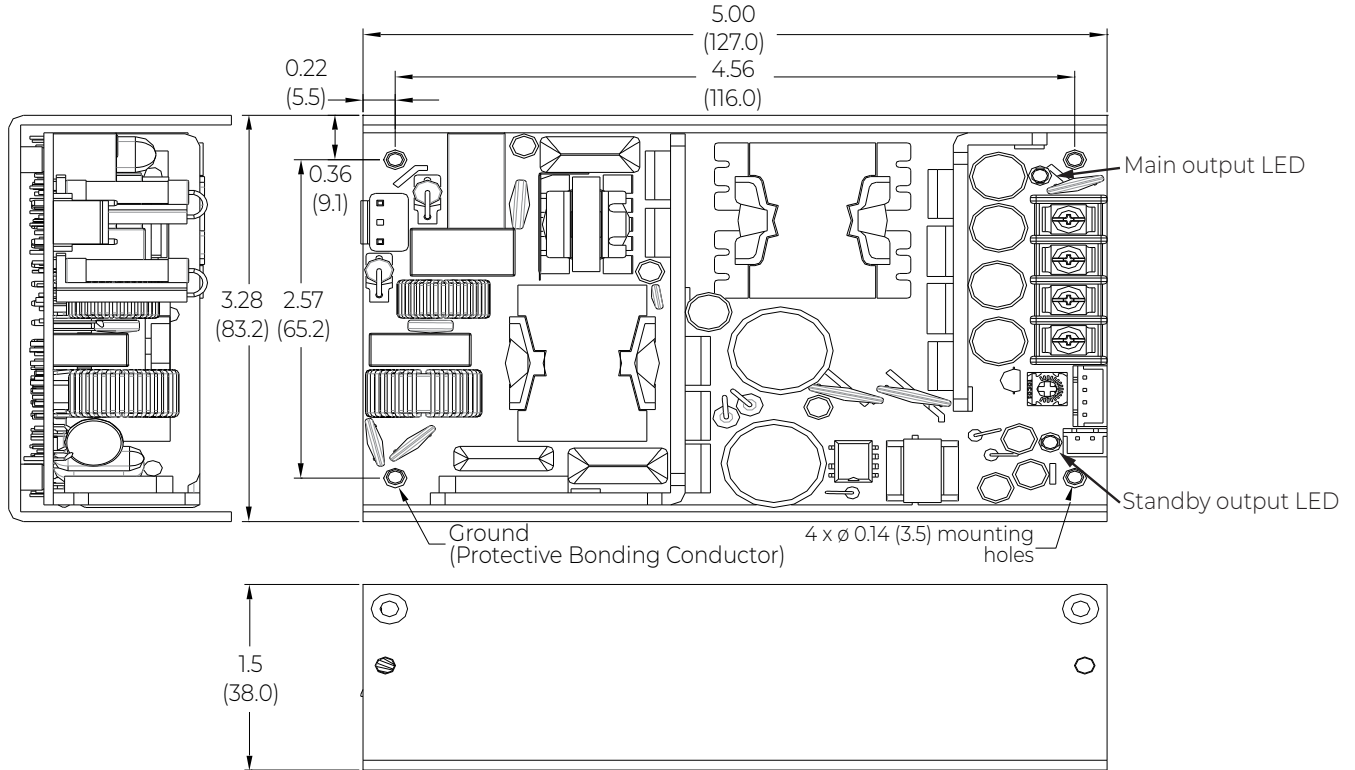
OUTPUT POWER vs. AMBIENT TEMPERATURE



OUTPUT POWER vs. INPUT VOLTAGE



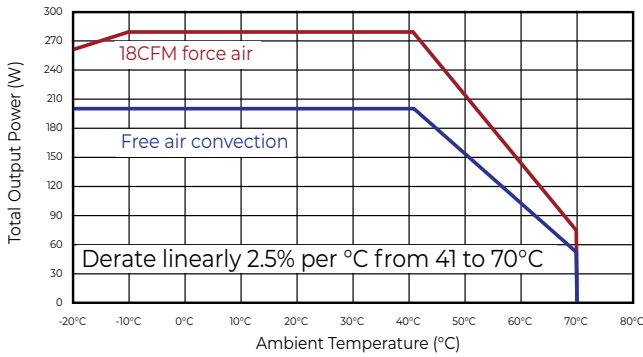
MECHANICAL SPECIFICATIONS - U-CHANNEL



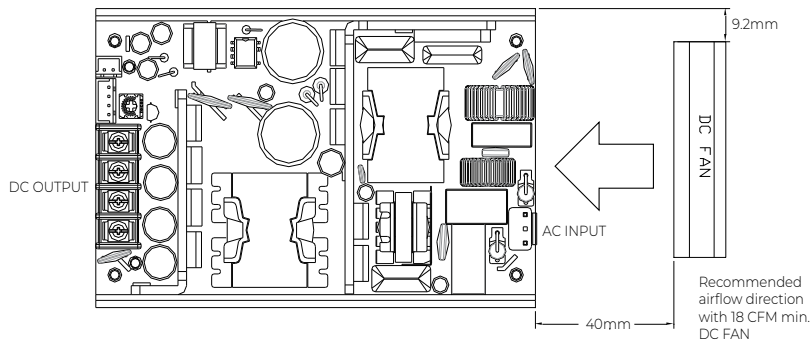
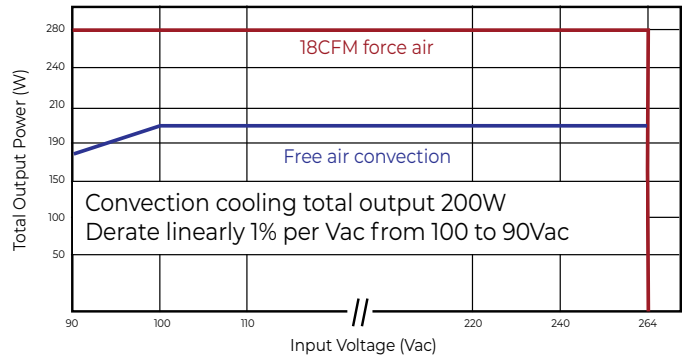
ALL DIMENSIONS IN INCHES (mm).

DERATING - U-CHANNEL

OUTPUT POWER vs. AMBIENT TEMPERATURE



OUTPUT POWER vs. INPUT VOLTAGE



CONNECTIONS & MATING CONNECTORS

CN1: AC INPUT

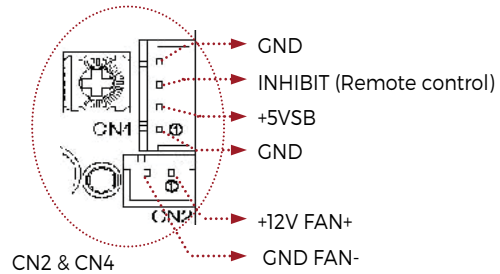
PIN	FUNCTION	TYPE	MATING CONNECTOR
1	AC LINE	JST B2P3-VH pitch: 3.96mm	JST VAR-2 or equivalent
2	AC NEUTRAL		

CN2: FAN OUTPUT

PIN	FUNCTION	TYPE	MATING CONNECTOR
1	+12V FAN+	JST B2B-XH-A pitch: 2.5mm	JST XHP-2 or equivalent
2	GND FAN		

CN4: INHIBIT & STANDBY SUPPLY

PIN	FUNCTION	TYPE	MATING CONNECTOR
1	GND	JST B4B-XH-A pitch: 2.5mm	JST XHP-4 or equivalent
2	+5VSB		
3	INHIBIT		
4	GND		



CN3: MAIN OUTPUT - STANDARD CONFIGURATION

PIN	FUNCTION	TYPE	MATING CONNECTOR
1-3	GND	12 PIN Min Fit Pitch: 4.2mm	Molex P/N 39-28-1123 or equivalent.
4-6	+Vout		

CN3: MAIN OUTPUT - OPTION T

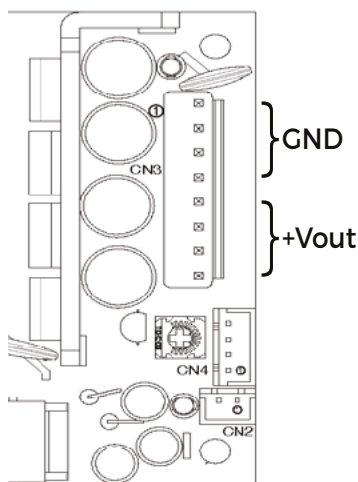
PIN	FUNCTION	TYPE
1, 2	GND	4-Pole Terminal block pitch: 8.25mm, rate 20A/300V
3, 4	GND	

CN3: MAIN OUTPUT - OPTION M

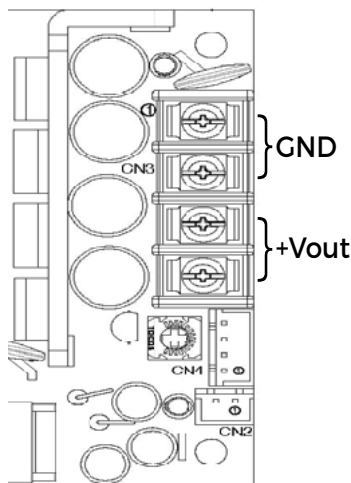
PIN	FUNCTION	TYPE	MATING CONNECTOR
1-4	GND	JST B8P-VH-B pitch: 3.96mm	JST VHR-8N or equivalent
5-8	+Vout		

MAIN OUTPUT CONNECTION OPTIONS

CONNECTOR
(standard configuration)



TERMINAL BLOCK
(option T)



MINIFIT
(option M)

