

SPW-IM280B



Open Frame Type Switching Power Supply

280Watts Medical and ITE
Single Output

FEATURES

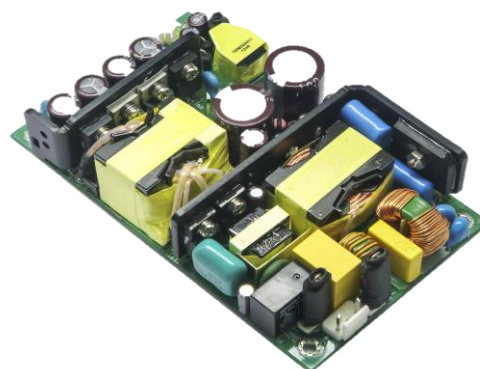
- Both ITE & Medical Approvals.
- High Power density, 280W in 5" x 3" footprint.
- Medical applications Protection: Means of Patient Protection (MOPP).
- Altitude during operation: ITE up to 5000m ,Medical Below 3000m.
- Main output and Standby output Power ON LED indicators.
- 3 years warranty.

ELECTRICAL SPECIFICATIONS

- Input range : 90 - 264VAC (Refer to derating curve).
- Frequency : 47 - 63Hz.
- Power Factor : > 0.95 @115VAC; > 0.90 @230VAC @full load.
- Inrush current : <30A peak @115VAC; <60A peak @230VAC cold start @25°C.
- Input current (rms) : 3.5A @115VAC; 2A @230VAC max.
- Efficiency : > 91% typical @full load, 230VAC.
- leakage current < 100uA @264VAC.
- Maximum output power : 280Watts forced air, 210Watts convection cooling.
- Hold-up time : > 10ms typical @full load, 115VAC.
- Short circuit protection : Auto-recovery.
- Over load protection : 105% to 150% maximum rating, Auto-recovery.
- Over voltage protection : Latching type. AC Recycle.
- 5Vsb meet ErP 0.5W @ No load.
- Remote control (Inhibit) function.

ENVIRONMENTAL

- Operating temperature : -20°C to +70°C (Refer to derating curve).
- Storage temperature: -20°C to +85°C.
- Humidity: Non-condensing 0% to 90%.
- MTBF : > 250,000 hours @full load and 25°C ambient temperature per Telcordia(Bellcore).



RoHS compliant

Dimension : L127 xW76.2 xH30mm (5" x 3" x 1.18")

Weight : 0.350 kgs. (0.775 lbs.)

SAFETY STANDARDS

UL60601-1 3rd Edition
UL/c-UL UL60950-1
EN60601-1 3rd Edition
TUV EN60950-1
IEC EN60601-1 3rd Edition
CB IEC 60950-1

EMC STANDARDS

EN60601-1-2
EN55024
EN 55011 Class B
EN55032 Class B
FCC Part 15 Class B
FCC Part 18 Class B
CE

DC OUTPUT & FEATURES

Model No. (Note 1.)	Output Voltage (V1)	Maximum Load (V1)		Output Regulation (V1)	Ripple Noise (V1)	Standby supply (V2)	FAN output (V3)	Convection total power	18CFM Forced air total power
		Convection	18 CFM Forced Air						
SPW-IM280B-1Y120Z	+12V	17.5A	23.33A	±3%	150mV	5V/0.5A	12V/0.3A	210W	280W
SPW-IM280B-1Y240Z	+24V	8.75A	11.66A	±3%	240mV	5V/0.5A	12V/0.3A	210W	280W
SPW-IM280B-1Y280Z	+28V	7.5A	10A	±2%	280mV	5V/0.5A	12V/0.3A	210W	280W
SPW-IM280B-1Y480Z	+48V	4.375A	5.83A	±2%	300mV	5V/0.5A	12V/0.3A	210W	280W
SPW-IM280B-1Y540Z	+54V	3.88A	5.18A	±2%	400mV	5V/0.5A	12V/0.3A	210W	280W

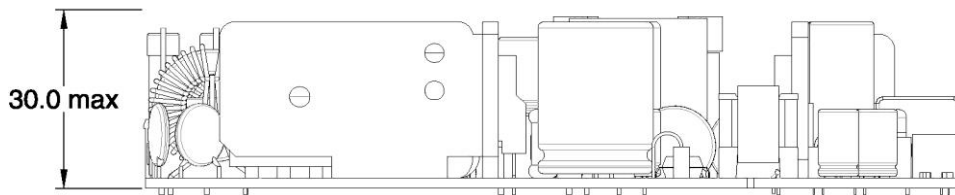
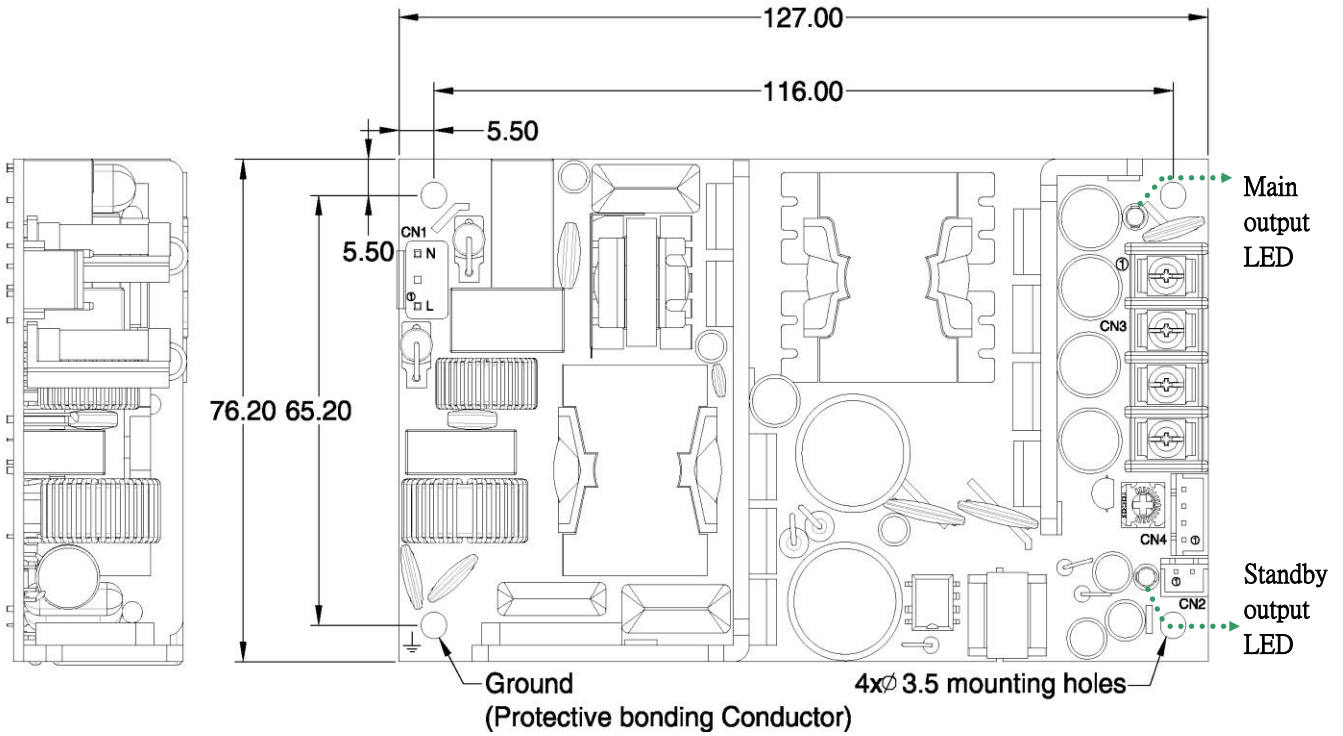
Note:

1. Output connector options: Z=T (Terminal block type, pitch 8.25mm): Suitable for all voltages
Z=M (Mini-fit type, pitch 4.2mm) or Z=C (Connector type, pitch=3.96mm): Suitable for 24V up
2. All models are equipped with 5Vsb & 12V fan outputs.
3. All models have total power 210W Max. convection or 280W Max. forced air cooling.
4. Ripple and noise are measured at oscilloscope 20MHz bandwidth by a 47uF electrolytic capacitor and a 0.1uF ceramic capacitor in parallel at output connector.

Open Frame Type Switching Power Supply

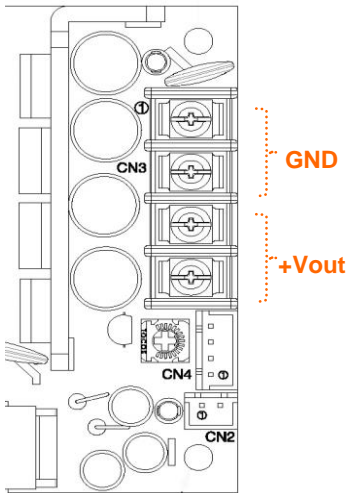
**280Watts Medical and ITE
Single Output**

MECHANICAL SPECIFICATION

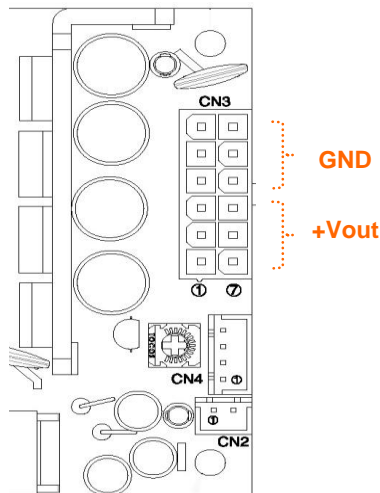


MAIN OUTPUT OPTIONAL TYPE (CN3)

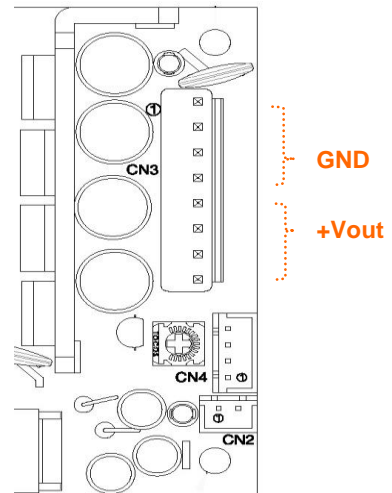
Terminal Block Type



Mini Fit Type



Connector Type



MECHANICAL SPECIFICATION

MATCHING CONNECTORS

CN1: Input Connector

JST B2P3-VH pitch: 3.96mm or equivalent,
mates with JST VAR-2 or equivalent

Pin #	Signal
1	AC Line
2	AC Neutral

CN2: FAN Output Connector

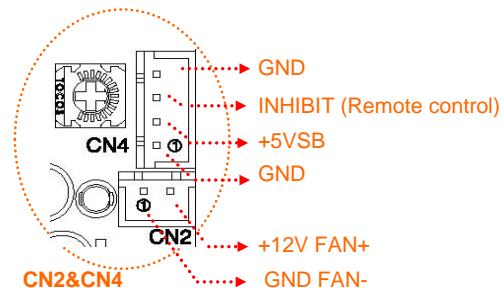
JST B2B-XH-A pitch: 2.5mm or equivalent,
mates with JST XHP-2 or equivalent

Pin #	Signal
1	GND FAN-
2	+12V FAN+

CN4: Remote control & Standby supply

JST B4B-XH-A pitch: 2.5mm or equivalent,
mates with JST XHP-4 or equivalent

Pin #	Signal
1	GND
2	+5VSB
3	INHIBIT (Remote control)
4	GND



INHIBIT→ Logic level HIGH (5V) or Floating : Enable, Logic level LOW : Disable

CN3: Main Output Connector

Terminal Block Type

4-Pole Terminal block pitch: 8.25mm ,
rate 20A/300V or equivalent

Pin #	Signal
1	GND
2	GND
3	+Vout
4	+Vout

Connector Type

JST B8P-VH-B pitch: 3.96mm or equivalent,
mates with JST VHR-8N or equivalent

Pin #	Signal	Pin #	Signal
1	GND	5	+Vout
2	GND	6	+Vout
3	GND	7	+Vout
4	GND	8	+Vout

Mini Fit type

12 PIN Min Fit Pitch:4.2mm .

Molex P/N 39-28-1123 or equivalent.

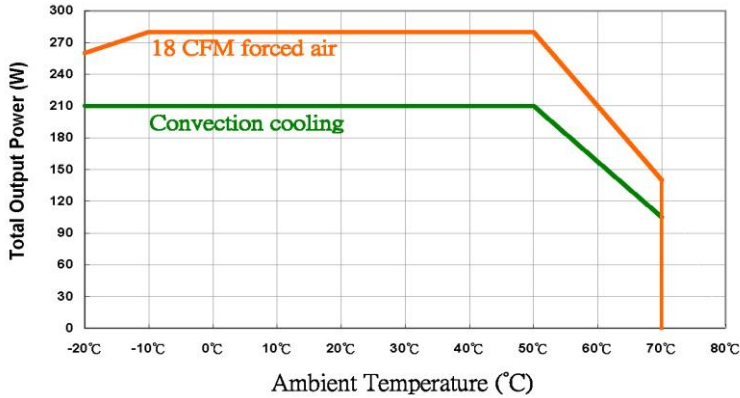
Pin #	Signal	Pin #	Signal
1	+Vout	7	+Vout
2	+Vout	8	+Vout
3	+Vout	9	+Vout
4	GND	10	GND
5	GND	11	GND
6	GND	12	GND

Open Frame Type Switching Power Supply

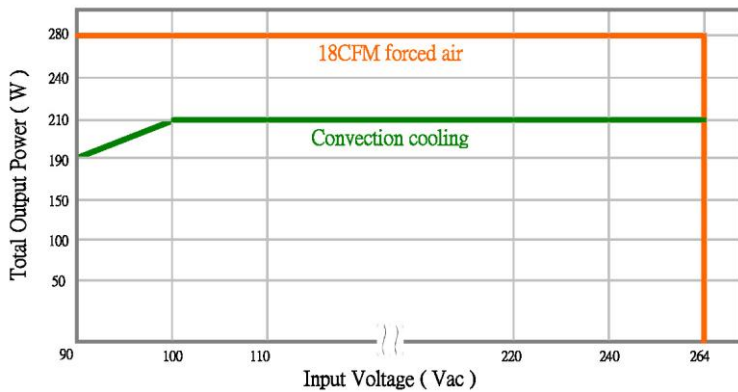
ENVIRONMENTAL

DERATING CURVE

Power Derating Curve



convection cooling and
18CFM forced air cooling
Derate linearly 2.5% per °C from 51 to 70°C



Convection cooling total output 210W
Derate linearly 1% per Vac from 100 to 90Vac

DC FAN Recommended Direction

