

## Open Frame Type Switching Power Supply

**280Watts Medical and ITE  
U Bracket Single Output**

### FEATURES

- ITE 60950-1, 62368-1 & Medical 60601-1 approvals.
- High Power density, 280W in 5" x 3.28" 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, 200Watts 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.

### RoHS compliant

Dimension : L127 xW83.2 xH38mm ( 5" x 3.28" x 1.5")  
Weight : 0.475 kgs. ( 1.05lbs. )

### 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).

### SAFETY STANDARDS

UL60601-1 3.1<sup>st</sup> Edition  
UL/c-UL UL60950-1  
UL/c-UL UL62368-1  
EN60601-1 3.1<sup>st</sup> Edition  
TUV EN60950-1  
TUV EN62368-1  
IEC EN60601-1 3.1<sup>st</sup> Edition  
CB IEC 60950-1  
CB IEC 62368-1

### EMC STANDARDS

IEC60601-1-2 Ed4:2014  
EN60601-1-2 Ed4:2015  
EN55024  
EN55011 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						
PW-IM280B-1Y120UZ	+12V	16.66A	23.33A	±3%	150mV	5V/0.5A	12V/0.3A	200W	280W
PW-IM280B-1Y240UZ	+24V	8.33A	11.66A	±3%	240mV	5V/0.5A	12V/0.3A	200W	280W
PW-IM280B-1Y280UZ	+28V	7.14A	10A	±2%	280mV	5V/0.5A	12V/0.3A	200W	280W
PW-IM280B-1Y360UZ	+36V	5.55A	7.77A	±2%	300mV	5V/0.5A	12V/0.3A	200W	280W
PW-IM280B-1Y480UZ	+48V	4.16A	5.83A	±2%	300mV	5V/0.5A	12V/0.3A	200W	280W
PW-IM280B-1Y540UZ	+54V	3.7A	5.18A	±2%	400mV	5V/0.5A	12V/0.3A	200W	280W

#### Note:

1. Output connector options: Z=T ( Terminal block type, pitch 8.25mm) or Z=M ( Mini-fit type, pitch 4.2mm) or Z=C ( Connector type, pitch=3.96mm ).
2. All models are equipped with 5Vsb & 12V fan outputs.
3. All models have total power 200W 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.



POWER-WIN TECHNOLOGY CORP.

5F-6, No. 79, Sec. 1, Hsin-Tai 5th Road, Shi-Chi, New Taipei City, 22101 Taiwan, R.O.C.

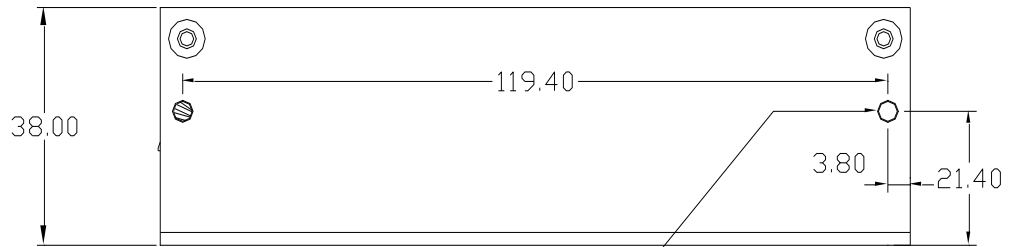
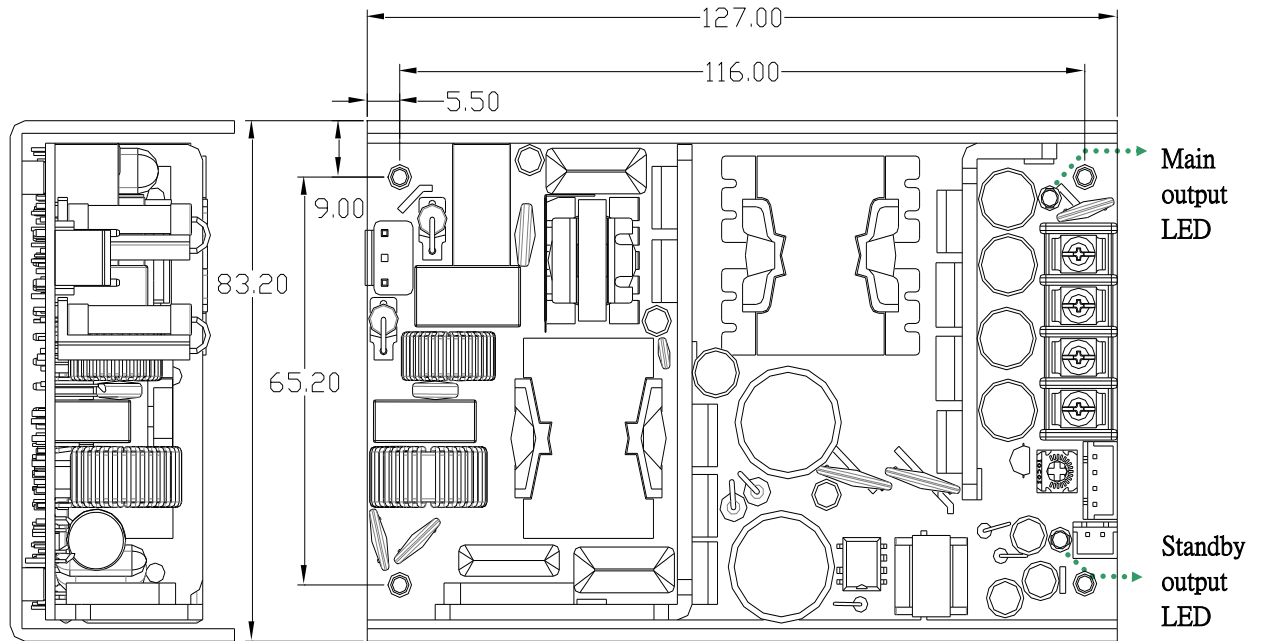
Tel : 886-2-26983989(Rep) Fax : 886-2-26983978

http : //www.power-win.com

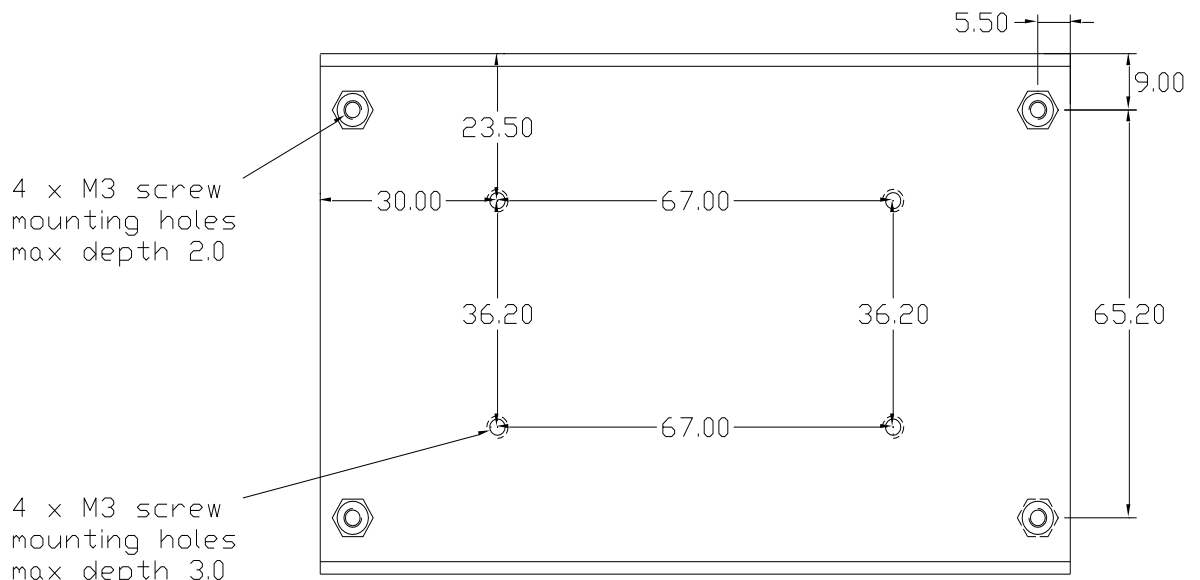
E-Mail : sales@power-win.com

REV.1.5

**MECHANICAL SPECIFICATION**



4 x M3 screw mounting holes max depth 4.0



4 x M3 screw mounting holes max depth 2.0

4 x M3 screw mounting holes max depth 3.0

Dimension : L127 xW83.2 xH38mm ( 5" x 3.28" x 1.5")  
NOTE:TOLERANCE:+/-0.5mm(0.02")



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REV.1.5

**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**

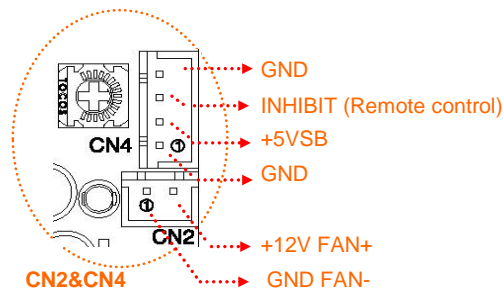
JST B2B-XH-A pitch: 2.5mm or equivalent, mates with JST XHP-2 or equivalent

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

**Connector Type**

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

Pin #	Signal	Pin #	Signal
1~4	GND	5~8	+Vout

**Mini Fit type**

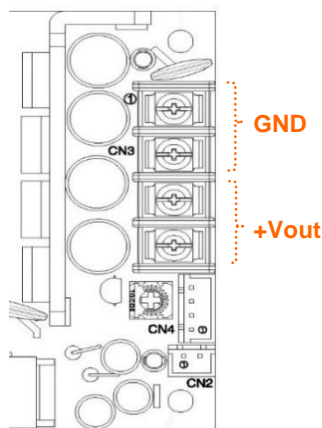
12 PIN Min Fit Pitch:4.2mm .

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

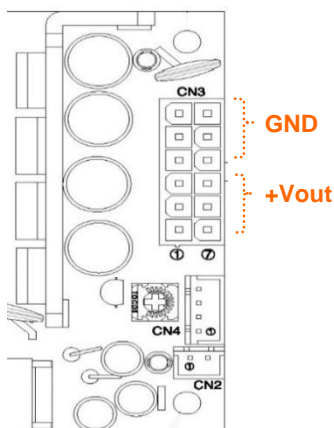
Pin #	Signal	Pin #	Signal
1~3	+Vout	7~10	+Vout
4~6	GND	10~12	GND

**MAIN OUTPUT OPTIONAL TYPE ( CN3 )**

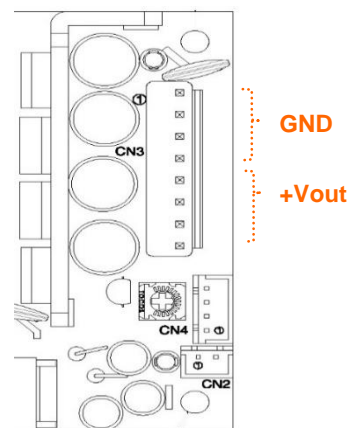
**Terminal Block Type**



**Mini Fit Type**



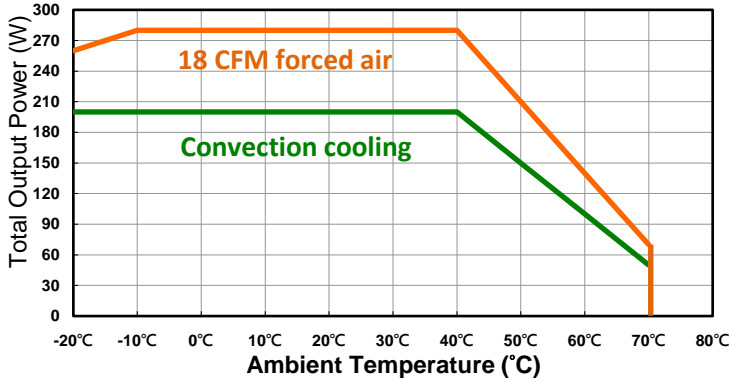
**Connector Type**



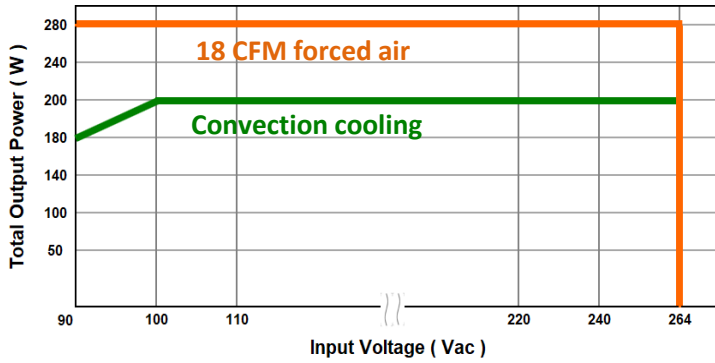
**ENVIRONMENTAL**

**DERATING CURVE**

Power Derating Curve



convection cooling and  
18CFM forced air cooling  
Derate linearly 2.5% per °C from 41 to 70°C



Convection cooling total output 200W  
Derate linearly 1% per Vac from 100 to 90Vac

**DC FAN Recommended Direction**

