

FEATURES

- Both ITE & Medical Approvals.
- High Power density, 600W in 6" x 4" footprint.
- Medical applications Protection: Means of Patient Protection (MOPP).
- Altitude during operation: ITE Below 5000m. & Medical Below 3000m.
- Meet Medical BF rated.
- No load Power consumption < 500mW (for 5Vsb standby mode)
- Meet RoHS requirement
- 3 year 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 : <40A peak @115VAC; <80A peak @230VAC cold start @25°C.
- Input current (rms) : 8A @115VAC; 4A @230VAC max.
- Efficiency : > 93% typical @half load, 230VAC.
- Touch current < 100uA @264VAC.
- Maximum output power : 600Watts forced air, 300/340Watts convection cooling.
- Hold-up time : > 10ms typical @full load, 115VAC.
- Short circuit protection : Auto-recovery.
- Over power protection : 105% to 130% maximum rating, Auto-recovery.
- Over voltage protection : Latching type. AC Recycle or SD pin is reset.
- Over temperature protection : Latching type. AC Recycle or SD pin is reset.
- Standby and FAN output supply
- Remote control (Inhibit) function

RoHS compliant

Dimension : L152.4 × W101.6 × H42.0 mm (6.00" x 4.00" x 1.66")

U-Channel type Weight : 0.68 kgs. (1.50 lbs.)

Dimension : L152.4 × W101.6 × H43.5 mm (6.00" x 4.00" x 1.72")

Enclosed type Weight : 0.70 kgs. (1.55 lbs.)

SAFETY STANDARDS

UL60601-1
TUV EN60601-1
CB IEC60601-1
UL/c-UL UL62368-1
TUV EN62368-1
CB IEC62368-1

EMC STANDARDS

EN60601-1-2
EN55011 Class B
EN55032 Class B
EN55035
FCC Part 15 Class B
FCC Part 18 Class B
CE

ENVIRONMENTAL

- Operating temperature : -20 to +70°C (Refer to derating curve).
- Storage temperature: -20°C to +85°C.
- Operating Humidity : 10-95% , non-condensing. Storage Humidity : 0-95%, non-condensing.
- MTBF : > 200,000 hours @full load and 25°C ambient temperature per Telcordia(Belcore TR-332).

DC OUTPUT & FEATURES

Model No.	Output Voltage	Maximum Load		Output Regulation	Ripple Noise	Standby supply (V2)	FAN supplu (V3)	Convection total power (115/230Vac)	30CFM Forced air total power
		Convection (115/230Vac)	30 CFM Forced Air						
VP46600-12C-S	+12V	25.00A/28.33A	50.00A	±3%	120mV	1.0A	0.3A	300W/340W	600W
VP46600-24C-S	+24V	12.50A/14.17A	25.00A	±3%	240mV	1.0A	0.3A	300W/340W	600W
VP46600-28C-S	+28V	10.72A/12.14A	21.43A	±3%	280mV	1.0A	0.3A	300W/340W	600W
VP46600-36C-S	+36V	8.34A/9.44A	16.67A	±2%	300mV	1.0A	0.3A	300W/340W	600W
VP46600-48C-S	+48V	6.25A/7.08A	12.50A	±2%	300mV	1.0A	0.3A	300W/340W	600W

Note:

1. All models have total power 300W/340W Max. convection or 600W Max. forced air cooling.
2. 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.
3. Model option : C = U,U-channel C = E,Enclosed
4. Safety option : S = M (Medical & ITE) S = I (ITE only)
5. The switching frequency of this series is set within 65 to 75KHz at full load.

SAFETY AGENCY CERTIFICATIONS

Safety and EMC Performance

Description	Safety	EMC
Medical equipment	IEC 60601-1:2005+A1:2012 EN 60601-1:2006+A1:2013 ANSI/AAMI ES60601-1:2005/(R)2012+A1:2012, C1:2009/(R)2012+A2:2010/(R)2012 CSA C22.2 NO. 60601-1:14, 3rd Ed.	EN 60601-1-2:2015 EN 55011:2009+A1:2010 FCC 47 CFR Part 18
Audio / Video, ITE equipment	IEC 62368-1:2018 EN IEC 62368-1:2020+A11:2020 UL 62368-1, 3rd Ed CAN/CSA C22.2 No. 62368-1:19, 3rd Ed	EN 55032:2015+A11:2020 EN 55035:2017+A11:2020 FCC 47 CFR Part 15B ICES-003 Issue 7

Tests for conformance to this requirement will be performed with final system

(*) FCC PART 15 compliance information and warnings :

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions :

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Insulation level and dielectric withstand (HI-POT)

Audio / Video, ITE equipment	Isolation voltage	Grade insulation
Primary circuits to secondary circuits	4242Vdc (3000Vac)	Reinforced
Primary circuits to earth ground	2121Vdc (1500Vac)	Basic
Secondary circuits to earth ground	2121Vdc (1500Vac)	Basic

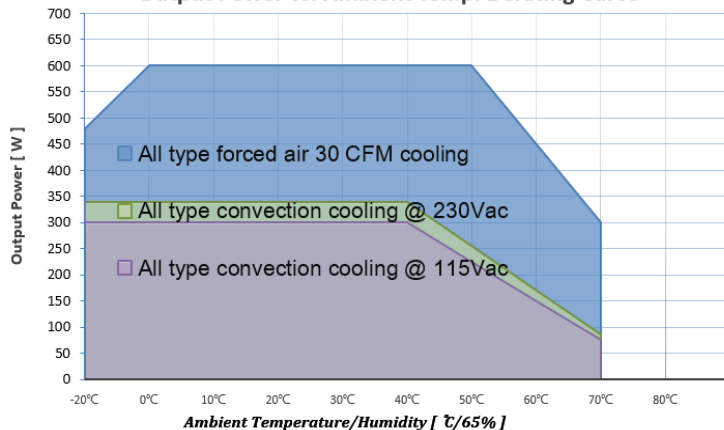
Medical equipment	Isolation voltage	Means of patient protection
Primary circuits to secondary circuits	5656Vdc (4000Vac)	2 MOPP
Primary circuits to earth ground	2121Vdc (1500Vac)	1 MOPP
Secondary circuits to earth ground	2121Vdc (1500Vac)	1 MOPP

Note : Production testing use dc voltage test 4 Sec.

ENVIRONMENTAL

DERATING CURVE

Output Power vs. Ambient Temp. Derating Curve



Convection cooling Derate linearly 2.5% per °C from 41 to 70°C
 30CFM forced air cooling Derate linearly 2.5% per °C from 51 to 70°C
 30CFM forced air cooling Derate linearly 1.0% per °C from 0 to -20°C

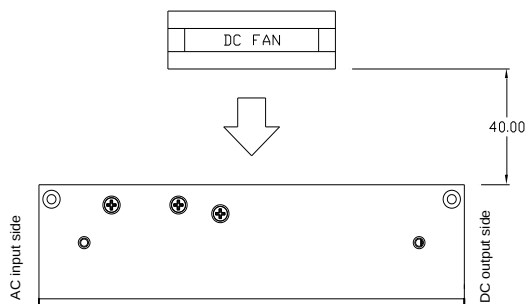
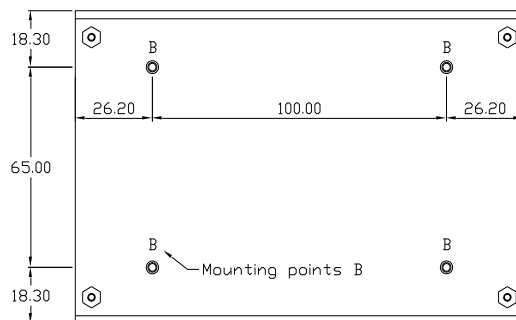
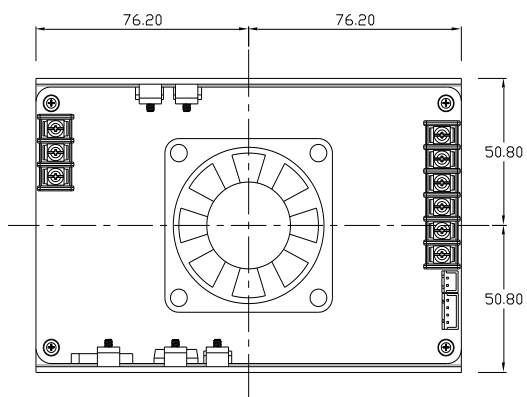
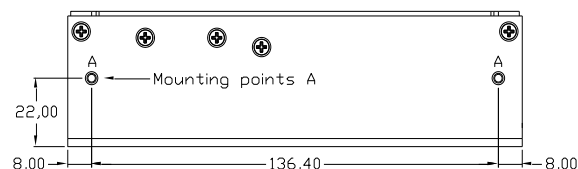
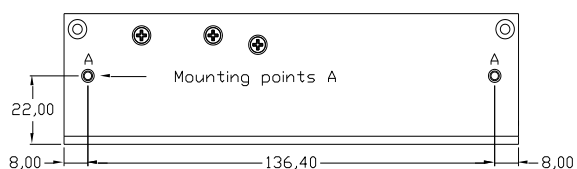
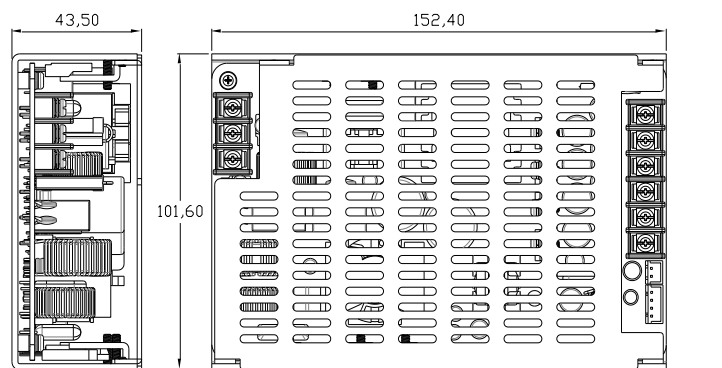
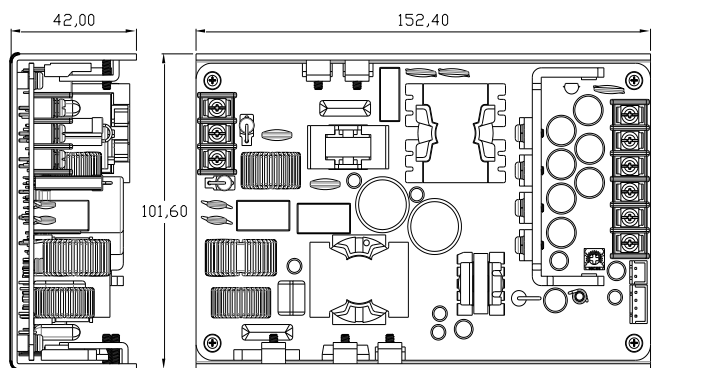
MECHANICAL SPECIFICATION

U-Channel type
Enclosed type

VP46600-XXU-S series
VP46600-XXE-S series

152.4 * 101.6 * 42.0 mm ± 0.5 mm

152.4 * 101.6 * 43.5 mm ± 0.5 mm



Recommended airflow direction with 30 CFM min. DC FAN

MECHANICAL SPECIFICATION

Pin assignment

CN1 : Input Connector

Terminal Block Type

3-Pole Terminal block (pitch : 8.25mm)

Rate 20A/300V or equivalent

Pin #	Signal
1	AC Line
2	AC Neutral
3	Frame Ground

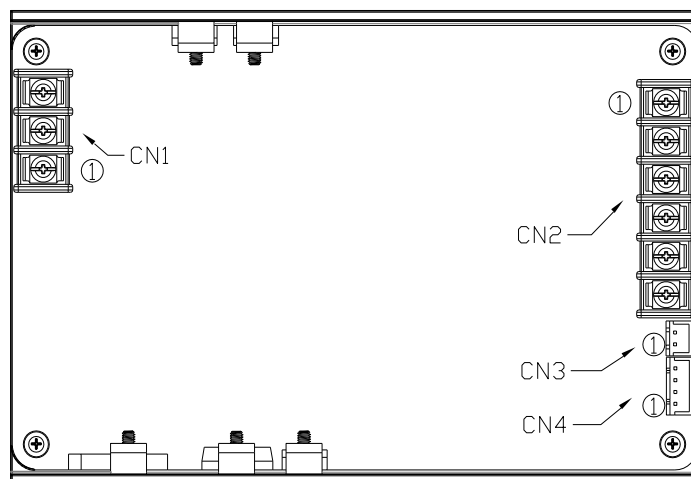
CN2 : Main Output Connector

Terminal Block Type

6-Pole Terminal block (pitch : 8.25mm)

Rate 20A/300V or equivalent

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



CN3 : FAN Output Connector

JST B2B-XH-A (pitch : 2.5mm) or equivalent

Mates with JST XHP-2 or equivalent

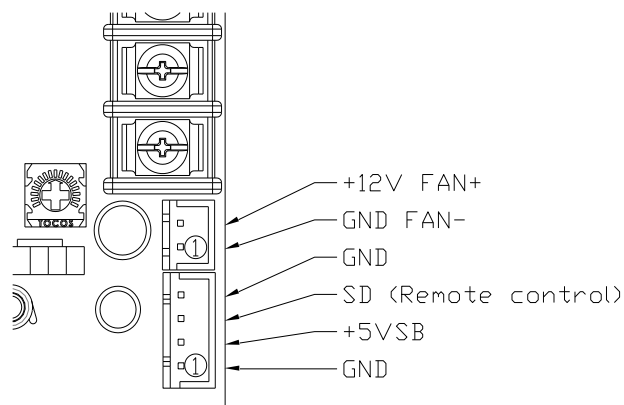
Pin #	Signal
1	GND FAN-
2	+12V FAN+

CN4 : Standby supply & Remote control

JST B2B-XH-A (pitch : 2.5mm) or equivalent

Mates with JST XHP-2 or equivalent

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



SD : Logic level HIGH (5V) or Floating : Enable, Logic level LOW : Disable.