



INPUT SPECIFICATIONS

Input Voltage	90-264 VAC (Universal)
Input Frequency	47-63Hz
Input Current	3.0A _{RMS} at 115VAC / 1.5A _{RMS} at 230VAC
Inrush Current	<80A @ 240 VAC, Cold Start
Power Factor	>0.95
Earth Leakage Current	<250μA @ 264VAC (Class I)
Patient Leakage Current	<100μA @ 264VAC
Input Protection	Internal T5A / 250V Fuse (Line & Neutral)

OUTPUT SPECIFICATIONS

Output Voltage	See Table
Line Regulation	±0.5%
Load Regulation	±2% For Main & 5VSDDB ; ±10% For Fan
Minimum Load	None
Transient Response	±5%, 50% step-load, slew rate 1A/μS
Ripple / Noise	1% pk-pk typical
Turn-On Delay	3 seconds max @ 115VAC
Hold-Up Time	>20ms at 115VAC Input (Full Load)
Over-Voltage	110-140% Latching
Over-Load	120-150% (Hiccup Mode, Auto-Recovery)
Short Circuit	Hiccup Mode
Over-Temperature	Auto-Recovery

STATUS & CONTROL

Remote On/Off	Powered LED = Shut Down (Isolated Optocoupler)
Power Fail	TTL High = Failure (Open Collector) 12ms Warning Time
Standby Output	5VSDDB @ 500mA
Fan Output	12V 400mA
Remote Sense	Totally Compensates Up To 0.4V

FEATURES

- Medical (BF) Safety Approvals
- Small 5 x 3 x 1.38" Package
- Class I or Class II Construction
- High Efficiency - 90% Typical At Full Load
- Remote On/Off, Power Fail, Remote Sense
- 5VSDDB @ 0.5A Output & Fan Output 12V 0.4A
- Universal AC Input With Active PFC
- EN55011 / FCC Part 15J Class B Emissions
- 3 Year Warranty

GENERAL SPECIFICATIONS

Efficiency	90% typical at 115/230 VAC, full load
Isolation	4000 VAC Input to Output 1500 VAC Input to Ground (Glass I) 500 VDC Output to Ground (Glass I)
MTBF	300K Hours, Mil-217F at 25 °C, full load
Weight	360g

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	0°C ~ +40°C
Derating	2.5%/°C > 40°C, up to 50°C max
Storage Temperature	-40°C ~ +80°C
Operating Humidity	5~95% (non-condensing)
Operating Altitude	3000M (max)
Shock	294m/s ² , 10mS on 3 axes
Vibration	10-500Hz, 19.6m/s ² (2G), 20mins on 3 axes

EMC & SAFETY

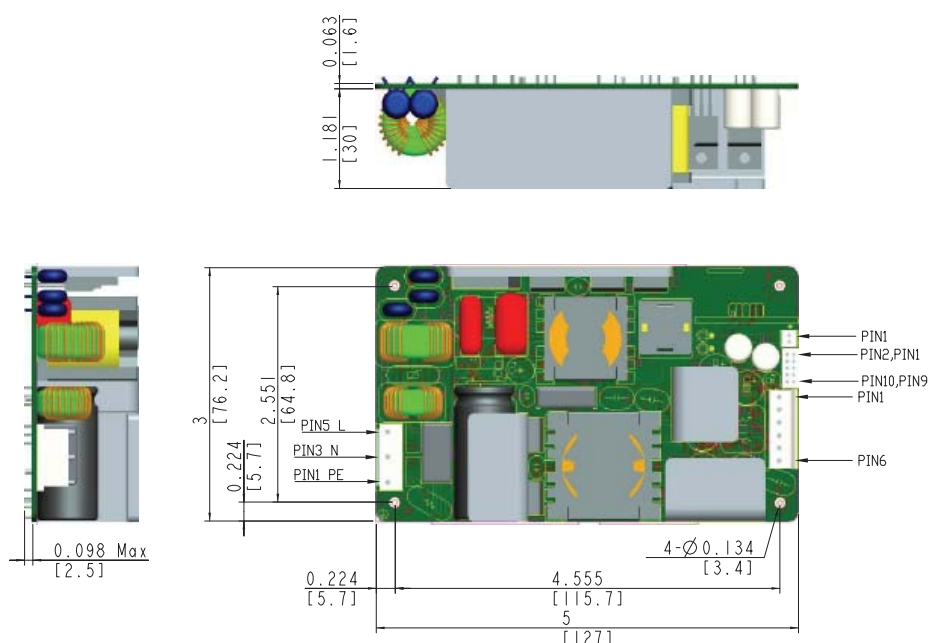
Emissions	EN55011, FCC Part J15, Class B, Conducted EN55011, FCC Part J15, Class B, Radiated
Harmonic Current	EN61000-3-2 Class A
Voltage Flicker	EN61000-3-3
ESD	EN61000-4-2, 6kV contact, 8kV Air Discharge
EFT/Burst	EN61000-4-4, Level 3, Criterion A
Surge	EN61000-4-5, Installation Class3, Criterion A
Conducted Immunity	EN61000-4-6, 3V _{RMS} , Criterion A
Radiated Immunity	EN61000-4-3, 3V/m, Criterion A
Magnetic Field	EN61000-4-8, 3A/m, Criterion A
Dips & Interruptions	EN61000-4-11, 0% 10ms, 40% 100ms, 70% 500ms, 0% 5000ms; Criterion A/B/C
Safety Approvals	IEC 60601-1, 3rd Edition ANSI / AAMI ES60601-1 CSA C22.2 No 60601-1 EN60601-1, 3rd Edition CE Mark



MODELS	MAIN OUTPUT VOLTAGE	OUTPUT CURRENT CONVECTION	OUTPUT CURRENT ¹⁾ (FORCED-AIR)	STANDBY OUTPUT	FAN OUTPUT
MP150-12	12V	12.5A	16.67A	5V 400mA	12V 0.4A
MP150-19	19V	7.89A	10.53A	5V 400mA	12V 0.4A
MP150-24	24V	6.25A	8.33A	5V 400mA	12V 0.4A
MP150-28	28V	5.36A	7.14A	5V 400mA	12V 0.4A
MP150-48	48V	3.13A	4.17A	5V 400mA	12V 0.4A

Note: 1) Rated Current with 1.2 m/s (15CFM) Forced- Air Flow.

OUTLINE DRAWING



AC INPUT

JST P/N: B3P5-VH (LF)(SN)
Mates With: JST VHR-5N

Pin 1 Earth Ground
Pin 3 Line
Pin 5 Neutral
Pin 2, Pin 4 Removed

DC OUTPUT

JST P/N: B6P-VH (LF)(SN)
Mates With: JST VHR-6N

Pin 1, 2, 3 Output VDC
Pin 4, 5, 6 Return

SIGNAL CONNECTOR

JST P/N : B10B-PHDS Mates With : JST PHDR-10VS

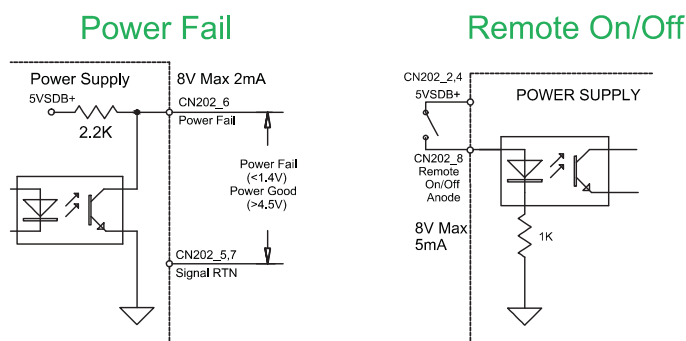
1	5VSDB Return
2	5VSDB
3	5VSDB Return
4	5VSDB
5	DC OK
6	PF
7	Remote on/off (Cathode)
8	Remote on/off (Anode)
9	Remote Sense -
10	Remote Sense +

FAN CONNECTOR

Landwin P/N: 2511P0200T
Mates With 2600S0200

Pin 1 Fan Output +
Pin 2 Fan Return

SIGNAL CONFIGURATION



SIGNALS

Power Fail Optocoupler transistor, goes high 100-500ms after main output when AC applied, goes low 4ms min.(typical 12ms) before loss of main output after AC failure.

Remote On/Off Optocoupler diode, power the diode to shut down the main output .

NOTES