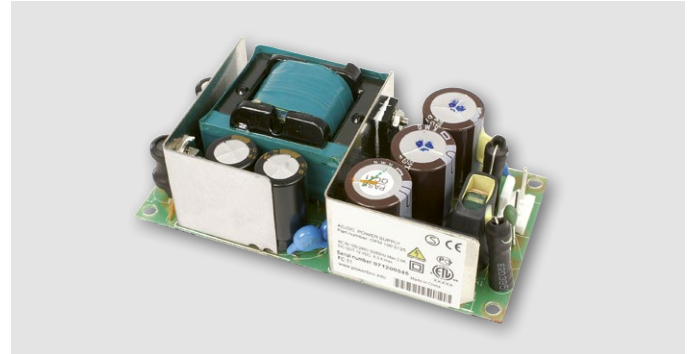# P R
B X

Features

Ultra high power density 12.5W/sq inch	
Reliable front edge fly-back design with very low component count	
Standard 2x4 inch footprint	
Very low leakage current allow parallel connection for higher output power requirements	
Approved according to IEC/UL 60601-1	
Superior EMC performance	
Intelligent over temperature protection	

Input

Nominal input range	100-240VAC
Voltage range	90-264VAC
Frequency	47-63Hz
Inrush current	Max 50A peak, cold start
Input current	2A
Input cable connector	Recommended: Housing: Molex 6442 series 3-pin housing part No 0026034030 (locking) or 002603 3031 (non-locking). Connector terminals: 0008520112 (reel) or 0008520113 (bag), tin plating
Leakage current	<75µA
Isolation class	Class I, double isolation between input and output
Isolation	4000 VAC, 1s input to output
	4000 VAC, input to ground
	1500 VAC, output to ground
	10Mohm isolation primary-secondary
Zero load power consumption	
	Approx 0,3 Watts at 110 VAC input

Output

Power	Up to 100W, continuous at 100-240VAC input, see table
Voltage	See table. Factory preset non adjustable
Tolerance	5%
Ripple and noise	Typ 1% p-p max (20MHz BW). 5% at $\leq$110VAC input
Efficiency	87-90% @ 230VAC full load
Hold up time	35ms at 230VAC
Start up time	<2s max
Line regulation	1% max full load. 5% at $\leq$100VAC input
Load regulation	2% max @ 230VAC, 10-90% load change at output terminal
Overcurrent protection	Approx 125%, auto recovery

Current limiting charact.	Constant current
Overtemp. protection	Yes, auto recovery and output power limiting
Overvoltage protection	Yes
Transient response	4ms max
Temperature coefficient	Typical 0.04%/°C of Uo
Output connector	Recommended: Housing: Molex 6442 series 4-pin housing part No 0026034041 (locking) or 0026033041 (non-locking). Connector terminals: 0008520112 (reel) or 0008520113 (bag), tin plating.

Environmental

Operating temperature	0°C to 50°C (according to test method in IEC60601-1 and 0°C to 40°C acc to IEC60950-1)
Storage temperature	−40°C to +75°C
Humidity	5% to 95% non-condensing
Derating	Derate from 100% at 50°C linearly to 50% at +70°C. Derate to 80W output power at convection cooling. 12-15VDC versions derate to 70W at convection cooling
Cooling	Convection or fan cooling. 6,6CFM (11m^3/h) required for 100W continuous output. See drawing.
Environmental compliance	RoHS, REACH and WEEE

General

Switching frequency	40-80kHz
Acoustic noise	Less or equal to 30dB(A) at a distance of 0.3m and in frequency range 1Hz to 20kHz
Dimensions	51 x 102 x 32 mm (2x4 inch)
Weight	Max 200g
MTBF	270,000 hours at 25°C ambient temperature, 50 years power on.
Lifetime prediction	Min 80,000 hrs at 25°C, 230VAC at 70% load
Warranty	2 years
Installation guide	Available at Powerbox website

POWERBOX Medline 100
OFM100 Series
100W
Single Output
AC/DC Medical Switch Mode Power Supply

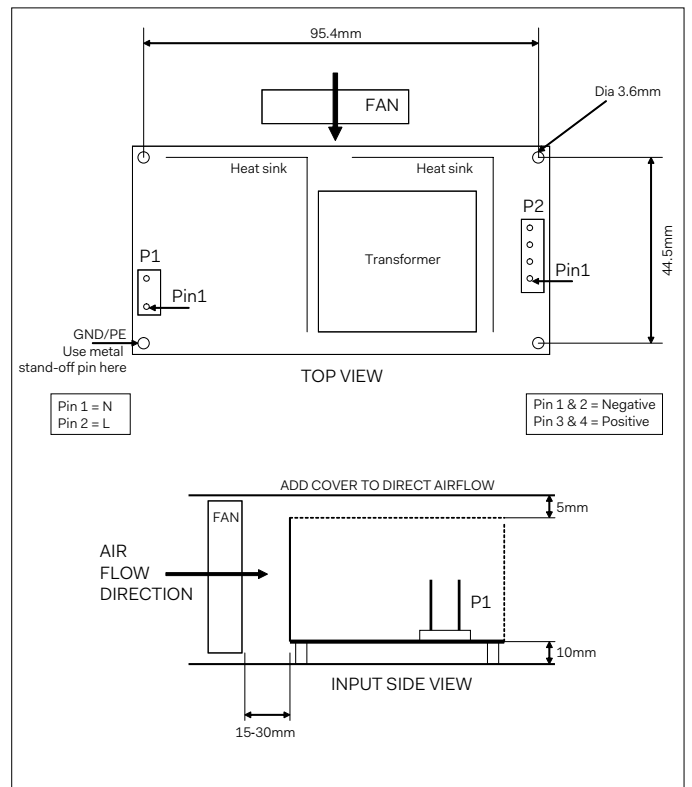### Standards

Safety standards	Approved according to IEC60601-1 Edition 3.1 including deviations for Europe, US & Canada by Intertek Semko. Fulfills IEC60950-1. UL pending.
Safety markings	S, ETL, UL & CE
EMC standards	IEC60601-1-2, IEC61204-3, EN55011 class B
Harmonic current emissions	IEC61000-3-2
Voltage fluctuations and flicker	IEC61000-3-3
ESD susceptibility	IEC61000-4-2, ±6kV contact discharge, ±8kV air discharge
Radiated susceptibility	IEC61000-4-3, 3V/m
EFT/Burst	IEC61000-4-4, ±2kV on AC port, ±1kV on signal ports
Surge	IEC61000-4-5, ±2kV common mode, ±1kV differential mode
Conducted susceptibility	IEC61000-4-6, 3V/m
Power frequency magnetic field	IEC61000-4-8, 3A/m
Dips and interruptions	IEC61000-4-11, 30% 500ms, 60% 100ms, 95% 5sec. Performance criteria A A* B
	* at 100-160 VAC nominal input voltage performance criteria B

Powerbox Part No	Output Voltage	Continuous Output Current*)	Continuous Output Power*)
OFM1005125	12VDC	8.3A	100W
OFM1005126	15VDC	6.7A	100W
OFM1005127	18VDC	5.5A	100W
OFM1005128	24VDC	4.2A	100W

*) At 6,6 CFM forced air.

Air Flow Direction + Pin Assignment