


1200 WATT GLOBAL PERFORMANCE SWITCHERS

FEATURES:

- Eliminates isolation transformer requirement
- Ideal for distributed power applications
- Allows the use of commercial “off the shelf” dc/dc converts in medical system
- Active Soft-Start, 0.99 PF minimizes ac line disturbance
- Overtemperature Shutdown with advance warning
- External Inhibit, Enable, Power Good
- Auxiliary Voltage for peripheral logic
- Meets all medical EMC requirements
- 2 year warranty
-  marked to LVD



SPECIFICATIONS

Ac Input 85 - 264 Vac, 47 to 63 Hz.
Input Current 17 A line current maximum, at 90 Vac, 60 Hz with full rated load, power factor .99 typical, .96 minimum. Input current harmonic content meets the requirements of IEC 1000-3-2 A14 for all load conditions.
Input Protection Internal ac fuse provided on all units blows only on unit failure. (Additional external fusing required for some medical applications.)
Turn-on 1.0 second maximum; overshoot < 2% at turn-on; < 1% at turn-off.
Hold-Up Time 21 ms minimum from loss of ac input at full load to the output decreasing 4%. Ac fail warning signal occurs at least 5 ms before the output decreases 4%.
Inrush Current Inrush at 240 Vac is less than 37 A, averaged over the first ac half-cycle under cold start conditions. Limiting provided by internal thermistors.
Temperature Coefficient 0.03%/oC, typical.
Transient Response 300 μs max. response time for return to within 0.5% of final value for a 50% load change within the load range of 25% to 100%, with Δi/Δt < 0.2 A/μs. Maximum voltage deviation is 0.3%.
Overload Protection Fully protected against short circuit and output overload. Power limiting is cycling type with automatic recovery.
Reverse Voltage Outputs protected against momentary reverse current not to exceed 20 A peak for 10 ms max. with 0.5 A avg. Sustained reverse current at high levels may damage unit.

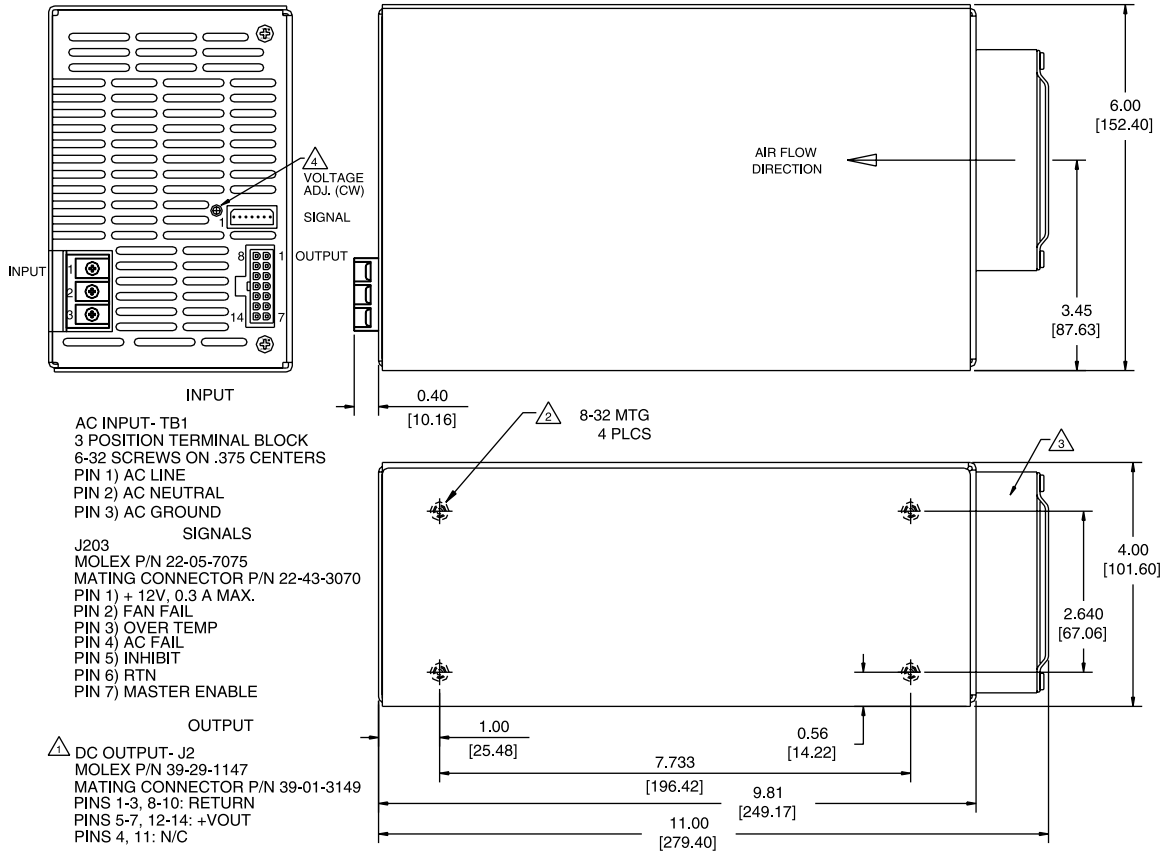
Efficiency Minimum value at full rated load, nominal input voltage. 48 V units 80%.		
Medical Leakage Current The maximum leakage current is as follows;		
Conditions	Normal	Single Fault
132 Vac, 60 Hz	90 μA	80 μA
264 Vac, 60 Hz	200 μA	400 μA
EMI / EMC Compliance All models include built-in EMI filtering to meet the EMC requirements of IEC60601-1-2.		
EMI SPECIFICATIONS		COMPLIANCE LEVEL
Conducted Emissions		EN55011, Class B; FCC Part 15, Class B
Static Discharge		EN61000-4-2, Level 3
Conducted RF Susceptibility		EN61000-4-6, Level 3
Radiated RF Susceptibility		EN61000-4-3, Level 3
Fast Transients/Bursts		EN61000-4-4, Level 3
Surge Susceptibility		EN61000-4-5, Level 3
Voltage Sags & Surges		EN61000-4-11, Level 4
Safety All medical models comply with the latest editions of UL2601-1, CSA-C22.2 No. 601.1, EN60601-1. CB certificate to EN60601 standard is available.		
Signal	Pin	Description
+12 V	1	Auxiliary +12 V output, 0.3 A load maximum
Fan Fail	2	Output, indicating that the fan has failed
Over Temp	3	Output, indicating excessive internal temperature
AC Fail	4	Output, indicating failure of the input AC source
Inhibit	5	Input, to shut down the power supply from an external command
RTN	6	Common return for all the logic signals
Master Enable	7	Input, to control the power supply

Medical Model	Output Voltage (1)	Output Current (2)	Total Regulation (3)	Ripple and Noise (4)	OVP Set Point
GPFM1200-48	48 V	25 A	2%	480 mV p-p	51.0-59.0 V

Notes:

1. Output voltage is manually adjustable +5%.
2. Maximum continuous current rating is with integral fan.
3. Combined initial voltage set point, line, load and temperature regulation.
4. Differential mode noise measured with scope probe (20 MHz bandwidth) directly across output connector of the power supply with load terminated with 0.1 μ F capacitor.
5. Output is floating (500 Vac or +700 Vdc); either +Vout or Vout Return may be connected to chassis ground.

GPFM1200 MECHANICAL SPECIFICATIONS



- ▲ 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN.
- ▲ MAX. SCREW PENETRATION INTO CHASSIS = .25" [6.35].
- ▲ FAN: 92 x 25mm, 56 CFM @ .17 IN-H2O
- ▲ TURN POT (CW) TO INCREASE OUTPUT VOLTAGE
- 5 WEIGHT: 6.6 LB. [2.99 KG]

Dimensions: Inches
Millimeters

ENVIRONMENTAL SPECIFICATIONS	OPERATING	NON-OPERATING
Temperature (A)	0 to 50°	-40 to +85°C
Humidity (A)	0 to 95% RH	0 to 95% RH
Shock (B)	20 g _{pk}	40 g _{pk}
Altitude	-500 to 10,000 ft	-500 to 40,000 ft
Vibration (C)	1.5 g _{rms} , 0.003 g ² /Hz	5 g _{rms} , 0.026 g ² /Hz

A. Units should be allowed to warm up/operate under non-condensing conditions before application of power. Cooling provided by internal fan— heatsink temperatures should not exceed 90°C for extended periods in the installation. Derated maximum output power by 2.5% per degree C above 50°C.

B. Random vibration—10 to 2000Hz, 6dB/octave roll-off from 350 to 2000Hz, 3 orthogonal axes. Tested for 10 min./axis operating and 1 hr./axis non-operating.

C. Shock testing—half-sinusoidal, 10 ± 3 ms duration, ± direction, 3 orthogonal axes, total 6 shocks.