

GPC225 Commercial/GPM225 Medical 225 Watt Global Performance Switchers



FEATURES:

- Wide-range ac input 85-264 Vac
- 2-year warranty
- Conducted EMI exceeds FCC Class B and CISPR 22 Class B (Commercial models) and CISPR 11 Class B (Medical models)
- Commercial Approved to UL1950, IEC950 and CSA22.2-234 L3
- Medical Approved to UL2601-1, IEC601-1 and CSA22.2 No. 601
- **CE** marked to LVD

SPECIFICATIONS:

Ac Input

85-264 Vac, 47-63 Hz single phase.

Input Current

Maximum input current at 120 Vac, 60 Hz with full rated output load: 5.5 A

Hold-Up Time

20 ms minimum from loss of ac input at full load, nominal line (115 Vac).

Output Power

175 W convection; 225 W with 26 cfm air; 250 W peak. Peak ratings are for 60 s maximum duration, 10% duty cycle.

Overload Protection

Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit. Recovery after fault is automatic. Factory set to begin power limiting at approximately 250 W.

Overvoltage Protection

124% \pm 12% typical.

Efficiency

70% at full rated load, nominal input voltage, depending on model and load distribution.

Input Protection

Internal ac fuse provided. Designed to blow only if a catastrophic failure occurs in the unit.

Inrush Current

Inrush is limited by internal thermistors. Inrush at 240 Vac under cold start conditions will not exceed 60 A.

Temperature Coefficient

0.03%/ $^{\circ}$ C typical on all outputs.

Thermal Shutdown

Provided as a standard feature. Designed to protect unit from prolonged over temperature.

Environmental

Designed for 0 to 50 $^{\circ}$ C operation at full rated output power; derate output current and total output power by 2.5% per $^{\circ}$ C above 50 $^{\circ}$ C. See Environmental and Packaging Specifications on next page.

Power Fail

TTL- or CMOS-compatible output goes low (< 0.5 V) 5 ms before output voltage drops more than 4% below nominal voltage upon loss of ac power. The signal is factory set to trip on 84 to 94 Vac brown-out depending upon incoming

line impedance and distortion. Other settings are available to the user through adjustment of built-in potentiometer.

Output Noise

0.5% rms, 1% pk-pk, 20 MHz bandwidth, differential mode. Measured with noise probe directly across output terminals of the power supply.

Transient Response

500 μ s typical response time for return to within 0.5% of final value for a 50% load step change. $\Delta i/\Delta t < 0.2$ A/ μ s. Maximum voltage deviation is 3.5%. Startup/shutdown overshoot less than 3%.

Remote Sense

Provided as a standard feature.

Voltage Adjustment

Built-in potentiometer adjusts voltage \pm 5%.

EMI/EMC Compliance

All models include built-in EMI filtering to meet the following emissions requirements:

EMI SPECIFICATIONS	COMPLIANCE LEVEL
Conducted Emissions GPC225 EN55022 Class B; FCC Class B	
Conducted Emissions GPM225 EN55011 Class B; FCC Class B	
Static Discharge	EN61000-4-2, 6 kV contact, 8 kV air
RF Field Susceptibility	EN61000-4-3, 3 V/meter
Fast Transients/Bursts	EN61000-4-4, 2 kV, 5 kHz
Surge Susceptibility	EN61000-4-5, 1 kV diff., 2 kV com.

Commercial Leakage Current

0.95 mA 254 Vac @ 60 Hz input (with no deviations).

Commercial Safety

Approved to UL1950, CSA22.2 No. 234 Level 3, IEC950, EN60950 and CISPR22. UL file #E135803 commercial; CSA #LR46516. The output(s) are intended for safety earthed Signal Output and Intermediate Circuits only. All dc outputs are SELV under normal and single fault conditions.

Medical Leakage Current

60 μ A. 254 Vac @ 60Hz input.

Medical Safety

Approved to UL2601, CSA22.2 No. 601 Level 3 and IEC601. UL file E116994; CSA #LR46516. The output(s) are intended for safety earthed Signal Output and Intermediate Circuits only. The output(s) are not acceptable for patient connection without additional isolation. All dc outputs are SELV under normal and single fault conditions.

GPC225 Commercial/GPM225 Medical 225 Watt Multiple Output

Commercial Model	Medical Model	Output	Output Minimum	Output Maximum (B)	Output Maximum (C)	Peak	Noise P-P	Total Regulation (A)
GPC225-5	GPM225-5	5 V	0 A	34 A	40 A	45 A	50 mV	2%
GPC225-12	GPM225-12	12 V	0 A	15.8 A	19 A	20 A	120 mV	2%
GPC225-15	GPM225-15	15 V	0 A	12.7 A	15 A	16 A	150 mV	2%
GPC225-24	GPM225-24	24 V	0 A	8.3 A	9.4 A	10 A	240 mV	2%
GPC225-28	GPM225-28	28 V	0 A	7.1 A	8 A	8.5 A	280 mV	2%

A. Total regulation is defined as the maximum deviation from the nominal voltage for all steady-state conditions of initial voltage setting, input line voltage and output load.

B. Unrestricted natural convection cooling.

C. Requires 26cfm moving air.

GPC225/GPM225 MECHANICAL SPECIFICATIONS

INPUT: TB1

TERMINALBLOCK #6-32 X 0.375"

OUTPUT: TB2

TERMINALBLOCK #6-32 X 0.375"

PIN 1)	+Vout
PIN 2)	+Vout
PIN 3)	COMMON
PIN 4)	COMMON
PIN 5)	COMMON
PIN 6)	COMMON
PIN 7)	+Vout
PIN 8)	+Vout

SIGNALS:J1

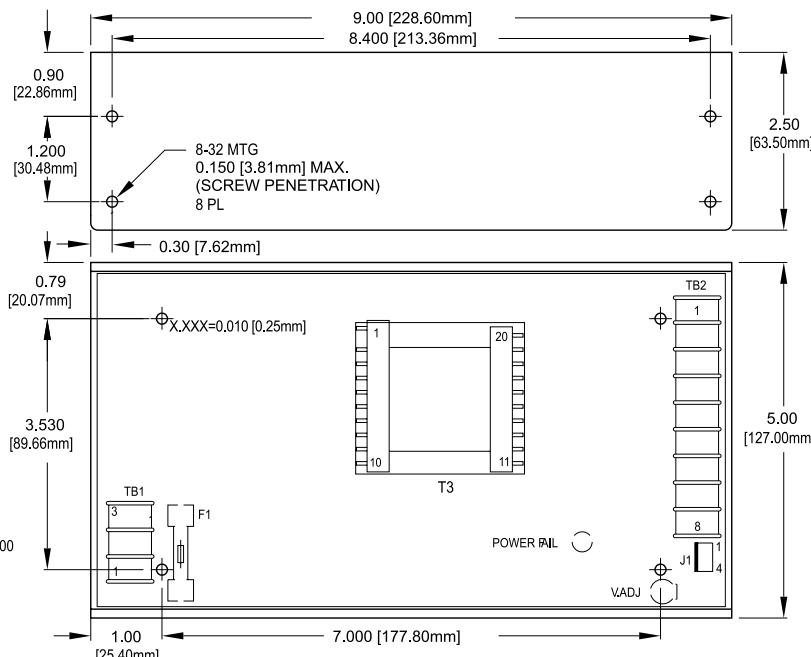
AMP P.C.B. HEADER P/N 640456-4
MATING CONNECTOR P/N 640440-4

PIN 1)	POWER FAIL
PIN 2)	- SENSE
PIN 3)	+ SENSE
PIN 4)	N/C

OPTIONAL COVER AVAILABLE ORDER P/N 08-30466-1200

WEIGHT: 3.3 LBS MAX [1.50 kg MAX]

TOLERANCES: ± 0.030



Environmental Specification	Operating	Non-operating
Temperature (A)	See individual specs	-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.
- 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, \pm direction, 3 orthogonal axes, total 6 shocks.