

GPFC110 Commercial

110 Watt Global Performance Switchers



FEATURES:

- 3.1 watts/cu.in. power density
- Compact size (6.3" x 3.75" x 1.62"; meets 1U height)
- Power factor corrected to IEC 1000-3-2 Class A
- Less than 300 μ A leakage
- EMI compliance to CISPR 22, FCC Class B
- Approved to UL1950, IEC950 and CSA 22.2 No. 950
- 2-year warranty
- **CE** marked to LVD

SPECIFICATIONS:

Ac Input

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

Input Current

Maximum input current 2.3 A at 90 Vac, 60 Hz with full rated load. Input current harmonic content meets the requirements of IEC1000-3-2.

Hold-up Time

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

Output Power

Total regulation is the maximum deviation from the nominal voltage for all steady-state loading conditions. Each individual output is to be used within its specified limits of that output. 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.

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 ms 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/ms. Maximum voltage deviation is 3.5%. Load must not go below stated minimum.

Remote Sense

Provided as a standard feature. Capable of compensating for 0.25 V total of cabling losses in voltage.

Overvoltage Protection

OVP crowbar reduces output voltage below nominal rating in less than 50 ms.

Voltage Adjustment

Main output $\pm 5\%$.

Input Protection

Internal ac fuse provided on all models. Fuse does not blow on overload or short circuit—fuse blows only if catastrophic failure occurs in the unit.

EMI/EMC Compliance

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

EMI SPECIFICATIONS	COMPLIANCE LEVEL
Conducted Emissions	EN55022 Class B; FCC Class B
Static Discharge	EN61000-4-2, 6 kV contact, 8 kV ai
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.
Line Frequency Harmonics	EN61000-3-2 Class A

Inrush Current

Inrush 240 Vac is less than 37 A, averaged over the first ac half-cycle under cold start conditions. Limiting provided by internal thermistors.

Fan Output

An additional output, same as Vout, suitable for powering a dc fan is included in all models. The output is protected by an internal resistor in the event of an overload.

Power Fail

TTL or CMOS compatible output goes low (< 0.5 V) 8 ms before output voltage drops more than 4% below nominal voltage upon loss of ac power. The signal is factory set to trip when input power can no longer sustain the output.

Temperature Coefficient

0.03%/°C typical on all outputs.

Environmental

Designed for 0 to 50°C operation at full rated output power; derate output current and total output power by 2.5% per °C above 50°C. See Environmental and Packaging Specifications on the next page.

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.

GPFC110 Commercial 110 Watt Single Output

Commercial Model	Output No.	Output	Output Minimum	Output Maximum (A)	Output Maximum (B)	Total Regulation	OVP Setpoint	Notes
GPFC110-5	1	5.1 V	0 A	11 A	15 A	2%	6.2 ± 0.6 V	C
GPFC110-12	1	12 V	0 A	6.7 A	9.2 A	2%	14 ± 1.1 V	C
GPFC110-15	1	15 V	0 A	5.3 A	7.3 A	2%	18.5 ± 1.5 V	C
GPFC110-24	1	24 V	0 A	3.4 A	4.6 A	2%	28 ± 2.5 V	C
GPFC110-28	1	28 V	0 A	2.9 A	3.9 A	2%	34 ± 2.8 V	C
GPFC110-48	1	48 V	0 A	1.7 A	2.3 A	2%	55 ± 4 V	C

A. With unrestricted convection cooling.

B. With 26cfm airflow.

C. Output current limited by primary power limit. Degree of output load on all outputs will affect maximum overload current.

GPFC110 MECHANICAL SPECIFICATIONS

INPUT:

J1

AMP P.C.B. HEADER/P/N 640445-5

PIN 1) AC GROUND

PIN 2) N/C

PIN 3) AC NEUTRAL

PIN 4) N/C

PIN 5) AC LINE

MATING CONNECTOR AMP P/N

HOUSING 640250-5

CONTACT 770476-1

OUTPUT:

J2

AMP P.C.B. HEADER P/N 1-640445-9

PINS 1-3) +Vout

PIN 4) +SENSE

PIN 5) -SENSE

PIN 6-8) RETURN

PIN 9) PWR FAIL

MATING CONNECTOR AMP P/N

HOUSING 640250-9

CONTACT 770476-1

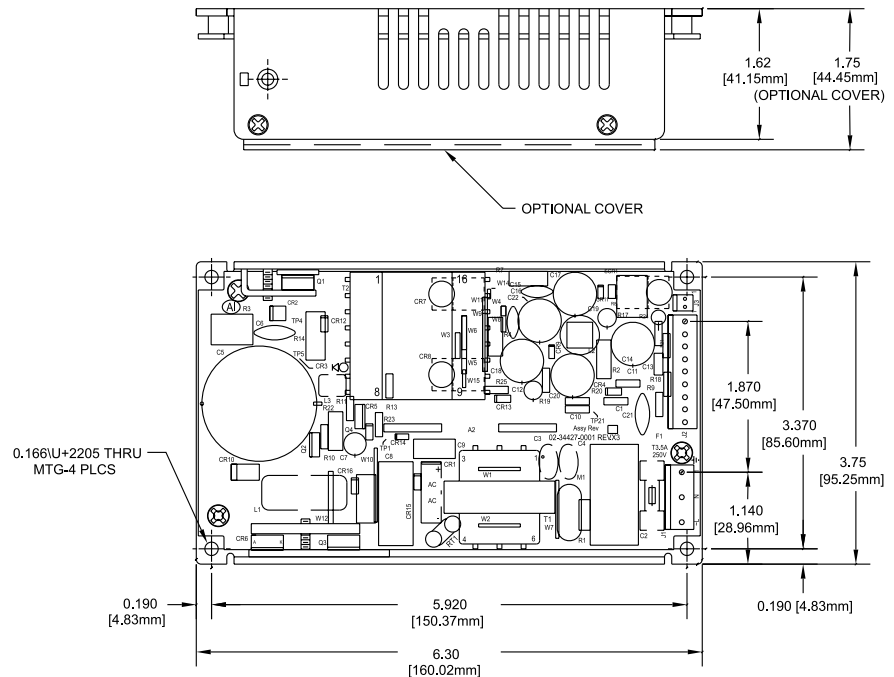
FAN J3

AMP P.C.B. HEADER P/N 640456-2

MATING CONNECTOR P/N 640621-2

PIN 1) -

PIN 2) +



OPTIONAL COVER: 08-30466-2110

5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN.

WEIGHT: 1.9 LBS [0.86kg] MAX.

TOLERANCES: X.XX=0.030 [0.76mm]

X.XXX=0.010 [0.25mm]

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, ± direction, 3 orthogonal axes, total 6 shocks.



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