

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: [info@chipsmall.com](mailto:info@chipsmall.com) Web: [www.chipsmall.com](http://www.chipsmall.com)

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

### 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  $\mu$ A leakage
- EMI compliance to CISPR 22, FCC Class B
- Approved to UL1950, IEC950 and CSA 22.2 No. 950
- 2-year warranty
- $\text{C}\epsilon$  marked to LVD
- RoHS Compliant Model Available (G suffix)



#### SPECIFICATIONS

Ac Input 85-264 Vac, 47-63 Hz single phase.	EMI/EMC Compliance All models include built-in EMI filtering to meet the EMC requirements below.															
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.	<table border="1"> <thead> <tr> <th>EMI SPECIFICATIONS</th> <th>COMPLIANCE LEVEL</th> </tr> </thead> <tbody> <tr> <td>Conducted Emissions</td> <td>EN55022 Class B; FCC Class B</td> </tr> <tr> <td>Static Discharge</td> <td>EN61000-4-2, 6 kV contact, 8 kV air</td> </tr> <tr> <td>RF Field Susceptibility</td> <td>EN61000-4-3, 3 V/meter</td> </tr> <tr> <td>Fast Transients/Bursts</td> <td>EN61000-4-4, 2 kV, 5 kHz</td> </tr> <tr> <td>Surge Susceptibility</td> <td>EN61000-4-5, 1 kV diff., 2 kV com.</td> </tr> <tr> <td>Line Frequency Harmonics</td> <td>EN61000-3-2 Class A</td> </tr> </tbody> </table>		EMI SPECIFICATIONS	COMPLIANCE LEVEL	Conducted Emissions	EN55022 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.	Line Frequency Harmonics	EN61000-3-2 Class A
EMI SPECIFICATIONS	COMPLIANCE LEVEL															
Conducted Emissions	EN55022 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.															
Line Frequency Harmonics	EN61000-3-2 Class A															
Hold-up Time 25 ms minimum from loss of ac input at full load, nominal line (115 Vac).	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.															
Output Power 110 W fan cooled, 75 W convection. Peak ratings are for 60 s maximum duration, 10% duty cycle.	Fan Output An additional output, same as $V_{out}$ , 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.															
Total Regulation Total regulation is the maximum deviation from the nominal voltage for all steady-state loading conditions.	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.															
Overload Protection Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit. Recovery after fault is automatic.	Temperature Coefficient 0.03%/°C typical on all outputs.															
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.	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.															
Transient Response 500 $\mu$ 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/ $\mu$ s. Maximum voltage deviation is 3.5%. Load must not go below stated minimum.	Commercial Safety Approvals All models are approved to UL1950, CSA22.2 No. 950-95, IEC950, EN60950. CB certificate available. Exceeds FCC and CISPR22 Class B conducted emissions requirement															
Remote Sense Provided as a standard feature. Capable of compensating for 0.25 V total of cabling losses in voltage. Open sense lead protection.																
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.																

Commercial Model	Output No.	Output	Output Minimum (A)	Output Maximum (A)	Output Maximum (B)	Total Regulation	OVP Setpoint	Notes
GPFC 110-5	1	5.1 v	0 A	11 A	15 A	2%	6.2 ± 0.6 V	C
GPFC 110-12	1	12 V	0 A	6.7 A	9.2 A	2%	14 ± 1.1 V	C
GPFC 110-15	1	15 V	0 A	5.3 A	7.3 A	2%	18.5 ± 1.5 V	C
GPFC 110-24	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

**Notes:**

- A. With unrestricted convection cooling.
- B. With 26cfm airflow.
- C. Add "G" suffix to part number for RoHS compliant model.

## 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:**

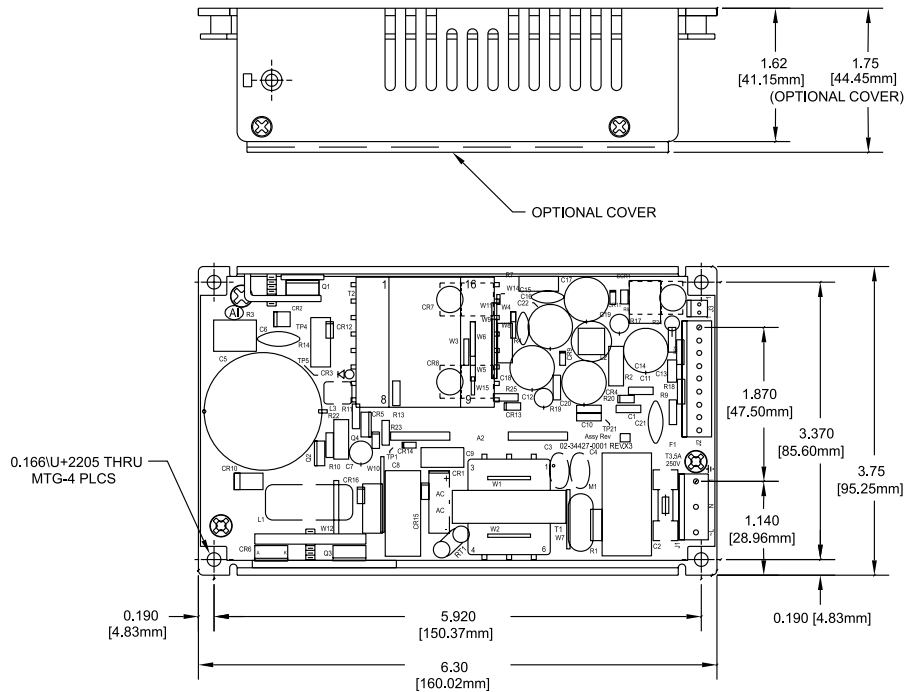
**J2**  
 AMP P.C.B. HEADER P/N 1-640445-9  
 PINS 1-3) +Vout  
 PIN 4) +SENSE  
 PIN 5) -SENSE  
 PIN 6-8) RETURN  
 PIN 9) PWR FAIL  
 MATING CONNECTOR AMP P/N  
 HOUSING 640250-9  
 CONTACT 770476-1

**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 SPECIFICATIONS	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 <sub>pk</sub>	40 g <sub>pk</sub>
Altitude	-500 to 10,000 ft	-500 to 40,000 ft
Vibration (C)	1.5 g <sub>rms</sub> 0.003 g <sup>2</sup> /Hz	5 g <sub>rms</sub> 0.026 g <sup>2</sup> /Hz

- A. Units should be allowed to warm up/operate under non-condensing conditions before application of power.
- B. Shock testing—half-sinusoidal, 10 ± 3 ms duration, ± direction, 3 orthogonal axes, total 6 shocks.
- C. 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.