

## GPM80 SERIES INSTALLATION INSTRUCTIONS

**MODEL NUMBERS:** GPM80X where X may be the letter A, B, C, D, E or P, and GPM80-X where X may be the number 5, 12, 15, 24, or 28. Models may be followed by -PF, -L, -LC, -FB, -TB, -XXX and/or G. Suffix -PF indicates Power Failure, -L indicates L bracket, -LC indicates L bracket and cover, -FB indicates flux band, -TB indicates terminal block, -XXX indicates value added configurations that have no impact on safety which may be any number from 001 thru 999, and/or G indicates compliance to RoHS.

**RATINGS:**

Input: 100-240 V ac, 3.2 A, 50/60 Hz

Output: Maximum Continuous Power, total of all outputs at ambient of 50 °C.

Without Cover 26 CFM	With Cover 26 CFM	Without Cover 0 CFM	With Cover 0 CFM
110 Watts	90 Watts	80 Watts	40 Watts

MODEL	Output #1 (Note 3)			Output #2 (Note 3)			Output #3			Output #4		
		Note 1	Note 2		Note 1	Note 2		Note 1	Note 2		Note 1	Note 2
GPM80A	+5 V	12 A	12 A	+12 V	3.0 A	4.0 A	-12 V	1.0 A	1.2 A	+12 V	1.0 A	1.2 A
GPM80B	+5 V	12 A	12 A	+12 V	3.0 A	4.0 A	-12 V	1.0 A	1.2 A	-5 V	1.0 A	1.2 A
GPM80C	+5 V	12 A	12 A	+12 V	3.0 A	4.0 A	-15 V	1.0 A	1.2 A	+15 V	1.0 A	1.2 A
GPM80D	+5 V	12 A	12 A	+24 V	2.0 A	3.0 A	-12 V	1.0 A	1.2 A	+12 V	1.0 A	1.2 A
GPM80E	+5 V	12 A	12 A	+24 V	2.0 A	3.0 A	-15 V	1.0 A	1.2 A	+15 V	1.0 A	1.2 A
GPM80P	+5 V	12 A	12 A	+24 V	3.5 A	4.5 A	-12 V	1.0 A	1.2 A	+12 V	2.0 A	2.0 A
GPM80-5	+5 V	16 A	20 A	Notes: 1. Maximum ratings for 0 CFM airflow. 2. Maximum ratings for 26 CFM airflow. 3. Sum of outputs #1 & #2 not to exceed 14A with 0 CFM airflow. 4. Maximum Operating Relative Humidity 96%, no condensation. 5. Storage: -40 to +85 °C. Units should be allowed to warm-up under non-condensing conditions before application of power.								
GPM80-12	+12 V	6.7 A	9.2 A									
GPM80-15	+15 V	5.3 A	7.3 A									
GPM80-24	+24 V	3.4 A	4.6 A									
GPM80-28	+28 V	2.9 A	3.9 A									

**CE SAFETY DECLARATION:** SL Power Electronics Corp. declares under our sole responsibility that all models listed above are in conformity with the applicable requirements of EN60950-1 following the provisions of the Low Voltage Directive 73/23/EEC. All models are Certified to be in compliance with the applicable requirements of UL 60601-1, CSA 22.2 No. 601.1 (L3M1), and EN 60601-1.

**CLASSIFICATION:** (5.1) Protection against electric shock = Class I  
 (In accordance with sub- (5.2) Degree of protection against electric shock = Signal output or intermediate clause 5 of EN 60601-1) (5.3) Protection against harmful ingress of water = Ordinary (no protection)  
 (5.5) Not suitable for use in the presence of flammable anesthetic mixture.  
 This evaluation is to be made on the end equipment by the OEM.  
 (5.6) Mode of operation = Continuous

**GROUNDING:** The Earth (ground) terminal J1, pin 1 and all of the pads around the mounting holes must be bonded to Protective Earth in the host equipment. Metallic spacers should be used to mount supply to metal surfaces. When mounting to non-metallic surfaces, connect all mounting pads together and bond to earth. Using the Earth terminal on the supply for grounding the host equipment is not recommended. A separate dedicated grounding point should be used.

**OUTPUTS:** The output(s) are not acceptable for direct patient connection without additional isolation. All DC outputs are SELV under normal and single fault conditions and are not an energy hazard.

**OVERVOLTAGE PROTECTION:** Only output #1 is monitored for an overvoltage condition. The trip-point for a 5 volt output is 5.6 to 6.8 volts. In some applications where an overvoltage condition could result in a hazard as defined in applicable safety standards, redundant or additional overvoltage protection may be required. Consult factory for details.

**CAUTION:** When performing Dielectric Strength Tests, catastrophic failure of the unit may result if a Dielectric Strength test voltage greater than 1800 V ac is applied between primary and secondary circuits. The components providing isolation from primary to secondary cannot be tested while installed in the power supply without overstressing basic (primary to ground) insulation. All isolating components are individually 100 % tested at 4800 V ac prior to installation.





**ISOLATION:** The creepage distance between primary and ground is 4 mm minimum; between primary and secondary circuits is 8 mm minimum. Secondary to ground creepage is not defined or controlled. The output common is bypassed to ground using a 0.01 µF 1kV capacitor. The required creepage and clearance distances from primary circuits to ground and secondary circuits must be maintained after installation to preserve the intended safety.

**TEMPERATURES:** The maximum operating temperatures of certain safety components, as defined in the applicable safety standards, must not be exceeded after installation to preserve the intended safety. The output power, ambient air temperature and the availability, amount, direction and/or restriction of airflow influence the temperatures of these components.

**OVERCURRENT PROTECTION:** The internal fuse is located in the phase lead only. EN 60601-1 requires that both supply leads (phase and neutral) be protected against overcurrent. Complete overcurrent protection must be provided in the host equipment. Fuse ratings must not exceed that specified for the internal fuse, must meet the requirements of EN 60601-1 and be acceptable for the country in which the host equipment is to be installed.

**WARNING! RISK OF FIRE!** A blown internal fuse is an indication of catastrophic failure of circuit component(s). Repair must be performed by SL Power Electronics Corp. authorized personnel. Refer to fuse marking on the supply for rating.

**WARNING! SHOCK HAZARD!** Dangerous voltages are present on some components, printed wiring traces and heatsinks.

EXPLANATION OF SYMBOLS	
	Alternating Current
	Attention, Consult Accompanying Documents
	Attention, Dangerous Voltages
	Protective Earth (Ground)

### CONNECTIONS

J1 AC Input	J2 Multi-Output Models		J2 Single Output Models	
1) Ground	1) Output 1 (+)	8) Output 2 (+)	1) Output 1 (+)	8) Common
3) Neutral	2) Output 1 (+)	9) Output 2 (+)	2) Output 1 (+)	9) Common
5) Line	3) Output 1 (+)	10) Power Fail	3) Output 1 (+)	10) Power Fail
	4) Common	11) Output 3 (-)	4) Output 1 (+)	11) +Sense
	5) Common	12) Key	5) Common	12) Key
	6) Common	13) Output 4	6) Common	13) -Sense
	7) Common	(+ or -)	7) Common	

Mating Connectors
J1 Amp Housing 640250-5
J2 Amp Housing 1-640250-3
Amp Contact 770476-1

**CAUTION:** Do not exceed 5 A per pin on J2.

SL Power Electronics Corp. will not be liable for the safety, reliability or performance of these power supplies if a) any changes, modifications or repairs are carried out by other than authorized agents of SL Power Electronics Corp., or b) the installation of the supply is not in accordance with these installation instructions and the applicable UL, CSA, and/or IEC/EN safety standards.