

## GEM600/750 SERIES INSTALLATION INSTRUCTIONS

**MODEL NUMBERS:** GEM600-VV-WXY-ZZ G and GEM750-VV-WXY-ZZ G

Where VV is the output Voltage 24-48VDC, W is an Alpha character A or T, which represents the Input Connector, X is an alpha character A, B or T which represents the Output Connector, Y is an Alpha Character D, which represents the Optional OR-ing Diode, -ZZZ is any numeric character 00-99 which represents Value Added Configurations not related to safety and "G" indicates compliance with the RoHS directive.

**RATINGS:**

Input: GEM600: 100-240 V ac, 9 A-4.5 A, 50/60 Hz  
GEM750: 100-240 V ac, 11 A-5.5 A, 50/60 Hz

Outputs:

Model #	Output #1		Model #	Output #1	
	V	A		V	A
GEM600-24	24	25/27 pk	GEM750-24	24	31.2/34 pk
GEM600-28	28	21.5/23.5 pk	GEM750-28	28	26.8/29.5 pk
GEM600-36	36	17/18 pk	GEM750-36	36	20.8/22.8 pk
GEM600-48	48	12.5/13.5 pk	GEM750-48	48	15.6/17 pk

- NOTES: 1. Maximum ambient temperature for rated output power is 50°C utilizing integral 42 CFM fan.  
2. Maximum Operating Relative Humidity 96%, no condensation.  
3. Storage: -40 to +85 °C. Units should be allowed to warm-up under non-condensing conditions before application of power.  
4. Peak current, 60 Sec with a 10% duty cycle



**SAFETY DECLARATION:** SL Power Electronics declares under our sole responsibility that all models listed above are in conformity with the applicable requirements of EN 60950 following the provisions of the Low Voltage Directive 73/23/EEC. All models are certified to be in compliance with the applicable requirements of EN/IEC/UL 60950-1 1<sup>st</sup> Ed., CAN/CSA 22.2 No. 60950-1:03 (Level 5). They are certified for Pollution Degree 2 environment and Class I TN-S power systems. All DC outputs are SELV under normal and single fault conditions.

**CERTIFICATION:** All models are Certified to be in compliance with the applicable requirements of UL/CSA/EN/IEC 60601-1, 1st. Ed.

**CLASSIFICATION:** (5.1) Protection against electric shock = Class I  
(In accordance with sub- clause 5 of EN 60601-1)

- (5.2) Degree of protection against electric shock = Not acceptable for applied part without additional isolation (contact factory for details)
- (5.3) Protection against harmful ingress of water = Ordinary (no protection)
- (5.5) Have not been evaluated for use in the presence of a flammable anaesthetic mixture with air, oxygen, or nitrous oxide. This evaluation is to be made on the end equipment by the OEM.
- (5.6) Mode of operation = Continuous

**TEMPERATURES:** The maximum operating temperatures of components used in this supply must not be exceeded after installation. The orientation of the supply, output power, ambient temperature and the availability, amount, direction and/or restriction of natural airflow influences the temperatures of these components.

**THERMAL PROTECTION:** The unit has a thermal protection circuit that will shut down the unit if an overtemperature condition is encountered. Recovery is automatic.

**GROUNDING:** TB1-3 must be bonded to Protective Earth in the end application. The end application should be evaluated to ensure it meets the Protective Earthing requirement.

**OVERVOLTAGE PROTECTION:** The unit has overvoltage protection that is factory set to trip at a maximum of 136% of the nominal output voltage. The unit must be cycled off, then on to reset.

# GEM600/750 SERIES INSTALLATION INSTRUCTIONS (Contd.)

**CURRENT SHARING:** The Optional Built-in OR-ing diode allows multiple units to share the load.




**NOTE:** Adjacent units must be set within 0.2% of each other for proper current share.

**VOLTAGE ADJUSTMENT:** Factory set to specified voltage. User accessible pot allows adjustment over a range of  $\pm 5\%$  of nominal voltage. The potentiometer is located on the A2 PWB located behind and above TB3.

**SPACINGS:** The required creepage and clearance distances from primary circuits to ground and secondary circuits must be maintained after installation to preserve the intended safety.

**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 authorized personnel.

**AIRFLOW/COOLING:** The GEM600/700 series is designed with an integral fan rated 42 CFM.

EXPLANATION OF SYMBOLS	
	Alternating Current
	Direct Current
	Attention, Consult Accompanying Documents

## CONNECTIONS

AC INPUT – TB1		STATUS and CONTROL – J4 (AMP P/N 640456-4)		
Line	1	Power Good	1	Reference to Common
Neutral	2	Power Fail	2	
Ground	3	Inhibit	4	

DC OUTPUT – TB2 and TB3		
Output	TB2 Pins 1-3	Main Output
	TB3 Pins 1-3	Rtn (Common)

### OPTIONS:

A – Terminal Block (EBY P/N 6002-03-N-01) (Cooper Magnum A214203)

B – Bussbars

T – Phoenix Contact (P/N 1732034)

D - N+1 OR-ing Diode. Will allow 2 or more power supplies to be connected in parallel and share the output load.

SL Power Electronics, Corp. (SLPE) 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 SLPE., or b) the installation of the supply is not in accordance with these installation instructions and the applicable UL, CSA, and EN/IEC safety standards.