### **GLOBAL PERFORMANCE SWITCHERS**

# **GLC75 Commercial/GLM75 Medical**



## 75 Watt Multiple Output Global Performance Switchers

### **FEATURES:**

- Cost-effective multiple output power source
- Universal input 90-264 Vac
- 7.00"x 4.25"x 1.30" (Meets 1U height)
- 2-year warranty
- Conducted EMI exceeds FCC Class B and CISPR 22 Class B (Commercial models) and CISPR 11 Class B (Medical models)
- Complies with EN61000-3-2 Class A
- Also available in single output versions
- Commercial UL1950 3rd Edition, CSA22.2 No. 950 and EN60950-1 approvals
- Medical Approved to UL2601-1, CSA22.2 No. 601.1-M90, and IEC/EN60601-1
- RoHS Compliant Model Available (G suffix)











### **SPECIFICATIONS**

#### Ac Input

90-264 Vac, 47-63 Hz single phase.

#### Input Current

Maximum input current at 120 Vac, 60 Hz with full rated output load not to exceed 2.3 A.

### **Output Power**

Normal continuous output power is 75 W for unrestricted natural convection cooling or 110 W with 26 cfm airflow. During peak load conditions output regulation may exceed total regulation and noise limits.

## **Output Regulation**

Measured by ±40% load change from 60% rated load with all other outputs at 60% rated load and input voltage change from minimum to maximum ratings. Output #1 requires 1A minimum load for proper regulation of other outputs. Initial set tolerance is measured with all outputs at 60% of full rated load. Output #2 requires 0.5A minimum load for proper regulation.

#### **Overload Protection**

Factory set to begin power limiting at approximately 120 W. Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit.

#### **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.

Main Output: 500µSec typical response time for return to within 0.5% of final value for a 50% load step change, Δi/Δt<0.2A/μSec. Maximum voltage deviation is 3.5%

### Overvoltage Protection

Built in on V1 with firing point set per table. OVP firing reduces output #1 and #2 to less than 50% of nominal voltage in 50 ms.

### Voltage Adjust

Factory set on standard unit; however, optional potentiometer ("-V" suffix) adjusts voltage from 4.7 V to OVP point (6.2 V nominal) on the +5 V output. Note: Output #1 must not be more than 1% below nominal to achieve full output voltage range on Output #2. Output regulation limits in some models may be exceeded when the main output is adjusted beyond +1% of nominal voltage. High voltage settings may degrade the reliability of the unit due to excessive power dissipation in some outputs.

## Efficiency

68% -78% depending on model and load distribution.

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

#### Inrush Current

Inrush limited by internal thermistors. Inrush at 240 Vac, averaged over the first ac half-cycle under cold start conditions will not exceed 37 A.

20 ms minimum from loss of ac input power at full load, nominal line (120 Vac).

### Temperature Coefficient

0.03%/°C typical on all outputs.

A standard TTL or CMOS compatible output goes low (< 0.5 V) 5ms before output voltage drops more than 4% below nominal voltage upon loss of ac power. Signal is factory set to trip on 84 to 94 Vac brown-out depending upon incoming line impedance and distortion. Other settings are available through adjustment of built-in potentiometer (consult factory for assistance). Output will stay low for 20 ms minimum.

#### **EMI/EMC Compliance**

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

EMI SPECIFICATIONS	COMPLIANCE LEVEL				
Conducted Emissions GLC75 Conducted Emissions GLM75 Static Discharge RF Field Susceptibility Fast Transients/Bursts Surge Susceptibility	EN55022 Class B; FCC Class B EN55011 Class B: FCC Class B EN61000-4-2, 6 kV contact, 8 kV air EN61000-4-3, 3 V/meter EN61000-4-4, 2 kV, 5 kHz EN61000-4-5, 1 kV diff., 2 kV com.				
Line Frequency Harmonics	EN61000-3-2 Class A				

# Commercial Safety

All GLC models are approved to UL1950 3rd Edition, CSA22.2 No. 950, and EN60950-1.

# Medical Leakage Current

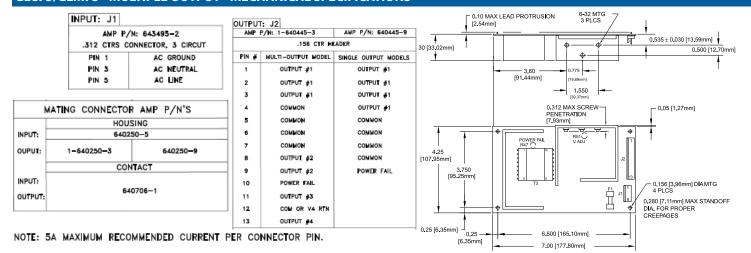
70 µA 264 V @ 50 Hz (normal conditions).

GLM models are approved to UL2601-1, CSA22.2 No. 601.1M90, IEC/EN60601-1. CB Report available.

Commercial Model	Medical Model	RoHS Suffix*	Output No.	Output	Output Minimum	Output Maximum (A)	Output Maximum (B)	Output Peak	V1 OVP Set	Noise P-P	Regulation
GLC75A	GLM75A	G	1 2 3 4	+5.1 V +12 V -12 V +12 V	1 A 0.5 A 0 A 0 A	8 A 2.5 A 1 A 2.5 A	10 A 3 A 1 A 3 A	12 A 4 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 120 mV 120 mV 120 mV	2% +10%,-5% (D) 3% 2%
GLC75B	GLM75B	G	1 2 3 4	+5.1 V +12 V -5 V +12 V	1 A 0.5 A 0 A 0 A	8 A 2.5 A 1 A 2.5 A	10 A 3 A 1 A 3 A	12 A 4 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 120 mV 50 mV 120 mV	2% +10%,-5% (D) 3% 2%
GLC75C	GLM75C	G	1 2 3 4	+5.1 V +12 V -15 V +15 V	1 A 0.5 A 0 A 0 A	8 A 2.5 A 1 A 2.5 A	10 A 3 A 1 A 3 A	12 A 4 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 120 mV 150 mV 150 mV	2% +10%,-5% (D) 3% 2%
GLC75D	GLM75D	G	1 2 3 4	+5.1 V +24 V -12 V +12 V	1 A 0.5 A 0 A 0 A	8 A 2.5 A 1 A 2.5 A	10 A 2.5 A 1 A 3 A	12 A 3.5 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 240 mv 120 mV 120 mV	2% +10%,-5% (D) 3% 2%
GLC75E	GLM75E	G	1 2 3 4	+5.1 V +24 V -15 V +15 V	1 A 0.5 A 0 A 0 A	8 A 2.5 A 1 A 2.5 A	10 A 2.5 A 1 A 3 A	12 A 3.5 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 240 mV 150 mV 150 mV	2% +10%,-5% (D) 3% 2%
GLC75F	GLM75F	G	1 2 3 4	+5.1 V +15 V -5 V -15 V	1 A 0.5 A 0 0	8 A 2.5 A 1 A 2.5 A	10 A 3 A 1 A 3 A	12 A 4 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 150 mV 50 mV 150 mV	2% +10%,-5% (D) 3% 2%
GLC75H	GLM75H	G	1 2 3 4	+5.1 V +15 V -15 V +15 V	1A 0.5 A 0 0	8 A 2.5 A 1 A 2.5 A	10 A 3 A 1 A 3 A	12 A 4 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 150 mV 150 mV 150 mV	2% +10%,-5% (D) 3% 2%
GLC75J	GLM75J	G	1 2 3 4(C)	+5.1 V +12 V -12 V 5 V	1 A 0.5 A 0 0	8 A 2.5 A 1 A 2.0 A	10 A 3 A 1 A 3 A	12 A 4 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 120 mV 120 mV 50 mV	2% +10%,-5% (D) 3% 2%
GLC75P	GLM75P	G	1 2 3 4	+5.1 V +24 V -12 V +12 V	1 A 0.5 A 0 A 0 A	8 A 4 A 1 A 2.5 A	10 A 4 A 1 A 3 A	12 A 4.5 A 1.2 A 4 A	6.2 ± 0.6 V	50 mV 240 mv 120 mV 120 mV	2% +10%,-5% (D) 3% 2%

<sup>\*</sup> Add "G" suffix to part number for RoHS compliant model. Contact factory for availability.

# **GLC75/GLM75 - MULTIPLE OUTPUT - MECHANICAL SPECIFICATIONS**



ENVIRONMENTAL SPECIFICATIONS	OPERATING	NON-OPERATING
Temperature (A)	0 to 50°	-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 g²/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. Derate output current and total output power by 2.5% per °C above 50°C.
- B. Shock testing—half-sinusoidal, 10  $\pm$  3 ms duration,  $\pm$  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.

SL Power Electronics, Inc., 6050 King Drive, Bldg. A, Ventura, CA 93003, USA. Phone:(805) 486 4565 Fax:(805) 487 8911 www.slpower.com Rev. 9-23-10.

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A. Rating with unrestricted convection cooling. Total power not to exceed 75 W.

B. Rating with 26 cfm forced-air cooling. Total power not to exceed 110 W.

C. Floating fourth output can be referenced as either positive or negative. Connect pin 12 to Return to provide a positive voltage at Pin 13. Connect pin 13 to Return to provide a negative voltage at Pin 12.

D. To maintain these regulations conditions, the +5V current must be at least 1/5 of V2 and not greater than 5 times the V2 current. Requires +5V to be adjusted to within 1% with at least a 1 A load to maintain regulation on this output.

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