

# GLC75 Commercial/GLM75 Medical

## 75 Watt Multiple Output Global Performance Switchers



### 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. The standard power is 110 W with 26 cfm airflow. During peak load conditions output regulation may exceed total regulation and noise limits.

#### Output Regulation

Measured by  $\pm 40\%$  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 20% 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 0.5 a 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.

#### Transient Response

Main Output: 500 $\mu$ Sec typical response time for return to within 0.5% of final value for a 50% load step change,  $\Delta I/\Delta t < 0.2A/\mu$ Sec. 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 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  $\pm 1\%$  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.

### 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, CSA22.2 No. 234 and IEC950 and EN60950 approvals
- Medical Approved to UL2601-1, IEC601-1 and CSA-C22.2 No. 601.1
- $\text{C}\text{E}$  marked to LVD

#### Input Protection

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.

#### Hold Up Time

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

#### Temperature Coefficient

0.03%/ $^{\circ}$ C typical on all outputs.

#### Power Fail

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	EN55022 Class B; FCC Class B
Conducted Emissions-GLM75	EN55011 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

#### Commercial Safety

All GLC models are approved to UL1950, CSA22.2 No. 234 Level 3, IEC950 and EN60950. Consult factory for approval status.

#### Medical Leakage Current

70  $\mu$ A 264 V @ 50 Hz (normal conditions).

#### Medical Safety

All GLM models are approved to UL2601-1, CSA-C22.2 No. 601.1, IEC601-1 and EN60601. Consult factory for approval status.

# GLC75 Commercial/GLM75 Medical 75 Watt Multiple Output

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



- 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.

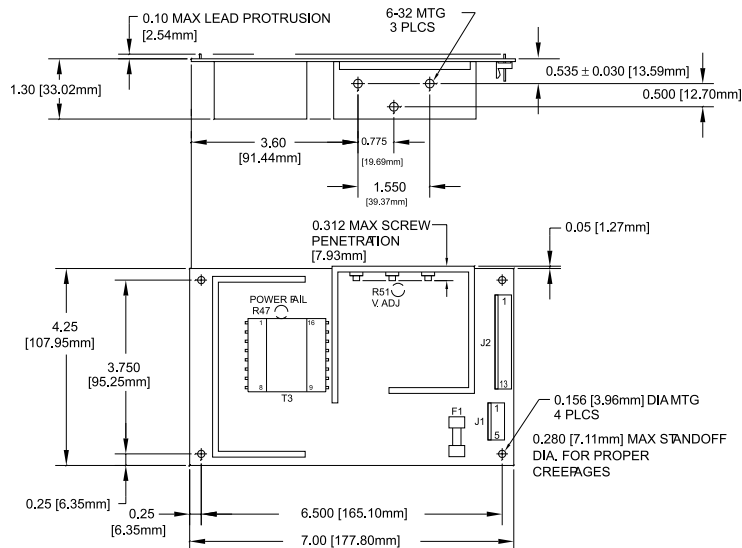
## GLC75/GLM75 MECHANICAL SPECIFICATIONS

INPUT: J1  
 AMP P/N: 643495-2  
 0.312 CTRS CONNECTOR, 3 CIRCUIT  
 PIN 1 AC GROUND  
 PIN 3 AC NEUTRAL  
 PIN 5 AC LINE

OUTPUT: J2  
 AMP P/N: 1-640445-3  
 0.156 CTR HEADER  
 PIN # MULTI-OUTPUT MODEL  
 1 OUTPUT#1  
 2 OUTPUT #1  
 3 OUTPUT #1  
 4 COMMON  
 5 COMMON  
 6 COMMON  
 7 COMMON  
 8 OUTPUT #2  
 9 OUTPUT #2  
 10 POWERFAIL  
 11 OUTPUT #3  
 12 COMMON  
 13 OUTPUT#4

MATING CONNECTOR AMP P/N'S  
 HOUSING  
 INPUT: 640250-5  
 OUTPUT: 1-640250-3  
 CONTACT  
 INPUT: 770476-1  
 OUTPUT: 770476-1

NOTE: 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN.  
 WEIGHT 1.2 LBS. MAX. [0.544 kg]  
 TOLERANCES: X.XX=0.030 [0.76mm]  
 X.XXX=0.010 [0.25mm]



Environmental Specification	Operating	Non-operating
Temperature (A)	0 to 50°C	-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. Derate output current and total output power by 2.5% per °C above 50°C.  
 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.

