

# GLC65 Commercial/GLM65 Medical

65 Watt Single Output Global Performance Switchers

## GLOBAL PERFORMANCE SWITCHERS

## **FEATURES:**



- Compact (3.0" x 5.0" x 1.06")
- Ultra-high efficiency (up to 94%) using patented technology
- Meets harmonic requirements of IEC1000-3-2, Class A
- Conducted EMI exceeds FCC Class B and CISPR 22 Class B (Commercial models) and CISPR 11 Class B (Medical models)
- 2-year warranty
- Exempt from line harmonics standard EN61000-3-2
- Commercial Approved to UL1950, IEC950, EN60950, CSA22.2 No. 950
- Medical Approved to UL2601, EN60601, CSA22.2 No. 601.1
- Multiple output versions also available
- RoHS models available (G suffix)
- CE marked to LVD



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SPECIFICATIONS			
Ac Input 90-264 Vac, 47-63 Hz single phase.	Inrush Current Inrush is limited by internal thermistor. The inrush at 240 Vac, averaged over the first ac half-cycle under cold start conditions will not exceed 37A. EMI/EMC Compliance All models include built-in EMI filtering to meet the following emissions requirements:		
Input Current Maximum input current at minimum output voltage and output overload will be less than 1.7 A. Meets input current harmonic requirements of IEC1000-3-2.			
Output Power	EMI SPECIFICATIONS	COMPLIANCE LEVEL	
Normal continuous output power is 65 W, 75 W peak for 60 s. The 3.3 Vdc unit is 36.3 W and the 5 Vdc unit is 55 W continuous.	Conducted Emissions GLC65	EN55022 Class B; FCC Class B	
Hold-Up Time 20 ms from loss of ac input at 65 W load, from 120 Vac input.	Conducted Emissions GLM65 Static Discharge RF Field Susceptibility	EN55011 Class B: FCC Class B EN61000-4-2, 6 kV contact, 8 kV air EN61000-4-3, 3 V/meter	
Overload Protection Fully protected against short circuit and output overload. Short circuit protec- tion is cycling type power limit.	Fast Transients/Bursts Surge Susceptibility	EN61000-4-4, 2 kV, 5 kHz EN61000-4-5, 1 kV diff., 2 kV com.	
Output Noise 0.5% rms, 1% pk-pk, 20 MHz bandwidth, differential mode. Measured with scope probe directly across output terminals of the power supply with load terminated with 0.1 µF capacitor.	Commercial Leakage Current Under normal conditions, leakage current is 425 $\mu A$ with 132 Vac @ 60 Hz input.		
	Commercial Safety All GLC models are approved to UL1950, CSA22.2 No. 950, IEC950 and EN60950.		
Transient Response Main output: 500 $\mu$ s typical response time for return to within 0.5% of final value for a 50% load step within the regulation limits of minimum and maxi- mum load, $\Delta i/\Delta t < 0.2 A/\mu$ s. Maximum voltage deviation is 3.5%. Startup/shut-	Medical Leakage Current The maximum leakage current under single-fault conditions (254 Vac @ 50 Hz) is 120 $\mu$ A. Under normal conditions, leakage current is 31 $\mu$ A with 132 Vac @ 60 Hz input.		
down overshoot less than 3%.	Medical Safety All GLM models are approved to UL2601, CSA22.2 No. 601, IEC601-1 and EN60601. Consult factory for approval status.		
Voltage Adjustment Adjustable potentiometer capable of $\pm 5\%$ change from nominal setting.			
Efficiency	Temperature Coefficient: 0.03%°C typical on all outputs.		
82 to 94% minimum at full rated load, nominal input voltage, depending on model.	Remote Sense Provided as standard feature on all models. Includes open sense protection.		
Minimum Load No minimum load required.			



Commercial Model	Medical Model	Output	Current	Total Regulation	V1 Adjustment	V1 OVP Setpoint	Ripple and Noise
GLC65-5	GLM65-5	5.1 V	9/11 A *	2%	±5%	$6.2\pm0.6V$	1%
GLC65-12	GLM65-12	12 V	5.5 A	2%	±5%	14 ± 1.1 V	1%
GLC65-15	GLM65-15	15 V	4.3 A	2%	±5%	18.5 ± 1.5 V	1%
GLC65-18	GLM65-18	18 V	3.6 A	2%	±5%	21.7 ± 2.0 V	1%
GLC65-20	GLM65-20	20V	3.25 A	2%	±5%	$24.5 \pm 2.2  V$	1%
GLC65-24	GLM65-24	24 V	2.7 A	2%	±5%	28 ± 2.5 V	1%
GLC65-28	GLM65-28	28 V	2.3 A	2%	±5%	$34 \pm 2.8$ V	1%
GLC65-48	GLM65-48	48 V	1.35 A	2%	±5%	$55 \pm 4.0  \text{V}$	1%

#### • Note:

### \* 9 A convection, 11 A with fan cooling

## GLC65/GLM65 - SINGLE OUTPUT - MECHANICAL SPECIFICATIONS

INPUT J1: AMP P/N 640445-3, .156 [3.96mm] CTR, 0.045 [1.14mm] SQUARE PIN HEADER PIN 3) AC NEUTRAL PIN 2) NO PIN PIN 1) AC LINE

OUTPUT J2: AMP P/N 640445-6, .156 [3.96mm] CTR, 0.045 [1.14mm] SQUARE PIN HEADER

PIN 1-3) OUTPUT PIN 4-6) COMMON GND: 0.250" FASTON TAB

SENSE J3: AMP P/N 640456-2, .100 [2.54mm] CTR, 0.025 [0.64mm] SQUARE PIN HEADER

> PIN 1) +SENSE PIN 2) -SENSE

#### MATING CONNECTORS: AMP P/N

	HOUSING	CONTACTS
INPUT	640250-3	770476-1
OUTPUT	640250-6	770476-1
SENSE	640440-2	770476-1

NOTE: 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN

WEIGHT: 5 OZ. [0.142 KG]

[0.142

TOLERANCES: X.XX = ± 0.030 (0.76MM) X.XXX = ± 0.010 (0.25MM)



MAX. COMPONENT HEIGHT1.20" [30.28 mm] MAX. LEAD PROTRUSION 0.10" [2.54mm]

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 g²/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 1hr./ axis non-operating.

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