GLC50 Commercial/GLM50 Medical
50 Watt Output Global Performance Switchers

FEATURES:

- Cost-effective power source
- Universal input 90-264 Vac
- 2-year warranty
- Compact (4.25" x 2.50" x 1.25"; meets 1U applications)
- Overload and overvoltage protection
- Conducted EMI exceeds FCC Class B and CISPR 22 Class B (Commercial models) and CISPR 11 Class B (Medical models)
- Commercial UL1950, CSA22.2 No. 950 and IEC 950, EN60950 approvals
- Medical UL2601, CSA22.2 No. 601, IEC601-1, EN60601-1
- CE marked to LVD

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: 1.5 A

Hold-Up Time
15 ms minimum from loss of ac input at full load, nominal line (115 Vac).

Output Power
50 W continuous, 60 W peak. Peak ratings are for 60 s maximum duration, 10% duty cycle. During peak load condition, output regulation may exceed total regulation limits.

Output Regulation
To maintain specified regulation on multi-output models, output #1 load power must be at least 1/5th of, and not greater than 5 times output #2 load power.

Overload Protection
Fully protected against short circuit and output overload. Short circuit protection is cycling type power limit on outputs 1 & 2; foldback type on output 3. Recovery after fault is automatic. See output ratings chart for additional notes or conditions.

Efficiency
70-85% at full rated load, nominal input voltage, depending on model and load distribution.

Minimum Load
Operating without minimum load will not degrade reliability, but regulation may be affected. Multiple output models require 20% minimum load on V1 for proper regulation. Single models require 5% minimum load.

Input Protection
Internal ac fuse provided. Designed to blow only if a catastrophic failure occurs in the unit—fuse does not blow on overload or short circuit.

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

Temperature Coefficient
0.03%/°C typical on all outputs.

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
500 µs typical response time for return to within 0.5% of final value for a 50% load step change. $\Delta i/\Delta t<0.2$ A/µs. Maximum voltage deviation is 3.5%. Startup/shutdown overshoot less than 3%.

Voltage Adjustment
Built-in potentiometer adjusts V1 ±5%.

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

EMI SPECIFICATIONS	COMPLIANCE LEVEL
Conducted Emissions GLC	EN55022 Class B; FCC Class B
Conducted Emissions GLM	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.

Commercial Leakage Current
160 µA 254 Vac @ 60 Hz input (with no deviations).

Commercial Safety
All GLC models are approved to UL1950, CSA22.2 No. 234 Level 3, IEC950 and EN60950.

Medical Leakage Current
100 µA 264 Vac @ 60 Hz input (normal conditions).

Medical Safety
All GLM models are approved to UL2601, CSA22.2 No. 601, IEC601-1 and EN60601-1.

GLC50 Commercial/GLM50 Medical 50 Watt Multiple Output

Commercial Model	Medical Model	Output No.	Output	Current	Minimum Load (B)	OVP Setpoint	Noise P-P	Total Regulation (A)
GLC50A	GLM50A	1 2 3	+5.05 V +12 V -12 V	4 A 2.5 A 0.2 A	0.8 A	6.2 ± 0.6 V	50 mV 120 mV 120 mV	2% +10%, -5% 3%
GLC50B	GLM50B	1 2 3	+ 5.1 V +15 V -15 V	4 A 2.5 A 0.2 A	0.8 A	6.2 ± 0.6 V	50 mV 150 mV 150 mV	2% +10%, -5% 3%
GLC50D	GLM50D	1 2 3	+5.1 V +24 V -12 V	4 A 1.5 A 0.2 A	0.8 A	6.2 ± 0.6 V	50 mV 240 mV 120 mV	2% +10%, -5% 3%
GLC50G	GLM50G	1 2 3	+3.3 V +12 V -12 V	4 A 2.5 A 0.2 A	0.8 A	4.2 ± 0.6 V	33 mV 120 mV 120 mV	2% +10%, -5% 3%
GLC50-3.3	GLM50-3.3	1	3.3 V	8 A	0	4.2 ± 0.6 V	66 mV	2%
GLC50-5	GLM50-5	1	5.1 V	8 A	0	6.2 ± 0.6 V	75 mV	2%
GLC50-12	GLM50-12	1	12 V	4.2 A	0	14 ± 1.1 V	120 mV	2%
GLC50-15	GLM50-15	1	15 V	3.3 A	0	18.5 ± 1.5 V	150 mV	2%
GLC50-24	GLM50-24	1	24 V	2.1 A	0	28 ± 2.5 V	240 mV	2%
GLC50-28	GLM50-28	1	28 V	1.8 A	0	34.5 ± 2.8 V	280 mV	2%
GLC50-48	GLM50-48	1	48 V	1.1 A	0	54 ± 3.0 V	480 mV	2%

A. Total regulation is defined as the maximum deviation from the nominal voltage for all steady-state conditions of initial voltage setting, input line voltage and output load.
B. To maintain specified regulation on multi-output models, output #1 load power must be at least 1/5th of, and not greater than 5 times output #2 load power.

GLC50/GLM50 MECHANICAL SPECIFICATIONS

INPUT J1:

AMP P/N 640445-3, 0.156 CTR 0.045
SQUARE PIN HEADER
PIN 3) AC NEUTRAL
PIN 2) NO PIN
PIN 1) AC LINE

OUTPUT J2:

AMP P/N 640445-6, 0.156 CTR 0.045
SQUARE PIN HEADER

MULTIPLE OUTPUT	SINGLE OUTPUT
PIN 1) OUTPUT #2	PIN 1-3) OUTPUT
PIN 2) OUTPUT #1	PIN 4-6) RETURN
PIN 3) OUTPUT #1	
PIN 4) COMMON	
PIN 5) COMMON	
PIN 6) OUTPUT #3	

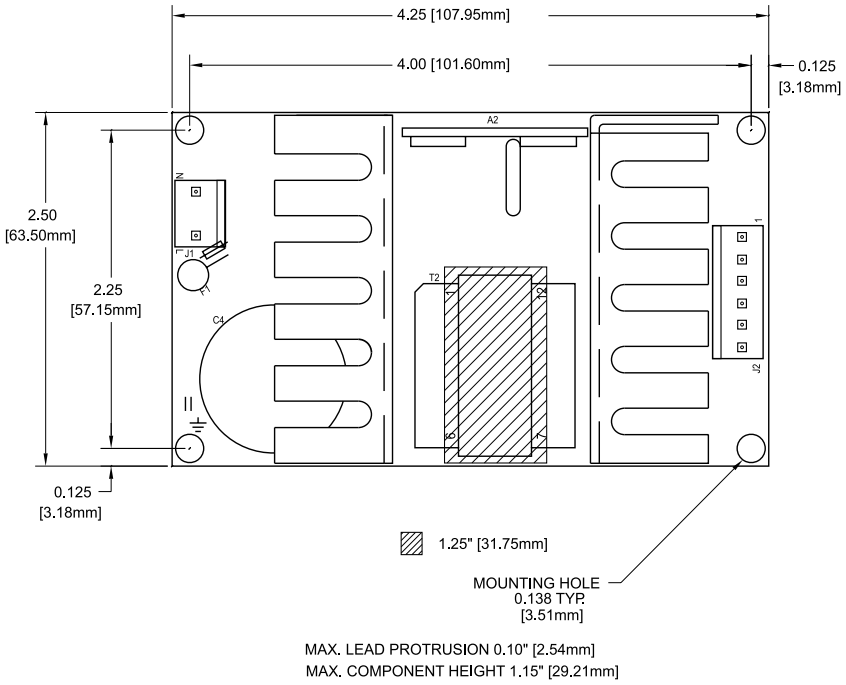
MATING CONNECTORS: AMP P/N

	HOUSING	CONTACTS
INPUT	640250-3	770476-1
OUTPUT	640250-6	770476-1

NOTE: 5A MAXIMUM RECOMMENDED CURRENT PER CONNECTOR PIN

WEIGHT 5 OZ. [0.142 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_{pk}	40 g_{pk}
Altitude	-500 to 10,000 ft	-500 to 40,000 ft
Vibration (C)	1.5 g_{rms}, 0.003 g^2/Hz	5 g_{rms}, 0.026 g^2/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.