

GL Series: Single & Multi Output Switchers

The new GL series provides a broad range of AC/DC power supply solutions that covers power ratings from 25 watts to 500 watts for use in various industrial and medical applications requiring standard footprint size and very high reliability.

These low-profile AC/DC switchers offer universal input voltage with no switches or jumpers, ideal for higher volume worldwide applications.




All models feature:

- Industry standard footprints
- Universal input
- Full power to 50°C
- High demonstrated MTBF
- Automatic overvoltage protection
- Overload protection
- Built-in EMI Filtering
- Extensive safety approvals
- Derated operation to 70°C
- $\pm 2\%$ regulation on main output
- 250 VA and higher VA size enclosed
- Two year limited warranty

Many models feature:

- EN61000-3-2 Compliance
- Supervisory outputs (5 V/12 V)
- Wide-adjustable floating 4th output
- Single wire current share
- Medical approvals
- Remote Sense
- Adjustable main output
- Power Fail and DC Good signals
- Wide-adjustable on single output models

Certifications and Compliances

-  Recognized Component, ITE
 - UL 60950-1
-  Certified, ITE
 - CSA C22.2 CSA 60950-1
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 - IEC60950-1

Cover and Bracket Options

- Cover options can be ordered separately. They are designed to simplify mechanical integration of the power supplies into systems and add an extra measure of electrical safety for service personnel.
- Bracket kits can be ordered separately for GL110 series only. It is needed when the cover option is used.



Cover and Bracket Options	
Catalog Number	Description
GLX40	Enclosure kit for the GL20 and GL40
GLX50	Enclosure kit for the GL50 and GL100-M
GLX60	Enclosure kit for the GL60
GLX110-B	Bracket kit for the GL110
GLX110-C	Cover kit for the GL110
GLX120	Enclosure kit for the GLS120 and GLQ120
GLX140-C	Cover kit for the GLQ140
GLX140-CF	Cover with top fan kit for the GLQ140
GLX150-C	Cover kit for the GL150
GLX170-C	Cover kit for the quad output GL170
GLX175-C	Cover kit for the single output GL170
GLX200	Enclosure kit for the GL200-M
GLX250-CEF	Cover end fan kit for the GL250
GLX250-CF	Cover with top fan kit for the GL250/350

Mating Connectors

- Can be ordered separately for units with Molex connection
- Kits include mating housing and pins for input and output connection

Mating Connectors	
Catalog Number	Description
70-841-008	GLX40, GLX50 and GLX60 Mating Connector Kit
70-841-007	GLS110 Mating Connector Kit
70-841-008	GLQ110 Mating Connector Kit
70-841-020	GLS120 Mating Connector Kit
70-841-012	GLQ123 Mating Connector Kit
70-841-017	GLQ142 Mating Connector Kit
70-841-009	GLS150 Mating Connector Kit
70-841-010	GLQ150 Mating Connector Kit
70-841-015	GLQ170 Mating Connector Kit
70-841-016	GLS170 Mating Connector Kit
70-841-005	GLX250 Mating Connector Kit
70-841-011	GLS350 Mating Connector Kit
70-841-024	GLS500 Mating Connector Kit

Specifications

	GL20, GL40	GL50	GL60, GL110	GLQ120, GLS120	GL140	GL150	GL170	GL250, GL350	GL500
Input									
Input Voltage ¹	85 - 264 Vac; 120 - 300 Vdc	90 - 264 Vac 127 - 300 Vdc		85 - 264 Vac 120 - 300 Vdc		85 - 132 Vac or 170 - 264 Vac auto-selected. 220 - 300 Vdc	85 - 264 Vac; 120 - 300 Vdc		85 - 264 Vac
Frequency	47-63 Hz , 400± 40 Hz					47-63 Hz			
Inrush Current	GL20: <15A peak @ 115 Vac; <30A peak @ 230 Vac, cold start @ 25°C. GL40: <18A peak @ 115 Vac; <36A peak @ 230 Vac, cold start @ 25°C	<60A peak @ 230 Vac, cold start @ 25°C	<18A peak @ 115 Vac, <36 A peak @ 230 Vac, cold start @ 25°C	GLQ120: 38 A max., cold start @ 25°C GLS120: 40A max., cold start @ 25°C	38 A max, cold start @ 25°C			GL250: 20 A max., cold start @ 25°C. GL350: 38 A max., cold start @ 25°C.	50 A max., cold start @ 25°C
Efficiency	70% typical at full load	80% - 85% typical at full load	70% typical at full load	GLQ120: 65% typical at full load. GLS120: 80% typical at full load	75% typical at full load				85% typical at full load, nominal line
EMI/RFI	FCC Class B ; CISPR 22 Class B ; EN55022 Class B								
Safety Ground Leakage Current	Non-Medical: <0.5 mA Medical: < 75 µA @ 50/60 Hz, 264 Vac input	Non-medical: <0.5mA Medical: 275 µA @ 50/60 Hz; 264 Vac input for Class I; <0.25mA @ 50/60 Hz; 264 Vac input for Class II (for single output only)	Non-Medical: <0.5 mA Medical: < 75µA @ 50/60 Hz; 264 Vac input	GLQ120: <1 mA @ 50/60 Hz; 264 Vac input. GLS120: 0.5mA @ 50/60 Hz, 264 Vac input	1.0 mA @ 50/60 Hz, 264 Vac input	<0.5 mA @ 50/60 Hz, 264 Vac input	Non-Medical: 0.1 mA Medical: < 250 µA @ 50/60 Hz, 264 Vac input	<0.5 mA @ 50/60 Hz, 264 Vac input	Non-Medical: <0.5 mA Medical: <0.3mA @ 50/60 Hz, 264 Vac input
Output									
Power	Refer to the selection table								
Adjustment Range on Main Output	-5, +10% minimum	±20% minimum for single output only models	GL60: -5, +10% minimum GL110: ±5% on main, 5-25 V on 4 th output	±5% minimum	3.3 - 5.5V on main; -12 - 15V on 3rd output 3.3 - 25 V on 4th output	±5% minimum on main, 5-25 V on 4 th output	2:1 wide ratio minimum	2:1 wide ratio	±5%
Hold-up Time	20 ms @ full load, 115 Vac nominal line	10/20 ms 115/230 Vac Input line	20 ms @ full load, 115 Vac nominal line						
Overload	Short circuit protection on all outputs. Primary overload protection								
Overvoltage Protection	5 V output; 5.7 to 6.7 Vdc. Other outputs 10% to 25% above nominal output	30-50% above nominal output	5 V output; 5.7 - 6.7 Vdc. Other outputs 10% to 25% above nominal output	3.3 V and 5 V output: 20% to 35% above nominal output	Tracks outputs 1, 3 & 4; 10 to 35%	5 V output: 5.7 to 6.7 Vdc. Other outputs 10% to 25% above nominal output	10% to 40% above nominal output	5 V output: 5.7 to 6.7 Vdc. Other outputs 10% to 25% above nominal output	20-35% above nominal output
Remote Sense	Compensates for 0.5 V lead drop minimum; Will operate without remote sense connected, Reverse connection protected								
General									
Temperature ²	Storage: -40°C to +85°C; Operating: 0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C, -20°C start up.								
Electro-magnetic Susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3 or EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3								
Humidity	Operating; non-condensing up to 95% RH								
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5Hz to 500 Hz (2 G peak 8 Hz to 500 Hz for GL500)								
MTBF	>550,000 hours demonstrated at full load and 25°C ambient conditions								
Safety	Non-Medical: EN60950, UL UL60950 E132002, CSA CSA 22.2-234 Level 3 LR53982C, CB Certificate and report; CE Mark (LVD) Medical: UL 2601; CSA 22.2 No. 601.1; EN 60601-1								

Notes:

1. Proper circuit protection required when operating with a DC input voltage. 2. Regulation and ripple may deviate from the spec at -20°C start up.