SOLAHD GLQ110 Series Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950, EN60950-1, IEC60950-1, and CSA22.2 No. 234-M90; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 4 A, 250 V ac, Type SP0001.1010 manufactured by Schurter AG, Type 216004 manufactured by Littelfuse or Type S501 manufactured by Cooper.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLQ112	+5	9.0	80	11.0	110
	+12	4.5		5	
	-12	0.7		1.0	
	±5 to ±25	2.5		3.0	
GLQ113	+5	9.0		11.0	
	+15	4.5		5.0	
	-15	0.7		1.0	
	±5 to ±25	2.5		3.0	
GLQ114	+5	9.0		11.0	
	+12	4.5		5.0	
	-12	0.7		1.0	
	+24	3.5		4.5	

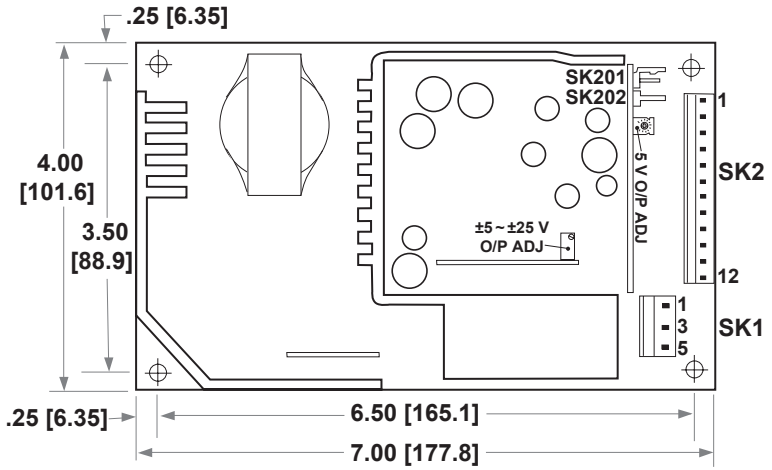
Connector PIN Designation

Input Connector	PIN	GLQ112	GLQ113	GLQ114
SK1	1	GND		
	3	Neutral		
	5	Line		
Output Connector	**PIN**	**GLQ112**	**GLQ113**	**GLQ114**
SK2	1	+5 V		
	2			
	3			
	4	Common		
	5			
	6			
	7			
	8	+12 V	+15 V	+12 V
	9	+12 V	+15 V	+12 V
	10	-12 V	-15 V	-12 V
	11	+5 V to +25 V	+5 V to +25 V	+24 V
	12	-5 V to -25 V	-5 V to -25 V	Common
SK201	1	+Sense		
	2	-Sense		
SK202	1	P OK		
	2	GND		

P/N: A272-168 Rev 2 12/29/09 Ref: 03361001602

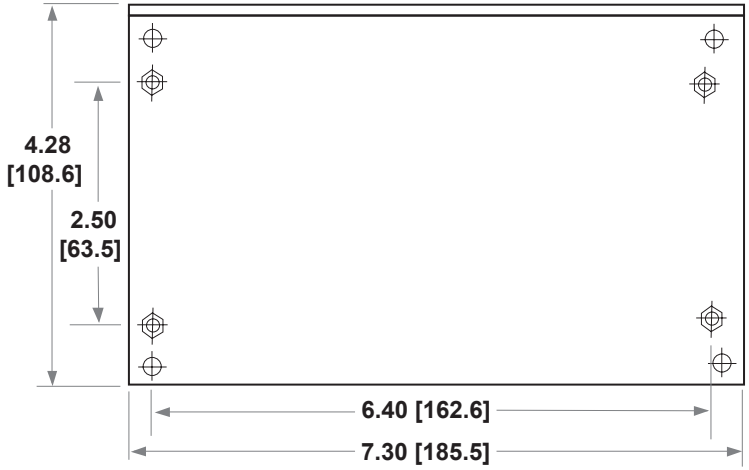
SOLAHD GLQ110 Series Installation & Operating Instructions

Mechanical Outline

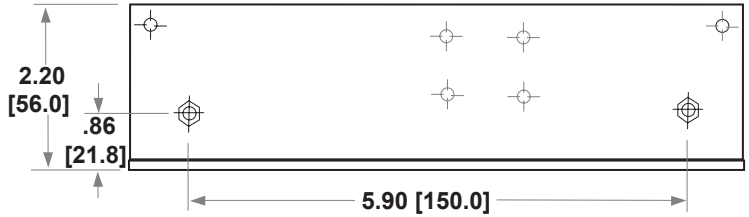


Top View

Mechanical Dimensions



Bottom View with Optional L-Bracket



Side View with Optional L-Bracket

All dimensions are in inches [mm]
Screw size: #6-32

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GLQ112, GLQ113, and GLQ114 are commercial designations of model numbers LPQ112, LPQ113, and LPQ114 respectively.

GLQ110 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<18 A peak @ 115 Vac; <36 A peak @ 230 Vac, cold start @ 25°C
Efficiency	70% typical at full load
EMI filter	Meets FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	80 W for convection; 110 W with 30 CFM forced air
Adjustment range	±5% min. on main; 5-25 V on 4th output on GLQ112 and GLQ113
Cross regulation	±2% on output 1; ±3% on outputs 2, 3 & 4
Hold-up time	20 ms @ 80 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5.7 to 6.7 Vdc on main output; Latching type, recycle AC to reset
Minimum Load	2 A for the first output, 0.5 A for the 4th output of GLQ114
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after 5 V output. It goes low at least 4 msec before loss of regulation.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C (except for -C version).
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min., 5 min. dwell at four major resonances 0.75G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8051 (USA) 09-91-0500 (UK); PINS: 08-58-0111
DC Outputs	Molex 09-50-8121 (USA) 09-91-1200 (UK); PINS: 08-58-0111
Remote Sense/ Power Fail	Molex 22-01-1022 (USA) 22-01-1023 (UK); PINS: 08-50-0114

Connector Kit #70-841-008, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Mounting holes M1 and M2 should be grounded for EMI purposes.
5. Mounting hole M1 is safety ground connection.
6. L bracket mounting (6-32) maximum insertion depth is .20".
7. Warranty: 2 year
8. Weight: 1.25 lbs/0.57 kg

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Phone: (800) 377-4384
Email: tech@solahd.com
www.solahd.com

GLQ123 Installation & Operating Instructions

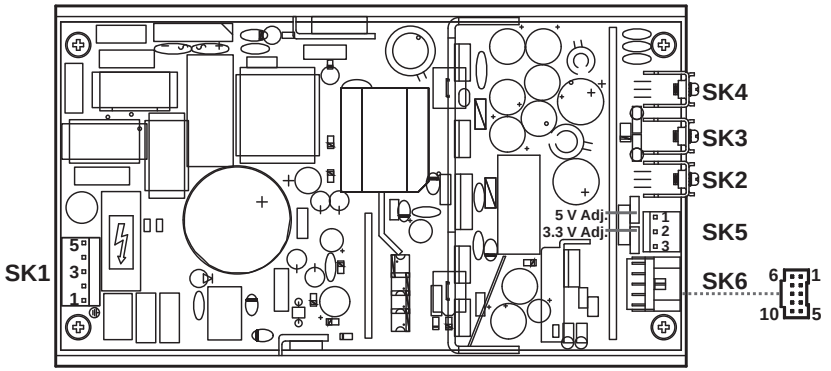
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. The disconnection from the line must be in the end system.
7. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
8. The unit must be protected by a fuse in the end system. Components, such as capacitors, may be positioned in front of the internal fuse.
9. The internal fuse should only be replaced with a F4AL, 250 V ac, type 19370 manufactured by Wickmann.
10. This equipment is considered Class I according to protection against electric shock.
11. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
12. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Output Voltage (V)	30 CFM Forced Air Cooling (unit not convection rated)	
	Max. Output Current (A)	Max. Output Power (W)
+5	24.0	120
+3.3	25.0	
+12	2.0	
-12	1.0	

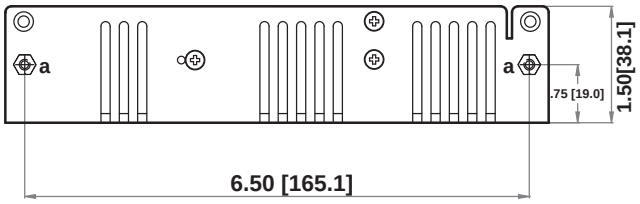
Mechanical Outline



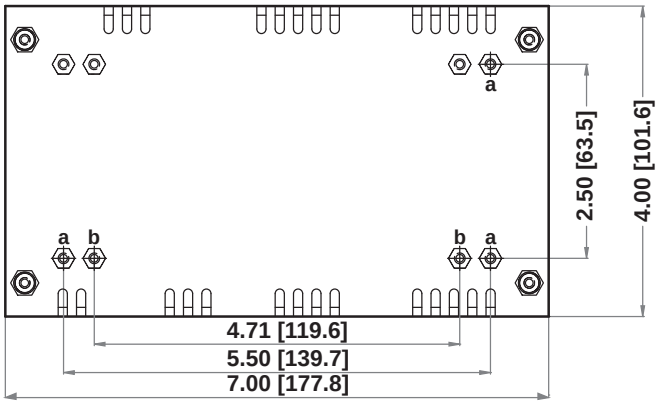
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Earth GND
	3	Neutral
	5	Line
Output Connector	**PIN**	**Designation**
SK2		+5 V
SK3		Common
SK4		+3.3 V
SK5	1	+12 V
	2	Common
	3	-12 V
SK6	1	+3.3 V SWP (Single Wire Parallel)
	2	-Sense
	3	+3.3 V +Sense
	4	+5 V SWP (Single Wire Parallel)
	5	Common
	6	+5 V +Sense
	7	-Sense
	8	+Inhibit
	9	-Inhibit
	10	Power Fail

Mechanical Dimensions



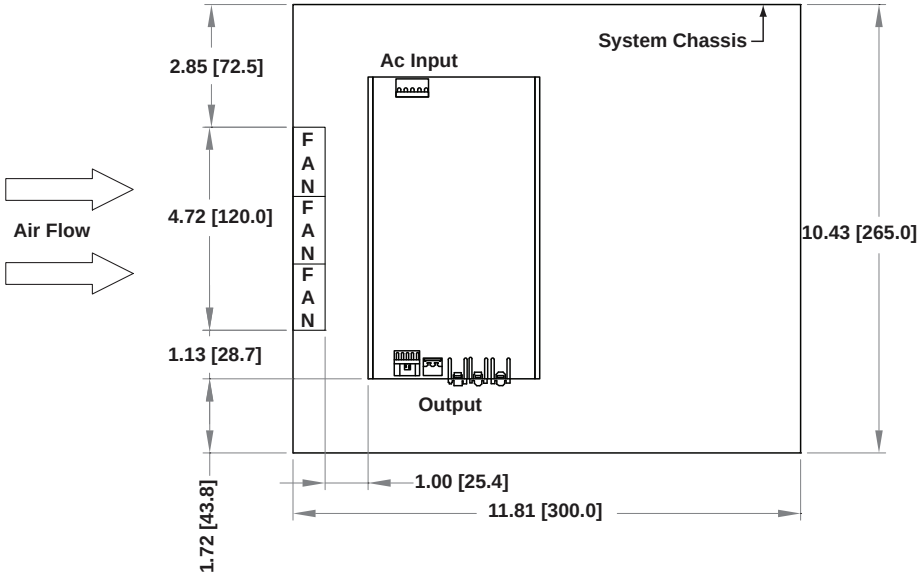
Side View



Bottom View

All dimensions are in inches [mm]
Screw size: a = #6-32 (U.S.); b = M3 (International)
Maximum screw protrusion: 0.6″ [1.5 mm]

Typical Ventilation Setup



30 CFM forced air cooling
NOTE: Dimensions and fan used are for reference only

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GLQ123 Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-63 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	65% typical at full load
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Power factor	0.99 typical
Safety ground leakage current	<1 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	70 W for convection; 120 W with 30 CFM forced air
Adjustment range	±5% min. on outputs one and two
Hold-up time	20 ms @ 120 W load, 120 Vac input
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	3.3 to 5 V output; 20% to 35% above nominal output
Minimum Load	2 A for the second output
Logic Control	
Power failure	TTL logic signal goes high 100-500 msec after 5 V output. It goes low at least 4 msec before loss of regulation.
Remote inhibit	Requires an external TTL Signal to inhibit outputs
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet EN61000-4, -2, -3, -4, -5, -6, -8, -11, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min., 5 min. dwell at four major resonances 0.7G peak 5Hz to 500Hz, operational
MTBF demonstrated	>1 million hours at full load and 25°C ambient conditions

Mating Connectors	
(SK1) AC Input	Molex 09-50-8051 (USA) 09-91-0500 (UK); PINS: 08-58-0111
SK2,3,4	Molex series 19141-0058/0063
(SK5)± 12 V	Molex 09-50-8031 (USA) 09-91-0300 (UK); PINS: 08-58-0111
(SK6) Control Signals	Molex 90142-0010; PINS: 90119-2110 or Amp: 87977-3; PINS: 87309-8

Connector Kit #70-841-012, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Remote inhibit requires an external 5 V @ 10 mA to activate.
4. Mounting maximum insertion depth is 0.12".
5. Warranty: 1 year
6. Weight: 1.38 lbs/0.63 kg

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Phone: (800) 377-4384
Email: tech@solahd.com
www.solahd.com

GLQ142 Installation & Operating Instructions

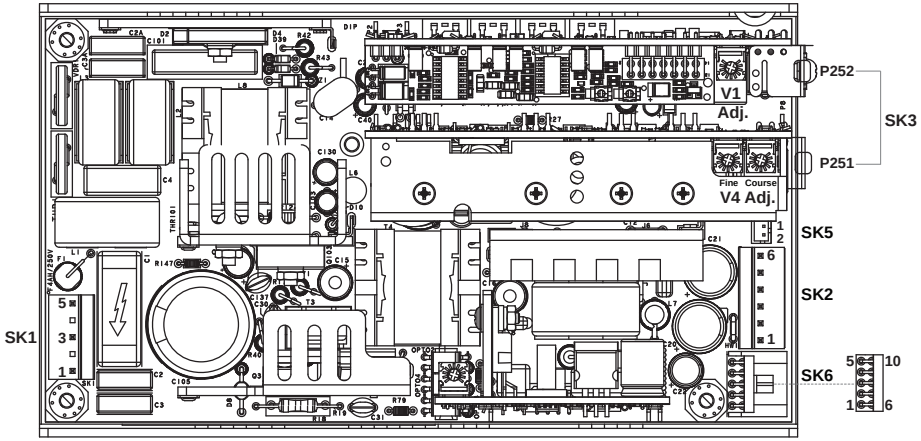
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc (minimum) to 370 V dc (maximum).
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. The disconnection from the line must be in the end system.
7. When operating with a dc input voltage range, the dc source must be rectified from a mains supply not exceeding 250 V ac. The unit input must also be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse (F1) should only be replaced by a 4 A, 250 V ac, type GDA-V/S501 manufactured by Bussman.
9. This equipment is considered Class I according to protection against electric shock.
10. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
11. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Output Voltage (V)		Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
V1:	+3.3 to +5.7	12.0	80 without cover 60 with cover	25.0	145 with or without cover 145 with cover & internal fan
V2:	+12.0 to +12.7	5.0		6.0	
V3:	-12.0 to -15.0	1.0		1.5	
V4:	+3.3 to +25.0	1.5		4.5	

Mechanical Outline

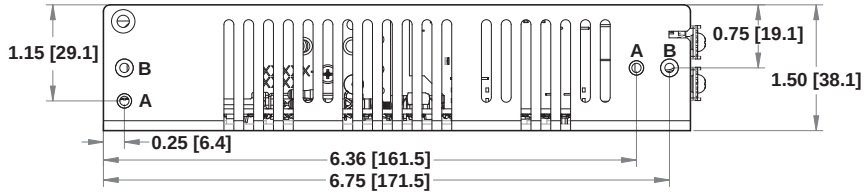


Connector PIN Designation

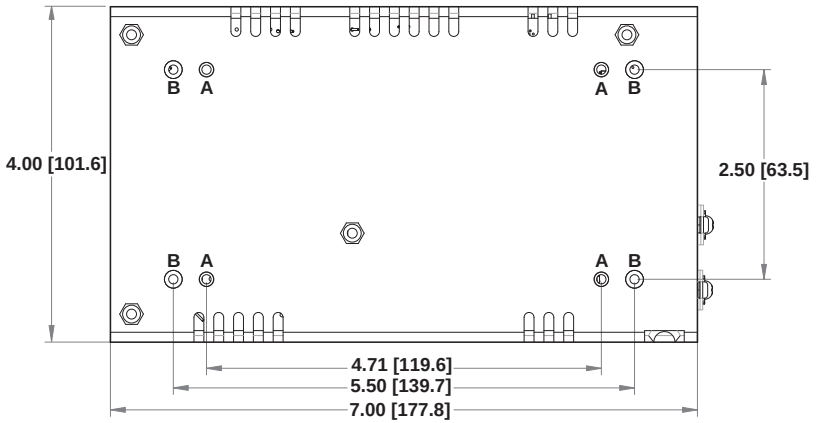
Input Connector	PIN	Designation
SK1	1	Earth GND
	3	Neutral
	5	Line
Output Connector	**PIN**	**Designation**
SK2	1	V2
	2, 4	Common
	3	V3
	5	V4
	6	V4 (Return)
SK3	P251	Common
	P252	V1
SK5 (optional for units with cover & fan)	1	V2
	2	Common
SK6	1	V4 SWP (Single Wire Parallel)
	2	Dc OK
	3	+V4 Sense
	4	V1 SWP (Single Wire Parallel)
	5	Common
	6	+V1 Sense
	7	Sense Common
	8	+Inhibit
	9	-Inhibit
	10	Power Fail

GLQ142 Installation & Operating Instructions

Mechanical Dimensions



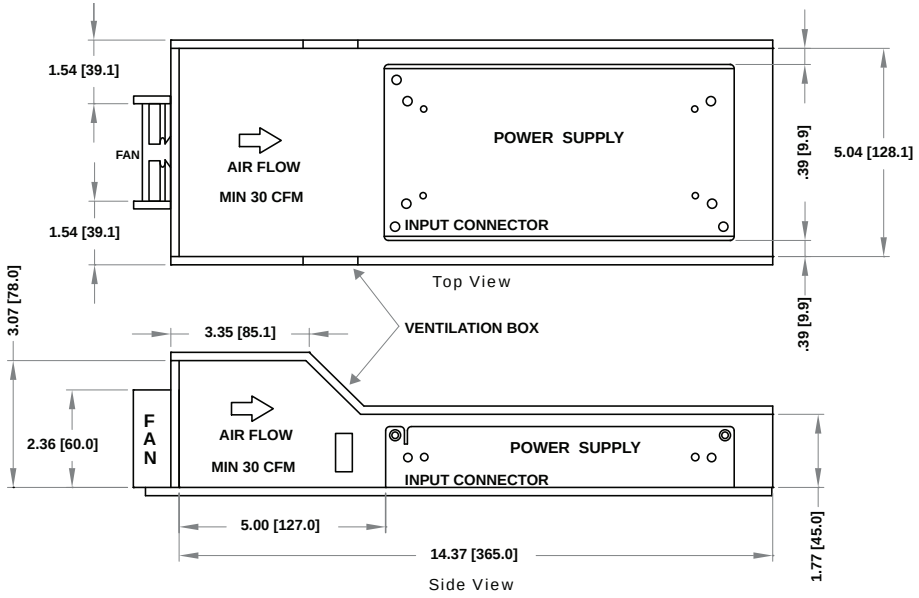
Side View



Bottom View

All dimensions are in inches [mm]
Screw sizes: A = M3 (International); B = #6-32 (U.S.)
Recommended maximum screw protrusion: 0.06″ [1.5 mm]

Typical Ventilation Setup



30 CFM forced air cooling
NOTE: Dimensions and fan used are for reference only

Visit our Web site at www.solahd.com or contact Technical Support at (800) 377-4384 with any questions

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Industrial Automation

GLQ142 is a commercial designation of model number LPQ142.

GLQ142 Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-67 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Power factor	0.99 typical
Safety ground leakage current	1.0 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	80 W convection (60 W with cover) 145 W with 30 CFM forced air (100 W with cover)
Adjustment range	3.3 - 5.5 V on main; -12 - 15 V on 3rd output; 3.3 - 25 V on 4th output
Hold-up time	20 ms @ 175 W load at nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	Tracks outputs 1, 3 & 4; 10 to 35%
Minimum Load	0.5 A for the 4th output
Logic Control	
AC Power failure	TTL logic signal goes high 100-500 msec after V1 output. It goes low at least 4 msec before loss of regulation.
Remote inhibit	Requires contact closure to inhibit outputs
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.
DC - OK	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C (except for -C version).
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.4% per °C
Electromagnetic susceptibility	Designed to meet IE61000-4, -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
(SK1) AC Input	Molex 09-50-8051 (USA) Molex 09-91-0500 (UK); PINS: 08-58-0111
(SK2) Aux DC Output	Molex 09-50-8061 (USA); Molex 09-91-0600 (UK); PINS: 08-58-0111
(SK6) Control Signals	Molex 90142-0010 (USA); PINS: 90119-2110 or Amp: 87977-3, PINS: 87309-8
(SK4) Main Output	Molex BB-19141-0058
Connector Kit #70-841-017, includes all of the above	

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Mounting screw maximum insertion depth is 0.12".
5. Warranty: 2 years
6. Weight: 1.63 lbs/0.74 kg

SOLAHD

Phone: (800) 377-4384
Email: tech@solahd.com
www.solahd.com

SOLAHD GLQ150 Series Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

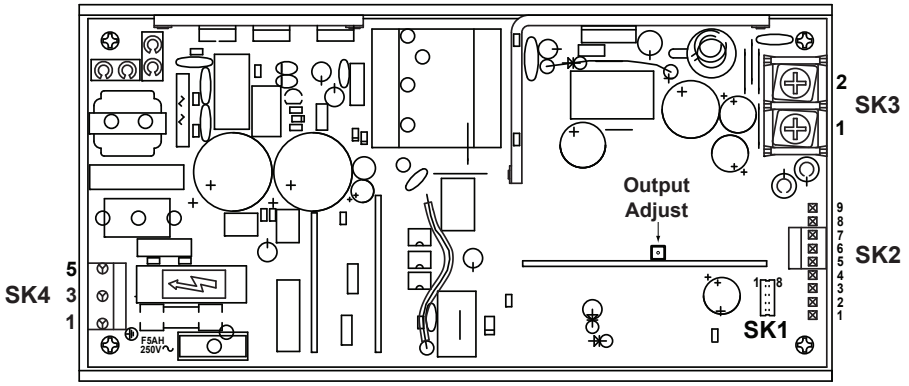
1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 5 A, 250 V ac, type SP0001.1011 manufactured by Schurter AG, type 216005 manufactured by Littelfuse or type S501 manufactured by Cooper.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLQ152	+5	15.0	75 with cover 110 without cover	22.0	130 with cover 150 without cover
	+12	6.0		8.0	
	-12	2.0		2.5	
	+5 to +25	2.5		3.0	
GLQ153	+5	15.0		22.0	
	+15	4.8		6.4	
	-15	1.6		2.0	
	+5 to +25	2.5		3.0	
GLQ154	+5	15.0		22.0	
	+12	6.0		8.0	
	-12	2.0		2.5	
	+24	3.5		4.5	

Mechanical Outline



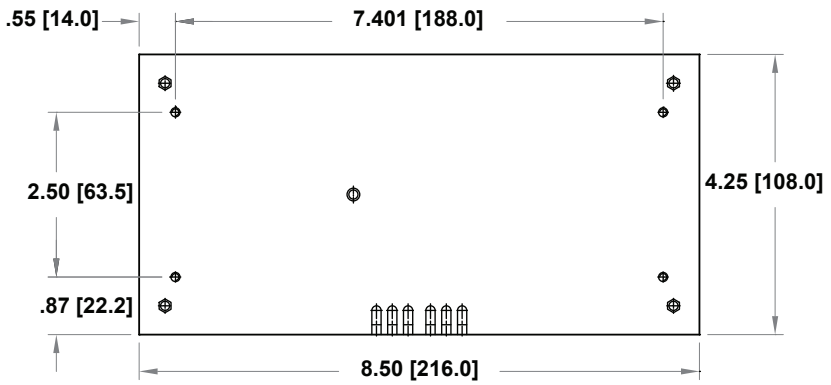
Connector PIN Designation

Output Connector	PIN	GLQ152	GLQ153	GLQ154
SK1	1	Inhibit -ve		
	2	Inhibit +ve		
	3	+12 V	+15 V	+12 V
	4	No connection		
	5	Common		
	6	-Sense		
	7	+Sense		
	8	C-Share		
SK2	1, 2	+12 V	+15 V	+12 V
	3, 4, 5	Common		
	6	-12 V	-15 V	-12 V
	7	P OK		
	8	+5 V to +25 V (float)		+24 V
	9	Common (float)		Common
SK3	T.B. 2	+5 V		
	T.B. 1	Common		
Input Connector	**PIN**	**GLQ152**	**GLQ153**	**GLQ154**
SK4	1	Earth GND		
	2	PIN removed		
	3	Line		
	4	PIN removed		
	5	Neutral		

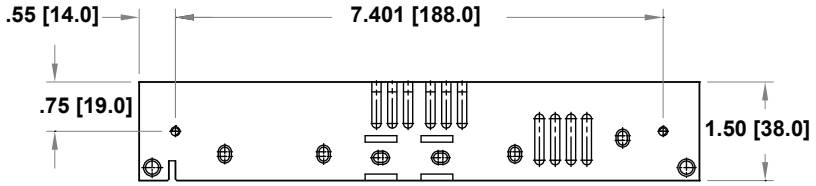
P/N: A272-170 Rev 2 12/29/09 Ref: 03361001945

SOLAHD GLQ150 Series Installation & Operating Instructions

Mechanical Dimensions



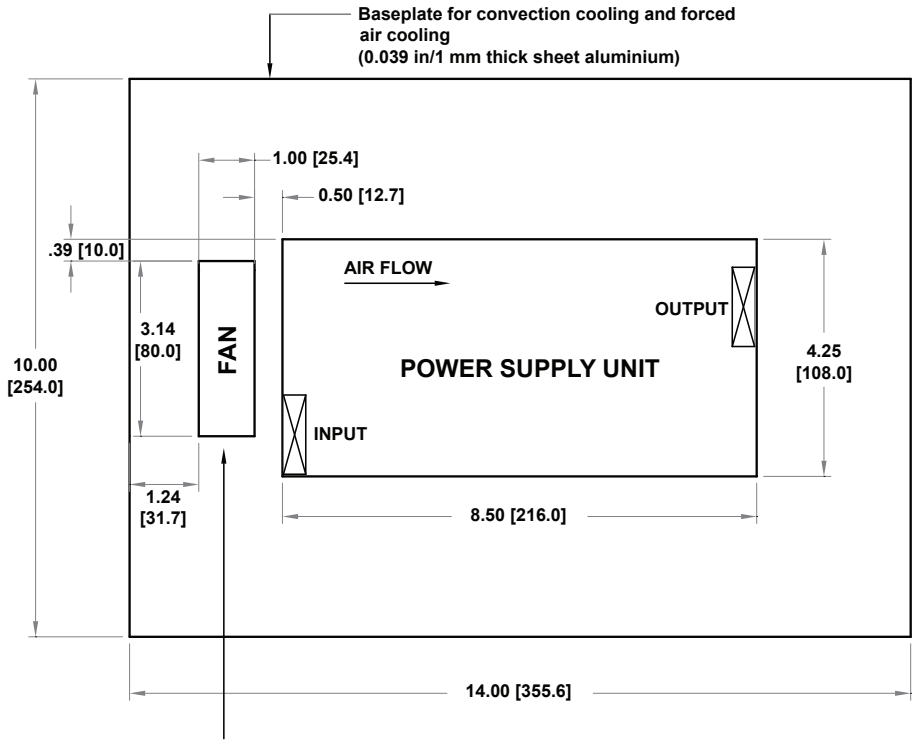
Bottom View



Side View

All dimensions are in inches [mm]
Screw size: #6-32

Typical Ventilation Setup



For forced air cooling only
Fan used: MINEBEA 3110NL-04W-B30, 12 V dc, 0.14 A
Dc input for fan during testing: 12 V dc

NOTE: Dimensions and fan used are for reference only

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GLQ152, GLQ153, and GLQ154 are commercial designations of model numbers LPQ152, LPQ153, and LPQ154 respectively.

GLQ150 Series Specifications

Electrical Specifications

Input	
Input range	85-132 Vac; 170-264 Vac automatically selected; 220-300 Vdc
Frequency	47-63 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	110 W convection (75 W with cover) 150 W with 30 CFM forced air (130 W with cover)
Adjustment range	±5% on main; 5-25 V on 4th output on GLQ152 & GLQ153
Cross regulation	±2% on output 1; ±3% on outputs 2, 3 & 4
Hold-up time	20 ms @ 110 W load at nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5.7 to 6.7 Vdc on main output
Minimum Load	2 A for the first output, 0.1 A for second and third outputs, 0.5 A for the 4th output of GLQ154
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after 5 V output. It goes low at least 3 msec before loss of regulation.
Remote inhibit	Requires an external TTL high signal to inhibit outputs
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input (SK4)	Molex 09-50-8051 (USA) Molex 09-91-0500 (UK); PINS: 08-58-0111
Aux DC Output Power Fail (SK2)	Molex 09-50-8091 (USA) Molex 09-91-0900 (UK); PINS: 08-58-0111
Remote Sense/ Remote Inhibit (SK1)	Molex 51110-0851 (USA) PINS: 503-94-8100

Connector Kit #70-841-010, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Remote inhibit requires an external 5 V @ 10 mA to activate.
5. Mounting (6-32) maximum insertion depth is .12".
6. Warranty: 2 years
7. Weight: 1.75 lbs/0.80 kg

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Email: tech@solahd.com
www.solahd.com

SOLAHD GLQ172 Installation & Operating Instructions

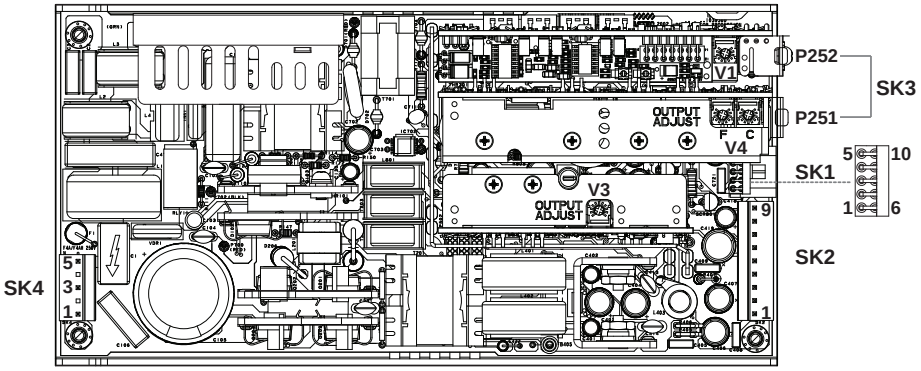
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc (minimum) to 300 V dc (maximum).
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. The disconnection from the line must be in the end system.
7. When operating with a dc input voltage range, the dc source must be rectified from a mains supply not exceeding 250 V ac. The unit input must also be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse (F1) should only be replaced by a 4 A, 250 V ac, type GDA-V/S501 manufactured by Bussman, type 19194 manufactured by Wickmann, or type 226004 manufactured by Littelfuse.
9. This equipment is considered Class I according to protection against electric shock.
10. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
11. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Output Voltage (V)		Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
V1:	+3.3 to +5.7	15.0	110 without cover	30.0	175 with or without cover
V2:	+12.0	6.0		8.0	
V3:	-12.0 to -15.0	1.5		3.0	
V4:	+3.3 to +25.0	2.0		5.0	
	+5 VSB	0.2		0.2	

Mechanical Outline

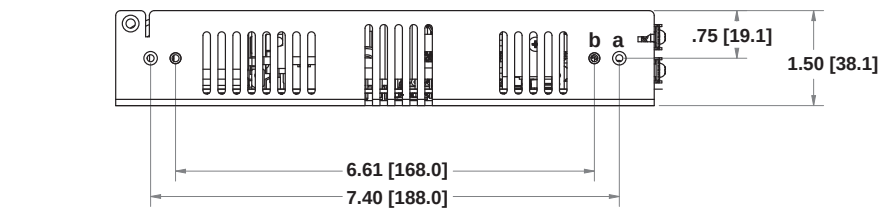


Connector PIN Designation

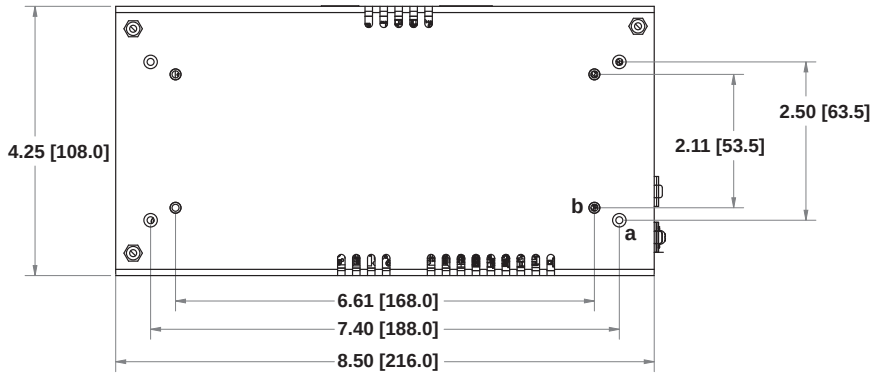
Output Connector	PIN	Designation
SK1	1	V2 SWP (Single Wire Parallel) (No connection - optional)
	2	+5 VSB
	3	+V2 sense (No connection - optional)
	4	V1 SWP (Single Wire Parallel)
	5	Common
	6	+V1 sense
	7	Sense common
	8	Remote inhibit
	9	Dc power good
	10	Power fail
SK2	1,2	V2
	3, 4, 5	Common
	6	V3
	7	P OK
	8	V4
	9	V4 (Return)
SK3	P251	V1
	P252	V1
Input Connector	**PIN**	**Designation**
SK4	1	Earth GND
	3	Line
	5	Neutral

GLQ172 Installation & Operating Instructions

Mechanical Dimensions



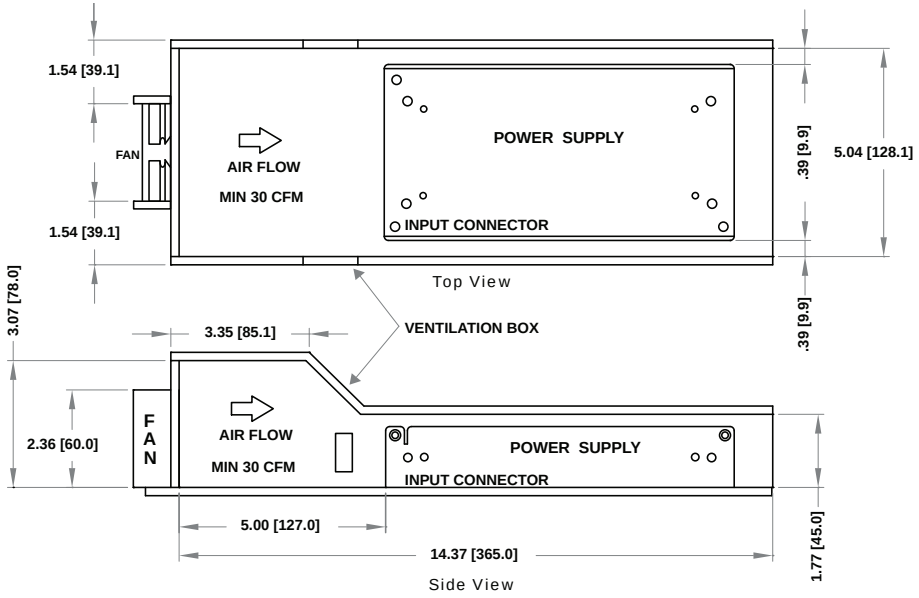
Side View



Bottom View

All dimensions are in inches [mm]
Screw sizes: a = #6-32 (U.S.); b = M3 (International)
Maximum screw protrusion: 0.6″ [1.5 mm]

Typical Ventilation Setup



30 CFM forced air cooling
NOTE: Dimensions and fan used are for reference only

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GLQ172 is a commercial designation of model number LPQ172.

GLQ172 Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-67 Hz
Inrush current	38 A max., cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Power factor	0.99 typical
Safety ground leakage current	1.0 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	110 W for convection (75 W with cover); 175 W with 30 CFM forced air (130 W with cover)
Adjustment range	3.3 - 5.5 V on main; -12 - 15 V on 3rd output; 3.3 - 25 V on 4th output
Standby output	5 V @ 200 mA regulated ± 5%
Hold-up time	20 ms @ 175 W load at nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	Tracks outputs 1, 3 & 4; 15 to 35%
Minimum load	0.5 A on 4th output
Logic Control	
AC Power failure	TTL logic signal goes high 100-500 msec after V1 output. It goes low at least 4 msec before loss of regulation.
Remote inhibit	Requires a contact closure to inhibit outputs
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.
DC - OK	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C (except for -C version).
Storage temperature	-40°C to 85°C
Termperature coefficient	±0.4% per °C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min., 5 min. dwell at four major resonances 0.75G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
(SK4) AC Input	Molex 09-50-8051 (USA); Molex 09-91-0500 (UK) PINS: 08-58-0111
(SK3) Main Outputs	Molex 19141-0058/0063
(SK2)Aux DC Output/Power fail	Molex 09-50-8091 (USA); Molex 09-91-0900 (UK); PINS: 08-58-0111 Amp: 87977-3; PINS: 87309-8
(SK1)Control Signals	Molex 90142-0010 (USA); PINS: 90119-2110 or Amp: 87977-3; PINS: 87309-8

Connector Kit #70-841-015, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02” (±0.5mm).
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Mounting screw maximum insertion depth is 0.12”.
5. Warranty: 2 year
6. Weight: 2 lbs/0.91 kg

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GLQ252-C, GLQ253-C Installation & Operating Instructions

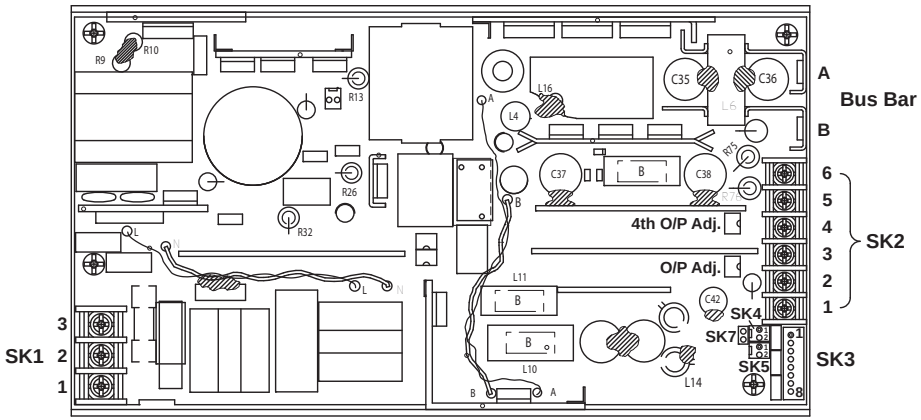
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. The disconnection from the line must be in the end system.
7. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
8. The unit must be protected by a fuse in the end system. Components, such as capacitors, may be positioned in front of the internal fuse.
9. When operating with a dc input voltage range, the dc source must be rectified from a mains supply not exceeding 250 V ac. The unit input must also be protected by a dc rated fuse in the end-use installation system.
10. The internal fuse should only be replaced with a F6.3AH, 250 V ac, type 21606.3 manufactured by Littelfuse, type 50CF063H manufactured by Triad, or type S501 manufactured by Cooper.
11. This equipment is considered Class I according to protection against electric shock.
12. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
13. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	30 CFM Forced Air Cooling (unit not convection rated)	
		Max. Output Current (A)	Max. Output Power (W)
GLQ252-C	+5	35.0	250 with cover
	+12	10.0	
	-12	6.0	
	+5 to +25	6.0	
GLQ253-C	+5	35.0	
	+15	10.0	
	-15	6.0	
	+5 to +25	6.0	

Mechanical Outline



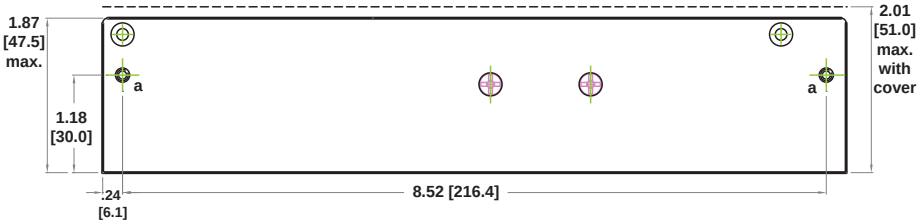
Connector PIN Designation

Input Connector	PIN	GLQ252-C	GLQ253-C
SK1	1	Neutral	
	2	Line	
	3	Earth GND	
Output Connector	**PIN**	**GLQ252-C**	**GLQ253-C**
Bus Bar	A	+5 V	
	B	Common	
SK2	1	+12 V	+15 V
	2, 3	Common	
	4	-12 V	-15 V
	5	Return (float)	
	6	+5 V to +25 V adj. (float)	
SK3	1	+Sense	
	2	-Sense	
	3	Inhibit (normally open)	
	4	Inhibit (normally closed)	
	5	Common	
	6	Active current share	
	7	P OK	
	8	Dc OK	
SK4	1	Fan (+)	
	2	Fan (-)	
SK5	1	+5 V (aux)	
	2	Common	
SK7	1	Fan (+)	
	2	Fan (-)	

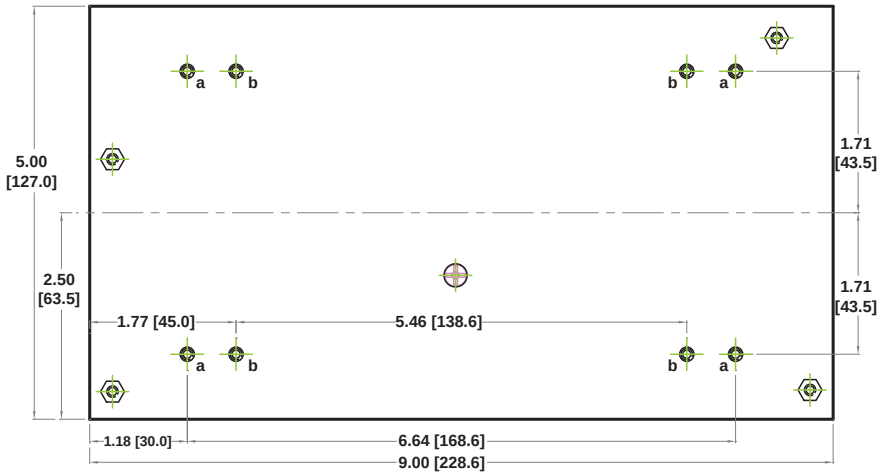
P/N: A272-194 Rev 0 6/4/09 Ref: 03361002202

GLQ252-C, GLQ253-C Installation & Operating Instructions

Mechanical Dimensions



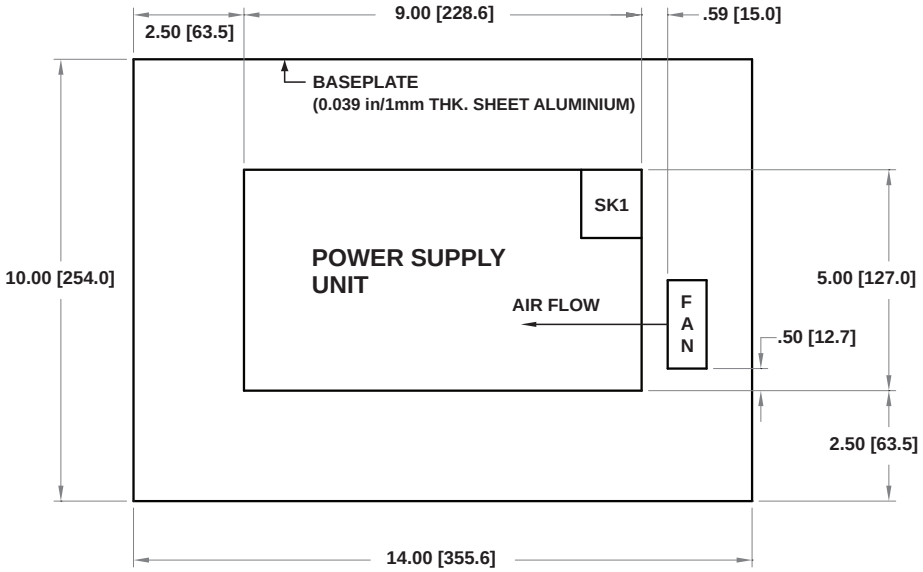
Side View



Bottom View

All dimensions are in inches [mm]
Screw sizes: a = #6-32 (U.S.); b = M3 (International)

Typical Ventilation Setup



Fan Used: Minebea 2410ML-04W-B60, 12 V dc, 0.40 A
Dc Input for Fan Testing: 12 V dc
NOTE: Dimensions and fan used are for reference only

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GLQ250 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	20 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	With cover: 250 W with 30 CFM forced air, (-C) (-CF) (CEF)
Adjustment range	±5% min. on main: 5-25 V on 4th output
Supervisory outputs	5 V @ 100 mA regulated, 12 V @ 500 mA
Hold-up time	16 ms @ 250 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output: 5.7 to 6.7 Vdc; Other models 10% to 25% above nominal output
Minimum load	3 A for 1st output
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after 5 V output. It goes low at least 4 msec before loss of regulation
Remote on/off	Requires an external contact (N.O. or N.C.) to inhibit outputs
DC-OK	TTL logic goes high 50-150 msec after the output. It goes low when there is loss of regulation
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output at 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.4% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.7 G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
SK3	Molex 22-01-1084 PINS: 08-70-0057
SK4	Molex 22-01-3027 PINS: 08-50-0114
SK5	Molex 22-01-3027 PINS: 08-50-0114
SK7	Molex 22-01-3027 PINS: 08-50-0114

Connector Kit #70-841-005, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are at factory settings unless otherwise stated.
4. To enable normally closed remote inhibit, cut jumper J1.
5. Mounting maximum insertion depth is 0.12".
6. Warranty: 2 year
7. Weight: 3.1 lbs/1.41 kg

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GLQ352-C, GLQ352-CEF Installation & Operating Instructions

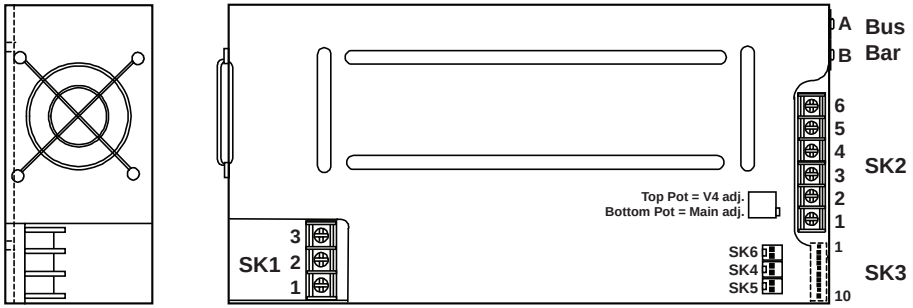
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. This unit contains a secondary output exceeding 240 VA. When installing the unit into the end system, make sure the secondary output and the appropriate wire cannot be touched.
6. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
9. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
10. The internal fuse should only be replaced with a F10AH, 250 V ac, type 216010 manufactured by Littelfuse or type SP001.1014 manufactured by Schurter AG.
11. This equipment is considered Class I according to protection against electric shock.
12. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
13. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	30 CFM Forced Air Cooling (unit not convection rated)	
		Max. Output Current (A)	Max. Output Power (W)
GLQ352-C (-CEF)	+5	50.0	350 with cover
	+12	12.0	
	-12	6.0	
	+3.3 to +24	6.0	

Mechanical Outline



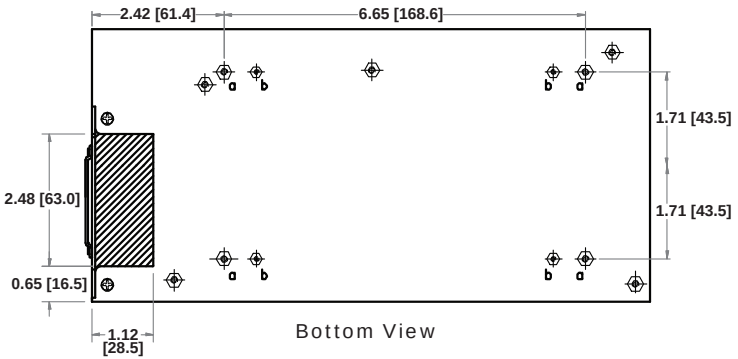
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Neutral
	2	Line
	3	Earth GND
Output Connector	**PIN**	**Designation**
Bus Bar	A	+5 V
	B	Common
SK2	1	+12 V
	2	Common
	3	Common
	4	-12 V
	5	Return (float)
	6	+3.3 V to +24 V adj.
SK3	1	+Sense V4
	2	-Sense V4
	3	+Sense V1
	4	-Sense V1
	5	P OK
	6	C. Share
	7	Dc OK
	8	Inhibit
	9	Inhibit
	10	Common
SK4	1	+12 V (aux)
	2	Common
SK5	1	+5 V (aux)
	2	Common
SK6	1	12 V fan (+)
	2	Fan (-)

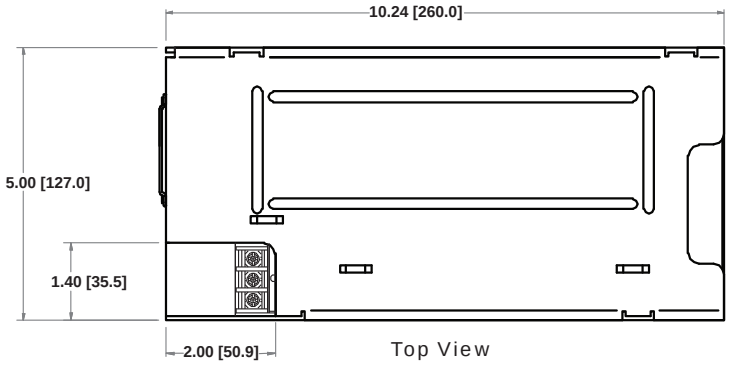
P/N: A272-195 Rev 0 5/6/09 Ref: 03366200121

GLQ352-C, GLQ352-CEF Installation & Operating Instructions

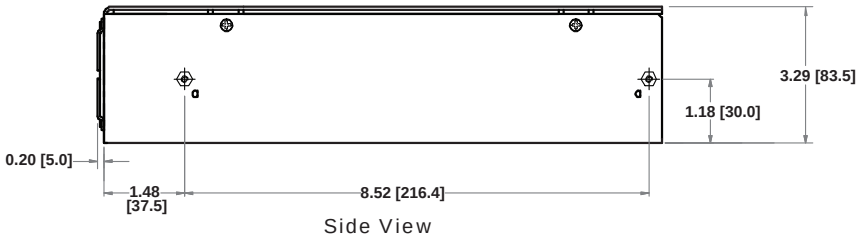
Mechanical Dimensions



Bottom View



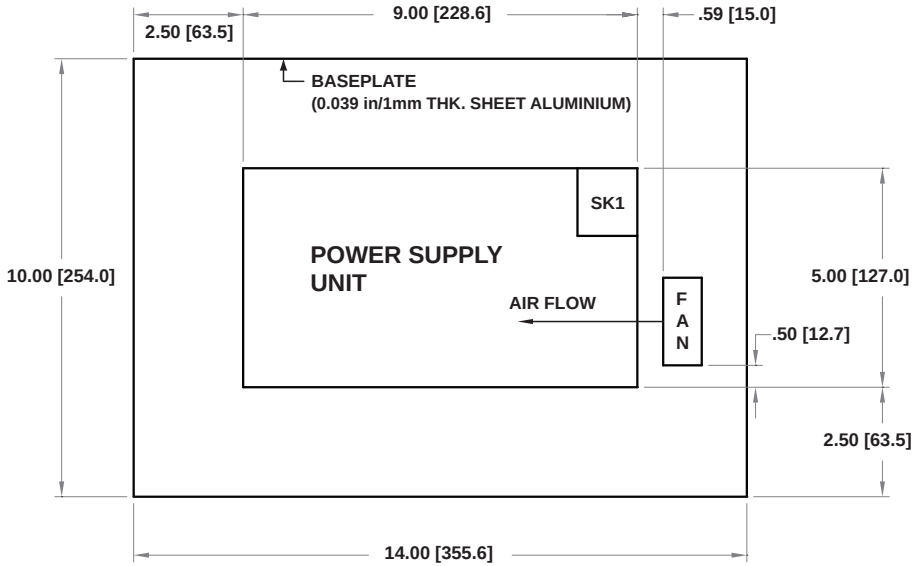
Top View



Side View

All dimensions are in inches [mm]
Screw Size: a = #6-32 (U.S.); b = M3 (International)

Typical Ventilation Setup



Fan Used: Minebea 2410ML-04W-B60, 12 V dc, 0.40 A
Dc Input for Fan Testing: 12 V dc
NOTE: Dimensions and fan used are for reference only
NOTE: Not applicable for -CEF models

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Industrial Automation

Visit our Web site at www.solahd.com or contact Technical Support at (800) 377-4384 with any questions.
GLQ352-C and GLQ352-CEF are commercial designations of model number LPQ352 respectively.

GLQ352 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Power factor	0.99 typical
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	With cover: 350 W with 30 CFM forced air, (-C) (-CF) (-CEF)
Adjustment range	±5% min. on main: 3.3-24 V on output 4
Supervisory output	5 V @ 500 mA regulated, 12 @ 150 mA x2
Hold-up time	20 ms @ 350W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output: 5.7 to 6.7 Vdc
Minimum load	5 A for 1st output; 1 A for 4th output (minimum load required when the output is set below 5 V)
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after 5 V output. It goes low at least 4 msec before loss of regulation
Remote on/off	Requires an external contact (N.O. or N.C.) to inhibit outputs
DC-OK	TTL logic goes high 50-150 msec after 5 V output. It goes low when there is loss of regulation.
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output at 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.7 G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
SK3	Molex 22-01-1084 PINS: 08-70-0057
SK4	Molex 22-01-3027 PINS: 08-50-0114
SK5	Molex 22-01-3027 PINS: 08-50-0114
SK6	Molex 22-01-3027 PINS: 08-50-0114

Connector Kit #70-841-011, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are at factory settings unless otherwise stated.
4. To enable normally closed remote inhibit, cut jumper J1.
5. Mounting (6-32) maximum insertion depth is .12".
6. Warranty: 1 year
7. Weight: 4 lbs/1.8 kg

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SOLAHD GLS100-M Series Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, CSA22.2 No. 60950-1-03, UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 601.1. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc minimum to 300 V dc maximum.
5. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
6. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect power supply before servicing.
9. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
10. The internal fuses (F1 & F2) should only be replaced with a F2A5, 250 V ac, type 392 manufactured by Wickmann or type RST manufactured by Belfuse.

    NOTE: The power supply has a fuse on the neutral line.
11. The power supply has no patient applied part.
12. This equipment is considered Class I according to protection against electric shock.
13. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
14. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

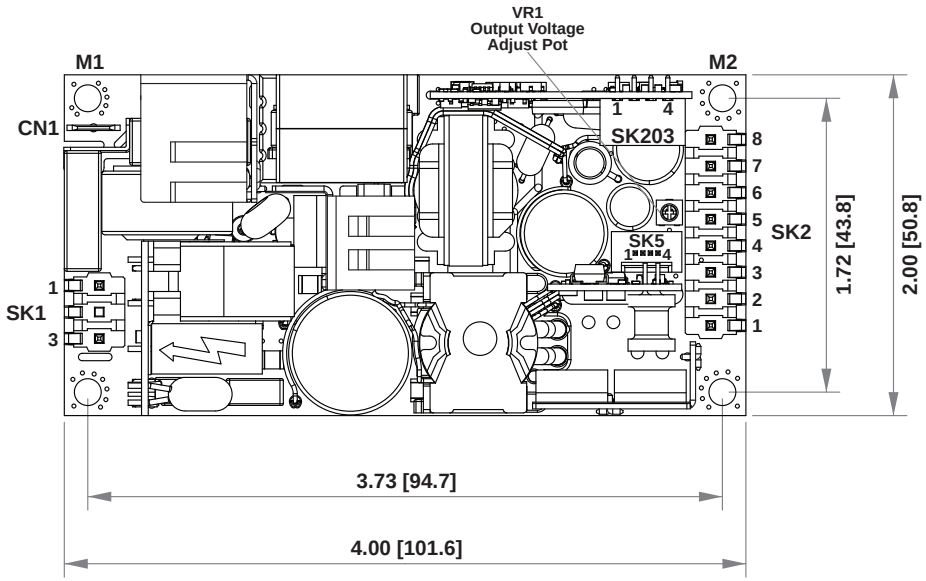
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS102-M	+5	16.0	80	24.0	120
	+12_FAN	0.5		1.0	
GLS103-M	+12	8.3	100	12.5	150
	+12_FAN	0.5		1.0	
GLS104-M	+15	6.7		10.0	
	+12_FAN	0.5		1.0	
GLS105-M	+24	4.2		6.25	
	+12_FAN	0.5		1.0	
GLS108-M	+48	2.09		3.1	
	+12_FAN	0.5		1.0	

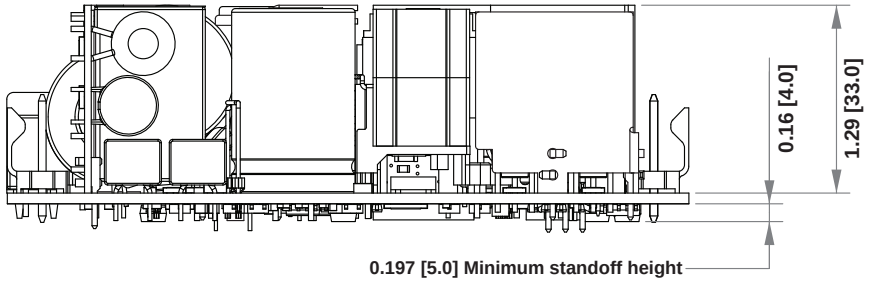
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Neutral
	3	Line
CN1		GND
Output Connector	**PIN**	**Designation**
SK2	1	Common
	2	
	3	
	4	
	5	+Vout
	6	
	7	
	8	
SK203	1	GND
	2	Power fail
	3	-Remote sense
	4	+Remote sense
SK5	1	+12 V_FAN
	2	+12 V_FAN
	3	Common fan
	4	Common fan

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm]
Mounting hole diameter (4X) = 0.16″ [4.0 mm]
Maximum screw head diameter = 0.22″ [5.6 mm]
Mounting holes M1 and M2 should be grounded for EMI purposes
Mounting hole M1 is a safety ground connection

EMERSON Industrial Automation

GLS100-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac; 120-300 Vdc
Frequency	47-63 Hz
Inrush current	50 A max., cold start @ 25°C
Efficiency	88% typical at full load
EMI/RFI	FCC Class B conducted; CISPR22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	275 µA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	100 W for convection (80 W for GLS102-M); 150 W with 30 CFM forced air (120 W for GLS102-M)
Adjustment range	±10% min. on the main outputs
Fan output	12 V @ 1 A isolated, ±10%
Hold-up time	10 ms @ 150 W load, 120 Vac input
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-160% above rating
Overvoltage protection	15% to 35% above nominal output
Logic Control	
Power failure	Open collector logic signal goes high 100-500 msec after main output. It goes low at least 6 msec before loss of regulation.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
(SK1) AC Input	Molex P/N: 09-50-8031, PINS: 08-52-0113 or Landwin P/N: 3060S0302, PINS: 3360T011P
AC Ground	Molex: 01-90020001
(SK2) DC Outputs	Molex P/N: 09-50-8081, PINS: 08-52-0113 or Landwin P/N: 3060S0802, PINS: 3360T011P
(SK203) Remote Sense	Molex P/N: 35155-0400, PINS: 08-70-0057 or Landwin P/N: 2640S04A0, PINS: 2543T011P
(SK5) Fan	Molex P/N: 22-01-1042, PINS: 08-70-0049 or Landwin P/N: 2510S04A0, PINS: 2543T011P
Connector Kit #70-841-025, includes all of the above	

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings at 115 Vac input 25°C unless otherwise stated.
4. Mounting holes MH1 and MH2 should be grounded for EMI purposes.
5. Mounting hole MH1 is safety ground connection.
6. This power supply requires mounting on metal standoffs 0.20" (5 m) in height.
7. Warranty: 2 year
8. Weight: 0.44 lb/0.20 kg

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GLS110 Series Installation & Operating Instructions

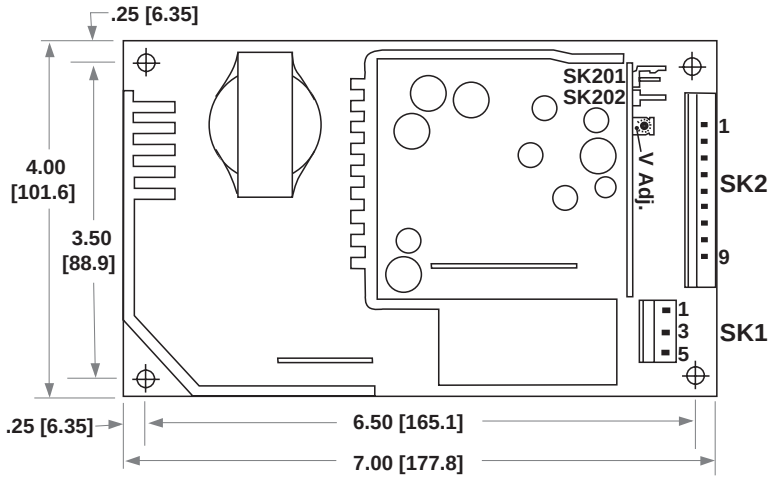
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 234-M90; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the dc source must be rectified from a mains supply not exceeding 250 V ac. The unit input must also be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 4 A, 250 V ac, Type SP0001.1010 manufactured by Schurter AG, Type 216004 manufactured by Littelfuse or Type S501 manufactured by Cooper.
9. This equipment is considered Class I according to protection against electric shock.
10. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
11. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Calculated Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS114	+15	5.3	80	7.3	110
GLS115	+24	3.3		4.6	

Mechanical Outline & Dimensions

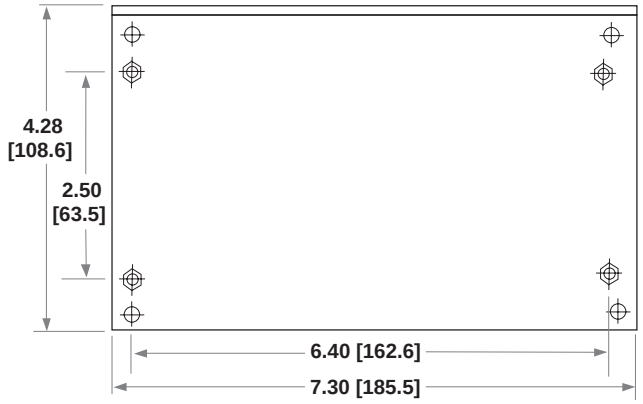


Connector PIN Designation

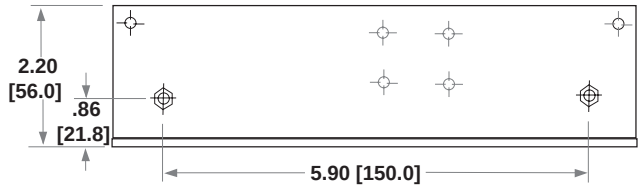
Input Connector	PIN	GLS114	GLS115
SK1	1	GND	
	3	Neutral	
	5	Line	
Output Connector	**PIN**	**GLS114**	**GLS115**
SK2	1	+15 V	+24 V
	2		
	3		
	4	Common	
	5		
	6		
	7		
	8	+15 V	+24 V
	9		
SK201	1	+Sense	
	2	-Sense	
SK202	1	P OK	
	2	GND	

Mechanical Dimensions

Bottom View with Optional L-Bracket



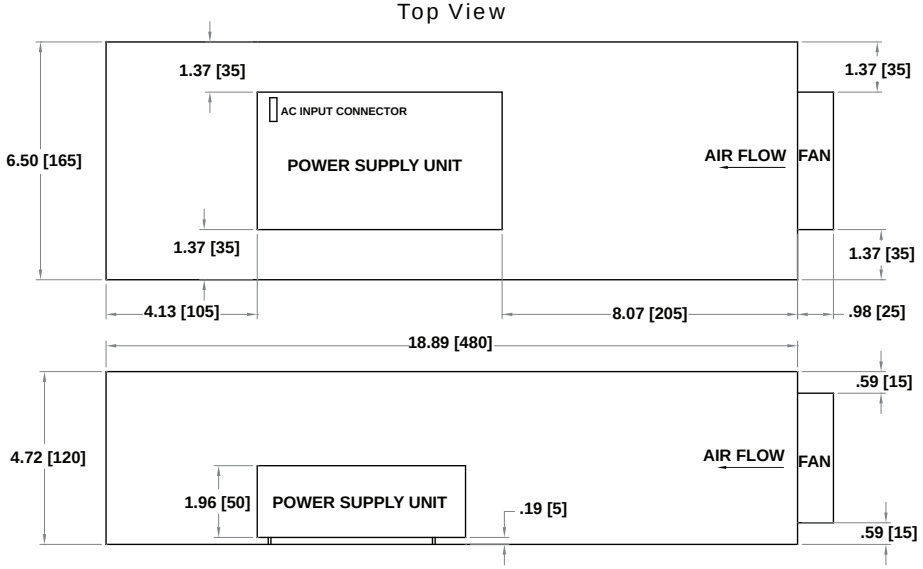
Side View with Optional L-Bracket



All dimensions are in inches [mm]
Screw size: #6-32

Typical Ventilation Setup

Top View



Side View

Fan Used: MINEBEA 3610NL-04W-B30, 12 V dc, 0.23 A
Dc Input for Fan During Testing: 12 V dc
NOTE: Dimensions and fan used are for reference only

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GLS110 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<18 A peak @ 115 Vac; <36 A peak @ 230 Vac, cold start @ 25°C
Input current	2.5 A max. (RMS) @ 115 Vac
Efficiency	70% typical at full load
EMI filter	Meets FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	80 W for convection; 110 W with 30 CFM forced air
Adjustment range	±5% min.
Hold-up time	20 ms @ 80 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output; 5.7 to 6.7 Vdc; Other outputs 10% to 20% above nominal output; Latching type, recycle AC to reset
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after main output. It goes low at least 4 msec before loss of regulation.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min., 5 min. dwell at four major resonances 0.75G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8051 (USA) 09-91-0500 (UK); PINS: 08-58-0111
DC Outputs	Molex 09-50-8091 (USA) 09-91-0900 (UK); PINS: 08-58-0111
Remote Sense/ Power Fail	Molex 22-01-1022 (USA) 22-01-1023 (UK); PINS: 08-50-0114

Connector Kit #70-841-007, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Mounting holes M1 and M2 should be grounded for EMI purposes.
5. Mounting hole M1 is safety ground connection.
6. L bracket mounting (6-32) maximum insertion depth is .20".
7. Warranty: 2 year
8. Weight: 1.25 lbs/0.57 kg

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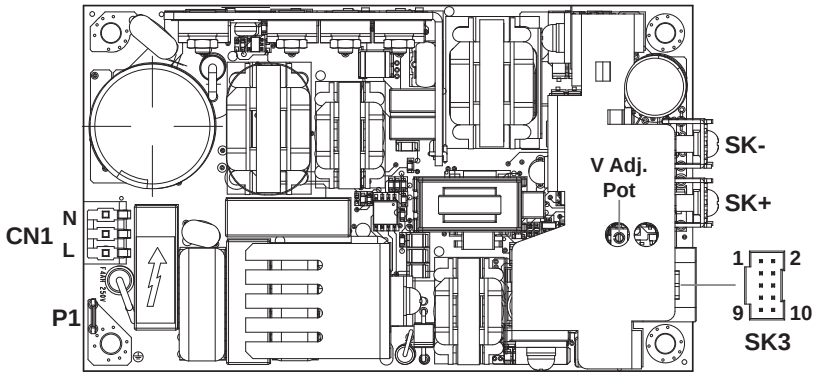
GLS120 Series Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc (minimum) to 300 V dc (maximum).
5. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
6. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect power supply before servicing.
9. When operating with a dc input voltage range, the dc source must be rectified from a mains supply not exceeding 250 V ac. The unit input must also be protected by a dc rated fuse in the end-use installation system.
10. The internal fuse (F1) should only be replaced by a 4AH, 250 V ac, type GDA-V/S501 manufactured by Bussmann, type 216004.MXEP manufactured by Littelfuse, or type 19194 manufactured by Wickmann.
11. This equipment is considered Class I according to protection against electric shock.
12. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
13. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	Designation
CN1		Neutral
		Line
P1		Earth
Output Connector	**PIN**	**Designation**
SK-		Common
SK+		Main output
SK3	1	+Power fail
	2	+5 VSTBY
	3	-Remote inhibit
	4	+12 V common
	5	+Remote inhibit
	6	+12 V (FAN_OUT)
	7	-Remote sense
	8	SWP (Single wire parallel)
	9	+Remote sense
	10	Common

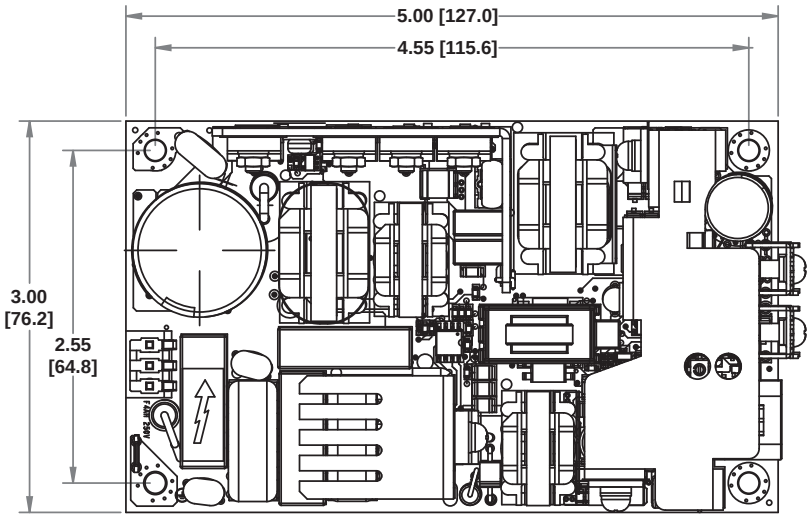
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS122	+5	16.0	80	26.0	130
	+12 (FAN_OUT)	0.5		0.5	
	+5 VSTBY	0.5		0.5	
GLS123	+12	6.7		10.8	
	+12 (FAN_OUT)	0.5		0.5	
	+5 VSTBY	0.5		0.5	

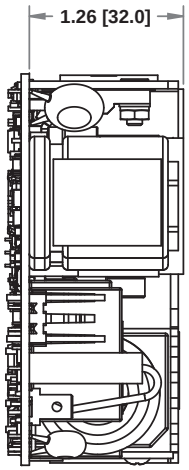
P/N: A272-190 Rev 0 5/1/09 Ref: 03366202940/LPS123/OP

GLS120 Series Installation & Operating Instructions

Mechanical Dimensions



Top View

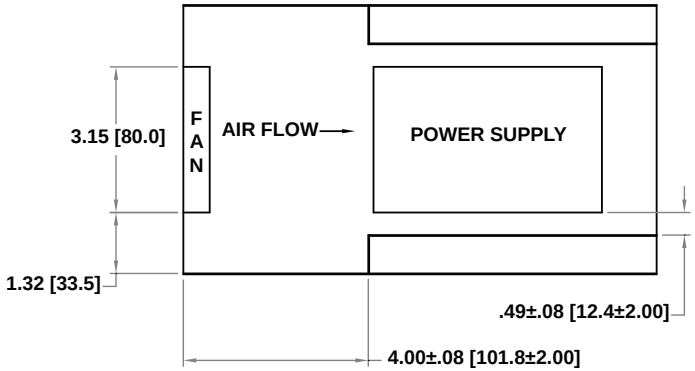


Side View

All dimensions are in inches [mm]
Mounting hole diameter (4X): 0.15″ [3.81 mm]

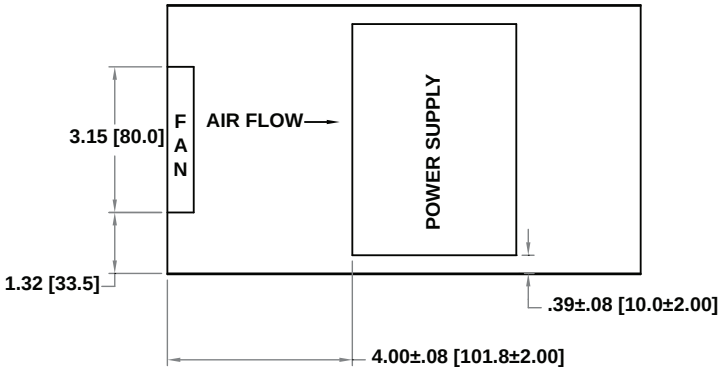
Typical Ventilation Setup

Option 1



Top View

Option 2



Top View

Cooling Fan: Use one 12 V dc fan or equivalent with minimum 30 CFM blowing lengthwise or sideways
NOTE: Dimensions and fan used are for reference only

EMERSON
Industrial Automation

Visit our Web site at www.solahd.com or contact Technical Support at (800) 377-4384 with any questions.
GLS122 and GLS123 are commercial designations of model numbers LPS122 and LPS123 respectively.

GLS120 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 127-300 Vdc
Frequency	47-440 Hz
Inrush current	40 A max., cold start @ 25°C
Efficiency	80% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Power factor	0.99 typical
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	80 W for convection; 130 W with 30 CFM forced air
Adjustment range	±5% min. on the main outputs
Fan output	12 V @ 500 mA - 5%, +7%
Standby outputs	5 V @ 500 mA ± 5%
Hold-up time	20 ms @ 125 W load, 120 Vac input
Overload protection	Short circuit protection on all outputs Case overload protected @ 120-135% above rating
Overvoltage protection	20% to 35% above nominal output

Logic Control	
Power failure	TTL logic signal goes high 100-500 msec after main output. It goes low at least 4 msec before loss of regulation.
Remote inhibit	Requires a contact closure to disable the outputs, except 5 V standby.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output as 2.5% per degree from 50° to 70°C. -20°C start up
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
(SK1) AC Input	Molex 09-50-8031; PINS: 08-52-0113
(SK2) DC Outputs	Molex 19141-0058/0063 Spade lug
(SK3)Control Signals	Molex 90142-0010 (USA); PINS: 90119-2110 or Amp: 87977-3; PINS: 87309-8

Connector Kit #70-841-020, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings at 115 Vac input 25°C ,unless otherwise stated.
4. Mounting holes MH1, MH2 and MH3 should be grounded for EMI purposes.
5. Mounting MH1 is safety ground connection.
6. This power supply requires mounting on metal standoffs 0.20" (5m) in height.
7. Warranty: 2 year
8. Weight: 0.71 lb/0.32 kg

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Email: tech@solahd.com
www.solahd.com

SOLAHD GLS150 Series Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

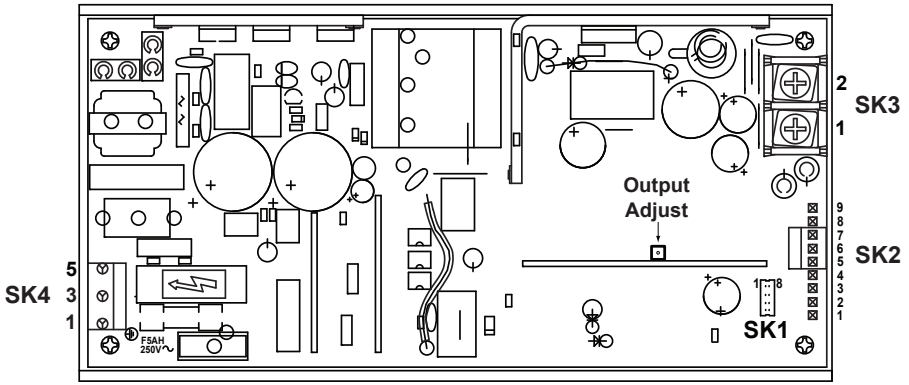
1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 5 A, 250 V ac, type SP0001.1011 manufactured by Schurter AG, type 216005 manufactured by Littelfuse or type S501 manufactured by Cooper.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS152	+5	22.0	75 with cover 110 without cover	30.0	130 with cover 150 without cover
GLS153	+12 to +15	9.1		12.5	
GLS155	+24 to +28	4.5		6.2	

Mechanical Outline



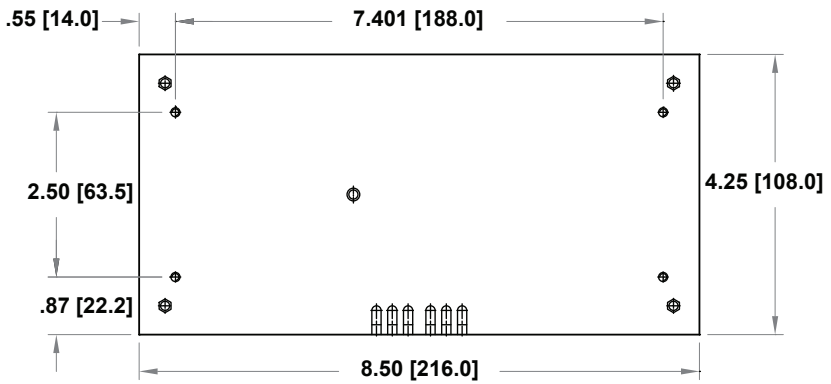
Connector PIN Designation

Output Connector	PIN	GLS152	GLS153	GLS155
SK1	1	Inhibit -ve		
	2	Inhibit +ve		
	3	Secondary Vcc		
	4	No connection		
	5	Common		
	6	-Sense		
	7	+Sense		
	8	C-Share		
SK2	1, 2, 3, 4, 8, 9	Not used		
	5	Common		
	6	No connection		
	7	P OK		
SK3	T.B. 2	+5 V	+12 V to +15 V	+24 V to +28 V
	T.B. 1	Common		
Input Connector	**PIN**	**GLS152**	**GLS153**	**GLS155**
SK4	1	Earth GND		
	2	PIN removed		
	3	Line		
	4	PIN removed		
	5	Neutral		

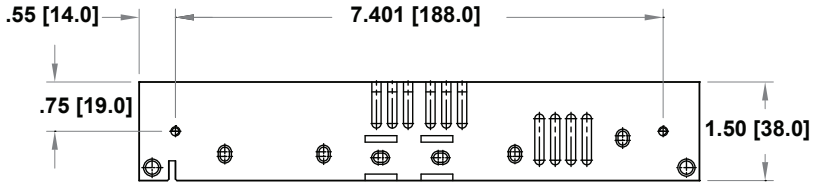
P/N: A272-169 Rev 2 12/29/09 Ref: 03361001994

SOLAHD GLS150 Series Installation & Operating Instructions

Mechanical Dimensions



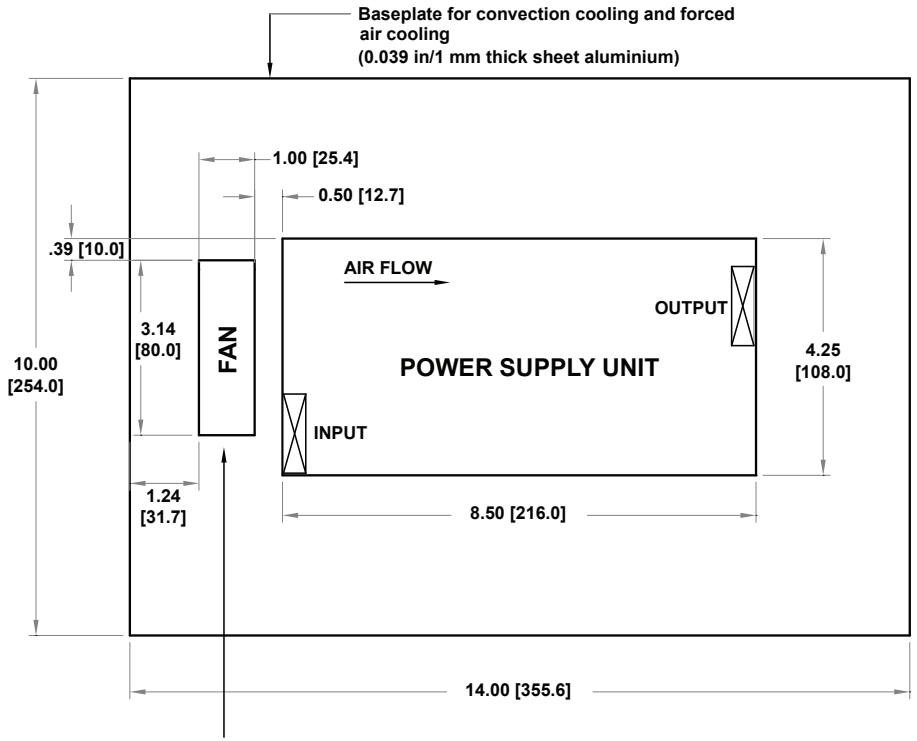
Bottom View



Side View

All dimensions are in inches [mm]
Screw size: #6-32

Typical Ventilation Setup



For forced air cooling only
Fan used: MINEBEA 3110NL-04W-B30, 12 V dc, 0.14 A
Dc input for fan during testing: 12 V dc

NOTE: Dimensions and fan used are for reference only

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GLS152, GLS153, and GLS155 are commercial designations of model numbers LPS152, LPS153, and LPS155 respectively.

GLS150 Series Specifications

Electrical Specifications

Input	
Input range	85-132 Vac; 170-264 Vac automatically selected; 220-300 Vdc
Frequency	47-63 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	110 W convection (75 W with cover) 150 W with 30 CFM forced air (130 W with cover)
Adjustment range	±5% min.
Hold-up time	20 ms @ 110 W load, 115/230 Vac nominal line
Overload protection	Short circuit protection Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output: 5.7 to 6.7 Vdc; Other outputs 10% to 25% above nominal output
Logic Control	
Power failure	TTL Logic signal goes high 50-150 msec after 5 V output. It goes low at least 3 ms before loss of regulation
Remote inhibit	Requires an external TTL high signal to inhibit outputs
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input (SK4)	Molex 09-50-8051 (USA) Molex 09-91-0500 (UK); PINS: 08-58-0111
Power Fail (SK2)	Molex 09-50-8031 (USA) Molex 09-91-0300 (UK); PINS: 08-58-0111
Remote Sense/ Remote Inhibit (SK1)	Molex 51110-0851 (USA) PINS: 50394-8100

Connector Kit #70-841-009, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings unless otherwise stated.
4. Remote inhibit requires an external 5 V @ 10 mA to activate.
5. Mounting (6-32) maximum insertion depth is .12".
6. Warranty: 2 year
7. Weight: 1.75 lbs/0.80 kg

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GLS170 Series, GLS170-M Series Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature for GLS174 and GLS175.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS172, GLS173, GLS174, and GLS175; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS172-M, GLS173-M, GLS174-M, and GLS175-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc (minimum) to 300 V dc (maximum).
5. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
6. The disconnection from the line must be in the end system.
7. Hazardous voltages exist in the primary circuits. Disconnect power supply before servicing.
8. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
9. The internal fuse (F1) should only be replaced by a 4A, 250 V ac, type GDA-V/S501 manufactured by Bussmann, type 226004 manufactured by Littelfuse, or type 19194 manufactured by Wickmann.
10. The power supply has no patient applied part.
11. This equipment is considered Class I according to protection against electric shock.
12. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
13. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS172 (-M)	+2.5 to +6	22.0 without cover 15.0 with cover	110 without cover 75 with cover	35.0	175 with and without cover
	+5 VSTBY	1.0		2.0	
	+12 (FAN_OUT)	0.5		1.0	
GLS173 (-M)	+6 to +12	9.1 without cover 6.25 with cover		15.0	180 with and without cover
	+5 VSTBY	1.0		2.0	
	+12 (FAN_OUT)	0.5		1.0	
GLS174 (-M)	+12 to +24	7.3 without cover 5.33 with cover		12.0	
	+5 VSTBY	1.0		2.0	
	+12 (FAN_OUT)	0.5		1.0	
GLS175 (-M)	+24 to +54	4.58 without cover 3.125 with cover		7.5	
	+5 VSTBY	1.0		2.0	
	+12 (FAN_OUT)	0.5		1.0	

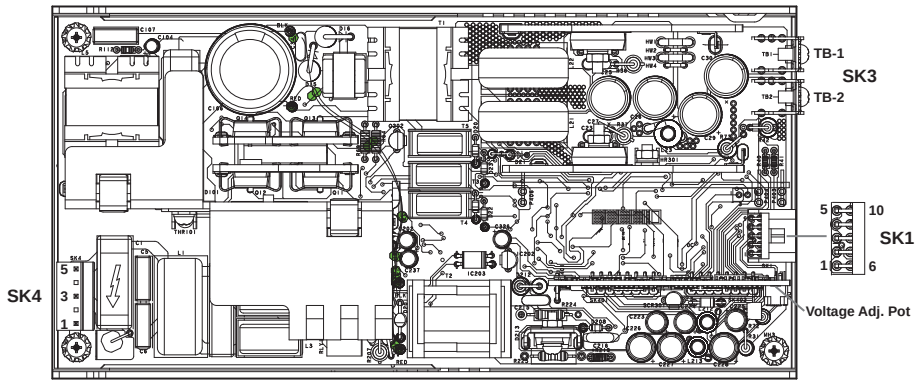
Connector PIN Designation

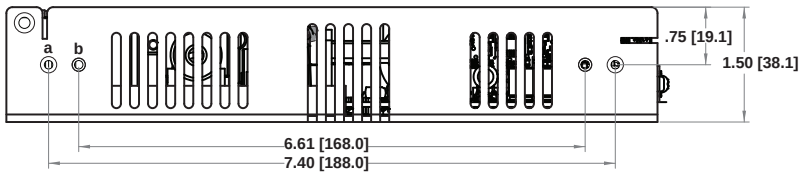
Input Connector	PIN	Designation
SK4	1	Earth GND
	3	Line
	5	Neutral
Output Connector	**PIN**	**Designation**
SK1	1	+12 V (FAN_OUT)
	2	+5 VSTBY
	3	Common
	4	V1 SWP (Single wire parallel)
	5	Common
	6	+V1 sense
	7	Sense common
	8	Remote inhibit
	9	DC OK
	10	P OK
SK3	TB-1	Common
	TB-2	V1

P/N: A272-191 Rev 0 3/13/09 Ref: 03366202050/LPS173/OP/03366202230/03366202241

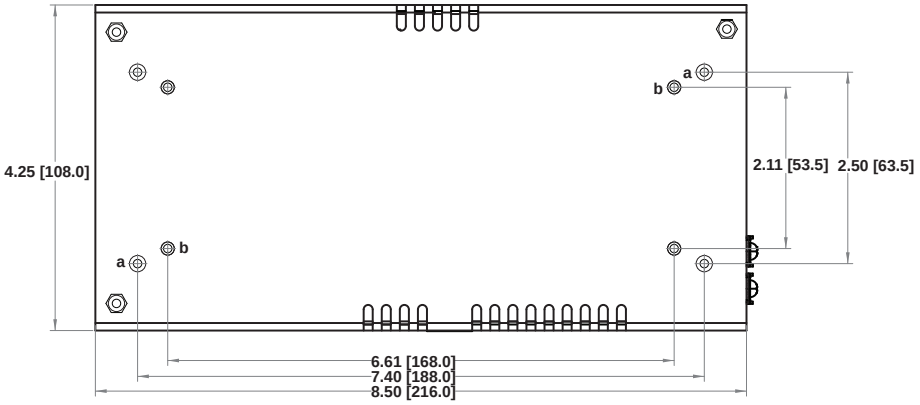
GLS170 Series, GLS170-M Series Installation & Operating Instructions

Mechanical Outline & Dimensions





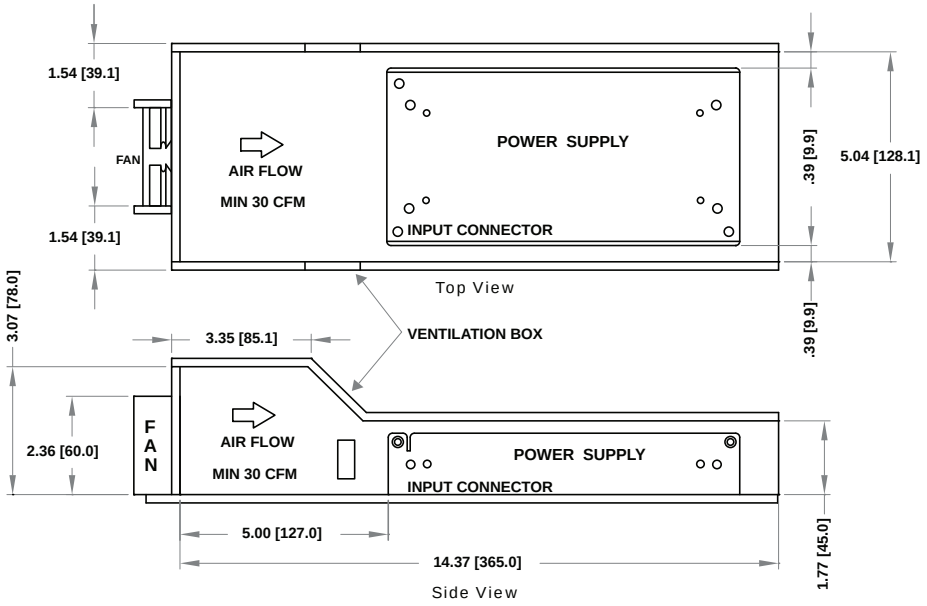
Side View



Bottom View

All dimensions are in inches [mm]
Screw Size: a = #6-32 (U.S.); b = M3 (International)

Typical Ventilation Setup



30 CFM forced air cooling
NOTE: Dimensions and fan used are for reference only

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Visit our Web site at www.solahd.com or contact Technical Support at (800) 377-4384 with any questions.
GLS172, GLS173, GLS174, and GLS175 are commercial designations of model numbers LPS172, LPS173, LPS174, and LPS175 respectively.
GLS172-M, GLS173-M, GLS174-M, and GLS175-M are commercial designations of model numbers LPS172-M, LPS173-M, LPS174-M, and LPS175-M respectively.

GLS170 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-63 Hz
Inrush current	38 A max., cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Power factor	0.99 typical
Safety ground leakage current	1.0 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	110 W for convection (75 W with cover); 175 W with 30 CFM forced air (130 W with cover)
Adjustment range	2:1 wide ratio minimum
Standby output	5 V @ 2 A regulated ± 5%
Hold-up time	20 ms @ 175 W load at nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	10% to 40% above nominal output
Aux output	12 V @ 1 A -5%, +10%

Logic Control	
Power failure	TTL logic signal goes high 100-500 msec after V1 output. It goes low at least 4 msec before loss of regulation.
Remote inhibit	Requires contact closure to inhibit outputs
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.
DC - OK	TTL logic signal goes high after main output is in regulation. It goes low when there is a loss of regulation.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C.
Low temperature start	-20°C
Storage temperature	-40°C to 85°C
Termperature coefficient	±0.4% per °C
Electromagnetic susceptibility	Designed to meet IEC EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min., 5 min. dwell at four major resonances 0.75G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
(SK4) AC Input	Molex 09-50-8051 (USA); Molex 09-91-0500 (UK) PINS: 08-58-0111
(SK3) DC Outputs	Molex 19141-0058
(SK1)Control Signals	Molex 90142-0010 (USA); PINS: 90119-2110 or Amp: 87977-3; PINS: 87309-8

Connector Kit #70-841-016, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
4. Mounting holes M1 and M2 shoud be grounded for EMI purposes.
5. Mounting hole M1 is safety ground connection.
6. Warranty: 2 year
7. Weight: 0.5 lb/0.23 kg

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SOLAHD GLS20 Series Installation & Operating Instructions

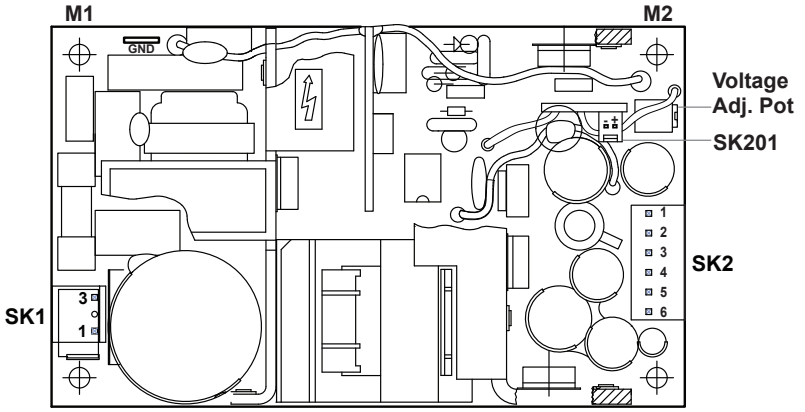
Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 2.5 A, 250 V ac, type SP0001.1008 manufactured by Schurter AG or type 21602.5 manufactured by Littelfuse.
9. This equipment is considered Class I according to protection against electric shock.
10. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	GLS22	GLS23	GLS24
SK1	1	Line		
	3	Neutral		
Output Connector	**PIN**	**GLS22**	**GLS23**	**GLS24**
SK2	1	+5 V	+12 V	+15 V
	2			
	3			
	4	Common		
	5			
	6			
SK201	1	+Sense		
	2	-Sense		

NOTE: Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

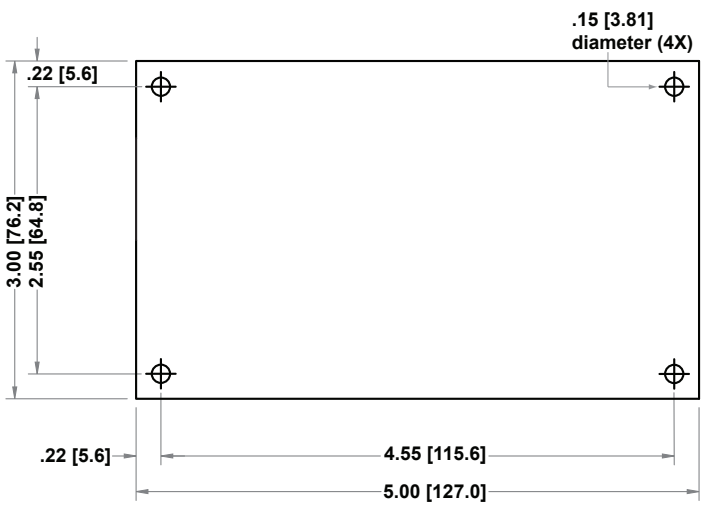
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS22	+5	5.0	25	8.0	40
GLS23	+12	2.1		3.3	
GLS24	+15	1.7		2.7	

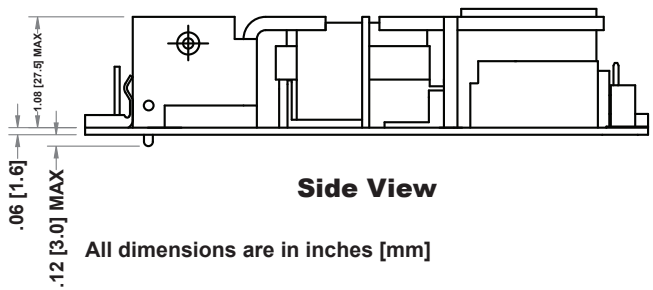
P/N: A272-178 Rev 1 01/06/10 Ref: 03361001723

SOLAHD GLS20 Series Installation & Operating Instructions

Mechanical Dimensions



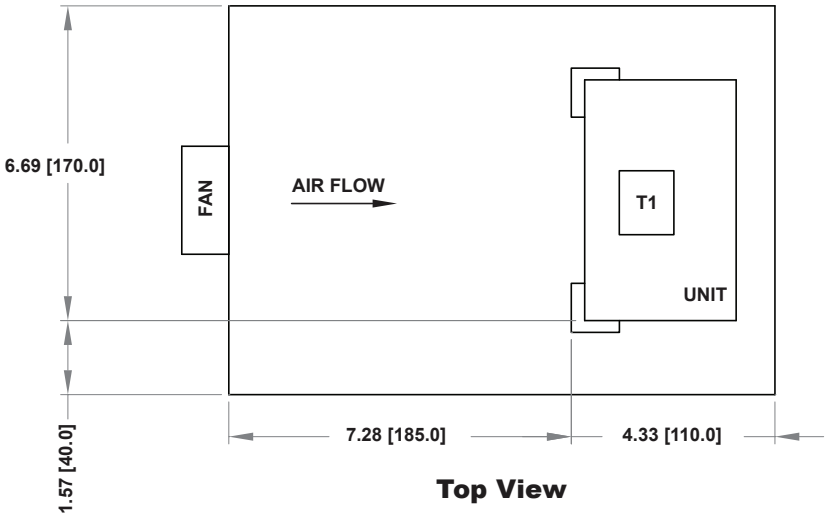
Bottom View



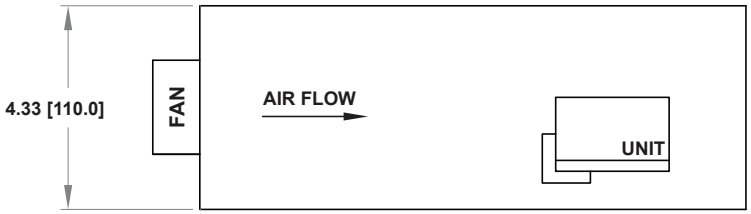
Side View

All dimensions are in inches [mm]

Typical Ventilation Setup



Top View



Side View

Fan: MINEBEA 3110NL-04W-B30
Fan Input: 12 V dc
NOTE: Dimensions and fan used are for reference only

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GLS22, GLS23, and GLS24 are commercial designations of model numbers LPS22, LPS23, and LPS24 respectively.

GLS20 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<15 A peak @ 115 Vac; <30 A peak @ 230 Vac, cold start @ 25°C
Input current	1 A max. (RMS) @ 115 Vac
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	25 W for convection; 40 W with 30 CFM forced air
Adjustment range	-5, +10% minimum
Hold-up time	20 ms @ 25 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output; 5.7 to 6.7 Vdc. Other outputs 10% to 25% above nominal output
Remote sense	Compensates for 0.5 V lead drop minimum;Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C, -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95% RH
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

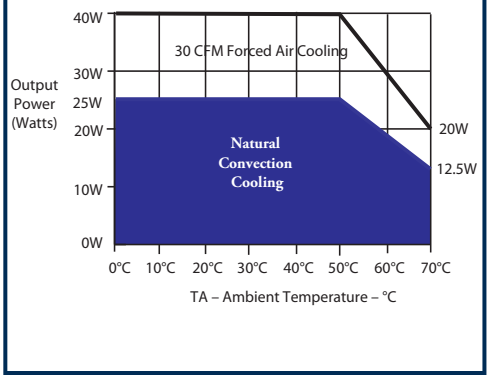
Mating Connectors

AC Input	Molex 09-50-8031 (USA) Not required for (-T) option 09-91-0300 (UK); PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA) Not required for (-T) option 09-91-0600 (UK); PINS: 08-52-0113
Remote Sense	Molex 22-01-2025; PINS: 08-52-0123

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.5lb/0.23kg

Power Derating Curve



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Email: tech@solahd.com
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GLS200-M Series Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, CSA22.2 No. 60950-1-03, UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 601.1. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc minimum to 300 V dc maximum.
5. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
6. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect power supply before servicing.
9. When operating with a dc input voltage range, the unit must be protected by a dc rated fuse in the end-use installation system.
10. The internal fuses (F1 & F2) should only be replaced with a F5AH, 250 V ac, type 50CF manufactured by Hollyland or type 216005.MXEP manufactured by Littelfuse.

    NOTE: The power supply has a fuse on the neutral line.
11. The power supply has no patient applied part.
12. This equipment is considered Class I according to protection against electric shock.
13. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
14. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

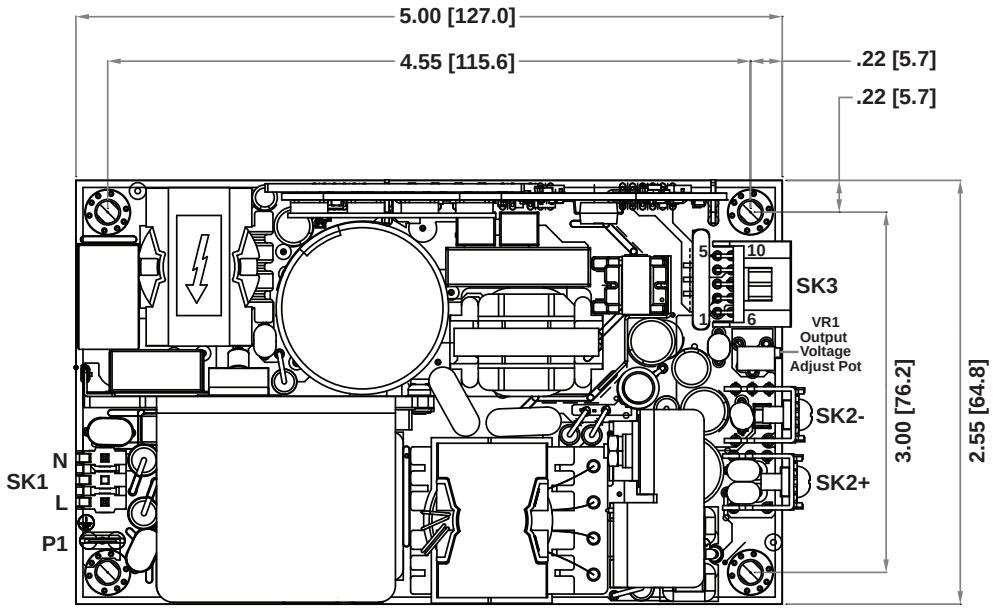
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS202-M	+5	20.0	100	40.0	200
	+12_FAN	0.5		1.0	
GLS203-M	+12	10.4	125	20.83	250
	+12_FAN	0.5		1.0	
GLS204-M	+15	8.3		16.6	
	+12_FAN	0.5		1.0	
GLS205-M	+24	5.2		10.4	
	+12_FAN	0.5		1.0	
GLS208-M	+48	2.6		5.2	
	+12_FAN	0.5		1.0	

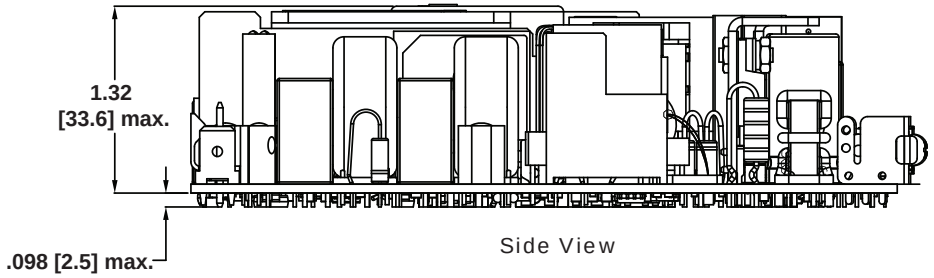
Connector PIN Designation

Input Connector	PIN	Designation
SK1		Neutral
		Line
P1		Earth GND
Output Connector	**PIN**	**Designation**
SK2	-	Common
	+	Main output
SK3	1	+Remote sense
	2	-Remote sense
	3	N/C
	4	N/C
	5	Power fail
	6	Common
	7	N/C
	8	Common
	9	+12 V_FAN
	10	+12 V_FAN return

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm]
Mounting hole diameter (4X) = 0.15″ [3.81 mm]

EMERSON Industrial Automation

GLS200-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac; 120-300 Vdc
Frequency	47-63 Hz
Inrush current	50 A max, cold start @ 25°C
Efficiency	86% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Power factor	0.99 typical
Safety ground leakage current	275 µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	125 W for convection; 250 W (200 W for GLS202-M) with 30 CFM forced air
Adjustment range	±10% min. on the main outputs
Fan output	12 V @ 1 A isolated, ±10%
Hold-up time	16 ms @ 250 W load, 120 Vac input
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-160% above peak rating
Overvoltage protection	15% to 50% above nominal output
Logic Control	
Power failure	Open collector logic signal goes high 100-500 msec after main output. It goes low at least 6 msec before loss of regulation
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output at 2.5% per degree from 50° to 70°C. -20°C start up
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
(SK1) AC Input	Molex P/N: 09-50-8031 (connector), PINS: 08-52-0113
AC Ground	Molex: 01-90020001
(SK2) DC Outputs	Molex 19141-0058/0063/0083; Spade lug based on Cable Ampacity/AWG
(SK3) Control Signals	Molex 90142-0010 (USA), PINS: 90119-2110 or Amp: 87977-3, PINS: 87309-8

Connector Kit #70-841-020, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are for convection rating at factory settings at 115 Vac input 25°C unless otherwise stated.
4. Mounting holes MH1 and MH2 should be grounded for EMI purposes.
5. Mounting hole MH1 is safety ground connection.
6. This power supply requires mounting on metal standoffs 0.20" (5 m) in height.
7. Warranty: 2 year
8. Weight: 0.75 lb/0.34 kg

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Email: tech@solahd.com
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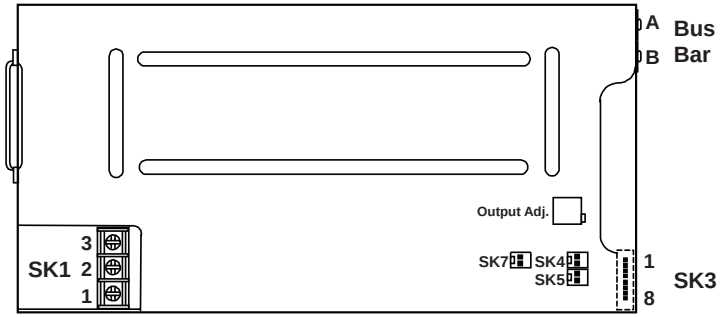
GLS253-C, GLS255-C Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for GLS255-C must not exceed 50°C. Maximum ambient temperature for GLS253-C must not exceed 50°C at 250 W, 21 A or 70°C at 125 W, 10.5 A.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. This unit contains a secondary output exceeding 240 VA. When installing the unit into the end system, make sure the secondary output and the appropriate wire cannot be touched.
6. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
9. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
10. The internal fuse should only be replaced with a F6.3AH, 250 V ac, type 21606.3 manufactured by Littelfuse, type 50CF063H manufactured by Triad, or type S501 manufactured by Cooper.

    NOTE: Components, such as capacitors, may be positioned in front of the internal fuse. The unit must be protected by a fuse in the end system.
11. This equipment is considered Class I according to protection against electric shock.
12. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
13. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	GLS253-C	GLS255-C
SK1	1	Neutral	
	2	Line	
	3	Earth GND	
Output Connector	**PIN**	**GLS253-C**	**GLS255-C**
Bus Bar	A	+6 V to +12 V	+24 V to +48 V
	B	Common	
SK3	1	+Sense	
	2	-Sense	
	3	Inhibit (normally open)	
	4	Inhibit (normally closed)	
	5	Common	
	6	C. Share	
	7	P OK	
	8	Dc OK	
SK4	1	Fan (+)	
	2	Fan (-)	
SK5	1	+5 V (aux)	
	2	Common	
SK7	1	Fan (+)	
	2	Fan (-)	

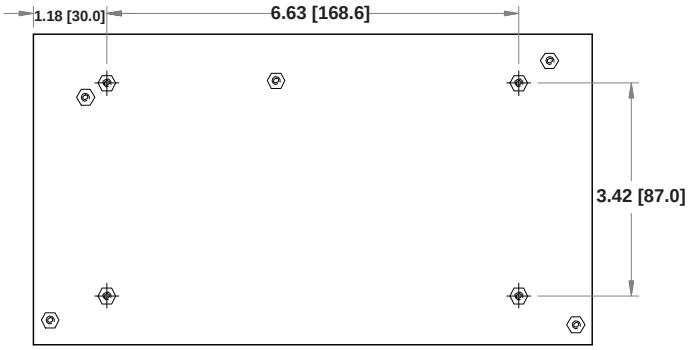
Output Ratings

Model	Output Voltage (V)	30 CFM Forced Air Cooling (unit not convection rated)	
		Max. Output Current (A)	Max. Output Power (W)
GLS253-C	+6 to +12	21.0	250 with cover
GLS255-C	+24 to +48	10.4	

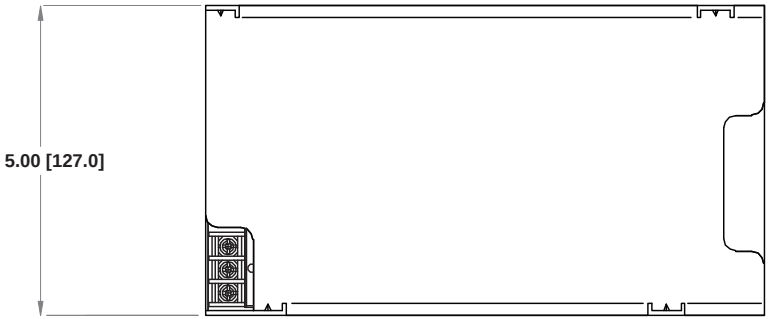
P/N: A272-193 Rev 0 5/5/09 Ref: 03361002223

GLS253-C, GLS255-C Installation & Operating Instructions

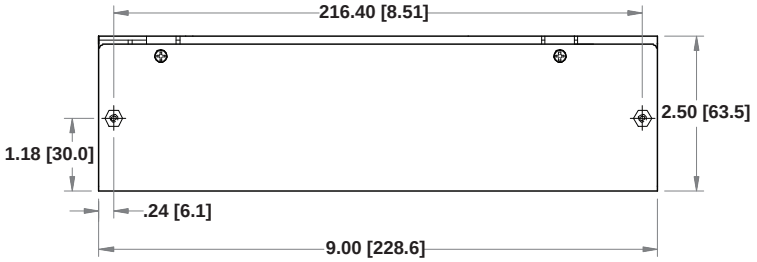
Mechanical Dimensions



Bottom View



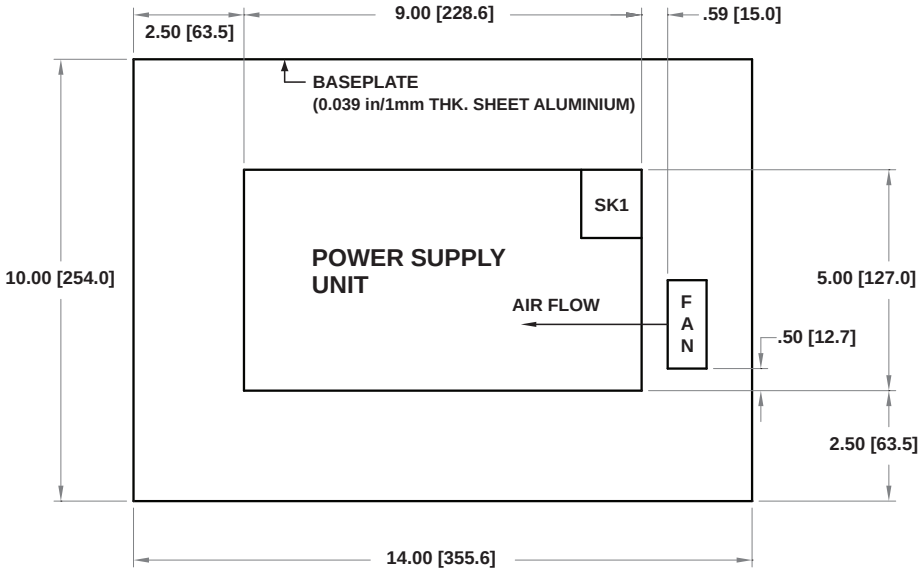
Top View



Side View

All dimension are in inches [mm]
Screw Size: #6-32

Typical Ventilation Setup



Fan Used: Minebea 2410ML-04W-B60, 12 V dc, 0.40 A
Dc Input for Fan Testing: 12 V dc
NOTE: Dimensions and fan used are for reference only

Visit our Web site at www.solahd.com or contact Technical Support at (800) 377-4384 with any questions.
GLS253-C and GLS255-C are commercial designations of model numbers LPS253 and LPS255 respectively.

EMERSON
Industrial Automation

GLS250 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	20 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	With cover: 250 W with 30 CFM forced air, (-C) (-CF) (-CEF)
Adjustment range	2:1 wide ratio
Supervisory output	5 V @ 100 mA regulated, 12 V @ 500 mA
Hold-up time	20 ms @ 250 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 10-145% above peak rating
Overvoltage protection	5 V output: 5.7 to 6.7 Vdc; Other models 10% to 25% above nominal output
Minimum load	1st output: 0.63 A - GLS253-C; 0.32 A -GLS255-C
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after 5 V output. It goes low at least 4 msec before loss of regulation
Remote on/off	Requires an external contact (N.O. or N.C.) to inhibit outputs
DC-OK	TTL logic goes high 50-150 msec after the output. It goes low when there is loss of regulation
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output at 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.4% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.7 G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
SK3	Molex 22-01-1084 PINS: 08-70-0057
SK4	Molex 22-01-3027 PINS: 08-50-0114
SK5	Molex 22-01-3027 PINS: 08-50-0114
SK7	Molex 22-01-3027 PINS: 08-50-0114

Connector Kit #70-841-005, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are at factory settings unless otherwise stated.
4. To enable normally closed remote inhibit, cut jumper J1.
5. Mounting maximum insertion depth is .12".
6. Warranty: 2 year
7. Weight: 2.6 lbs/1.19 kg

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SOLAHD GLS352-C, GLS353-C Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

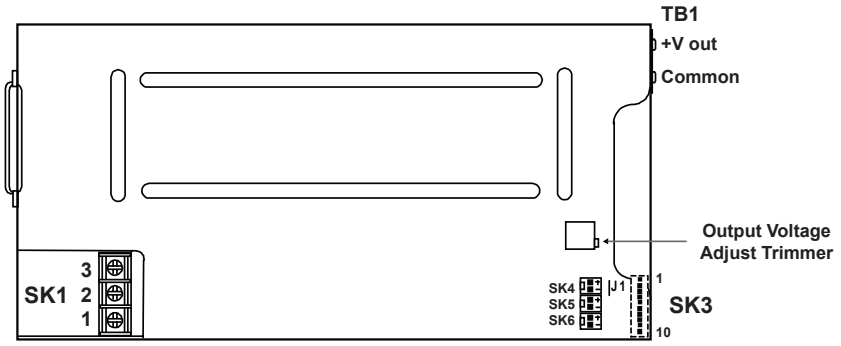
1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. This unit contains a secondary output exceeding 240 VA. When installing the unit into the end system, make sure the secondary output and the appropriate wire cannot be touched.
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. The internal fuse should only be replaced with a F10AH, 250 V ac, type SP0001.1014 manufactured by Schurter AG or type 216010 manufactured by Littelfuse.
8. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	30 CFM Forced Air Cooling (unit not convection rated)	
		Max. Output Current (A)	Max. Output Power (W)
GLS352-C	5 (+3 to +6)	70.0	350 with cover
GLS353-C	12 (+6 to +12)	29.2	

Mechanical Outline



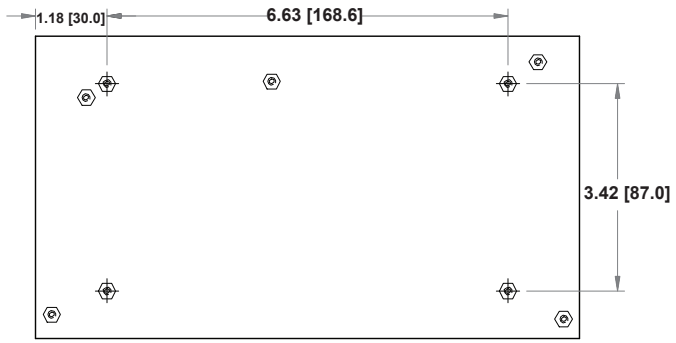
Connector PIN Designation

Input Connector	PIN	GLS352-C	GLS353-C
SK1	1	Neutral	
	2	Line	
	3	Earth GND	
Output Connector	**PIN**	**GLS352-C**	**GLS353-C**
TB1	+	V1 positive	
	-	V1 common	
SK3	1	No connection	
	2	No connection	
	3	+Sense	
	4	-Sense	
	5	P OK	
	6	C. Share	
	7	Dc OK	
	8	Inhibit (normally open)	
	9	Inhibit (normally closed)	
	10	Common	
SK4	1	+5 V (aux)	
	2	Common	
SK5	1	+Fan 1 (+12 V)	
	2	Common	
SK6	1	+Fan 2 (+12 V)	
	2	Common	

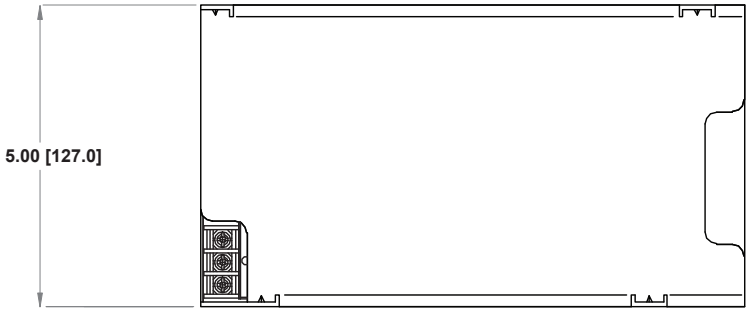
P/N: A272-171 Rev 2 12/29/09 Ref: 03366200232

SOLAHD GLS352-C, GLS353-C Installation & Operating Instructions

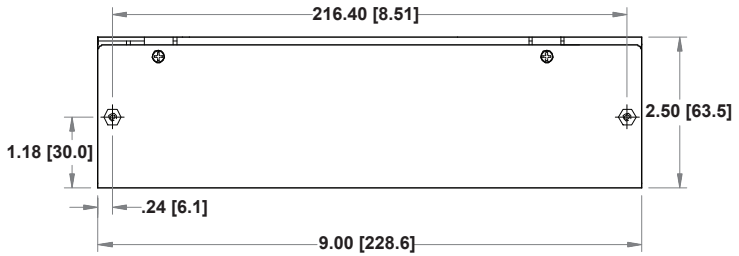
Mechanical Dimensions



Bottom View



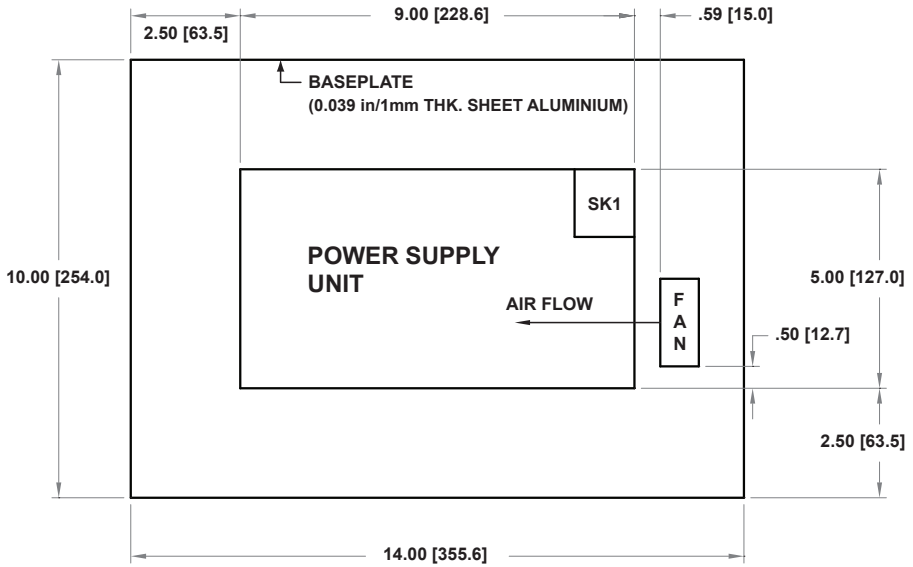
Top View



Side View

All dimension are in inches [mm]
Screw Size: #6-32

Typical Ventilation Setup



Fan Used: Minebea 2410ML-04W-B60, 12 V dc, 0.40 A or
Cheng Home CHA6012EB, 12 V dc, 0.28 A
Dc Input for Fan Testing: 12 V dc

NOTE: Dimensions and fan used are for reference only

EMERSON
Industrial Automation

GLS352-C and GLS353-C are commercial designations of model numbers LPS352-C and LPS353-C respectively.

GLS350 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Power factor	0.99 typical
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	With cover: 350 W with 30 CFM forced air, (-C) (-CF) (-CEF)
Adjustment range	2:1 wide ratio
Supervisory output	5 V @ 500 mA regulated, 12 @ 150 mA x2
Hold-up time	20 ms @ 350W load, 115 Vac nominal line at factory voltage settings
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output: 5.7 to 6.7 Vdc; Other models 10% to 25% above nominal output
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after the output is in regulation. It goes low at least 4 msec before loss of regulation
Remote on/off	Requires an external contact (N.O. or N.C.) to inhibit outputs
DC-OK	TTL logic goes high 50-150 msec after the output is in regulation. It goes low when there is loss of regulation
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.7 G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
SK3	Molex 22-01-1104 PINS: 08-70-0057
SK4	Molex 22-01-3027 PINS: 08-50-0114
SK5	Molex 22-01-3027 PINS: 08-50-0114
SK6	Molex 22-01-3027 PINS: 08-50-0114

Connector Kit #70-841-011, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are at factory settings unless otherwise stated.
4. To enable normally closed Remote inhibit, cut jumper J1.
5. Mounting (6-32) maximum insertion depth is .12".
6. Warranty: 2 years
7. Weight: 3.6 lbs/1.64 kg

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Email: tech@solahd.com
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SOLAHD GLS354-C, GLS355-C, GLS355-CEF Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

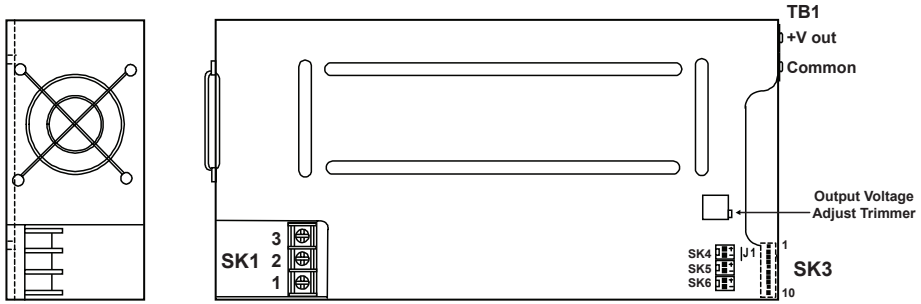
1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. This unit contains a secondary output exceeding 240 VA. When installing the unit into the end system, make sure the secondary output and the appropriate wire cannot be touched.
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. The internal fuse should only be replaced with a F10AH, 250 V ac, type SP0001.1014 manufactured by Schurter AG or type 216010 manufactured by Littelfuse.
8. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

Model	Output Voltage (V)	30 CFM Forced Air Cooling (unit not convection rated)	
		Max. Output Current (A)	Max. Output Power (W)
GLS354-C	15 (+12 to +24)	23.4	350 with cover
GLS355-C (-CEF)	24 (+24 to +48)	14.6	

Mechanical Outline



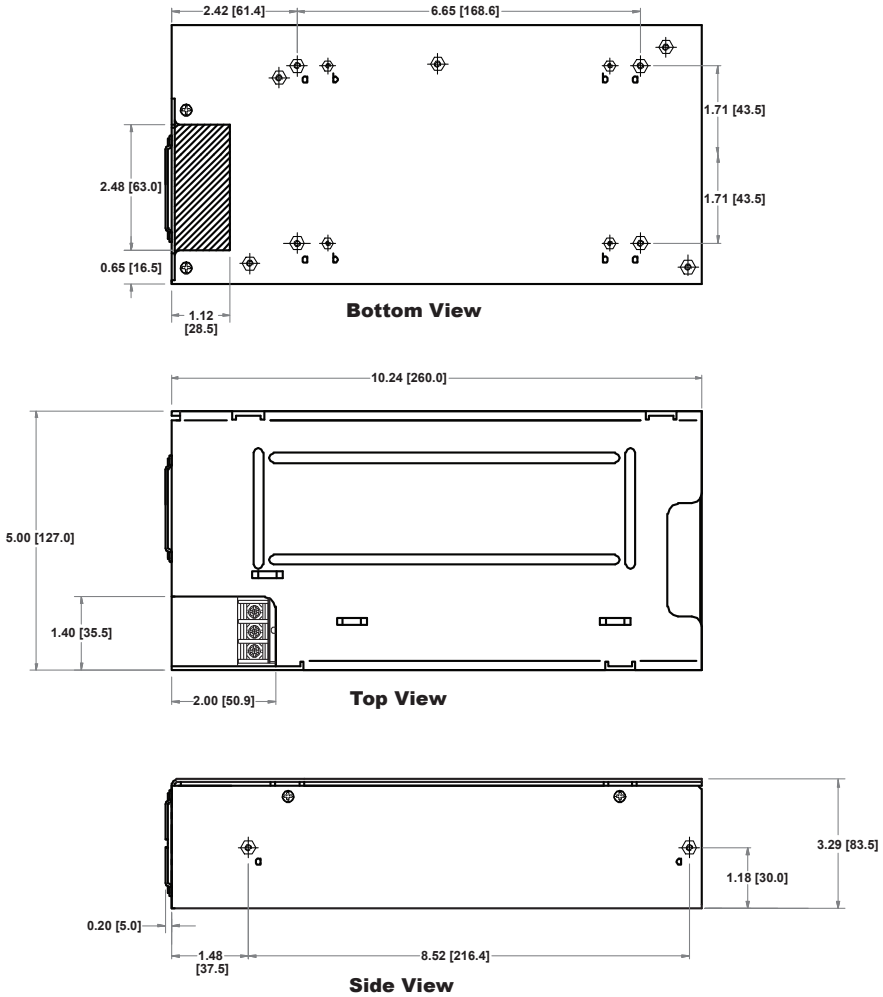
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Neutral
	2	Line
	3	Earth GND
Output Connector	**PIN**	**Designation**
TB1	+	V1 positive
	-	V1 common
SK3	1	No connection
	2	No connection
	3	+Sense
	4	-Sense
	5	P OK
	6	C. Share
	7	Dc OK
	8	Inhibit (normally open)
	9	Inhibit (normally closed)
	10	Common
SK4	1	+5 V (aux)
	2	Common
SK5	1	+Fan 1 (+12 V)
	2	Common
SK6	1	+Fan 2 (+12 V)
	2	Common

P/N: A272-172 Rev 2 01/06/10 Ref: LPS354&355\OP.K

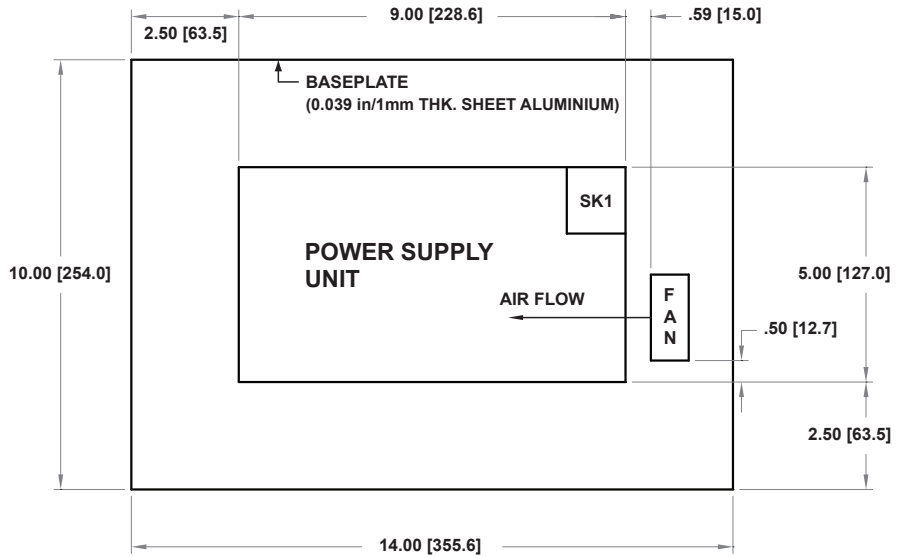
SOLAHD GLS354-C, GLS355-C, GLS355-CEF Installation & Operating Instructions

Mechanical Dimensions



All dimensions are in inches [mm]
Screw Size: a = #6-32 (U.S.); b = M3 (international)

Typical Ventilation Setup



Fan Used: Minebea 2410ML-04W-B60, 12 V dc, 0.40 A or Cheng Home CHA6012EB, 12 V dc, 0.28 A
Dc Input for Fan Testing: 12 V dc

NOTE: Dimensions and fan used are for reference only
NOTE: Not applicable for -CEF models

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Industrial Automation

GLS354-C, GLS355-C and GLS355-CEF are commercial designations of model numbers LPS354-C, LPS355-C and LPS355-CEF respectively.

GLS350 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	38 A max, cold start @ 25°C
Efficiency	75% typical at full load
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Power factor	0.99 typical
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	With cover: 350 W with 30 CFM forced air, (-C) (-CF) (-CEF)
Adjustment range	2:1 wide ratio
Supervisory output	5 V @ 500 mA regulated, 12 @ 150 mA x2
Hold-up time	20 ms @ 350W load, 115 Vac nominal line at factory voltage settings
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output: 5.7 to 6.7 Vdc; Other models 10% to 25% above nominal output
Logic Control	
Power failure	TTL logic signal goes high 50-150 msec after the output is in regulation. It goes low at least 4 msec before loss of regulation
Remote on/off	Requires an external contact (N.O. or N.C.) to inhibit outputs
DC-OK	TTL logic goes high 50-150 msec after the output is in regulation. It goes low when there is loss of regulation
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.7 G peak 5Hz to 500Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
SK3	Molex 22-01-1104 PINS: 08-70-0057
SK4	Molex 22-01-3027 PINS: 08-50-0114
SK5	Molex 22-01-3027 PINS: 08-50-0114
SK6	Molex 22-01-3027 PINS: 08-50-0114

Connector Kit #70-841-011, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02".
3. Specifications are at factory settings unless otherwise stated.
4. To enable normally closed Remote inhibit, cut jumper J1.
5. Mounting (6-32) maximum insertion depth is .12".
6. Warranty: 2 years
7. Weight: 3.6 lbs/1.64 kg

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Phone: (800) 377-4384
Email: tech@solahd.com
www.solahd.com

SOLAHD GLS40 Series, GLS40-M Series Installation & Operating Instructions

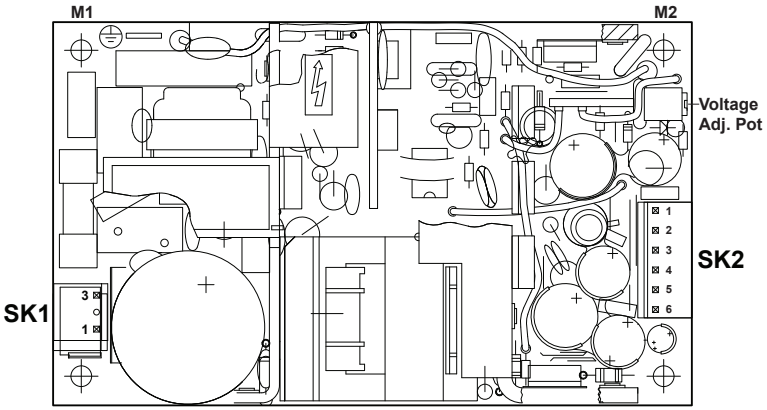
Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. The power supply has been evaluated for use in 70°C at half load.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS42, GLS43, GLS44, and GLS45; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS42-M, GLS43-M, GLS44-M, and GLS45-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 2.5 A, 250 V ac, type SP0001.1008 manufactured by Schurter AG or type 21602.5 manufactured by Littelfuse.
9. GLS42-M, GLS43-M, GLS44-M, and GLS45-M have no patient applied part.
10. This equipment is considered Class I according to protection against electric shock.
11. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	GLS42 (-M)	GLS43 (-M)	GLS44 (-M)	GLS45 (-M)
SK1	1	Line			
	3	Neutral			
Output Connector	**PIN**	**GLS42 (-M)**	**GLS43 (-M)**	**GLS44 (-M)**	**GLS45 (-M)**
SK2	1	+5 V	+12 V	+15 V	+24 V
	2				
	3				
	4	Common			
	5				
	6				
SK201	1	+Sense			
	2	-Sense			

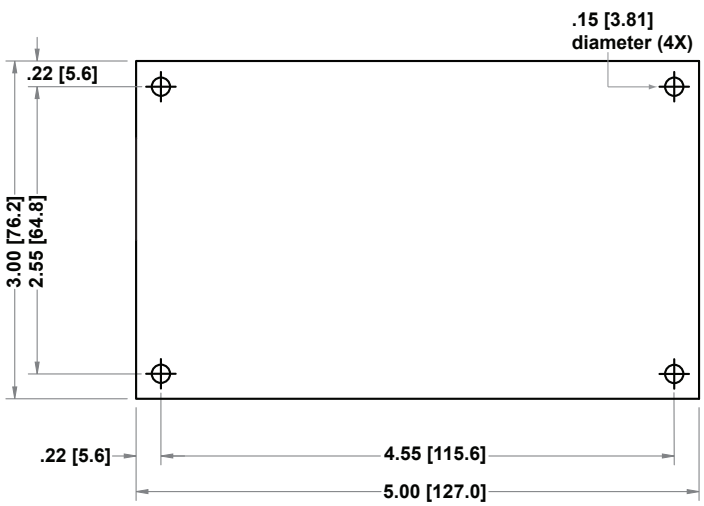
NOTE: Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

Output Ratings

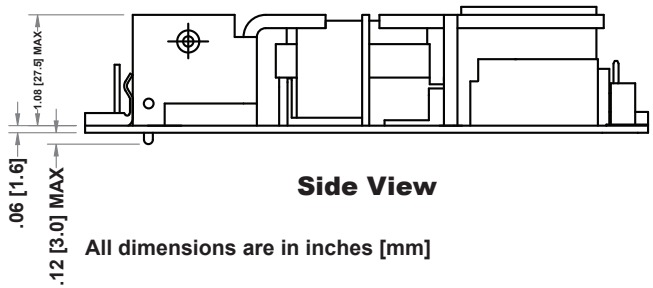
Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS42 (-M)	+5	8.0	40	11.0	55
GLS43 (-M)	+12	3.3		4.5	
GLS44 (-M)	+15	2.6		3.6	
GLS45 (-M)	+24	1.7		2.3	

P/N: A272-180 Rev 1 01/06/10 Ref: 03361001145

Mechanical Dimensions



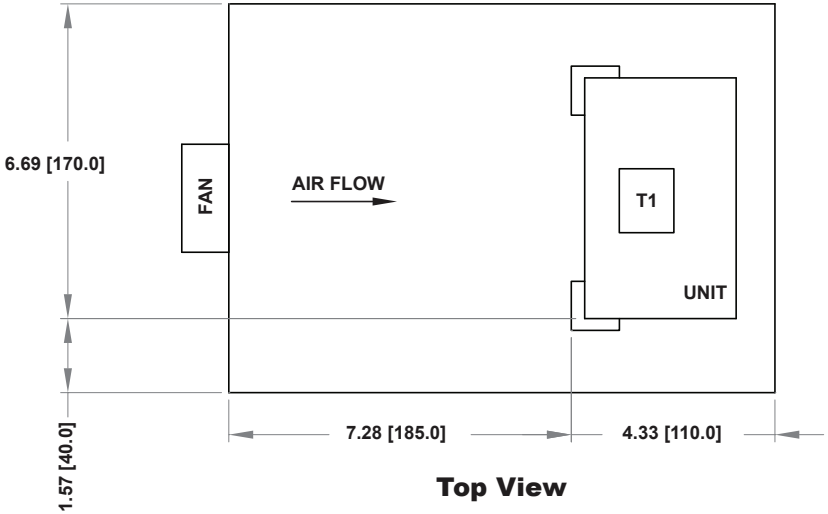
Bottom View



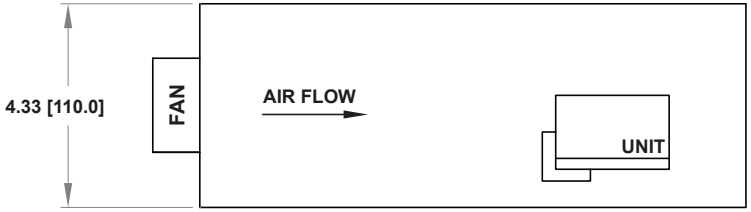
Side View

All dimensions are in inches [mm]

Typical Ventilation Setup



Top View



Side View

Fan: MINEBEA 3110NL-04W-B30
Fan Input: 12 V dc
NOTE: Dimensions and fan used are for reference only

EMERSON Industrial Automation

GLS42, GLS43, GLS44, GLS45, GLS42-M, GLS43-M, GLS44-M, and GLS45-M are commercial designations of model numbers LPS42, LPS43, LPS44, LPS45, LPS42-M, LPS43-M, LPS44-M, and LPS45-M respectively.

GLS40, GLS40-M Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<18 A peak @ 115 Vac; <36 A peak @ 230 Vac, cold start @ 25°C
Input current	1 A max. (RMS) @ 115 Vac
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input; GLS40-M: <75µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	40 W convection; 55 W with 30 CFM forced air
Adjustment range	-5, +10% minimum
Hold-up time	20 ms @ 40 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output; 5.7 to 6.7 Vdc. Other outputs 10 to 25% above nominal output
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

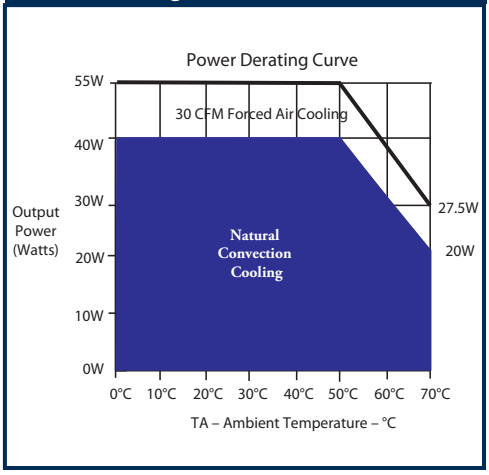
Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.4% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95% RH
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational

Mating Connectors	
AC Input	Molex 09-50-8031 (USA) Not required for (-T) option; 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA) Not required for (-T) option; 09-91-0600 (UK) PINS: 08-52-0113
Remote Sense	Molex 22-01-2025; PINS 08-52-0123

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.5 lb/0.23 kg

Power Derating Curve



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SOLAHD GLS503-CF, GLS503-M-CF Installation & Operating Instructions

Installation & Safety

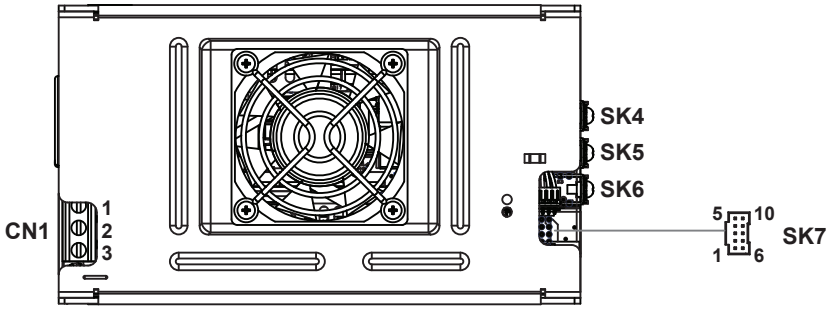
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for the GLS503-CF; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1 for the GLS503-M-CF. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc (minimum) to 300 V dc (maximum).
5. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
6. This power supply contains a +12 V output exceeding 240 VA. When installing the unit into the end system, make sure the outputs and the appropriate wire cannot not be touched.
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect power supply before servicing.
9. The internal fuses (F1, F2) should only be replaced by a F10AH A, 250 V ac, type 216010 MXEP manufactured by Littelfuse or type 5HFP manufactured by Belfuse.

   NOTE: The power supply has a fuse on the on the neutral line.
10. The earthing conductor in the end system should not be less than 8 awg (10 mm^2) in a cross-sectional area.
11. GLS503-M-CF has no patient applied part.
12. The equipment is considered Class I according to protection against electric shock.
13. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Terminal	PIN	Designation
CN1	1	Line
	2	Neutral
	3	Earth GND
Output Connector	**PIN**	**Designation**
SK4		OR-ing terminal
SK5		+12 V main
SK6		Common/Return
SK7 (Signal Output)	1	V1 SWP (Single Wire Parallel)
	2	-Remote sense
	3	+Remote sense
	4	+5 V standby
	5	Standby return
	6	+12 V (fan out)
	7	Common
	8	Remote inhibit
	9	Dc power good
	10	Power fail

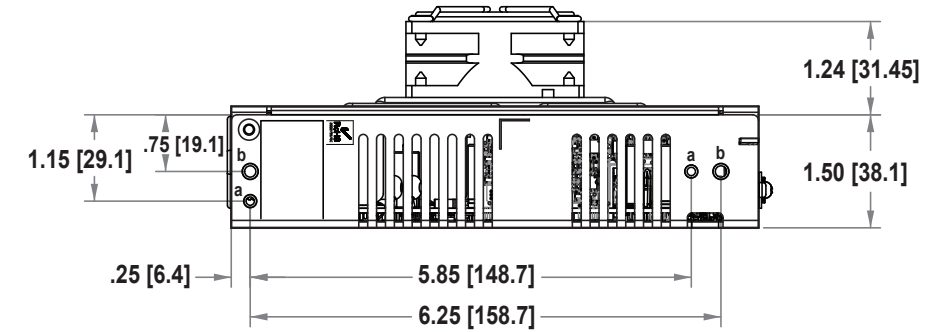
Note: For information on the I2C Header (CN403) and Fan Header (SK8), please contact Technical Support.

Output Ratings

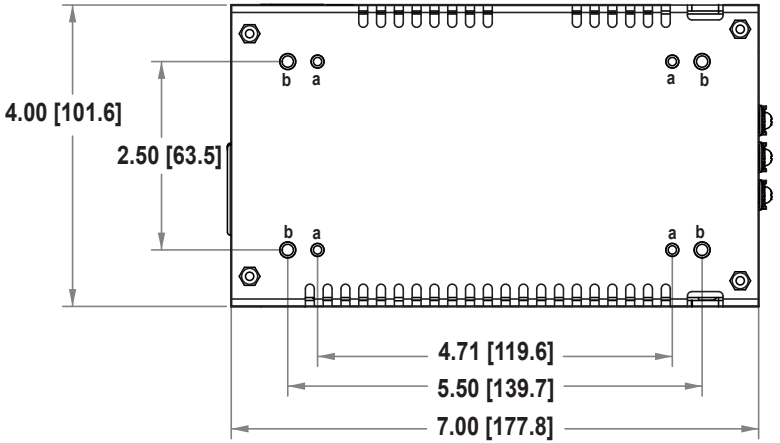
Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
	Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
+12	16.67	200	41.67	500 with cover fan
+5 standby	1.00		2.00	
+12 (fan out)	0.50		0.50	

P/N: A272-173 Rev 2 01/06/10 Ref: 03366205360

Mechanical Dimensions



Side View



Bottom View

All dimensions are in inches [mm]
Screw Size: a = M3 (International); b = #6-32 (U.S.)

EMERSON
Industrial Automation

GLS503-CF and GLS503-M-CF are commercial designations of model numbers NTS503 and NTS503-M respectively.

GLS500, GLS500-M Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac (wide range)
Frequency	47-63 Hz
Inrush current	50 A max, cold start @ 25°C
Efficiency	85% typical at full load, nominal line
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input (<0.3 mA @ 50/60 Hz, 264 Vac input for GLS500-M)
Output	
Maximum power	200 W convection; 500 W with 30 CFM forced air
Adjustment range	±5%
Standby output	5 V @ 1 A convection, 2 A forced air, regulated, ±5%
Fan output	12 V @ 1 A, -5%, +7%, 0.5 A for -CF version
Hold-up time	20 ms @ 500 W load, 115 Vac nominal line at factory voltage setting
Overload protection	Short circuit protection on all outputs Case overload protected @ 115-130% above peak rating
Overvoltage protection	20-35% above nominal output
Logic Control	
Power failure	TTL logic signal goes high 100-500 msec after main output. It goes low at least 4 msec before loss of regulation.
Remote on/off	Requires an external contact closure to inhibit outputs
DC OK	TTL logic goes high after the output is in regulation. It goes low when there is loss of regulation.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 90% RH
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 2 G peak 8Hz to 500Hz, operational

Mating Connectors	
SK4,5,6	Molex 19141-0058
SK7 Control Signal	Molex 90142-0010; PINS: 90119-2110 or Amp 87977-3; PINS: 87309-8
SK8	JST PHR-2; PINS: SPH-002T-PO.5S
CN403	JST PHDR-10VS; PINS: JST 5PHD-002T-PO.5-L/P or Landwin 2050 S1000; PINS: 2053T011P

Connector Kit #70-841-024, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm)
3. Specifications are at factory settings unless otherwise stated.
4. Mounting screw maximum insertion depth is .12".
5. Warranty: 2 years
6. Weight: 3.016 lbs/1.18 kg

SOLAHD

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Email: tech@solahd.com
www.solahd.com

SOLAHD GLS505-CF, GLS505-M-CF Installation & Operating Instructions

Installation & Safety

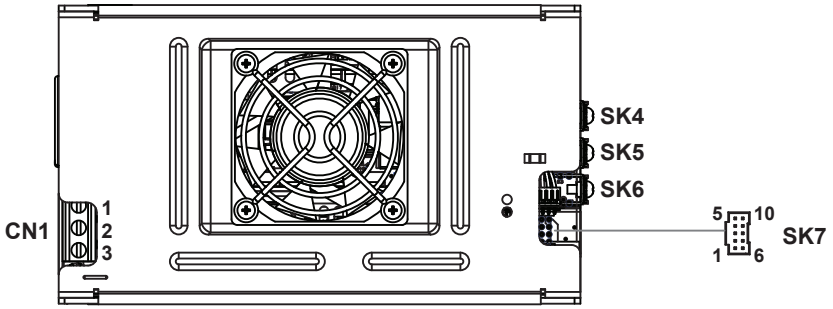
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for the GLS505-CF; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1 for the GLS505-M-CF. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc (minimum) to 300 V dc (maximum).
5. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
6. This power supply contains a +24 V output exceeding 240 VA. When installing the unit into the end system, make sure the outputs and the appropriate wire cannot not be touched.
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect power supply before servicing.
9. The internal fuses (F1, F2) should only be replaced by a F10AH A, 250 V ac, type 216010 MXEP manufactured by Littelfuse or type 5HFP manufactured by Belfuse.

   NOTE: The power supply has a fuse on the neutral line.
10. The earthing conductor in the end system should not be less than 8 awg (10 mm^2) in a cross-sectional area.
11. GLS505-M-CF has no patient applied part.
12. The equipment is considered Class I according to protection against electric shock.
13. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Terminal	PIN	Designation
CN1	1	Line
	2	Neutral
	3	Earth GND
Output Connector	**PIN**	**Designation**
SK4		OR-ing terminal
SK5		+24 V main
SK6		Common/Return
SK7 (Signal Output)	1	V1 SWP (Single Wire Parallel)
	2	-Remote sense
	3	+Remote sense
	4	+5 V standby
	5	Standby return
	6	+12 V (fan out)
	7	Common
	8	Remote inhibit
	9	Dc power good
	10	Power fail

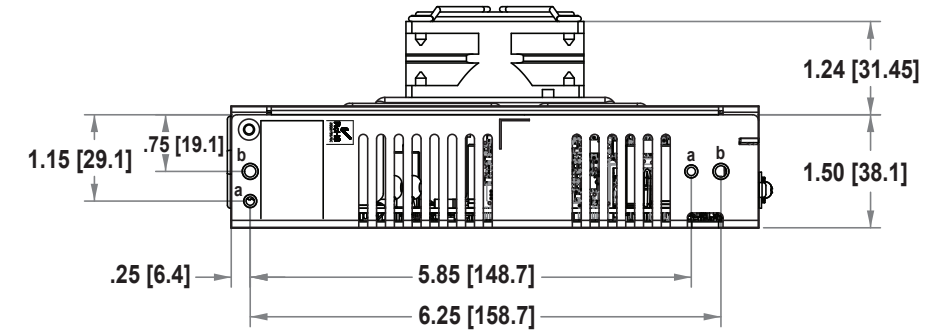
Note: For information on the I2C Header (CN403) and Fan Header (SK8), please contact Technical Support.

Output Ratings

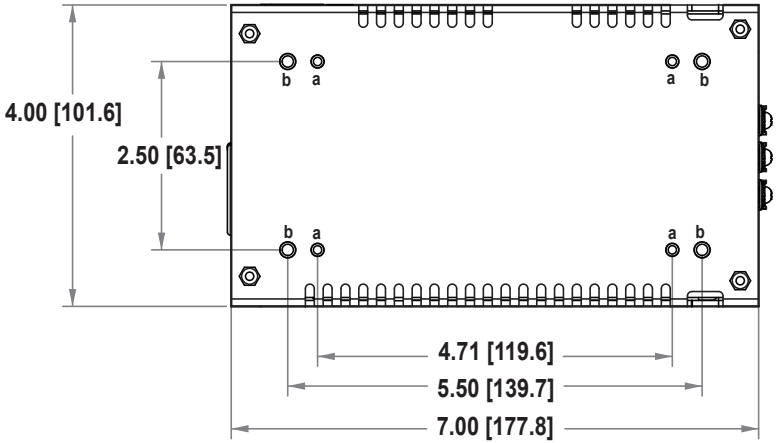
Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
	Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
+24	8.34	200	20.84	500 with cover fan
+5 standby	1.00		2.00	
+12 (fan out)	0.50		0.50	

P/N: A272-174 Rev 2 12/29/09 Ref: 03366205620

Mechanical Dimensions



Side View



Bottom View

All dimensions are in inches [mm]
Screw Size: a = M3 (International); b = #6-32 (U.S.)

EMERSON
Industrial Automation

GLS505-CF and GLS505-M-CF are commercial designations of model numbers NTS505 and NTS505-M respectively.

GLS500, GLS500-M Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac (wide range)
Frequency	47-63 Hz
Inrush current	50 A max, cold start @ 25°C
Efficiency	85% typical at full load, nominal line
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input (<0.3 mA @ 50/60 Hz, 264 Vac input for GLS500-M)
Output	
Maximum power	200 W convection; 500 W with 30 CFM forced air
Adjustment range	±5%
Standby output	5 V @ 1 A convection, 2 A forced air, regulated, ±5%
Fan output	12 V @ 1 A, -5%, +7%, 0.5 A for -CF version
Hold-up time	20 ms @ 500 W load, 115 Vac nominal line at factory voltage setting
Overload protection	Short circuit protection on all outputs Case overload protected @ 115-130% above peak rating
Overvoltage protection	20-35% above nominal output
Logic Control	
Power failure	TTL logic signal goes high 100-500 msec after main output. It goes low at least 4 msec before loss of regulation.
Remote on/off	Requires an external contact closure to inhibit outputs
DC OK	TTL logic goes high after the output is in regulation. It goes low when there is loss of regulation.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 90% RH
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 2 G peak 8Hz to 500Hz, operational

Mating Connectors	
SK4,5,6	Molex 19141-0058
SK7 Control Signal	Molex 90142-0010; PINS: 90119-2110 or Amp 87977-3; PINS: 87309-8
SK8	JST PHR-2; PINS: SPH-002T-PO.5S
CN403	JST PHDR-10VS; PINS: JST 5PHD-002T-PO.5-L/P or Landwin 2050 S1000; PINS: 2053T011P

Connector Kit #70-841-024, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm)
3. Specifications are at factory settings unless otherwise stated.
4. Mounting screw maximum insertion depth is .12".
5. Warranty: 2 years
6. Weight: 3.016 lbs/1.18 kg

SOLAHD

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Email: tech@solahd.com
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SOLAHD GLS508-CF, GLS508-M-CF Installation & Operating Instructions

Installation & Safety

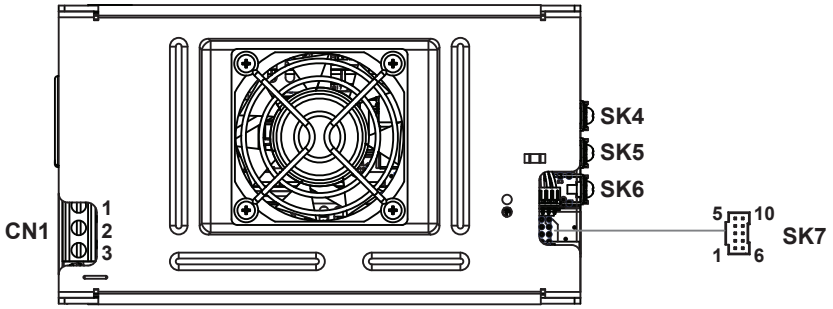
To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. Derate each output 2.5% per degree from 50°C to 70°C ambient temperature.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for the GLS508-CF; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1 for the GLS508-M-CF. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The ac-dc input connector is approved as a component of the power supply, however, it was not specifically evaluated to IEC60320.
4. This power supply is approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 120 V dc (minimum) to 300 V dc (maximum).
5. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
6. This power supply contains a +48 V output exceeding 240 VA. When installing the unit into the end system, make sure the outputs and the appropriate wire cannot not be touched.
7. The disconnection from the line must be in the end system.
8. Hazardous voltages exist in the primary circuits. Disconnect power supply before servicing.
9. The internal fuses (F1, F2) should only be replaced by a F10AH A, 250 V ac, type 216010 MXEP manufactured by Littelfuse or type 5HFP manufactured by Belfuse.

   NOTE: The power supply has a fuse on the neutral line.
10. The earthing conductor in the end system should not be less than 8 awg (10 mm^2) in a cross-sectional area.
11. GLS508-M-CF has no patient applied part.
12. The equipment is considered Class I according to protection against electric shock.
13. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Terminal	PIN	Designation
CN1	1	Line
	2	Neutral
	3	Earth GND
Output Connector	**PIN**	**Designation**
SK4		OR-ing terminal
SK5		+48 V main
SK6		Common/Return
SK7 (Signal Output)	1	V1 SWP (Single Wire Parallel)
	2	-Remote sense
	3	+Remote sense
	4	+5 V standby
	5	Standby return
	6	+12 V (fan out)
	7	Common
	8	Remote inhibit
	9	Dc power good
	10	Power fail

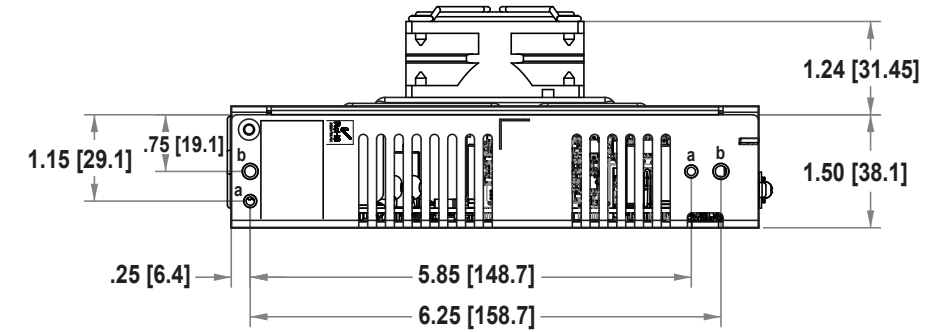
Note: For information on the I2C Header (CN403) and Fan Header (SK8), please contact Technical Support.

Output Ratings

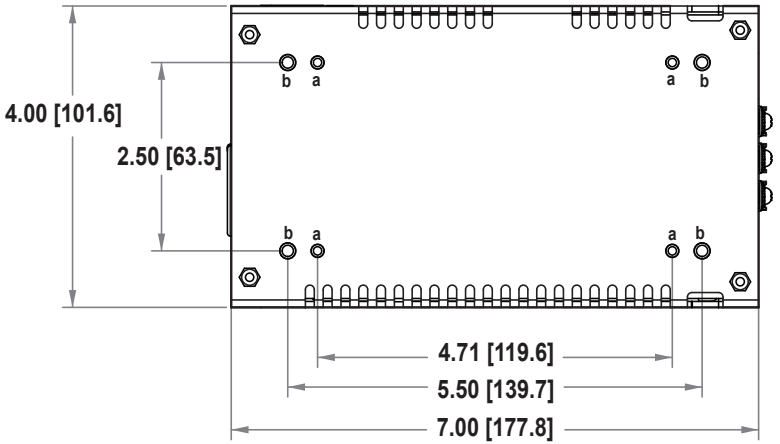
Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
	Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
+48	4.167	200	10.42	500 with cover fan
+5 standby	1.00		2.00	
+12 (fan out)	0.50		0.50	

P/N: A272-175 Rev 2 01/06/10 Ref: 03366205480

Mechanical Dimensions



Side View



Bottom View

All dimensions are in inches [mm]
Screw Size: a = M3 (International); b = #6-32 (U.S.)

EMERSON
Industrial Automation

GLS508-CF and GLS508-M-CF are commercial designations of model numbers NTS508 and NTS508-M respectively.

GLS500, GLS500-M Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac (wide range)
Frequency	47-63 Hz
Inrush current	50 A max, cold start @ 25°C
Efficiency	85% typical at full load, nominal line
EMI filter	FCC Class B conducted and radiated; CISPR 22 Class B conducted and radiated; EN55022 Class B conducted and radiated; VDE 0878 PT3 Class B conducted and radiated
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input (<0.3 mA @ 50/60 Hz, 264 Vac input for GLS500-M)
Output	
Maximum power	200 W convection; 500 W with 30 CFM forced air
Adjustment range	±5%
Standby output	5 V @ 1 A convection, 2 A forced air, regulated, ±5%
Fan output	12 V @ 1 A, -5%, +7%, 0.5 A for -CF version
Hold-up time	20 ms @ 500 W load, 115 Vac nominal line at factory voltage setting
Overload protection	Short circuit protection on all outputs Case overload protected @ 115-130% above peak rating
Overvoltage protection	20-35% above nominal output
Logic Control	
Power failure	TTL logic signal goes high 100-500 msec after main output. It goes low at least 4 msec before loss of regulation.
Remote on/off	Requires an external contact closure to inhibit outputs
DC OK	TTL logic goes high after the output is in regulation. It goes low when there is loss of regulation.
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 90% RH
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 2 G peak 8Hz to 500Hz, operational

Mating Connectors	
SK4,5,6	Molex 19141-0058
SK7 Control Signal	Molex 90142-0010; PINS: 90119-2110 or Amp 87977-3; PINS: 87309-8
SK8	JST PHR-2; PINS: SPH-002T-PO.5S
CN403	JST PHDR-10VS; PINS: JST 5PHD-002T-PO.5-L/P or Landwin 2050 S1000; PINS: 2053T011P

Connector Kit #70-841-024, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm)
3. Specifications are at factory settings unless otherwise stated.
4. Mounting screw maximum insertion depth is .12".
5. Warranty: 2 years
6. Weight: 3.016 lbs/1.18 kg

SOLAHD

Phone: (800) 377-4384
Email: tech@solahd.com
www.solahd.com

SOLAHD GLS50 Series, GLS50-M Series Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. The power supply has been evaluated for use in 70°C at half load (27.5) for GLS52 only; (30 W) for GLS53, GLS54, GLS55, and GLS58 only.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS52, GLS53, GLS54, GLS55, and GLS58; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS52-M, GLS53-M, GLS54-M, GLS55-M, and GLS58-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T3.15AH, 250 V ac, type TE5/392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLS52-M, GLS53-M, GLS54-M, GLS55-M, and GLS58-M.
7. GLS52-M, GLS53-M, GLS54-M, GLS55-M, and GLS58-M have no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

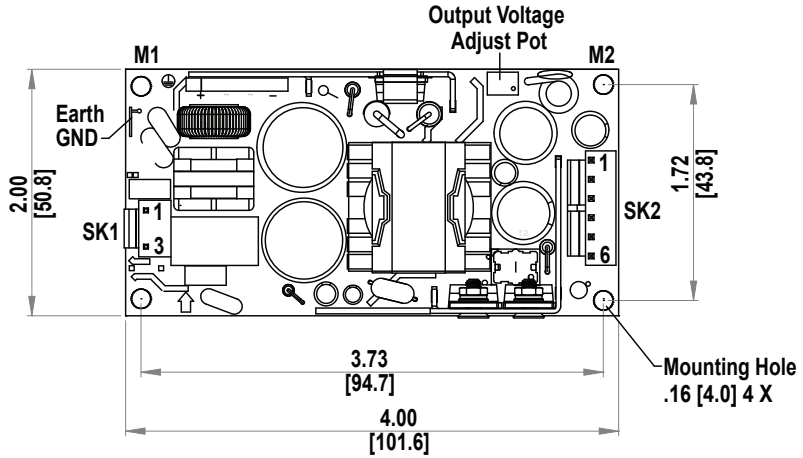
Model	Output Voltage (V)	Convection Cooling	
		Max. Output Current (A)	Max. Output Power (W)
GLS52 (-M)	+5	11.0	55
GLS53 (-M)	+12	5.0	60
GLS54 (-M)	+15	4.0	
GLS55 (-M)	+24	2.5	
GLS58 (-M)	+48	1.25	

Connector PIN Designation

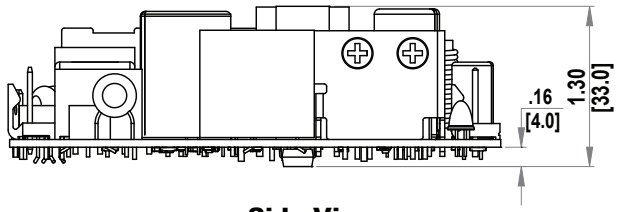
Input Connector	PIN	GLS52 (-M)	GLS53 (-M)	GLS54 (-M)	GLS55 (-M)	GLS58 (-M)
SK1	1	Line				
	3	Neutral				
Output Connector	**PIN**	**GLS52 (-M)**	**GLS53 (-M)**	**GLS54 (-M)**	**GLS55 (-M)**	**GLS58 (-M)**
SK2	1	+5 V	+12 V	+15 V	+24 V	+48 V
	2	+5 V	+12 V	+15 V	+24 V	+48 V
	3	Common				
	4	Common				
	5	-Sense				
	6	+Sense				

P/N: A272-176 Rev 2 01/11/10
Ref: LPS52/OP, LPS53/OP, LPS54/OP, LPS55/OP, LPS58/OP

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].

Maximum screw head diameter is .22″ [5.6 mm].

Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

CAUTION! Do not accidentally connect the ac connector to the dc output.

EMERSON
Industrial Automation

GLS50, GLS50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Input power	< 74 Watts
Efficiency	80 - 85% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input for class I; < 0.25 mA @ 50/60 Hz; 264 Vac input for class II GLS50-M: 275 uA @ 50/60 Hz; 264 Vac input
Output	
Maximum power	60 W convection; (GLS52, 55 W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 lead V lead drop max. Will operate without remote sense. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.41 lb/0.18 kg

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Email: tech@solahd.com
www.solahd.com

SOLAHD GLS50 Series, GLS50-M Series Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. The power supply has been evaluated for use in 70°C at half load (27.5) for GLS52 only; (30 W) for GLS53, GLS54, GLS55, and GLS58 only.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS52, GLS53, GLS54, GLS55, and GLS58; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS52-M, GLS53-M, GLS54-M, GLS55-M, and GLS58-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T3.15AH, 250 V ac, type TE5/392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLS52-M, GLS53-M, GLS54-M, GLS55-M, and GLS58-M.
7. GLS52-M, GLS53-M, GLS54-M, GLS55-M, and GLS58-M have no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

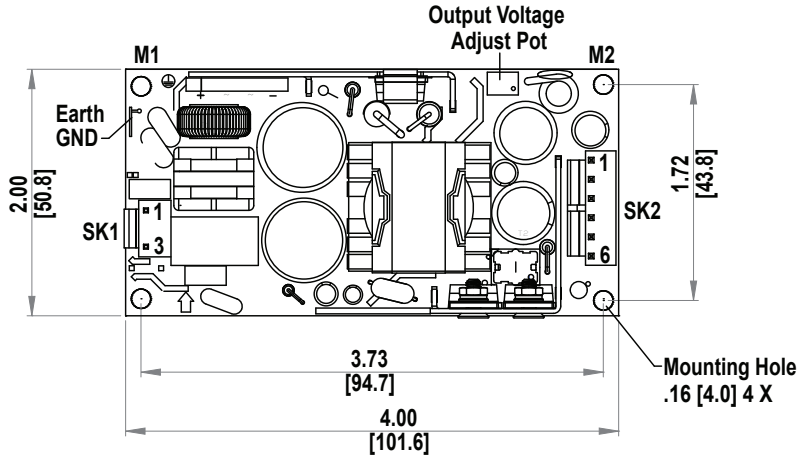
Model	Output Voltage (V)	Convection Cooling	
		Max. Output Current (A)	Max. Output Power (W)
GLS52 (-M)	+5	11.0	55
GLS53 (-M)	+12	5.0	60
GLS54 (-M)	+15	4.0	
GLS55 (-M)	+24	2.5	
GLS58 (-M)	+48	1.25	

Connector PIN Designation

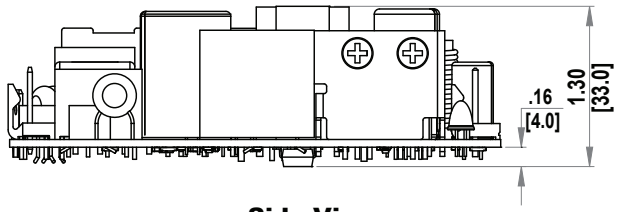
Input Connector	PIN	GLS52 (-M)	GLS53 (-M)	GLS54 (-M)	GLS55 (-M)	GLS58 (-M)
SK1	1	Line				
	3	Neutral				
Output Connector	**PIN**	**GLS52 (-M)**	**GLS53 (-M)**	**GLS54 (-M)**	**GLS55 (-M)**	**GLS58 (-M)**
SK2	1	+5 V	+12 V	+15 V	+24 V	+48 V
	2	+5 V	+12 V	+15 V	+24 V	+48 V
	3	Common				
	4	Common				
	5	-Sense				
	6	+Sense				

P/N: A272-176 Rev 2 01/11/10
Ref: LPS52/OP, LPS53/OP, LPS54/OP, LPS55/OP, LPS58/OP

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].

Maximum screw head diameter is .22″ [5.6 mm].

Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

CAUTION! Do not accidentally connect the ac connector to the dc output.

EMERSON
Industrial Automation

GLS50, GLS50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Input power	< 74 Watts
Efficiency	80 - 85% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input for class I; < 0.25 mA @ 50/60 Hz; 264 Vac input for class II GLS50-M: 275 uA @ 50/60 Hz; 264 Vac input
Output	
Maximum power	60 W convection; (GLS52, 55 W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 lead V lead drop max. Will operate without remote sense. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.41 lb/0.18 kg

SOLAHD

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Email: tech@solahd.com
www.solahd.com

SOLAHD GLS53-I Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. The power supply has been evaluated for use in 70°C at half load and 80°C at quarter load.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The unit must be protected with dc rated fuse when operating in a dc input voltage.
7. The internal fuse should only be replaced with a 3.15A, 250 V ac, type TE5/392 manufactured by Wickmann.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
10. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

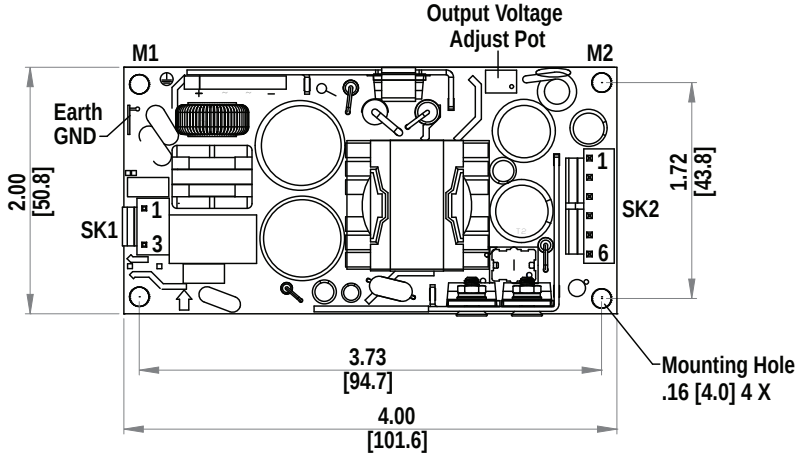
Output Ratings

Output Voltage (V)	Convection Cooling	
	Max. Output Current (A)	Max. Output Power (W)
+12	5.0	60

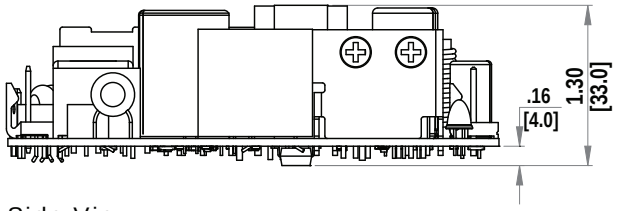
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Line
	3	Neutral
Output Connector	**PIN**	**Designation**
SK2	1	+12 V
	2	+12 V
	3	Common
	4	Common
	5	-Sense
	6	+Sense

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].

Maximum screw head diameter is .22″ [5.6 mm].

Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

CAUTION! Do not accidentally connect the ac connector to the dc output.

EMERSON
Industrial Automation

P/N: A272-207 Rev 0 6/29/09 Ref: 03370201560

GLS50, GLS50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Input power	< 74 Watts
Efficiency	80 - 85% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input for class I; < 0.25 mA @ 50/60 Hz; 264 Vac input for class II GLS50-M: 275 uA @ 50/60 Hz; 264 Vac input
Output	
Maximum power	60 W convection; (GLS52, 55 W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 lead V lead drop max. Will operate without remote sense. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.41 lb/0.18 kg

SOLAHD

Phone: (800) 377-4384
Email: tech@solahd.com
www.solahd.com

SOLAHD GLS54, GLS54-M Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. The power supply has been evaluated for use in 70°C at half load (30 W) for GLS54 only.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS54; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS54-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T3.15AH, 250 V ac, type TE5/392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLS54-M.
7. GLS54-M has no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
10. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

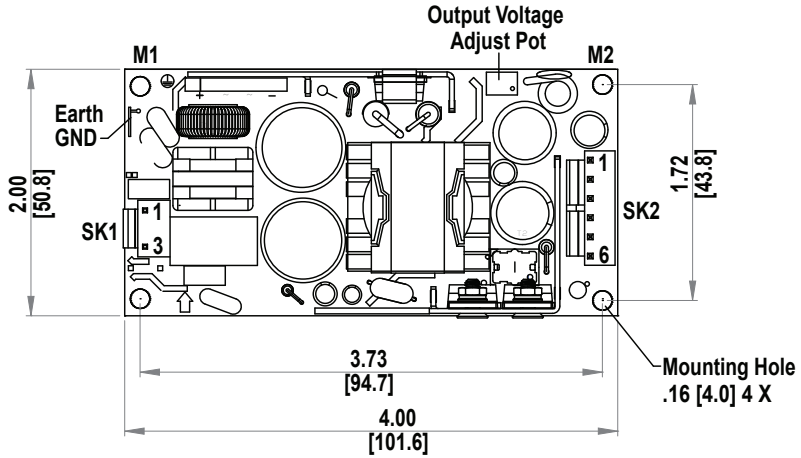
Output Ratings

Output Voltage (V)	Convection Cooling	
	Max. Output Current (A)	Max. Output Power (W)
+15	4.0	60

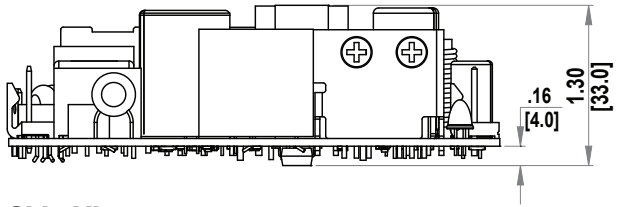
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Line
	3	Neutral
Output Connector	**PIN**	**Designation**
SK2	1	+15 V
	2	+15 V
	3	Common
	4	Common
	5	-Sense
	6	+Sense

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].
Maximum screw head diameter is .22" [5.6 mm].
Mounting holes M1 and M2 should be grounded for EMI purposes.
Mounting hole M1 is an earth ground connection.
CAUTION! Do not accidentally connect the ac connector to the dc output.

GLS54/54-M are commercial designations of model numbers LPS54/54-M respectively.

EMERSON Industrial Automation

P/N: A272-184 Rev 0 4/28/09 Ref: LPS54/OP

GLS50, GLS50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Input power	< 74 Watts
Efficiency	80 - 85% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input for class I; < 0.25 mA @ 50/60 Hz; 264 Vac input for class II GLS50-M: 275 uA @ 50/60 Hz; 264 Vac input
Output	
Maximum power	60 W convection; (GLS52, 55 W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 lead V lead drop max. Will operate without remote sense. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.41 lb/0.18 kg

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SOLAHD GLS55, GLS55-M Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. The power supply has been evaluated for use in 70°C at half load (30 W) for GLS55 only.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS55; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS55-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T3.15AH, 250 V ac, type TE5/392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLS55-M.
7. GLS55-M has no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
10. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

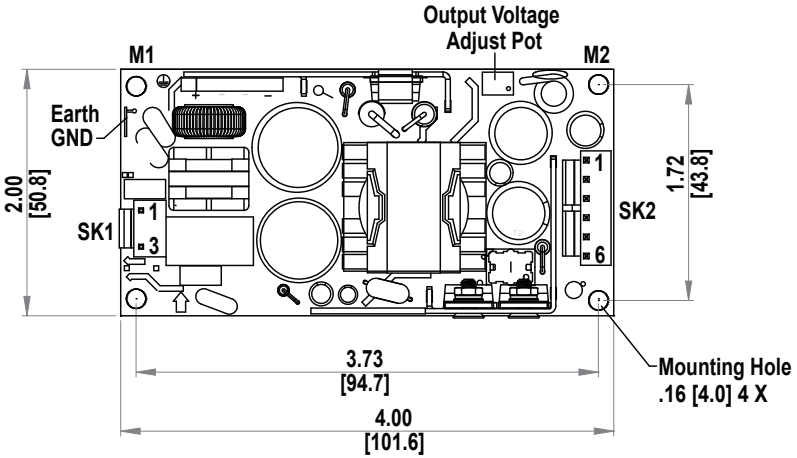
Output Ratings

Output Voltage (V)	Convection Cooling	
	Max. Output Current (A)	Max. Output Power (W)
+24	2.5	60

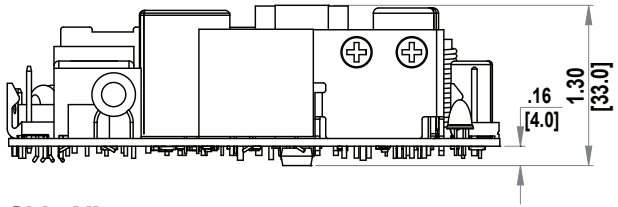
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Line
	3	Neutral
Output Connector	**PIN**	**Designation**
SK2	1	+24 V
	2	+24 V
	3	Common
	4	Common
	5	-Sense
	6	+Sense

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].
Maximum screw head diameter is .22" [5.6 mm].
Mounting holes M1 and M2 should be grounded for EMI purposes.
Mounting hole M1 is an earth ground connection.
CAUTION! Do not accidentally connect the ac connector to the dc output.

GLS55/55-M are commercial designations of model numbers LPS55/55-M respectively.

EMERSON Industrial Automation

P/N: A272-176 Rev 1 4/24/09 Ref: LPS55/OP

GLS50, GLS50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Input power	< 74 Watts
Efficiency	80 - 85% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input for class I; < 0.25 mA @ 50/60 Hz; 264 Vac input for class II GLS50-M: 275 uA @ 50/60 Hz; 264 Vac input
Output	
Maximum power	60 W convection; (GLS52, 55 W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 lead V lead drop max. Will operate without remote sense. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.41 lb/0.18 kg

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GLS58, GLS58-M Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C. The power supply has been evaluated for use in 70°C at half load (30 W) for GLS58 only.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS58; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS58-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T3.15AH, 250 V ac, type TE5/392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLS58-M.
7. GLS58-M has no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
10. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

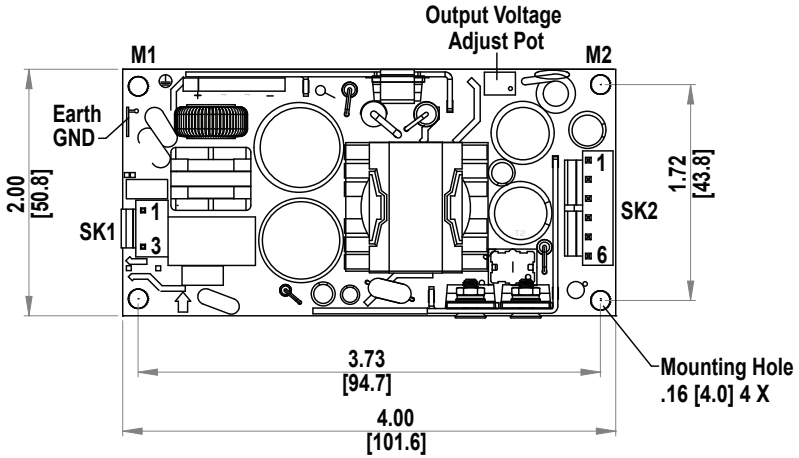
Output Ratings

Output Voltage (V)	Convection Cooling	
	Max. Output Current (A)	Max. Output Power (W)
+48	1.25	60

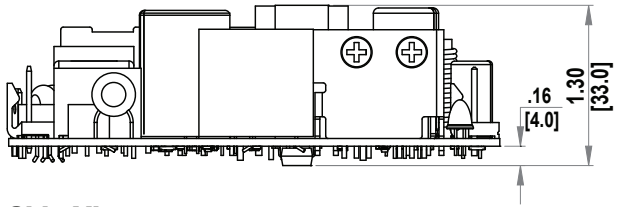
Connector PIN Designation

Input Connector	PIN	Designation
SK1	1	Line
	3	Neutral
Output Connector	**PIN**	**Designation**
SK2	1	+48 V
	2	+48 V
	3	Common
	4	Common
	5	-Sense
	6	+Sense

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].
Maximum screw head diameter is .22" [5.6 mm].
Mounting holes M1 and M2 should be grounded for EMI purposes.
Mounting hole M1 is an earth ground connection.
CAUTION! Do not accidentally connect the ac connector to the dc output.

GLS58/58-M are commercial designations of model numbers LPS58/58-M respectively.

EMERSON Industrial Automation

P/N: A272-185 Rev 0 4/28/09 Ref: LPS58/OP

GLS50, GLS50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Input power	< 74 Watts
Efficiency	80 - 85% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input for class I; < 0.25 mA @ 50/60 Hz; 264 Vac input for class II GLS50-M: 275 uA @ 50/60 Hz; 264 Vac input
Output	
Maximum power	60 W convection; (GLS52, 55 W)
Adjustment range	±20% minimum
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Remote sense	Compensates for 0.5 lead V lead drop max. Will operate without remote sense. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.41 lb/0.18 kg

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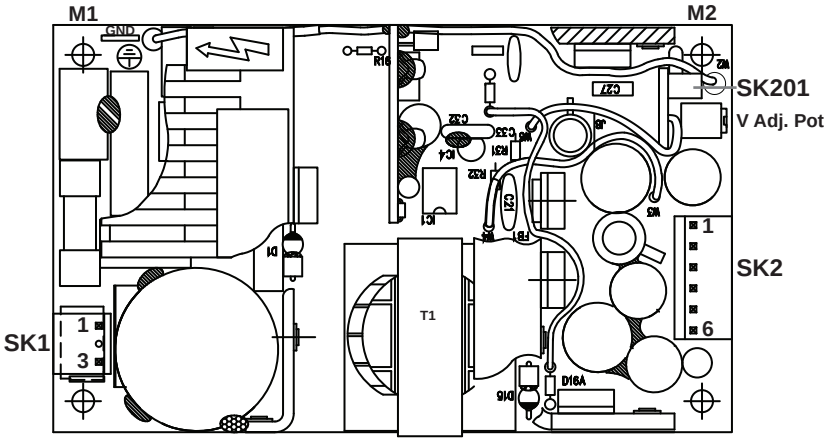
GLS60 Series, GLS60-M Series Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLS62, GLS63, GLS64, and GLS65; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLS63-M, GLS64-M, and GLS65-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected for GLS62, GLS63, GLS64, and GLS65. Please refer to the specification sheet for the input voltage range. GLS63-M, GLS64-M, and GLS65-M are approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 140 V dc to 300 V dc.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. The disconnection from the line must be in the end system.
7. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
8. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
9. The internal fuse should only be replaced with a 3.15 A, 250 V ac, type SP0001.1009 manufactured by Schurter AG, type 2163.15 manufactured by Littelfuse, or type S501 manufactured by Cooper.
10. This power supply is not suitable for direct contact to the patient.
11. This equipment is considered Class I according to protection against electrick shock.
12. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
13. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	GLS62	GLS63 (-M)	GLS64 (-M)	GLS65 (-M)
SK1	1	Neutral			
	3	Line			
Output Connector	**PIN**	**GLS62**	**GLS63 (-M)**	**GLS64 (-M)**	**GLS65 (-M)**
SK2	1	+5 V	+12 V	+15 V	+24 V
	2				
	3				
	4	Common			
	5				
	6				
SK201	1	+Sense			
	2	-Sense			

NOTE: Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is a safety ground connection.

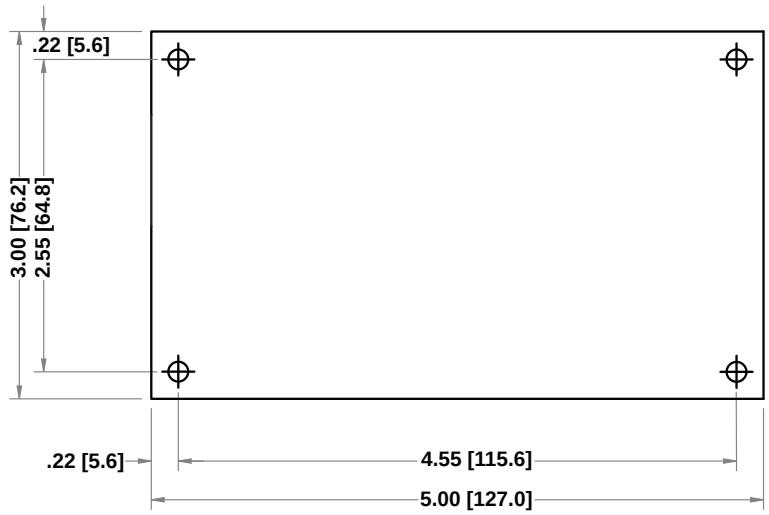
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS62	+5	12.0	60	16.0	80
GLS63 (-M)	+12	5.0		6.7	
GLS64 (-M)	+15	4.0		5.3	
GLS65 (-M)	+24	2.5		3.3	

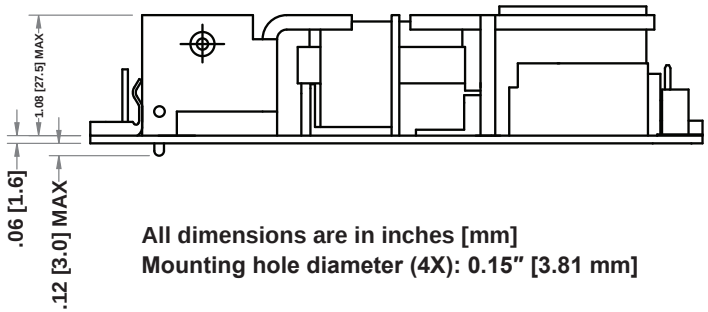
P/N: A272-198 Rev 0 5/12/09 Ref: 03361001333/03366200541

Mechanical Dimensions

Bottom View



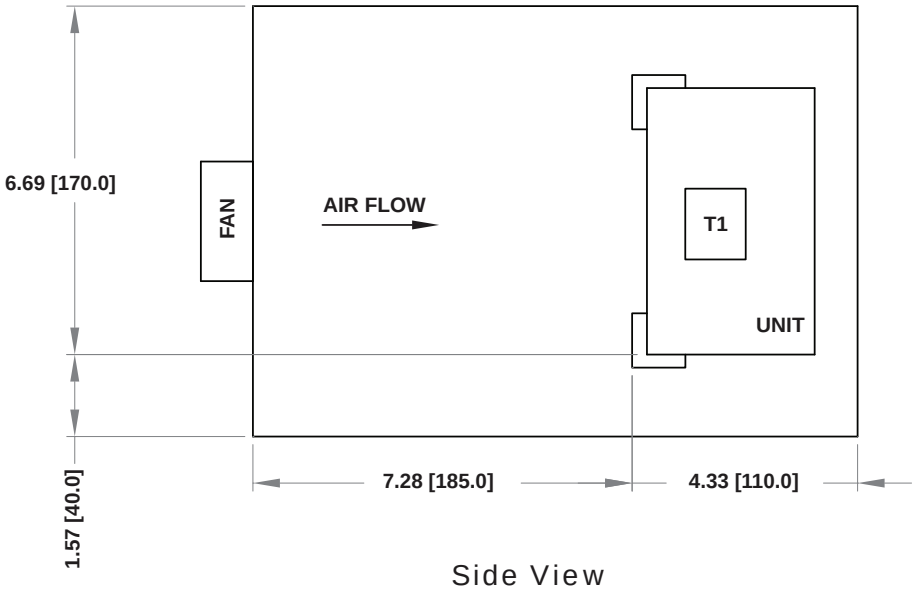
Side View



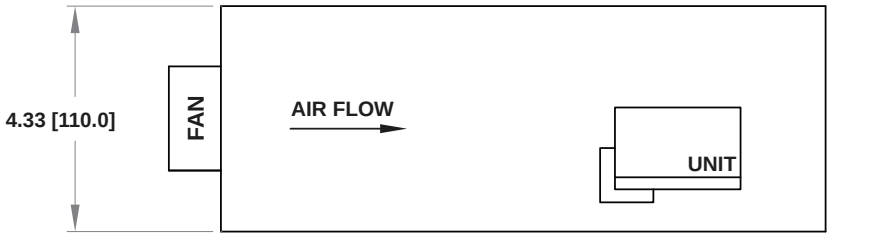
All dimensions are in inches [mm]
Mounting hole diameter (4X): 0.15″ [3.81 mm]

Typical Ventilation Setup

Top View



Side View



Fan: MINEBEA 3110NL-04W-B30
Fan Input: 12 V dc
NOTE: Dimensions and fan used are for reference only

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Visit our Web site at www.solahd.com or contact Technical Support at (800) 377-4384 with any questions.
GLS62, GLS63, GLS64, and GLS65 are commercial designations of model numbers LPS62, LPS63, LPS64, and LPS65 respectively.
GLS63-M, GLS64-M, and GLS65-M are commercial designations of model numbers LPS63-M, LPS64-M, and LPS65-M respectively.

GLS60 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac (wide range); 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<18 A peak @ 115 Vac, <36 A peak @ 230 Vac, cold start @ 25°C
Input current	1.5 A max. (RMS) @ 115 Vac
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	60 W convection; 80 W with 30 CFM forced air
Adjustment range	-5, 10% min.
Hold-up time	20 ms @ 60 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5 V output; 5.7 to 6.7 Vdc; Other outputs 10% to 25% above nominal output
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected

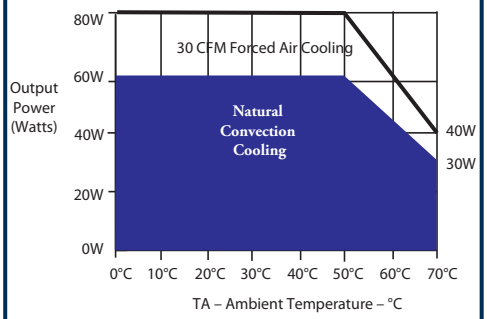
Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C, -20°C startup
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95% RH
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA) Not required for (-T) option 09-91-0300 (UK); PINS: 08-58-0111
DC Outputs	Molex 09-50-8061 (USA) Not required for (-T) option 09-91-0600 (UK); PINS: 08-58-0113
Remote Sense	Molex 22-01-2025 PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above
1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.75 lb/0.34 kg

Power Derating Curve



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Email: tech@solahd.com
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SOLAHD GLT20 Series Installation & Operating Instructions

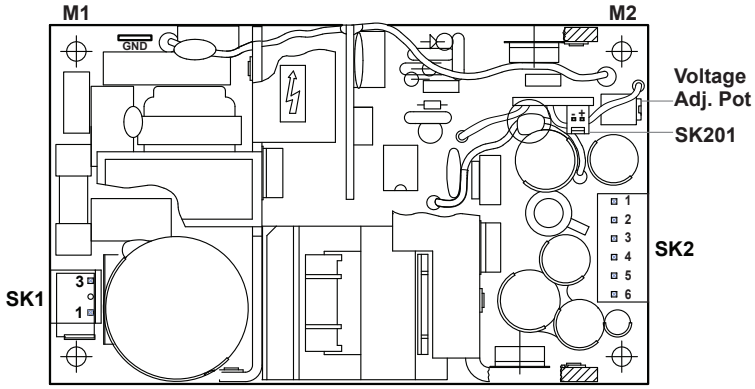
Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03; including the requirements for creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 2.5 A, 250 V ac, type SP0001.1008 manufactured by Schurter AG or type 21602.5 manufactured by Littelfuse.
9. This equipment is considered Class I according to protection against electric shock.
10. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	GLT22	GLT23	GLT24	GLT25
SK1	1	Line			
	3	Neutral			
Output Connector	**PIN**	**GLT22**	**GLT23**	**GLT24**	**GLT25**
SK2	1	+12 V			+15 V
	2	+5 V			
	3				
	4	Common			
	5				
	6	-12 V	-12 V	-5 V	-15 V
SK201	1	+Sense			
	2	-Sense			

NOTE: Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

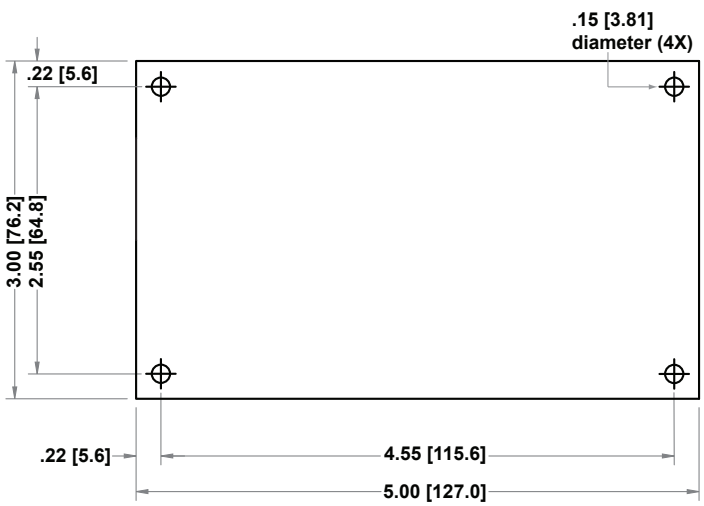
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLT22	+5	3.0	25	4.0	40
	+12	1.5		2.0	
	-12	0.5		0.7	
GLT23	+5	4.0		5.0	
	+12	0.5		0.7	
	-12	0.5		0.7	
GLT24	+5	3.0		4.0	
	+12	1.5		2.0	
	-5	0.5		0.7	
GLT25	+5	3.0		4.0	
	+15	1.5		2.0	
	-15	0.5		0.7	

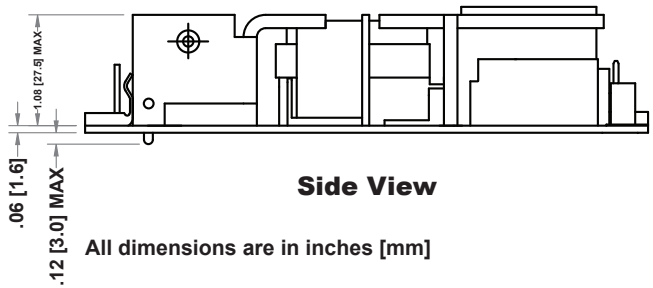
P/N: A272-179 Rev 1 01/06/10 Ref: 03361001733

SOLAHD GLT20 Series Installation & Operating Instructions

Mechanical Dimensions



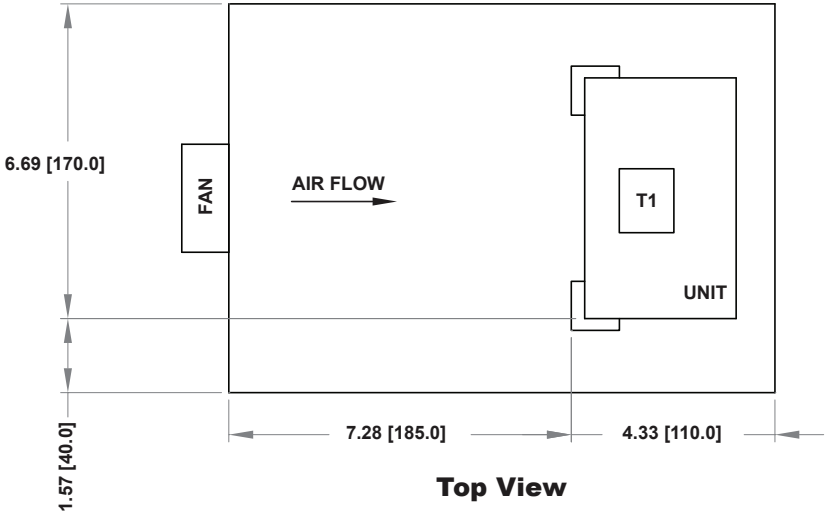
Bottom View



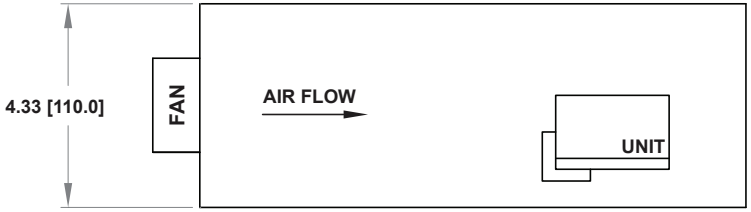
Side View

All dimensions are in inches [mm]

Typical Ventilation Setup



Top View



Side View

Fan: MINEBEA 3110NL-04W-B30
Fan Input: 12 V dc
NOTE: Dimensions and fan used are for reference only

EMERSON
Industrial Automation

GLT22, GLT23, GLT24, and GLT25 are commercial designations of model numbers LPT22, LPT23, LPT24, and LPT25 respectively.

GLT20 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<15 A peak @ 115 Vac; <30 A peak @ 230 Vac, cold start @ 25°C
Input current	1 A max. (RMS) @ 115 Vac
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input

Output	
Maximum power	25 W for convection; 40 W with 30 CFM forced air
Cross regulation	±2% on output 1; ±5% on outputs 2, 3
Adjustment range	-5, +10% minimum
Hold-up time	20 ms @ 25 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs Case overload protected @ 110-145% above peak rating
Overvoltage protection	5.7 to 6.7 Vdc on the main output
Minimum Load	0.3 A first output, 0.1 A second output: GLT22, GLT24, GLT25; 0.4A first output: GLT23
Remote Sense	Compensates for 0.5 V lead drop minimum;Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C, -20°C start up.
Storage temperature	-40°C to 85°C
Temperature coefficient	±.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

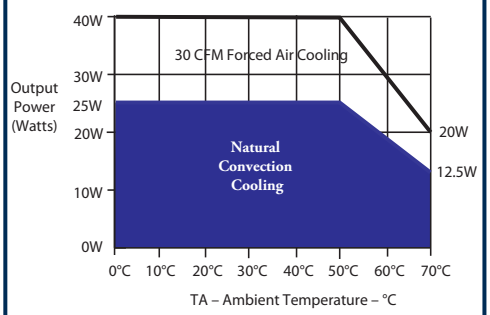
Mating Connectors

AC Input	Molex 09-50-8031 (USA) Not required for (-T) option 09-91-0300 (UK); PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA) Not required for (-T) option 09-91-0600 (UK); PINS: 08-52-0113
Remote Sense	Molex 22-01-2025; PINS: 08-52-0123

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.5lb/0.23kg

Power Derating Curve



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Email: tech@solahd.com
www.solahd.com

SOLAHD GLT40 Series, GLT40-M Series Installation & Operating Instructions

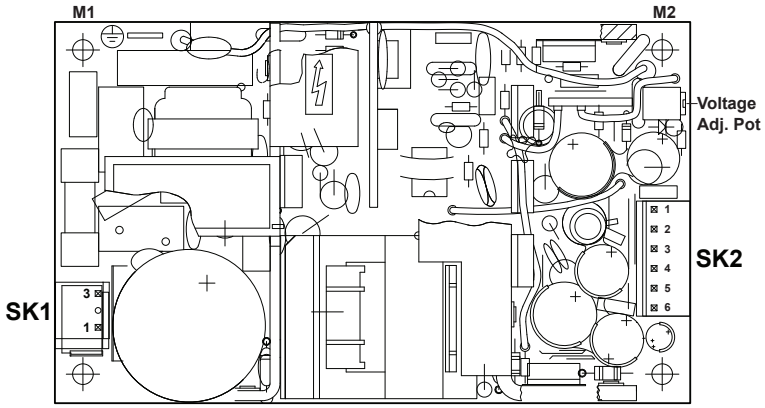
Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLT42, GLT43, GLT44, GLT45, and GLT46; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLT42-M and GLT45-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected. Please refer to the specification sheet for the input voltage range.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
7. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
8. The internal fuse should only be replaced with a 2.5 A, 250 V ac, type SP0001.1008 manufactured by Schurter AG or type 21602.5 manufactured by Littelfuse.
9. GLT42-M and GLT45-M have no patient applied part.
10. This equipment is considered Class I according to protection against electric shock.
11. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	GLT42 (-M)	GLT43	GLT44	GLT45 (-M)	GLT46
SK1	1	Line				
	3	Neutral				
Output Connector	**PIN**	**GLT42 (-M)**	**GLT43**	**GLT44**	**GLT45 (-M)**	**GLT46**
SK2	1		+12 V		+15 V	+24 V
	2	+5 V				
	3					
	4	Common				
	5					
	6	-12 V	-12 V	-5 V	-15 V	+12 V
SK201	1	+Sense				
	2	-Sense				

NOTE: Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

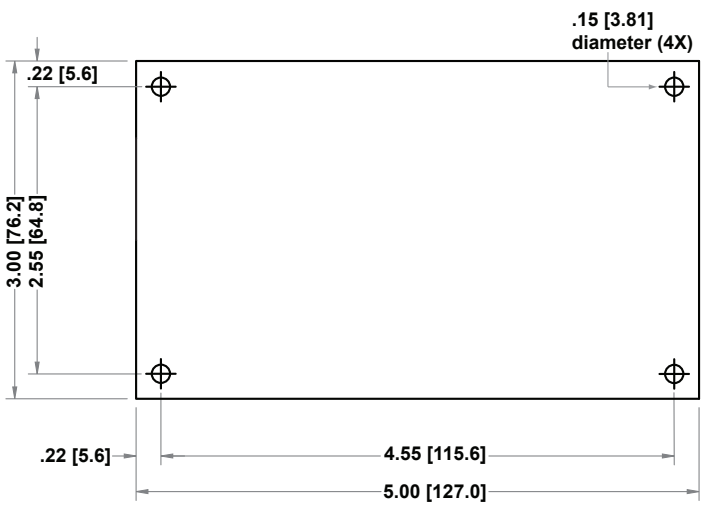
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLT42 (-M)	+5	4.0	40	5.0	55
	+12	2.0		2.5	
	-12	0.5		0.7	
GLT43	+5	6.0		8.0	
	+12	0.5		0.7	
	-12	0.5		0.7	
GLT44	+5	4.0		5.0	
	+12	2.0		2.5	
	-5	0.5		0.7	
GLT45 (-M)	+5	4.0		5.0	
	+15	2.0		2.5	
	-15	0.5		0.7	
GLT46	+5	4.0		5.0	
	+24	1.0		1.5	
	+12	0.5		0.7	

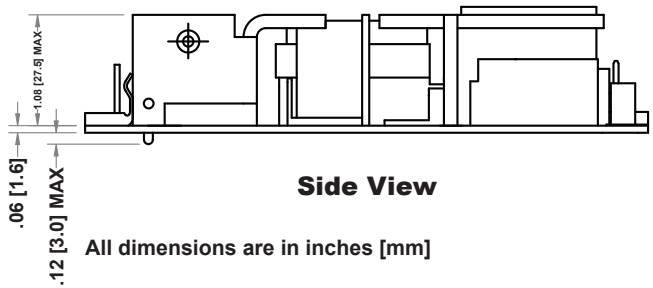
P/N: A272-181 Rev 1 01/06/10 Ref: 03361001284/03366200501

SOLAHD GLT40 Series, GLT40-M Series Installation & Operating Instructions

Mechanical Dimensions



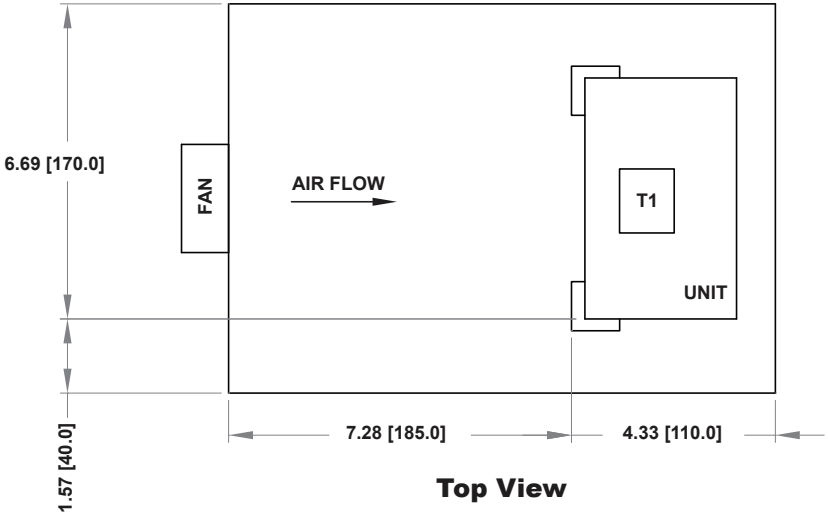
Bottom View



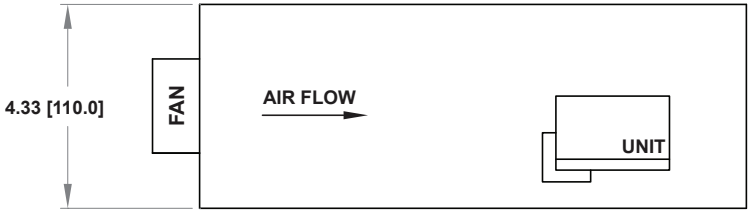
Side View

All dimensions are in inches [mm]

Typical Ventilation Setup



Top View



Side View

Fan: MINEBEA 3110NL-04W-B30
Fan Input: 12 V dc
NOTE: Dimensions and fan used are for reference only

EMERSON
Industrial Automation

GLT42, GLT43, GLT44, GLT45, GLT46, GLT42-M, and GLT45-M are commercial designations of model numbers LPT42, LPT43, LPT44, LPT45, LPT46, LPT42-M, and LPT45-M respectively.

GLT40, GLT40-M Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac; 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<18 A peak @ 115 Vac; <36 A peak @ 230 Vac, cold start @ 25°C
Input current	1 A max. (RMS) @ 115 Vac
Efficiency	70% typical at full load
EMI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input; GLT40-M: <75µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	40 W convection; 55 W with 30 CFM forced air
Cross regulation	±2% on output 1; ±5% on outputs 2, 3
Adjustment range	-5, +10% minimum
Hold-up time	20 ms @ 40 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5.7 to 6.7 Vdc on the main output
Minimum Load	0.4 A for first output, 0.2 A for second outputs: GLT42, GLT44, GLT45; 0.5 A for the 1st output of GLT43; 0.4 A for first output, 0.1 A for second outputs: GLT46
Remote sense	Compensates for 0.5 V lead drop min. Will operate without remote sense connected. Reverse connection protected.

Environmental Specifications

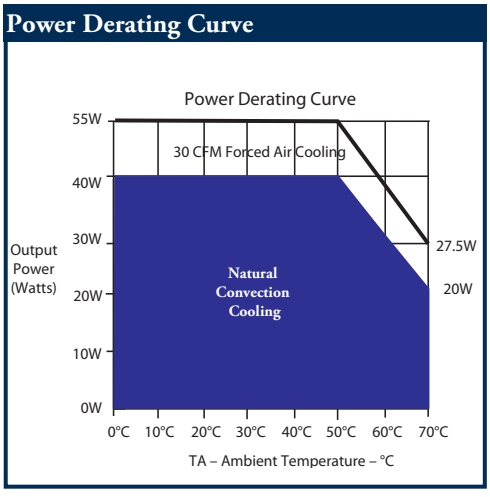
Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C; -20°C start up.
Storage temperature	-40°C to 85°C
Temperature coefficient	±.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75 G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA) Not required for (-T) option; 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA) Not required for (-T) option; 09-91-0600 (UK) PINS: 08-52-0113
Remote Sense	Molex 22-01-2025; PINS 08-52-0123

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.5 lb/0.23 kg

Power Derating Curve



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Email: tech@solahd.com
www.solahd.com

SOLAHD GLT50 Series, GLT50-M Series Installation & Operating Instructions

Installation & Safety

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLT52, GLT53, and GLT54; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLT52-M, GLT53-M, and GLT54-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T2.5AL, 250 V ac, type 392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLT52-M, GLT53-M, and GLT54-M.
7. GLT52-M, GLT53-M, and GLT54-M have no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.

For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

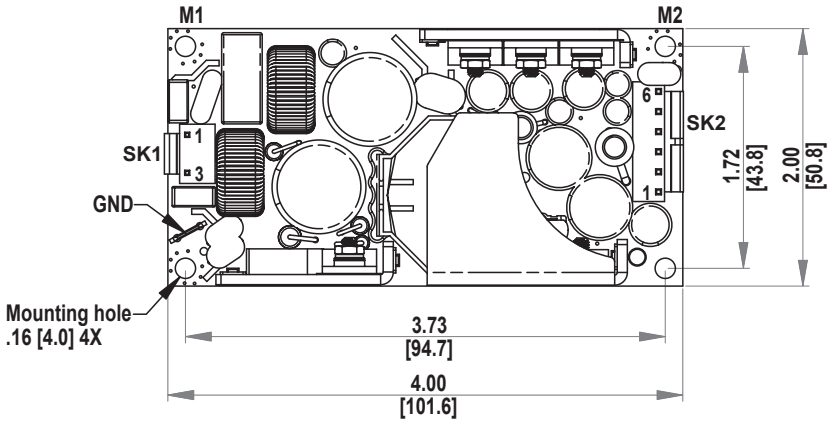
Model	Output Voltage (V)	Convection Cooling	
		Max. Output Current (A)	Max. Output Power (W)
GLT52 (-M)	+5	8.0	55
	+12	3.0	
	-12	0.5	
GLT53 (-M)	+5	8.0	
	+15	2.4	
	-15	0.5	
GLT54 (-M)	+5	8.0	
	+24	1.5	
	+12	0.5	

Connector PIN Designation

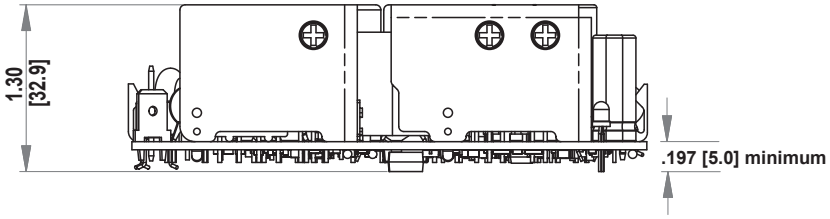
Input Connector	PIN	GLT52 (-M)	GLT53 (-M)	GLT54 (-M)
SK1	1	Neutral		
	3	Line		
Output Connector	**PIN**	**GLT52 (-M)**	**GLT53 (-M)**	**GLT54 (-M)**
SK2	1	+5 V		
	2	+5 V		
	3	Common		
	4	Common		
	5	-12 V	-15 V	+12 V
	6	+12 V	+15 V	+24 V

P/N: A272-186 Rev 1 01/11/10 Ref: LPT52/OP, LPT53/OP, LPT54/OP

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].
Maximum screw diameter is .22″ [5.6 mm].
Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.
CAUTION! Do not accidentally connect the ac connector to the dc output.

EMERSON
Industrial Automation

GLT52, GLT53, GLT54, GLT52-M, GLT53-M, and GLT54-M are commercial designations of model numbers LPT52, LPT53, LPT54, LPT52-M, LPT53-M, and LPT54-M respectively.

GLT50, GLT50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Efficiency	80% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input; GLT50-M: <275µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	55 W convection
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Minimum Load	0.5 A for first output, 0.1 A for second output

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.45 lb/0.20 kg

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SOLAHD GLT53, GLT53-M Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLT53; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLT53-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T2.5AL, 250 V ac, type 392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLT53-M.
7. GLT53-M has no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
10. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

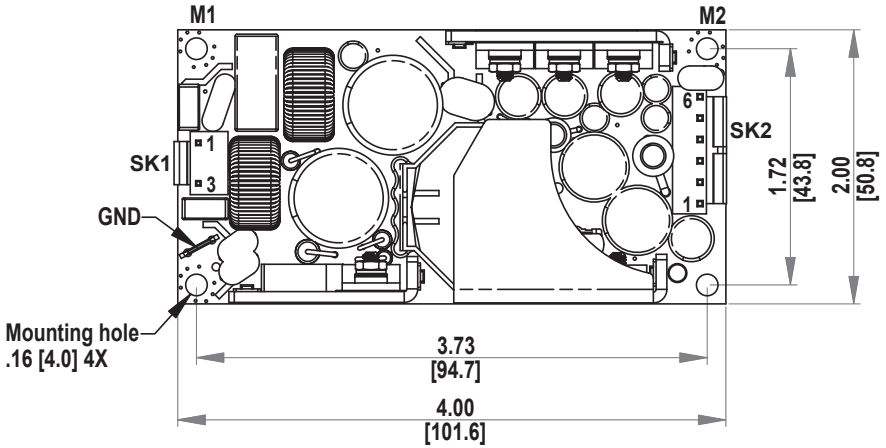
Output Voltage (V)	Convection Cooling	
	Max. Output Current (A)	Max. Output Power (W)
+5	8.0	55
+15	2.4	
-15	0.5	

Connector PIN Designation

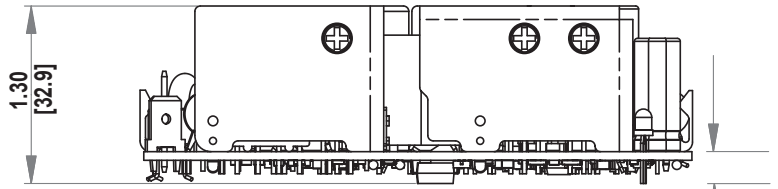
Input Connector	PIN	Designation
SK1	1	Neutral
	3	Line
Output Connector	**PIN**	**Designation**
SK2	1	+5 V
	2	+5 V
	3	Common
	4	Common
	5	-15
	6	+15

GLT53/53-M are commercial designations of model numbers LPT53/53-M respectively.

Mechanical Outline & Dimensions



Top View



Side View **.197 [5.0] minimum**

All dimensions are in inches [mm].
Maximum screw diameter is .22" [5.6 mm].
Mounting holes M1 and M2 should be grounded for EMI purposes.
Mounting hole M1 is an earth ground connection.
CAUTION! Do not accidentally connect the ac connector to the dc output.

EMERSON Industrial Automation

P/N: A272-187 Rev 0 4/28/09 Ref: LPT53/OP

GLT50, GLT50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Efficiency	80% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input; GLT50-M: <275µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	55 W convection
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Minimum Load	0.5 A for first output, 0.1 A for second output

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.45 lb/0.20 kg

SOLAHD

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SOLAHD GLT54, GLT54-M Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLT54; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLT54-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. This power supply is approved and certified for the rated voltage range of 100 V ac to 240 V ac.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The disconnection from the line must be in the end system.
6. The internal fuse should only be replaced with a T2.5AL, 250 V ac, type 392 manufactured by Wickmann.

   NOTE: The power supply has a fuse on the neutral line for GLT54-M.
7. GLT54-M has no patient applied part.
8. This equipment is considered Class I according to protection against electric shock.
9. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
10. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Output Ratings

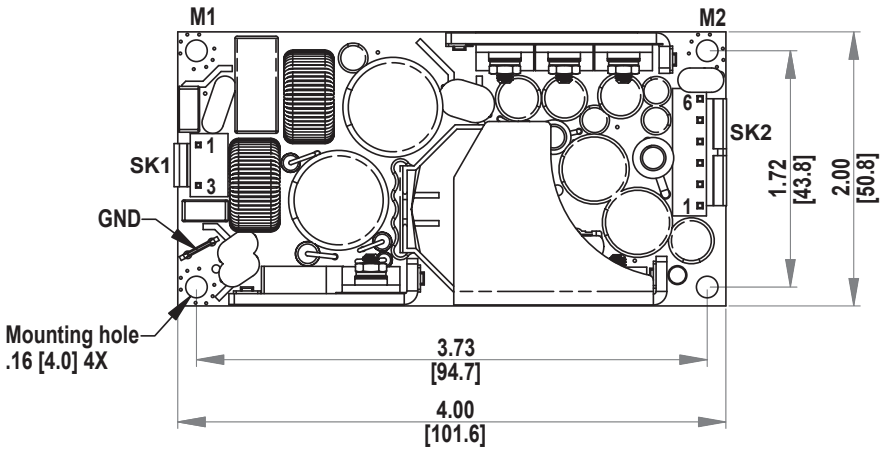
Output Voltage (V)	Convection Cooling	
	Max. Output Current (A)	Max. Output Power (W)
+5	8.0	55
+24	1.5	
+12	0.5	

Connector PIN Designation

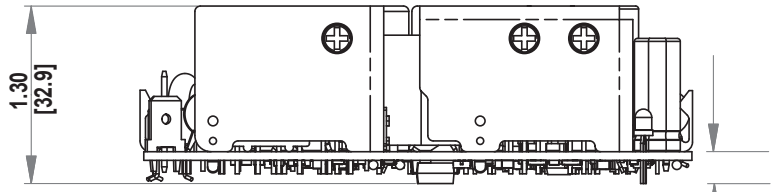
Input Connector	PIN	Designation
SK1	1	Neutral
	3	Line
Output Connector	**PIN**	**Designation**
SK2	1	+5 V
	2	+5 V
	3	Common
	4	Common
	5	+12
	6	+24

GLT54/54-M are commercial designations of model numbers LPT54/54-M respectively.

Mechanical Outline & Dimensions



Top View



Side View

All dimensions are in inches [mm].
Maximum screw diameter is .22" [5.6 mm].
Mounting holes M1 and M2 should be grounded for EMI purposes.
Mounting hole M1 is an earth ground connection.
CAUTION! Do not accidentally connect the ac connector to the dc output.

EMERSON Industrial Automation

P/N: A272-188 Rev 0 4/28/09 Ref: LPT54/OP

GLT50, GLT50-M Series Specifications

Electrical Specifications

Input	
Input range	90-264 Vac (wide range); 127-300 Vdc
Frequency	47-440 Hz
Inrush current	<60 A peak @ 230 Vac, cold start @ 25°C
Efficiency	80% typical at full load
EMI/RFI	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input; GLT50-M: <275µA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	55 W convection
Hold-up time	10/20 ms 115/230 Vac input line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-160% of normal rating
Overvoltage protection	30-50% above nominal output
Minimum Load	0.5 A for first output, 0.1 A for second output

Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C. -20°C start up.
Storage temperature	-40°C to 85°C
Electromagnetic susceptibility	Designed to meet EN61000-4; -2, -3, -4, -5, -6, -8, -11 Level 3
Humidity	Operating; non-condensing 10% to 95% RH
Vibration	IEC68-2-6 to the levels of IEC721-3-2
MTBF demonstrated	> 550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA); 09-91-0300 (UK) PINS: 08-52-0113
DC Outputs	Molex 09-50-8061 (USA); 09-91-0600 (UK) PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above

1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.45 lb/0.20 kg

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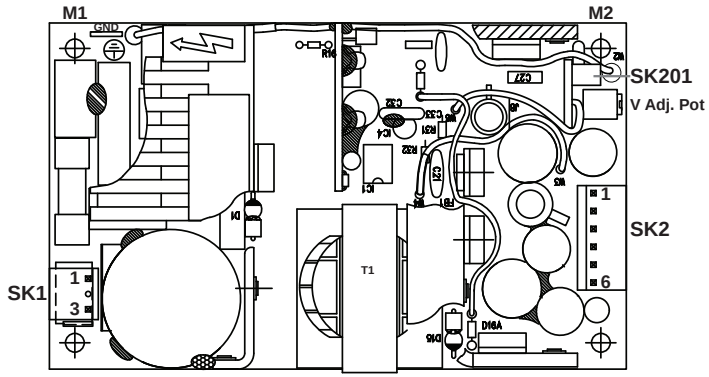
GLT60 Series, GLT60-M Series Installation & Operating Instructions

To comply with the published safety standards, the following must be observed when using this power supply:

1. Maximum ambient temperature for the power supply must not exceed 50°C.
2. When installing the power supply in the end-use equipment, special attention is required to ensure safety compliance with the following safety standards: UL60950-1, EN60950-1, IEC60950-1, and CSA22.2 No. 60950-1-03 for GLT62, GLT63, GLT64, and GLT65; UL60601-1, EN60601-1, IEC60601-1, and CSA22.2 No. 60601-1-M90 for GLT62-M and GLT63-M. The safety requirements include creepage distances, clearances, and distance through insulation between primary wiring and earth or secondary (SELV) wiring.
3. The power supply's rated input voltage is automatically selected for GLT62, GLT63, and GLT64. Please refer to the specification sheet for the input voltage range. GLT65, GLT62-M, and GLT63-M are approved and certified for the rated voltage range of 100 V ac to 250 V ac and/or 140 V dc to 300 V dc.
4. The maximum output power of the supply must not exceed the rating indicated in the specification sheet.
5. The earth ground wire must be connected only to the point marked with the earth ground symbol (on the unit).
6. The disconnection from the line must be in the end system.
7. Hazardous voltages exist in the primary circuits. Disconnect the power supply before servicing.
8. When operating with a dc input voltage range, the unit input must be protected by a dc rated fuse in the end-use installation system.
9. The internal fuse should only be replaced with a 3.15 A, 250 V ac, type SP0001.1009 manufactured by Schurter AG, type 2163.15 manufactured by Littelfuse, or type S501 manufactured by Cooper.
10. This power supply is not suitable for direct contact to the patient.
11. This equipment is considered Class I according to protection against electric shock.
12. This power supply is CE marked following the provisions of the Low Voltage Directive, 2006/95/EC.
13. For technical assistance, contact SolaHD Technical Support at (800) 377-4384 or send an e-mail to tech@solahd.com. Please visit our Web site at www.solahd.com for additional product information and specification sheets.

Mechanical Outline



Connector PIN Designation

Input Connector	PIN	GLT62 (-M)	GLT63 (-M)	GLT64	GLT65
SK1	1	Neutral			
	3	Line			
Output Connector	**PIN**	**GLT62 (-M)**	**GLT63 (-M)**	**GLT64**	**GLT65**
SK2	1	+12 V	+15 V	+12 V	+24 V
	2	+5 V			
	3				
	4	Common			
	5				
	6	-12 V	-15 V	-5 V	+12 V
SK201	1	+Sense			
	2	-Sense			

NOTE: Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is a safety ground connection.

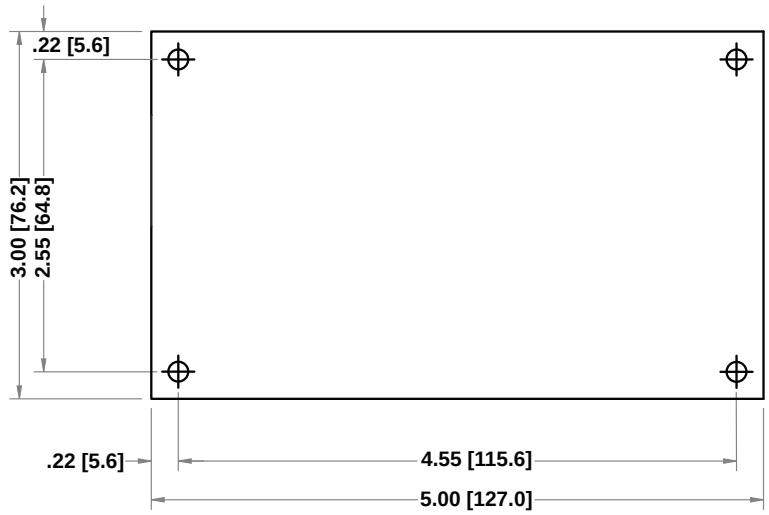
Output Ratings

Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLT62 (-M)	+5	7.0	60	8.0	80
	+12	3.0		3.5	
	-12	0.7		1.0	
GLT63 (-M)	+5	7.0		8.0	
	+15	2.8		3.3	
	-15	0.7		1.0	
GLT64	+5	7.0		8.0	
	+12	3.0		3.5	
	-5	0.7		1.0	
GLT65	+5	7.0		8.0	
	+24	1.5		2.0	
	+12	0.7		1.0	

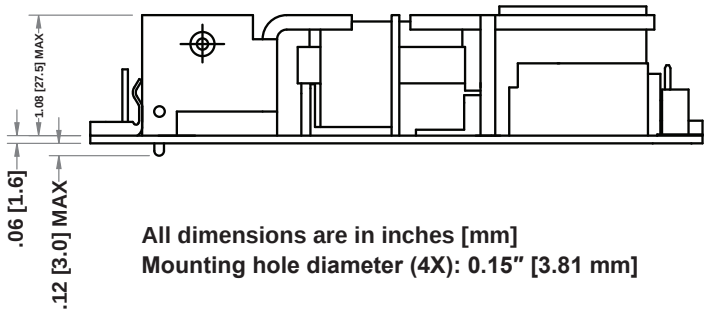
P/N: A272-199 Rev 0 5/12/09 Ref: 03361001433/03366200111/03366200551

Mechanical Dimensions

Bottom View



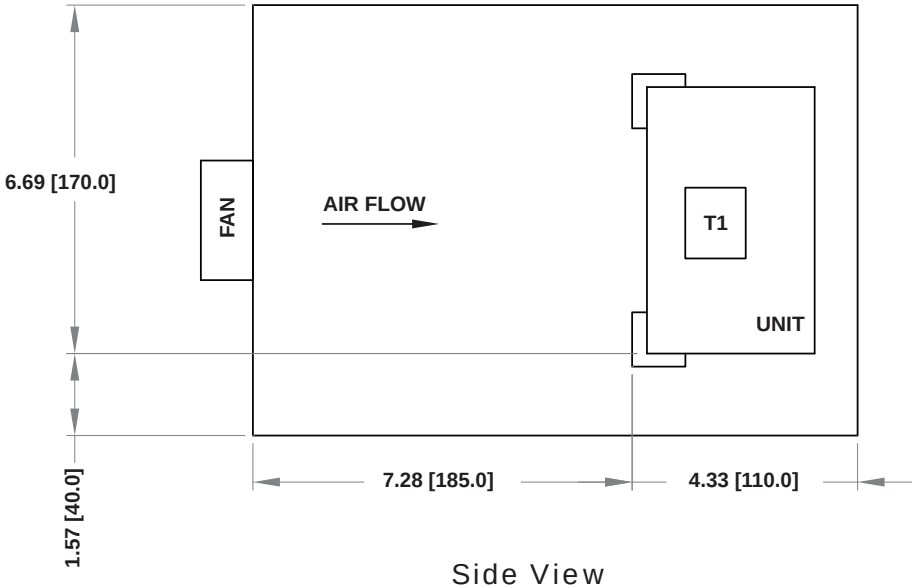
Side View



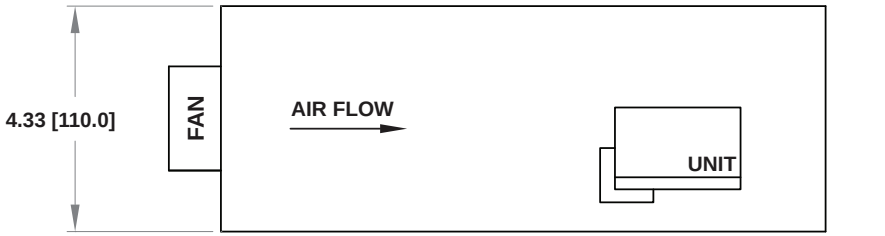
All dimensions are in inches [mm]
Mounting hole diameter (4X): 0.15″ [3.81 mm]

Typical Ventilation Setup

Top View



Side View



Fan: MINEBEA 3110NL-04W-B30
Fan Input: 12 V dc
NOTE: Dimensions and fan used are for reference only

EMERSON Industrial Automation

Visit our Web site at www.solahd.com or contact Technical Support at (800) 377-4384 with any questions.
GLT62, GLT63, GLT64, and GLT65 are commercial designations of model numbers LPT62, LPT63, LPT64, and LPT65 respectively.
GLT62-M and GLT63-M are commercial designations of model numbers LPT62-M and LPT63-M respectively.

GLT60 Series Specifications

Electrical Specifications

Input	
Input range	85-264 Vac (wide range); 120-300 Vdc
Frequency	47-440 Hz
Inrush current	<18 A peak @ 115 Vac, <36 A peak @ 230 Vac, cold start @ 25°C
Input current	1.5 A max. (RMS) @ 115 Vac
Efficiency	70% typical at full load
EMI filter	FCC Class B conducted; CISPR 22 Class B conducted; EN55022 Class B conducted; VDE 0878 PT3 Class B conducted
Safety ground leakage current	<0.5 mA @ 50/60 Hz, 264 Vac input
Output	
Maximum power	60 W convection; 80 W with 30 CFM forced air
Cross regulation	±2% on output 1; ±5% on outputs 2, 3
Adjustment range	-5, 10% min.
Hold-up time	20 ms @ 40 W load, 115 Vac nominal line
Overload protection	Short circuit protection on all outputs. Case overload protected @ 110-145% above peak rating
Overvoltage protection	5.7 to 6.7 Vdc on the main output
Remote sense	Compensates for 0.5 V lead drop minimum, will operate without remote sense connected. Reverse connection protected
Minimum Load	GLT62, 63, 64: 0.7 A for the first output, 0.3 A for second outputs GLT65: 0.7 A for the first output, 0.1 A for second outputs

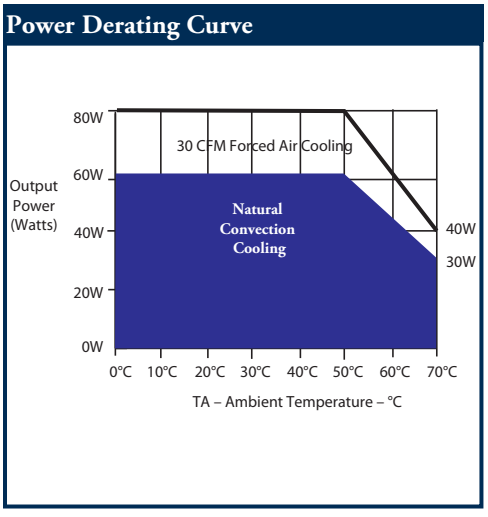
Environmental Specifications

Operating temperature	0° to 50°C ambient. Derate each output 2.5% per degree from 50° to 70°C, -20°C startup
Storage temperature	-40°C to 85°C
Temperature coefficient	±0.04% per °C
Electromagnetic susceptibility	Designed to meet IEC 801, -2, -3, -4, -5, -6, Level 3
Humidity	Operating; non-condensing 5% to 95%
Vibration	Three orthogonal axes, sweep at 1 oct/min, 5 min. dwell at four major resonances 0.75G peak 5 Hz to 500 Hz, operational
MTBF demonstrated	>550,000 hours at full load and 25°C ambient conditions

Mating Connectors	
AC Input	Molex 09-50-8031 (USA) 09-91-0300 (UK); PINS: 08-58-0111
DC Outputs	Molex 09-50-8061 (USA) 09-91-0600 (UK); PINS: 08-52-0113
Remote Sense	Molex 22-01-2025 PINS: 08-52-0113

Connector Kit #70-841-006, includes all of the above
1. Specifications subject to change without notice.
2. All dimensions in inches (mm), tolerance is ±0.02" (±0.5mm).
3. Mounting holes M1 and M2 should be grounded for EMI purposes.
4. Mounting hole M1 is safety ground connection.
5. Specifications are for convection rating at factory settings at 115 Vac input, 25°C unless otherwise stated.
6. Warranty: 2 year
7. Weight: 0.75 lb/0.34 kg

Power Derating Curve



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SOLAHD GLX110-C Cover Kit

Designed for the following power supplies: GL110 Series, -B versions only

What's Included

- One cover
- Four M3 x 6mm countersunk screws

Assembly

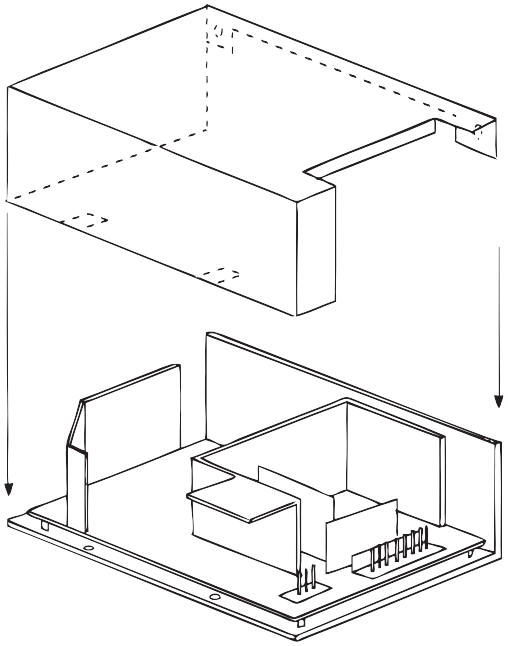

Figure 1: Assembly Drawing

Notes

- All dimensions are in inches [mm].
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.

Overall Dimensions

7.64 in. [194.0 mm] x 4.53 in. [115.0 mm] x 2.44 in. [62.0 mm]

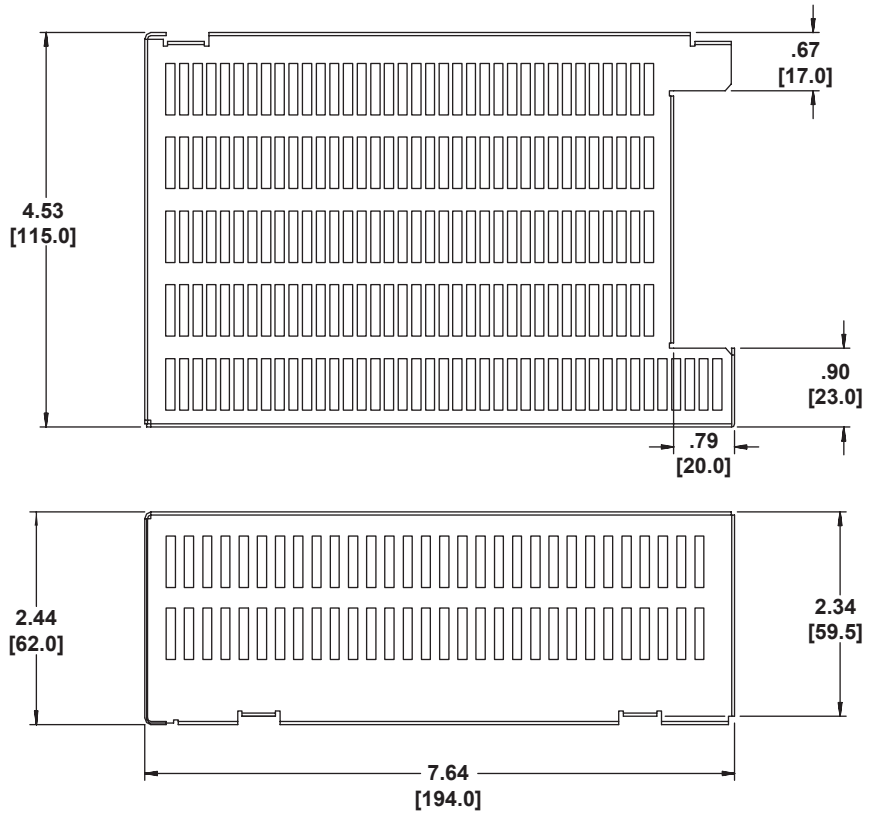

Figure 2: Mechanical Drawing

Technical Support

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EMERSON
Industrial Automation

P/N: A272-201 Rev 0 06/22/09 Ref: LPX110-C

SOLA HD GLX120 Cover Enclosure Kit

Designed for the following power supplies: GLS120 Series

What's Included

- One base
- One cover
- One insulator sheet (plastic)
- Four M3 x 6mm Pan head screws (with attached spring washers)
- Four M3 x 6mm countersunk screws
- One M4 nut (for earth ground stud)
- One M4 spring washer (for earth ground stud)
- One M4 star washer (for earth ground stud)

Assembly

1. Place insulator sheet over base standoffs.

2. Place power supply over insulator sheet and align with base standoffs.

NOTE: Ensure the insulator sheet is correctly fitted in the base under the PBC to maintain safety creepage and clearances.

3. Secure power supply to base using the supplied M3 x 6mm Pan head screws (4).

4. Place cover over power supply and align with base countersink holes.

5. Secure cover to base using the supplied M3 x 6mm countersunk screws (4).

Notes

- Ensure base is firmly connected to supply earth via the earth ground stud ⏚.
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.
- All dimensions are in inches [mm].

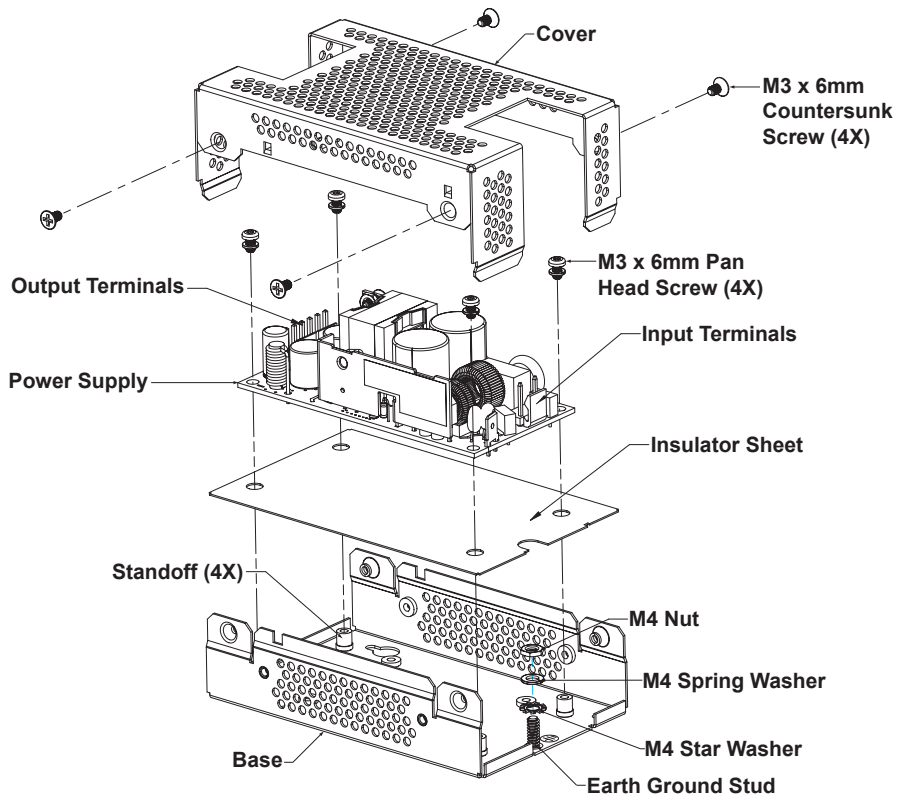

Figure 1: Assembly Drawing

EMERSON Industrial Automation

P/N: A272-202 Rev 0 06/25/09 Ref: LPX120

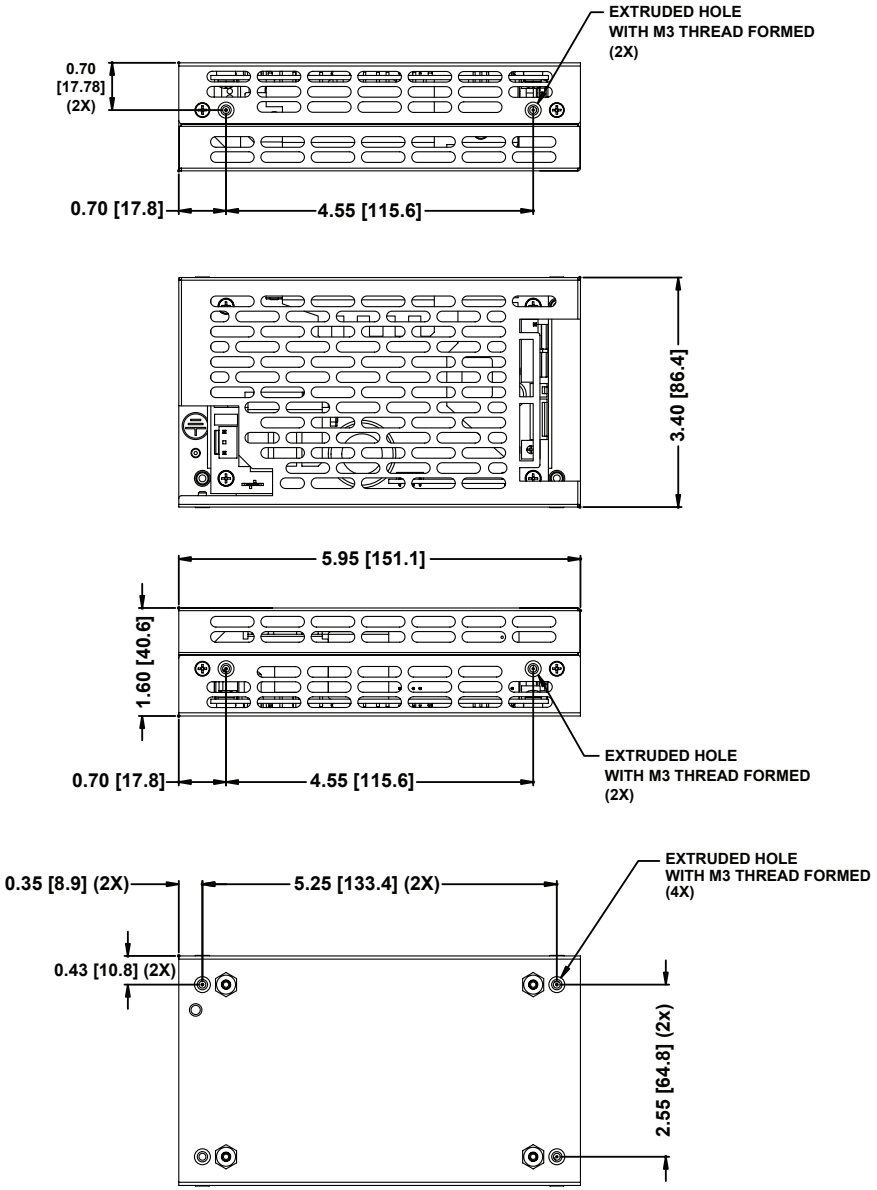

Figure 2: Mechanical Drawing

Overall Dimensions

5.95 in. [151.1 mm] x 3.40 in. [86.4 mm] x 1.60 in. [40.6 mm]

Mounting

Two options are available:

1. Bottom mounting using M3 inserts. Maximum screw protrusion is 0.08 in. [2.0 mm].

2. Side mounting using M3 inserts. Maximum screw protrusion is 0.24 in. [6.0 mm].

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GLX140-CF Cover Top Fan Kit

Designed for the following power supply: GLQ142

What's Included

- One cover with top fan
- Four M3 x 6mm countersunk screws

Recommended Assembly

1. Attach fan wires to SK5 output connector.

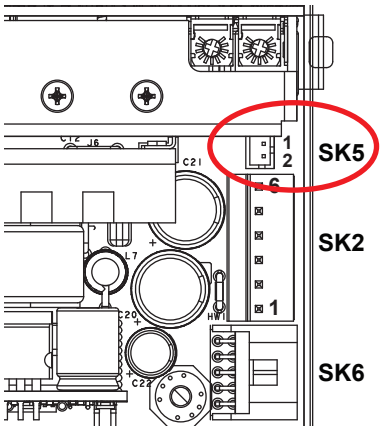

Figure 1: SK5 Output Connector

2. Place cover over power supply and align with base countersink holes.

3. Secure cover to base using the supplied M3 x 6mm countersunk screws (4).

Overall Dimensions

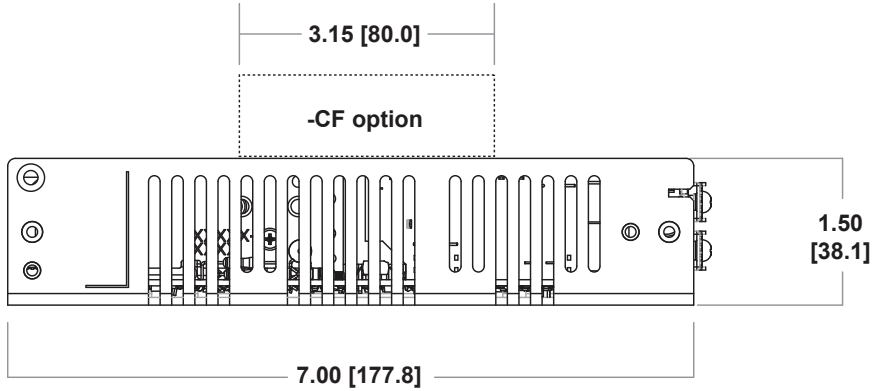

Figure 2: Mechanical Drawing

Notes

- All dimensions are in inches [mm].
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.

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Industrial Automation

P/N: A272-216 Rev 0 09/10/09 Ref: LPX140-CF

SOLAHD GLX150-C Cover Kit

Designed for the following power supplies: GL150 Series

What's Included

- One cover
- Four M3 x 6mm countersunk screws

Overall Dimensions

8.50 in. [216.0 mm] x 4.25 in. [108.0 mm]

Notes

- All dimensions are in inches [mm].
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.

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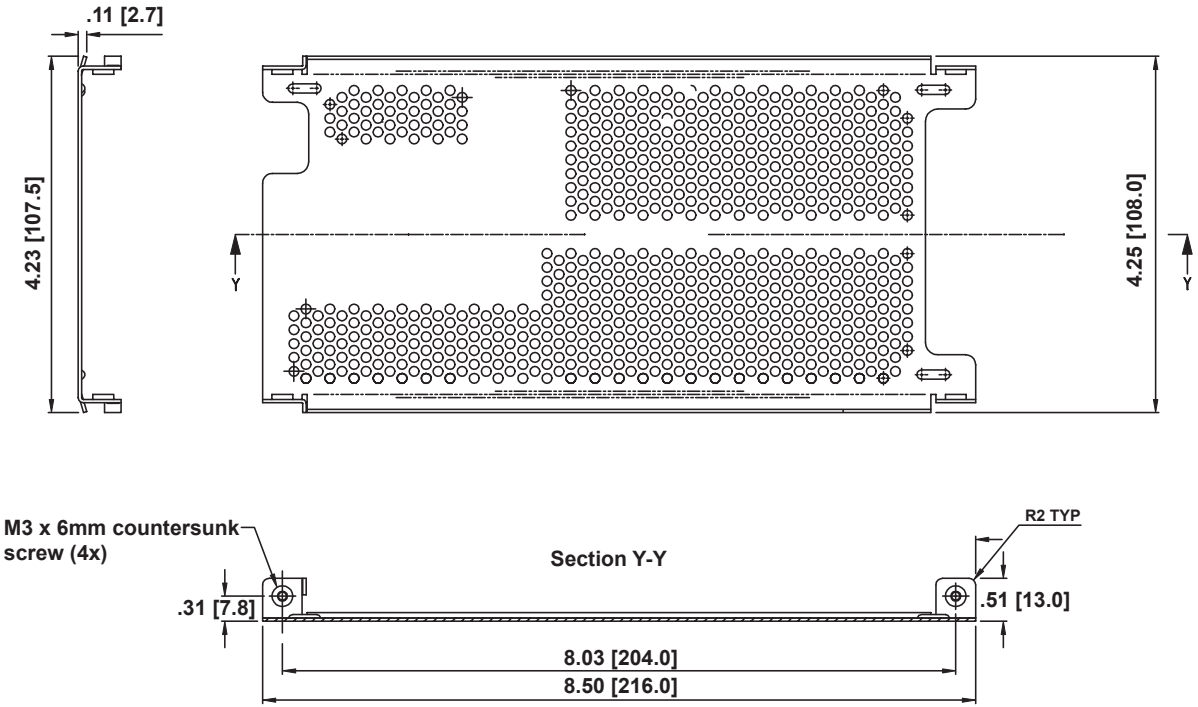

Figure 1: Mechanical Drawing

EMERSON Industrial Automation

P/N: A272-203 Rev 0 06/22/09 Ref: LPX150-C

SOLA HD GLX200 Cover Enclosure Kit

Designed for the following power supplies: GL200-M Series

What's Included

- One base
- One cover
- One insulator sheet (plastic)
- Four M3 x 6mm Pan head screws (with attached spring washers)
- Four M3 x 6mm countersunk screws
- One M4 nut (for earth ground stud)
- One M4 spring washer (for earth ground stud)
- One M4 star washer (for earth ground stud)

Assembly

1. Place insulator sheet over base standoffs.

2. Place power supply over insulator sheet and align with base standoffs.

NOTE: Ensure the insulator sheet is correctly fitted in the base under the PBC to maintain safety creepage and clearances.

3. Secure power supply to base using the supplied M3 x 6mm Pan head screws (4).

4. Place cover over power supply and align with base countersink holes.

5. Secure cover to base using the supplied M3 x 6mm countersunk screws (4).

Notes

- Ensure base is firmly connected to supply earth via the earth ground stud ⏚.
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.
- All dimensions are in inches [mm].

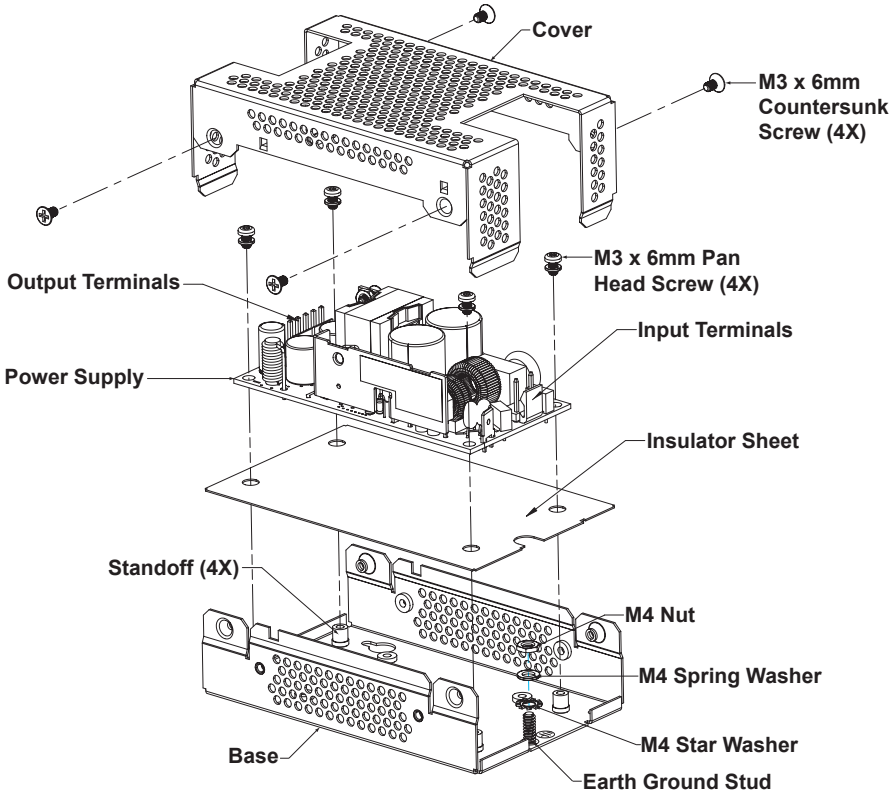

Figure 1: Assembly Drawing

EMERSON Industrial Automation

P/N: A272-206 Rev 0 12/08/09 Ref: LPX200

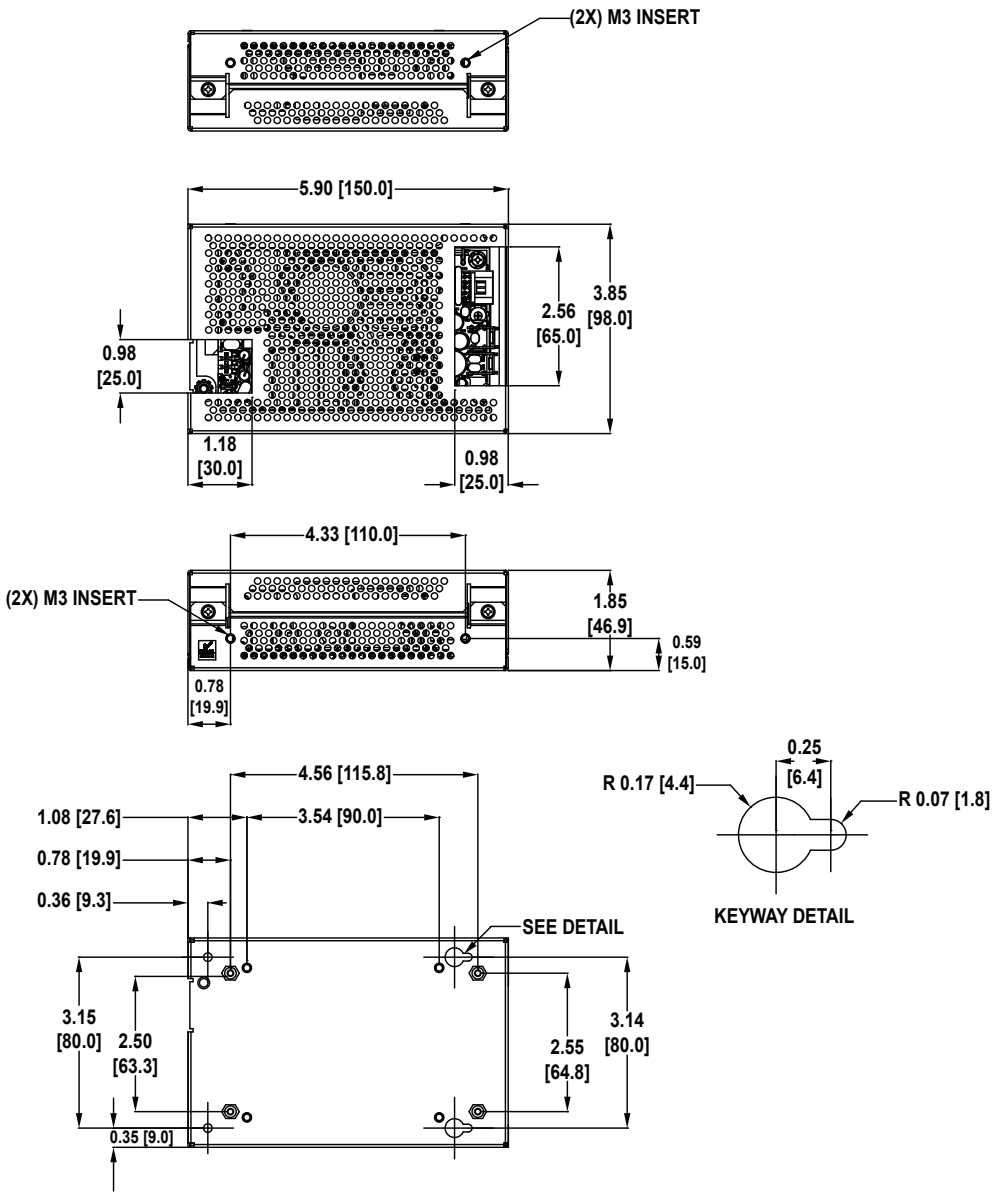

Figure 2: Mechanical Drawing

Overall Dimensions

5.90 in. [150.0 mm] x 3.85 in. [98.0 mm] x 1.85 in. [46.9 mm]

Mounting

Three options are available:

1. Bottom mounting using M3 inserts. Maximum screw protrusion is 0.08 in. [2.0 mm].

2. Side mounting using 4 mm clear holes, plus two keyways.

3. Side mounting using M3 inserts. Maximum screw protrusion is 0.24 in. [6.0 mm].

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EMERSON Industrial Automation

GLX250-CEF Cover End Fan Kit

Designed for the following power supplies: GL250 Series

What's Included

- One cover with end fan
- Four M3 x 6mm countersunk screws

Recommended Assembly

1. Remove M3 x 6mm countersunk screws (4) and original cover.

2. Attach the two fan wires to SK4 and SK7 output connectors.

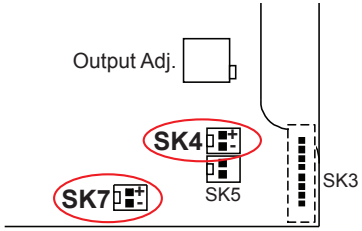

Figure 1: Fan connection

3. Place cover over power supply and align with base countersink holes.

4. Secure cover to base using the supplied M3 x 6mm countersunk screws (4).

Overall Dimensions

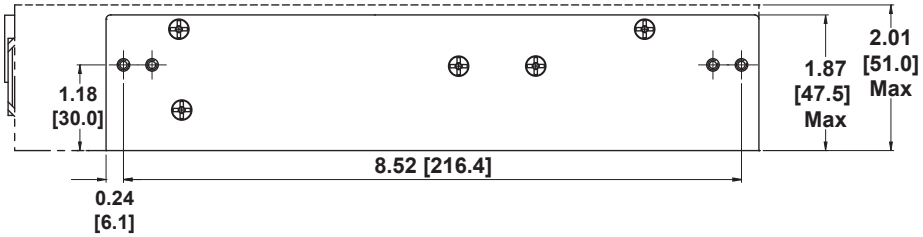

Figure 2: Mechanical Drawing

Notes

- All dimensions are in inches [mm].
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with in respect to creepage and clearance distances, and distances through insulation.

Technical Support

U.S.: (800) 377-4384 • International: (847) 268-6000

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EMERSON
Industrial Automation

P/N: A272-218 Rev 0 12/14/09 Ref: LPX250-CEF

GLX250-CF Cover Top Fan Kit

Designed for the following power supplies: GL250 Series and GL350 Series

What's Included

- One cover with top fan
- Four M3 x 6mm countersunk screws

Recommended Assembly

1. Remove M3 x 6mm countersunk screws (4) and original cover.
2. Attach fan wires to SK4 **or** SK7 output connector for GL250 Series, SK5 **or** SK6 output connector for GLS350 Series and SK6 output connector for GLQ350 Series. See Figures 1-3.
3. Place cover over power supply and align with base countersink holes.
4. Secure cover to base using the supplied M3 x 6mm countersunk screws (4).

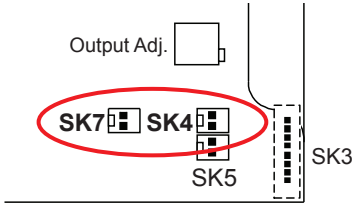

Figure 1: Fan connection for GL250 Series

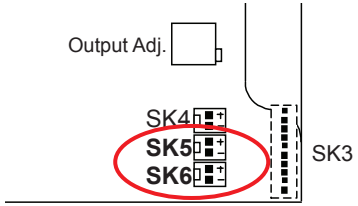

Figure 2: Fan connection for GLS350 Series

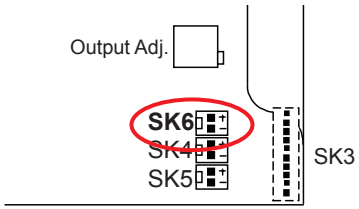

Figure 3: Fan connection for GLQ350 Series

Overall Dimensions

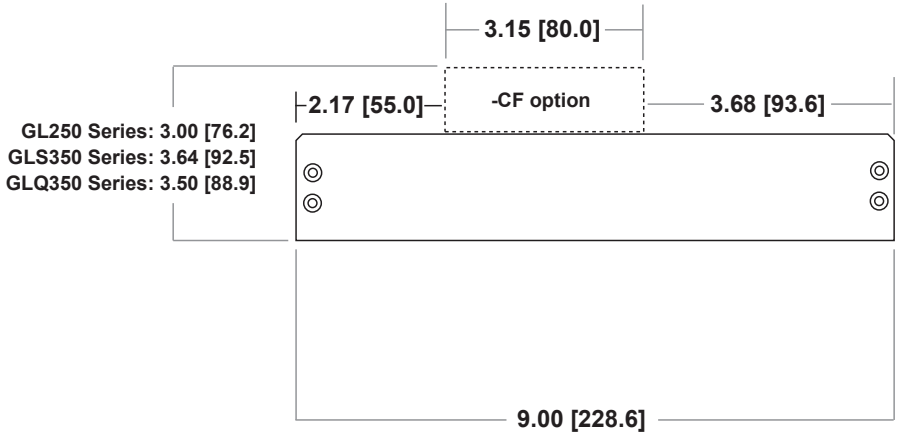

Figure 4: Mechanical Drawing—All Models

Notes

- All dimensions are in inches [mm].
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.

Technical Support

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EMERSON
Industrial Automation

P/N: A272-217 Rev 0 09/10/09 Ref: LPX250-CF

SOLAHD GLX40/60 Cover Enclosure Kit

Designed for the following power supplies: GL20 Series, GL40 Series and GL60 Series

What's Included

- One base
- One cover
- One insulator sheet (plastic)
- Four M3 x 6mm Pan head screws (with attached washers)
- Two M3 x 6mm countersunk screws
- One M4 nut (for earth ground stud)
- One M4 spring washer (for earth ground stud)
- One M4 star washer (for earth ground stud)

Assembly

1. Place insulator sheet over base standoffs.

2. Place power supply over insulator sheet and align with base standoffs.

NOTE: Ensure the insulator sheet is correctly fitted in the base under the PBC to maintain safety creepage and clearances.

3. Secure power supply to base using the supplied M3 x 6mm Pan head screws (4).

4. Place cover over power supply and align with base countersink holes.

5. Secure cover to base using the supplied M3 x 6mm countersunk screws (2).

Notes

- Ensure base is firmly connected to supply earth via the earth ground stud ⏚.
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.
- All dimensions are in inches [mm].

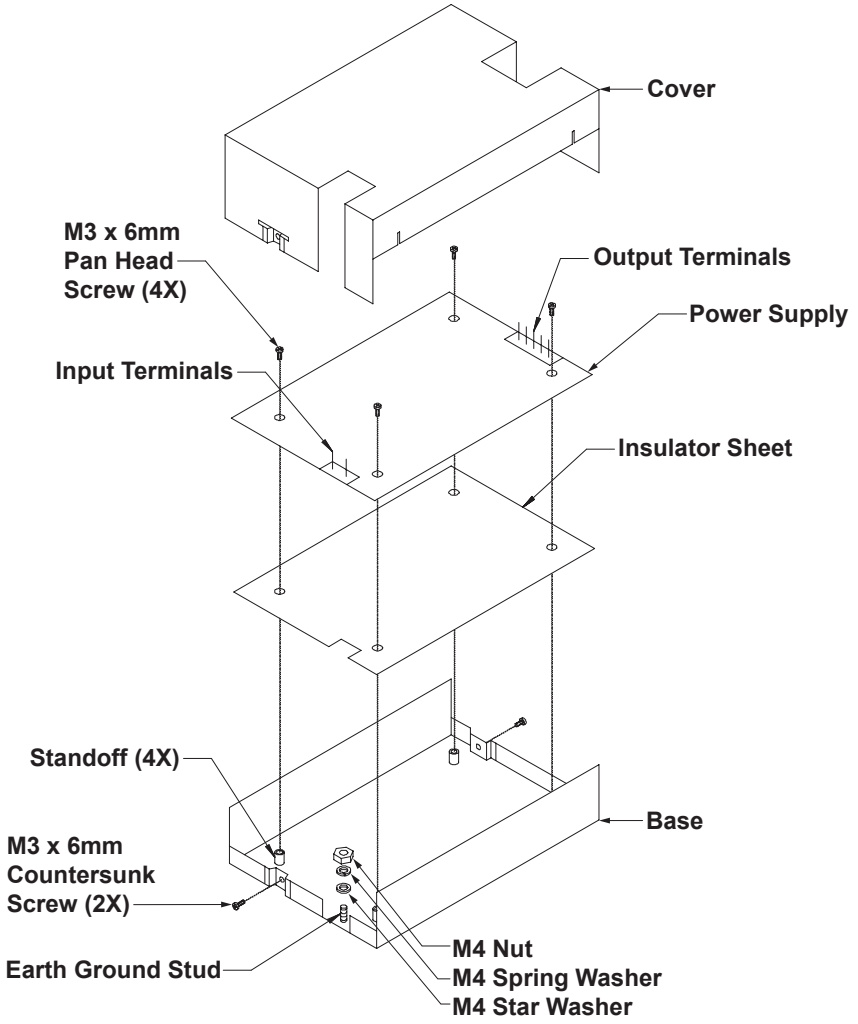

Figure 1: Assembly Drawing

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P/N: A272-204 Rev 0 06/25/09 Ref: LPX40/60

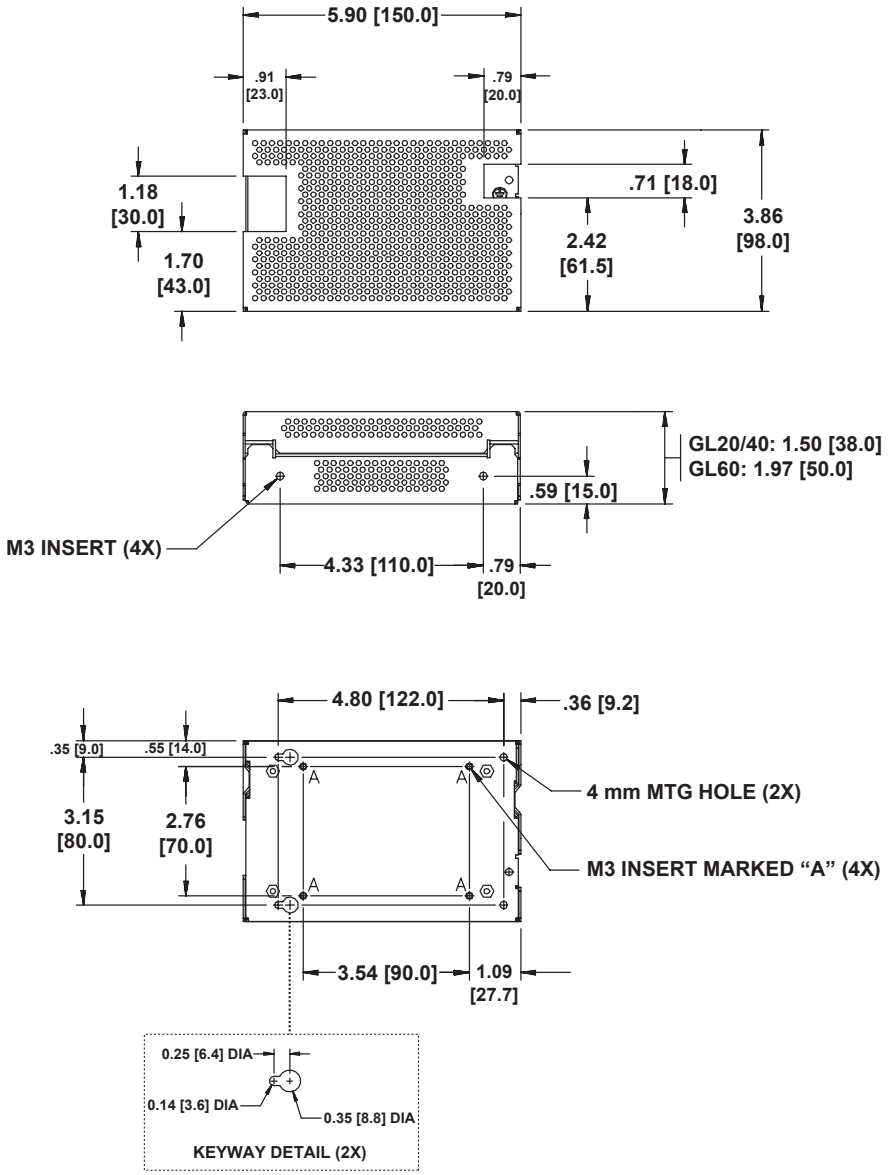

Figure 2: Mechanical Drawing

Overall Dimensions

GL20 Series/GL40 Series: 5.90 in. [150.0 mm] x 3.86 in. [98.0 mm] x 1.50 in. [38.0 mm]

GL60 Series: 5.90 in. [150.0 mm] x 3.86 in. [98.0 mm] x 1.97 in. [50.0 mm]

Mounting

Three options are available:

1. Bottom mounting using M3 inserts. Maximum screw protrusion is 0.08 in. [2.0 mm].

2. Side mounting using 4 mm clear holes, plus two keyways.

3. Side mounting using M3 inserts. Maximum screw protrusion is 0.24 in. [6.0 mm].

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EMERSON Industrial Automation

SOLA HD GLX50 Cover Enclosure Kit

Designed for the following power supplies: GL50 Series and GL100-M Series

What's Included

- One base
- One cover
- One insulator sheet (plastic)
- Four M3 x 6mm Pan head screws (with attached spring washers)
- Four M3 x 6mm countersunk screws
- One M4 nut (for earth ground stud)
- One M4 spring washer (for earth ground stud)
- One M4 star washer (for earth ground stud)

Assembly

1. Place insulator sheet over base standoffs.

2. Place power supply over insulator sheet and align with base standoffs.

NOTE: Ensure the insulator sheet is correctly fitted in the base under the PBC to maintain safety creepage and clearances.

3. Secure power supply to base using the supplied M3 x 6mm Pan head screws (4).

4. Place cover over power supply and align with base countersink holes.

5. Secure cover to base using the supplied M3 x 6mm countersunk screws (4).

Notes

- Ensure base is firmly connected to supply earth via the earth ground stud ⏚.
- Ensure that the relevant safety standards (e.g. EN60950-1) are complied with, in respect to creepage and clearance distances, and distances through insulation.
- All dimensions are in inches [mm].

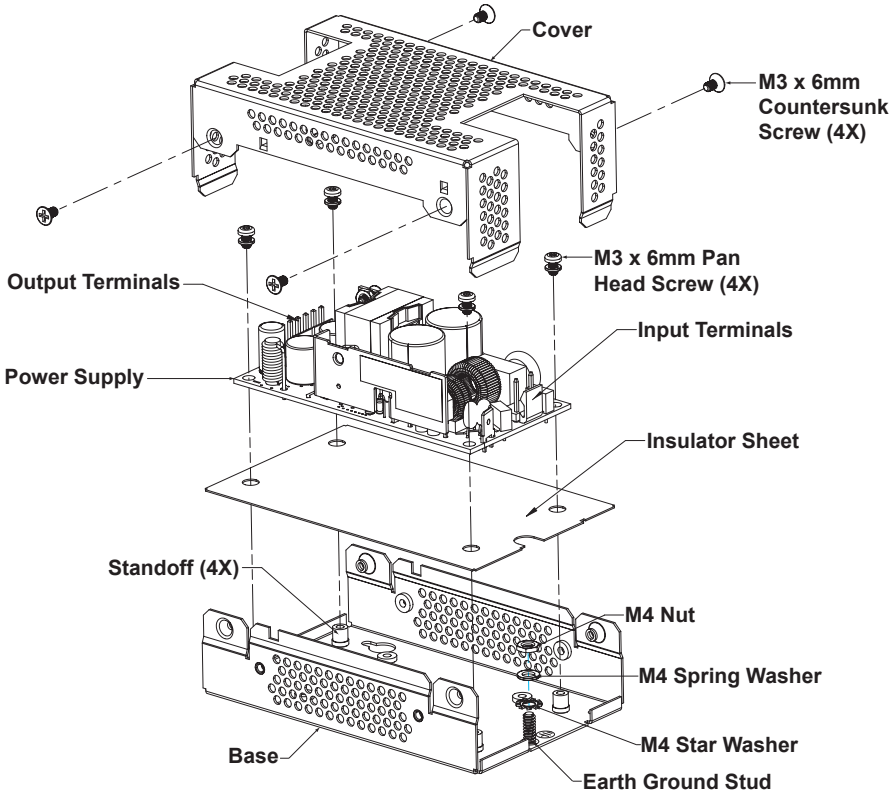

Figure 1: Assembly Drawing

EMERSON Industrial Automation

P/N: A272-205 Rev 0 06/08/09 Ref: LPX50

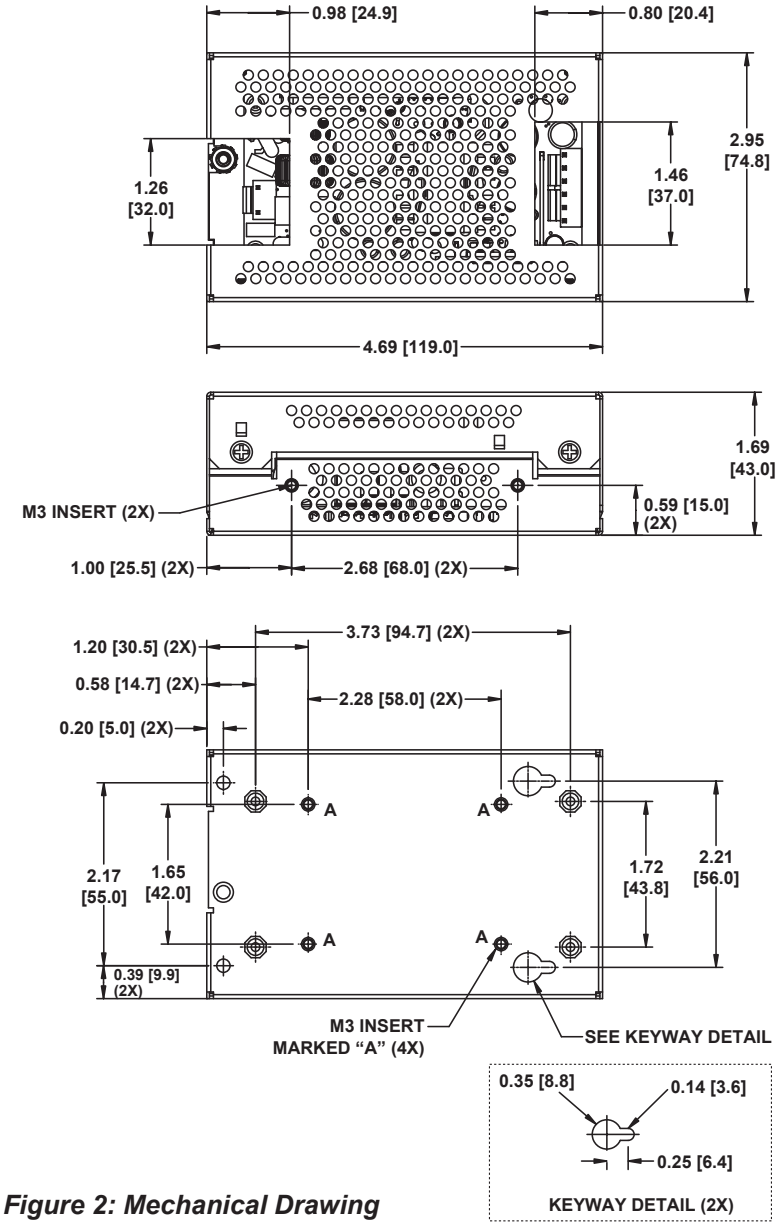

Figure 2: Mechanical Drawing

Overall Dimensions

4.69 in. [119.0 mm] x 2.95 in. [74.8 mm] x 1.69 in. [43.0 mm]

Mounting

Three options are available:

1. Bottom mounting using M3 inserts. Maximum screw protrusion is 0.08 in. [2.0 mm].

2. Side mounting using 4 mm clear holes, plus two keyways.

3. Side mounting using M3 inserts. Maximum screw protrusion is 0.24 in. [6.0 mm].

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