

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

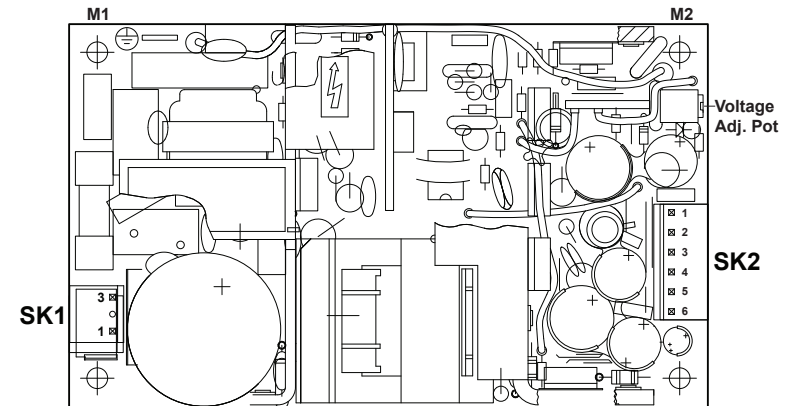
## Installation & Safety

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](mailto:tech@solahd.com). Please visit our Web site at [www.solahd.com](http://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			

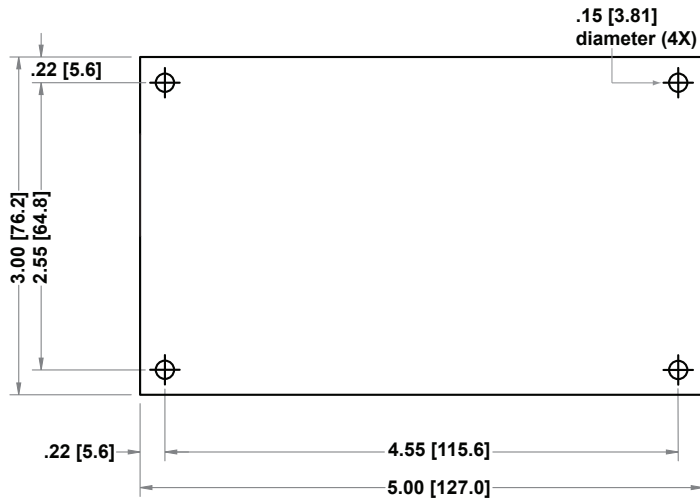
**NOTE:** Mounting holes M1 and M2 should be grounded for EMI purposes. Mounting hole M1 is an earth ground connection.

## Output Ratings

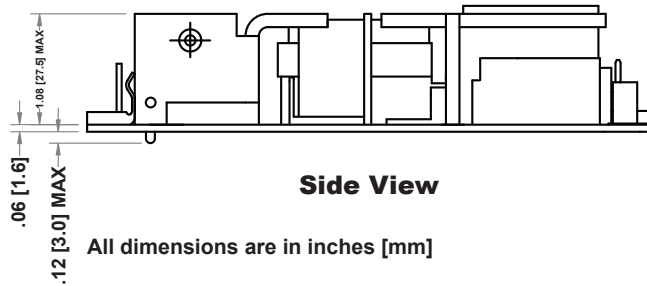
Model	Output Voltage (V)	Convection Cooling		30 CFM Forced Air Cooling	
		Max. Output Current (A)	Max. Output Power (W)	Max. Output Current (A)	Max. Output Power (W)
GLS42 (-M)	+5	8.0	40	11.0	55
GLS43 (-M)	+12	3.3		4.5	
GLS44 (-M)	+15	2.6		3.6	
GLS45 (-M)	+24	1.7		2.3	

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## Mechanical Dimensions



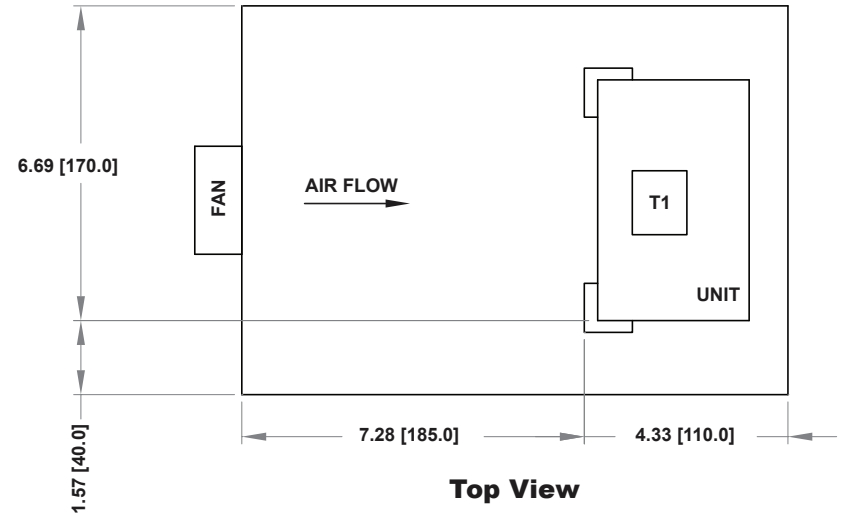
**Bottom View**



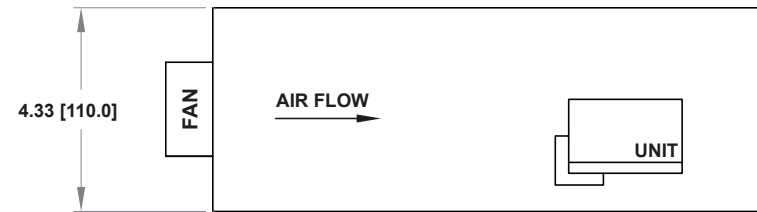
**Side View**

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



# 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

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

### Power Derating Curve

