



GLC 50 Constant Current 50 Watt LED Driver



Model Selection Key

GLC 50-BCV-D

- SWO: Outdoor version
- SWI: Indoor version
- B: 1 channel output;
C: Max Vout; V: Voltage
- Max Output Power
- Series Name

Constant Current 50 Watt LED Driver

The GLC 50 constant current 50 W driver comes in a smart and compact form factor making it an ideal power supply for a wide range of LED lighting application. With universal 90-305V_{AC} input and user-adjustable output current setting, this power supply provides the widest flexibility available on the market. This series is CB and UL/cUL certified and comes with a three years warranty.

Features

- Universal AC Input
- Up to 88% Efficiency
- User adjustable output current
- Active Power Factor Correction, PF > 0.9
- Built-in protection: SCP, OVP, OCP
- UL Class I and II, cUL, CE, FCC Title 47 CFR 15 Class B
- 3 Years Warranty

Model Number	Input Voltage Range (V _{AC})	Channel(s) Output	CC Output				Min. Output Power (W)	Max Output Power (Per Channel)(W)	Rated Output Power (W)	
			Preset Max. I _{out} (Per Channel) (A)	Current Pot Adjustable Range (A)		Compliance Voltage (V _{DC})				
				min	max	min				max
GLC50-118V-□	90-305	1	2.80	1.12	2.94	9.0	18.0	10.1	50.4	55
GLC50-124V-□	90-305	1	2.10	0.84	2.21	12.0	24.0	10.1	50.4	55
GLC50-136V-□	90-305	1	1.40	0.56	1.50	18.0	36.0	10.1	50.4	55
GLC50-142V-□	90-305	1	1.20	0.48	1.26	21.0	42.0	10.1	50.4	55
GLC50-148V-□	90-305	1	1.05	0.42	1.10	24.0	48.0	10.1	50.4	55
GLC50-170V-□	90-305	1	0.70	0.28	0.74	35.0	70.0	9.8	49.0	50
GLC50-1125V-□	90-305	1	0.40	0.16	0.42	62.5	125.0	10.0	50.0	50
GLC50-1140V-□	90-305	1	0.35	0.14	0.37	70.0	140.0	9.8	49.5	50
GLD40-450-0.2	90-305	4	0.2	n/a	n/a	25.0	50.0	5.0	10.0	40

□ = SWI: Indoor Version or SWO: Outdoor Version * UL marking: for products manufactured in Vietnam only, effective October 2020.

Input Specification

Voltage Range	Frequency Range	Vmax Inrush Current	Power Factor	THD
90-305V _{AC}	47-63 Hz	Cold start-up:<30Amp peak@120V _{AC} , 25°C	0.9 min	<20% @ Full load

Output Specification

Max Power	50 W	Constant Current Adjustable Range	40%/- 105% of normal lout
Efficiency	88%	Noise/Ripple	7% of Rated Output Volts; +/- 30% of Output Current (Note: All noise measurements made at the output terminals, connected to a 20Mhz low pass filter)
Output Current Regulation	+/- 5% Max	Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition
Start-up Time	1 sec. Typical	Over Voltage Protection	CV Condition
Hold-up Time	0.5mS @ full load, 100 V _{AC} Input	Over-current Protection (OCP)	CC Condition

* All noise measurements made at the output terminals, connected to a 20MHz low pass filter.

Environmental Specifications

MTBF	Cooling	Operating Temp	Storage Temp	Relative Humidity	Weatherability
80, 000 hours (Full Load @ 25C ambient, Based on MIL-217F)	Convection	-25°C to 45°C(SWI) -40°C to 60°C(SWO) (Full load)	-40°C to 85°C	5% - 95 %	IP 65

Compliance / Safety

EMI/RFI	ISPR-22 Class B IEC 61547, IEC 61000-3-2 IEC 61000-3-3, EN55015
Safety Agencies	UL/CUL 1012/1310 /1585 UL8750 UL879 CE CE (IEC61347-1, IEC61347-2-13)
Weatherability	EN60529 IP 65 versions available

Mechanical

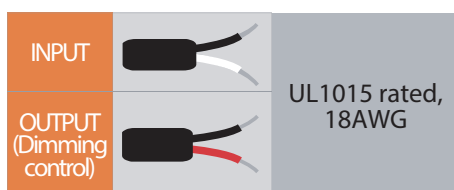
Case Design/ Materials

All versions come in a fully Isolated Class 2 Plastic housing. – SWO is fully potted for IP 65 applications.

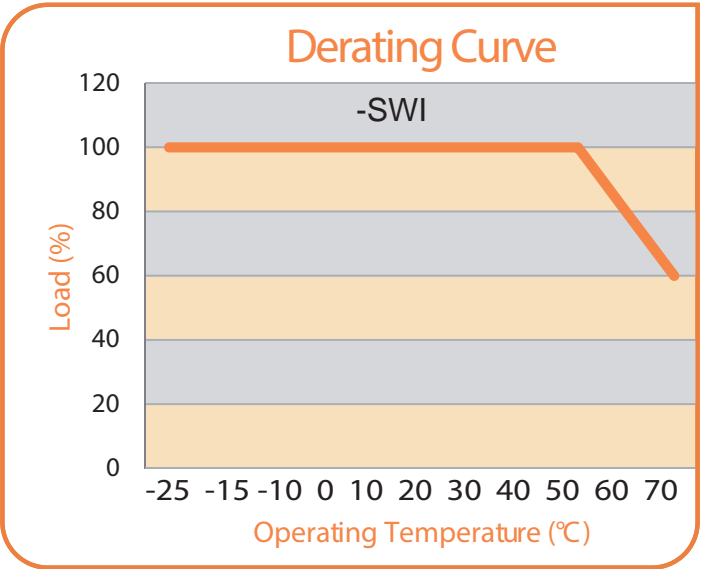
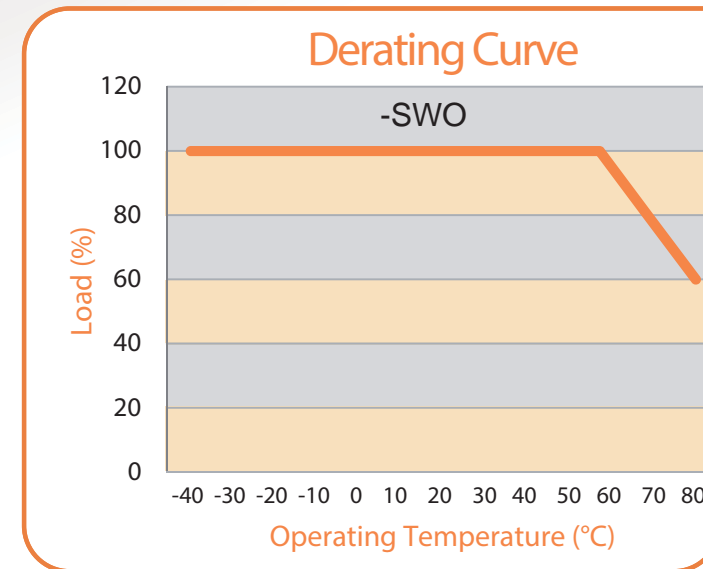
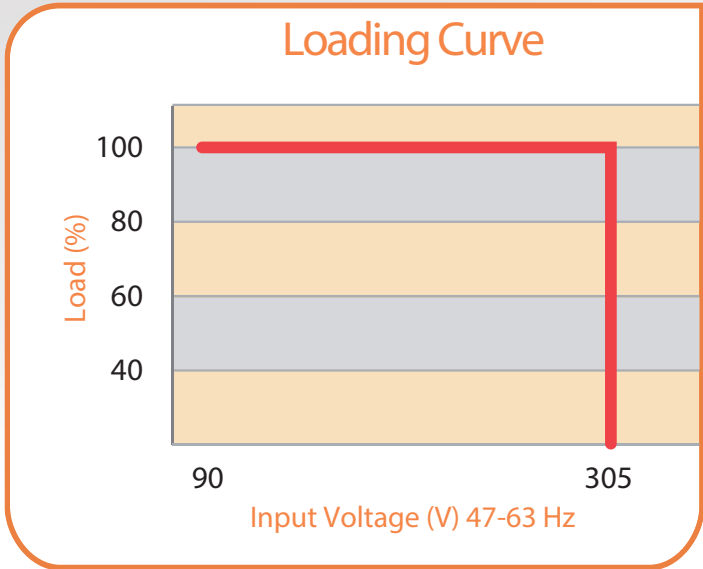
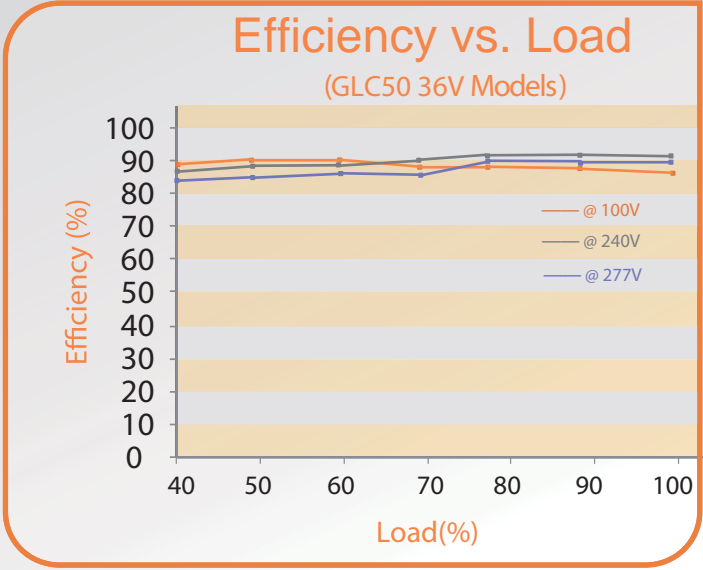
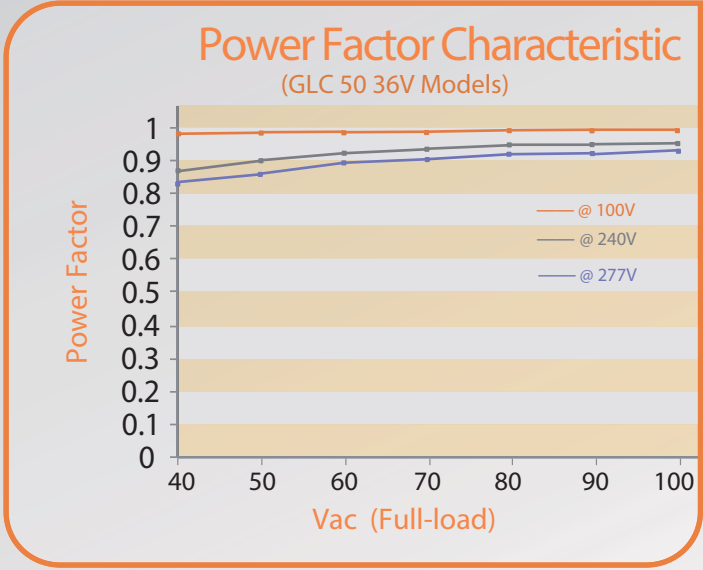
Expected Life-time*

Model	SWO	SWI
Ta	60°C	45°C
Tc	80°C	65°C
Life-time	50,000h	50,000h

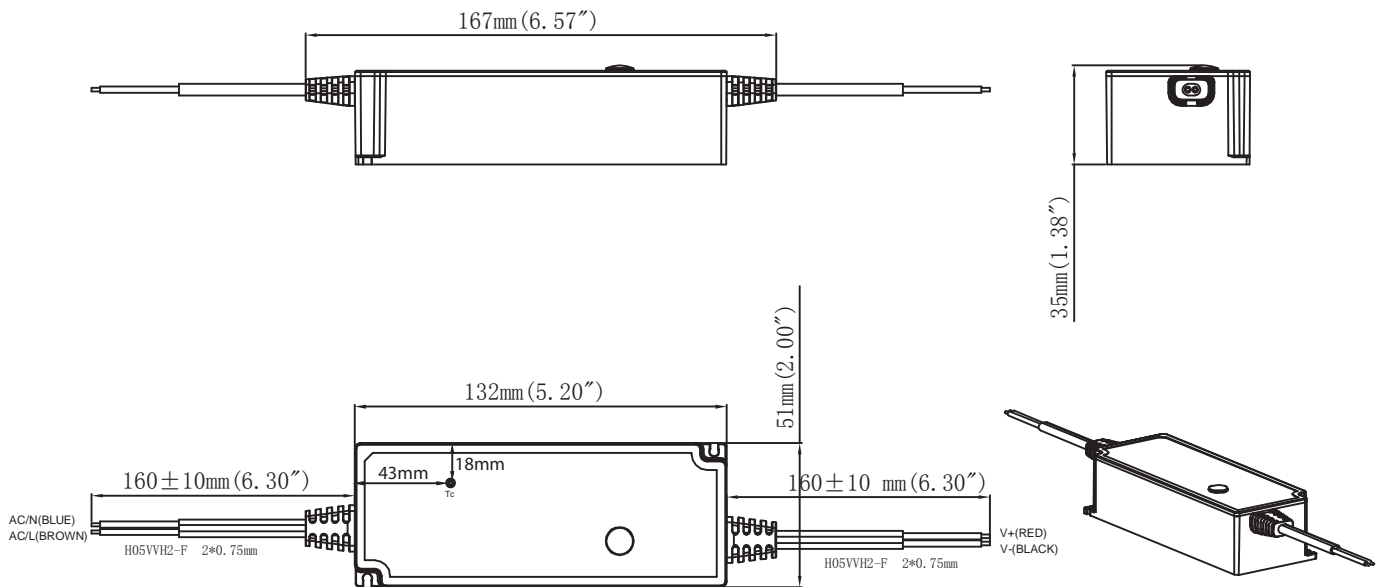
*: @ Full load, based on a failure rate of < 10%
Tc location, refer to Mechanical Diagrams.



Performance Curves



Model Description and Mechanical Diagrams

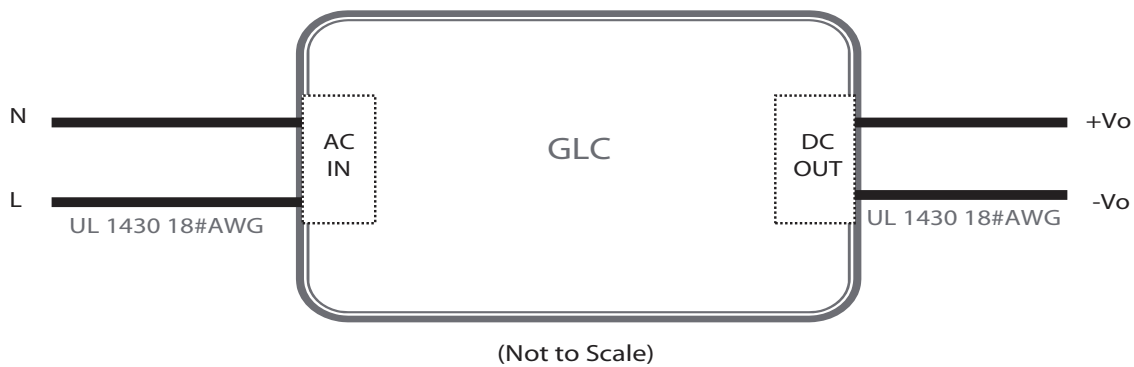


Packing Information

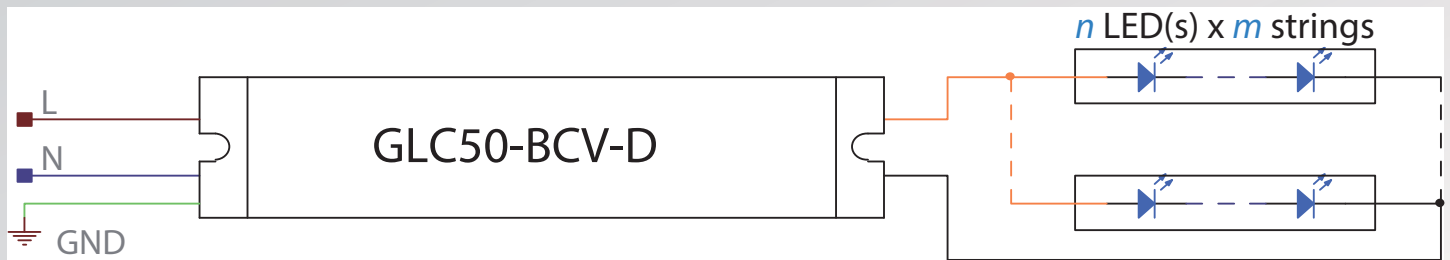
Weight: 0.380 kg/pcs, 15.5 kg/carton

40 pcs/carton; L431xW283xH247 (mm)

Wiring Diagrams



Configuration Arrays



Model	CC mode LED Voltage Range (V)	Recommended n LED(s) per String *	Current POT Adjust Range (A)	LED Current per String
GLC50-118V-D	9-18	3-7	1.12-2.94	$= \frac{I_{out}}{m \text{ Strings}}$
GLC50-124V-D	12-24	4-9	0.84-2.21	
GLC50-136V-D	18-36	5-14	0.56-1.50	
GLC50-142V-D	21-42	6-16	0.48-1.26	
GLC50-148V-D	24-48	7-18	0.42-1.10	
GLC50-170V-D	35-70	10-26	0.28-0.74	
GLC50-1125V-D	62.5-125	17-46	0.16-0.42	
GLC50-1140V-D	70-140	19-52	0.14-0.37	

* LED Vf range: 2.7-3.6V

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