Constant Voltage 50 Watt LED Driver

The GLV50 constant voltage 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 90-305 V_{AC} input and user-adjustable output voltage setting, this power supply provides the widest flexibility available on market. This Series is CB, UL/cUL certified and comes with a three years warranty.

Features

- Universal AC Input
- Up to 88% Efficiency
- User adjustable output voltage
- 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.
- Up to 3 Years Warranty

GLV 50

Constant Voltage 50 Watt LED Driver

Model Selection Key

GLV 50-BCV-D

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

Model Number	Input Voltage Range (V_{AC})	Channel(s) Output	CV Output					Max Output Power (W)	Rated Output Power (W)
			Preset Max. Vout (V_{DC})	Voltage Pot Adjustable Range (V_{DC})		Loading Current Range (Iout)			
				min	max	min	max		
GLV50-112V- ☐	90-305V	1	12	6.0	12.6	0.0	4.00	48	50
GLV50-115V- ☐	90-305V	1	15	7.5	15.8	0.0	3.50	53	55
GLV50-124V- ☐	90-305V	1	24	12.0	25.2	0.0	2.00	48	50
GLV50-136V- ☐	90-305V	1	36	18.0	37.8	0.0	1.40	50	50
GLV50-148V- ☐	90-305V	1	48	24.0	50.4	0.0	1.00	48	50

☐= 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 Voltage Adjustable Range	50%/- 105% of normal Vout
Line Regulation	+/- 1% (AC Input)	Noise/Ripple	<10% of Rated Output Volts (Note: All noise measurements made at the output terminals, connected to a 20Mhz low pass filter)
Output Voltage Regulation	+/- 5% Max	Short Circuit Protection	Hiccup-Mode, Auto-Recovery upon removal of short circuit condition
Efficiency	88%	Over Voltage Protection	CV Condition
Start-up Time	1 sec. Typical	Over-current Protection (OCP)	CC Condition
Hold-up Time	0.5mS @ full load, 100 V_{AC} Input	Transient Response	5mS, Full load to Half load, 100V_{AC}

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

Environmental Specifications

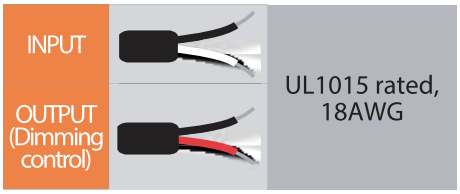
MTBF	Cooling	Operating Temp	Storage Temp	Relative Humidity	Weatherability
80, 000 hours (Full Load @ 25°C ambient, Based on MIL-217F)	Convection	-25°C to 45°C(SWI) -40°C to 60°C(SWO) (Full load)	-40°C to 85°C	5% - 95 %	IP 65 (SWO)

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) CCC , SAA
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*

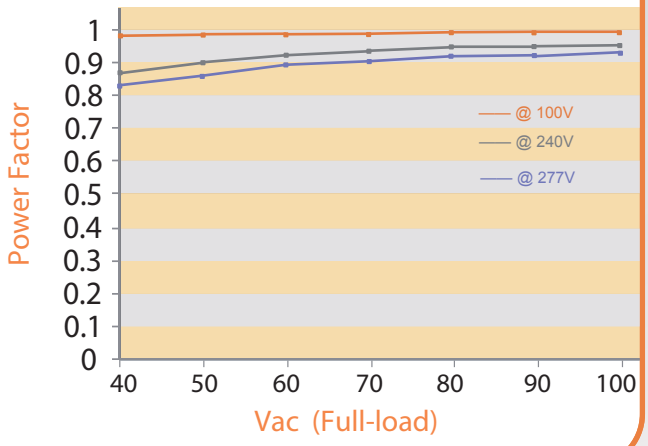
Model	SWO	SWI
Ta	60°C	45°C
Tc	80°C	65°C
Life-time	50,000h	50,000h

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

Performance Curves

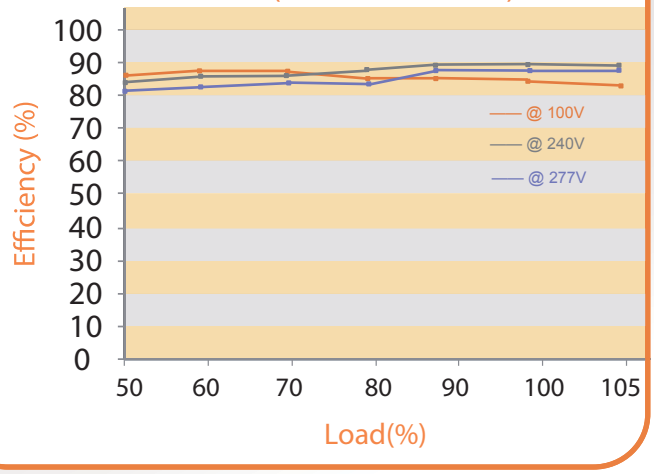
Power Factor Characteristic

(GLV50 24V Models)

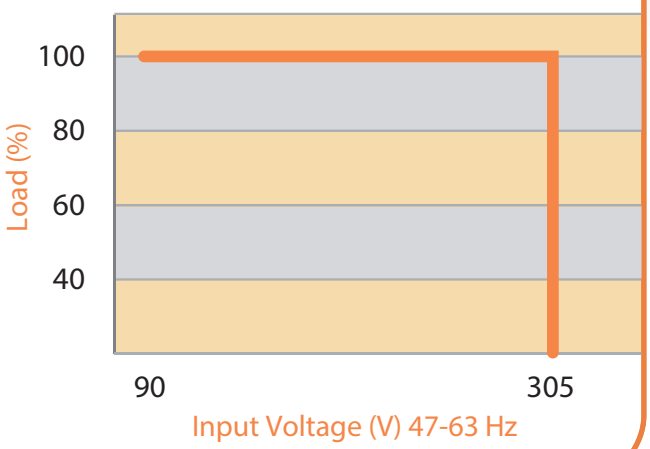


Efficiency vs. Load

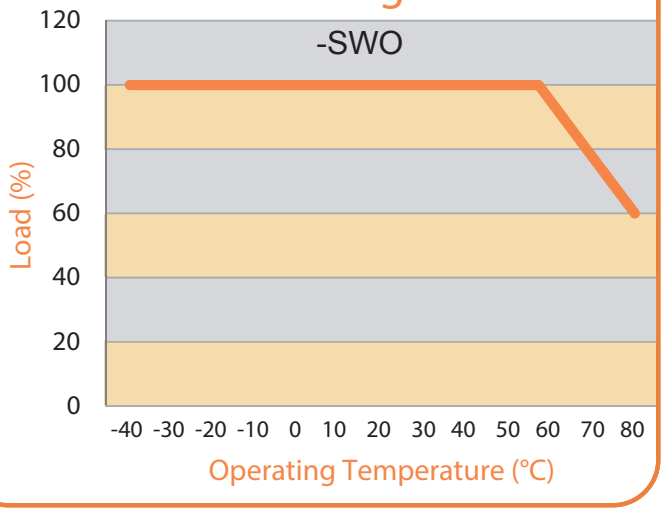
(GLV50 24V Models)



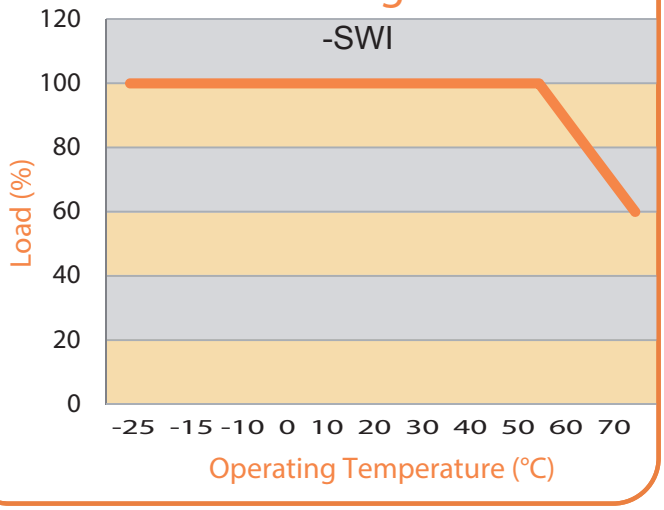
Loading Curve



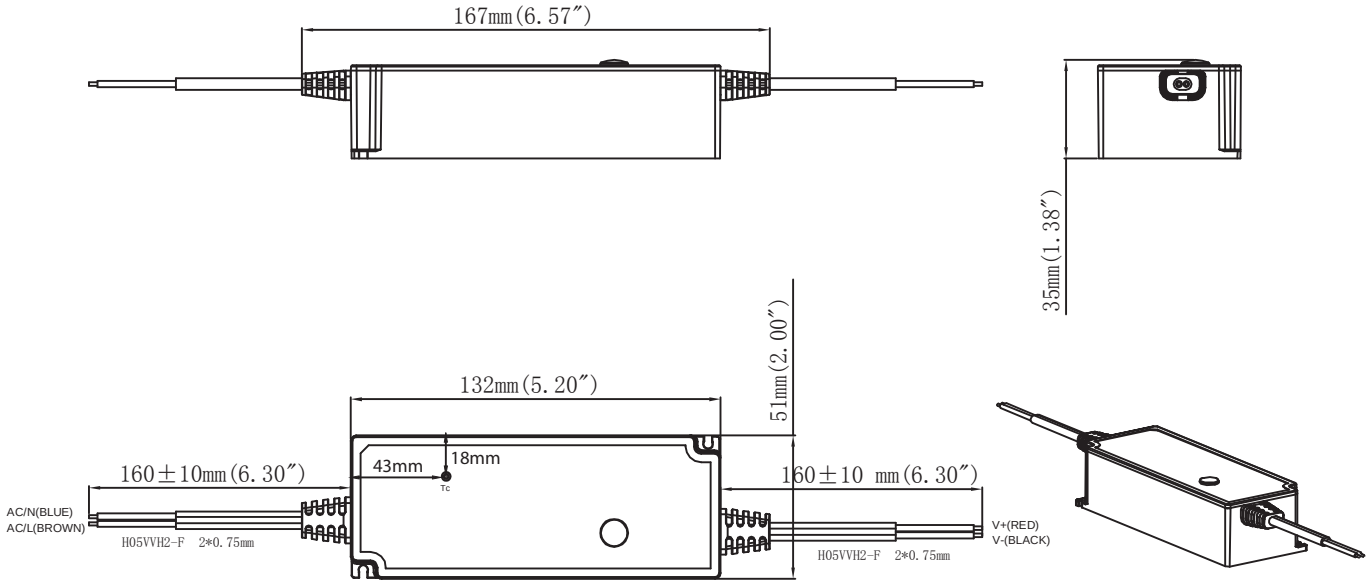
Derating Curve



Derating Curve



Model Description and Mechanical Diagrams



Packing Information

Weight: 0.380 kg/pcs, 15.5 kg/carton

40 pcs/carton; L431xW283xH247 (mm)

Wiring Diagrams

(Not to Scale)