

# GPV-12 series

12W Constant Voltage LED Power Supply



## ■ Features:

- Constant voltage design
- Universal AC input range
- Protections: Overload / Over voltage / Short circuit / Over Temperature
- Cooling by free air convection
  - Isolation class II
  - TUV certificate
- IP67 Protection level [5]

tc: 80°C

ta: 50°C CONSTANT VOLTAGE

SELV



## ⊙ ELECTRICAL SPECIFICATION

MODEL	GPV-12-12	GPV-12-24				
<b>OUTPUT</b>						
Rated Voltage	12V	24V				
Rated Current	1A	0.5A				
Current Range	0 ÷ 1A	0 ÷ 0.5A				
Rated Power	12W					
Line Regulation	± 1%					
Load Regulation	± 2%					
Tolerance [3]	± 5%					
Ripple & Noise (max.) [2]	120mV <sub>p-p</sub>	120mV <sub>p-p</sub>				
Setup, Rise Time [4]	500ms, 20ms / 230VAC at full load					
Hold up Time (typ.)	20ms / 230VAC at full load					
<b>INPUT</b>						
Voltage Range	90 ÷ 264VAC; 127 ÷ 370VDC					
Frequency Range	47 ÷ 63Hz					
Efficiency (typ.)	76%	79%				
AC Current (typ.)	0.29A / 115VAC, 0.14A / 230VAC					
Inrush Current (typ.)	6A / 230VAC; T <sub>WIDTH</sub> (50% peak) = 230µs					
Max. No. Of PSU on Circuit Breaker	B10	B16	C10	C16	D10	D16
	42	68	56	90	64	100
Leakage Current (max.)	0.25mA / 240VAC					

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## PROTECTIONS

<b>Overload</b>	Range: 110-160% rated power Type: hiccup mode, auto-recovery.
<b>Short Circuit</b>	Type: hiccup mode, auto-recovery.
<b>Over Voltage</b>	Range: 13-20V Range: 25-36V Type: hiccup mode, auto-recovery.
<b>Over Temperature</b>	140°C±10°C(detect on main control IC) Type: shut-off, auto-recovery.

## WORKING ENVIRONMENT

<b>Working Temperature</b>	-30°C ÷ 70°C (refer to Derating Curve), ta: 50°C; tc: 80°C
<b>Working Humidity</b>	20 ÷ 90% RH non-condensing
<b>Storage Temperature and Humidity</b>	-30°C ÷ 80°C, 10 ÷ 95% RH non-condensing

## SAFETY and EMC REGULATIONS

<b>Safety Standards</b>	Compliance to TUV EN 61347-1, TUV EN 61347-2-13, IP67
<b>Withstand Voltage</b>	IN/OUT: 3kVAC
<b>Isolation Resistance</b>	IN/OUT: 100MΩ/500VDC/25°C/70%
<b>EMC Emission</b>	Compliance to EN55015
<b>EMC Immunity</b>	Compliance to EN61547
<b>Harmonic Current</b>	Compliance to EN61000-3-3; EN61000-3-2

## OTHERS

<b>Lifetime</b>	50 000 hours at 230VAC input, ambient temperature 25°C, full load
<b>Dimensions</b>	130 x 25 x 21.5mm (L x W x H)
<b>Weight and Packing</b>	130g; 100pcs./ctn; ctn weight and dimensions: 13.5kg; 34.5 x 29 x 23cm

**EAN Code**



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1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF i 47µF parallel capacitor.
3. Tolerance includes set up tolerance, line regulation and load regulation.
4. Setup and rise time is measured from 0 to 90% rated output voltage.
5. Suitable for indoor or outdoor use. Please avoid direct exposure to sunlight and immersion in water for over 30 minutes.
6. Power supply is considered as component not indented to apply by end-user. Power supply meets safety and EMC standards however the final equipment with power supply must be re-quality to comply with EMC Directives.

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## MECHANICAL SPECIFICATION

### INPUT

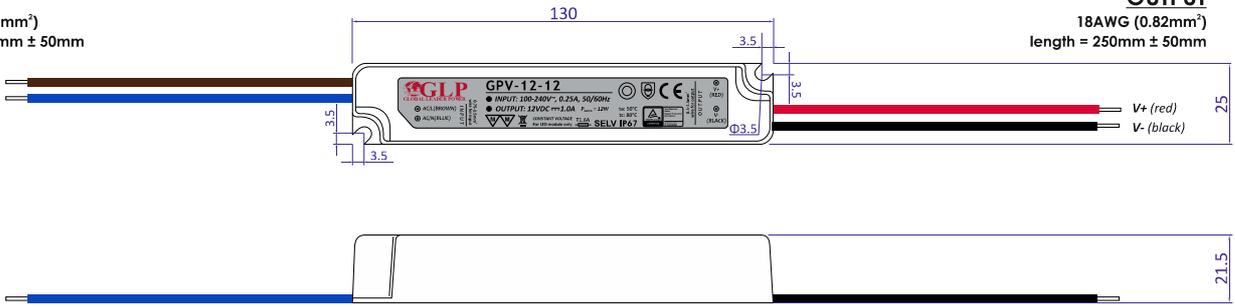
18AWG (0.82mm<sup>2</sup>)  
length = 250mm ± 50mm

AC/L (brown)  
AC/N (blue)

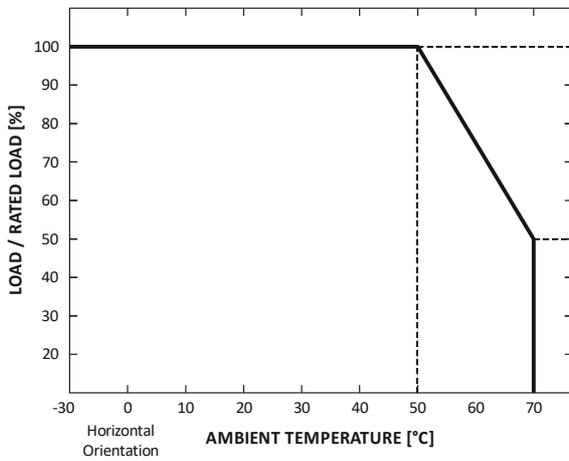
### OUTPUT

18AWG (0.82mm<sup>2</sup>)  
length = 250mm ± 50mm

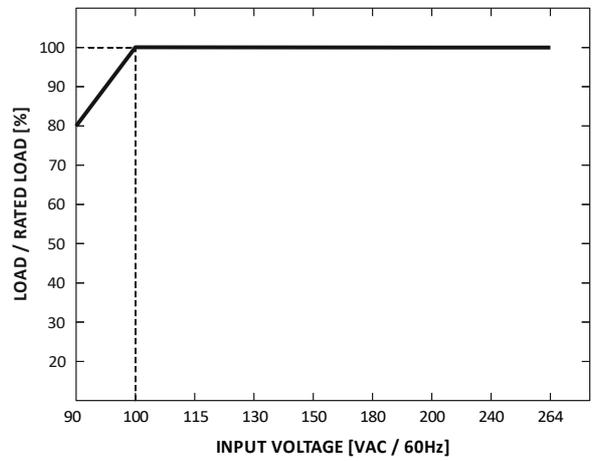
V+ (red)  
V- (black)



## DERATING CURVE



## STATIC CHARACTERISTIC



## LIFETIME vs. AMBIENT TEMPERATURE CURVE

