

# GPVP-90 series

90W Constant Voltage LED Power Supply with PFC function



## ■ Features:

- Constant voltage design
- Universal AC input range
  - Built-in PFC function
- Protections: Overload / Over voltage / Short circuit / Over Temperature
- Cooling by free air convection
  - Isolation class II
- Double insulation of Input and output wires
  - IP67 Protection level [5]



tc: 90°C  
ta: 50°C CONSTANT VOLTAGE



## ◎ ELECTRICAL SPECIFICATION

MODEL	GPVP-90-12	GPVP-90-24
<b>OUTPUT</b>		
Rated Voltage	12V	24V
Rated Current	7.5A	3.75A
Current Range	0 ÷ 7.5A	0 ÷ 3.75A
Rated Power	90W	
Line Regulation	± 1%	
Load Regulation	± 2%	
Tolerance [3]	± 3%	
Ripple & Noise (max.) [2]	200mV <sub>p-p</sub>	
Setup, Rise Time [4]	600ms, 15ms / 230VAC at full load	
Hold up Time (typ.)	70ms / 230VAC at full load	
<b>INPUT</b>		
Voltage Range	90 ÷ 264VAC	
Frequency Range	47 ÷ 63Hz	
Efficiency (typ.)	87%	89%
AC Current (typ.)	0.9A / 115VAC, 0.4A / 230VAC	
Power Factor (typ.)	PF > 0.97 / 230VAC; PF > 0.99 / 115VAC	
Leakage Current (max.)	0.75mA / 240VAC	

## PROTECTIONS

<b>Overload</b>	Range: 110-150% rated power	
	Type: hiccup mode, auto-recovery.	
<b>Short Circuit</b>	Type: hiccup mode, auto-recovery.	
<b>Over Voltage</b>	Range: 18-22V	Range: 28-34V
	Type: hiccup mode, auto-recovery.	
<b>Over Temperature</b>	140°C±10°C(detect on main control IC)	
	Type: shut off, re-power on to recovery	

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## WORKING ENVIRONMENT

Working Temperature	-30°C ÷ 70°C (refer to Derating Curve), ta: 50°C; tc: 90°C
Working Humidity	20 ÷ 95% RH non-condensing
Storage Temperature and Humidity	-40°C ÷ 80°C, 10 ÷ 95% RH non-condensing

## SAFETY and EMC REGULATIONS

Safety Standards	Compliance to EN 61347-1, EN 61347-2-13
Withstand Voltage	IN/OUT: 3kVAC
Isolation Resistance	IN/OUT: 100MΩ/500VDC/25°C/70%
EMC Emission	Compliance to EN55015
EMC Immunity	Compliance to EN61547
Harmonic Current	Compliance to EN61000-3-3; EN61000-3-2 class C (for load > 60%)

## OTHERS

DIMENSIONS	190 x 63 x 38mm (L x W x H)
Weight	392g

EAN



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.

## MECHANICAL SPECIFICATION

### INPUT

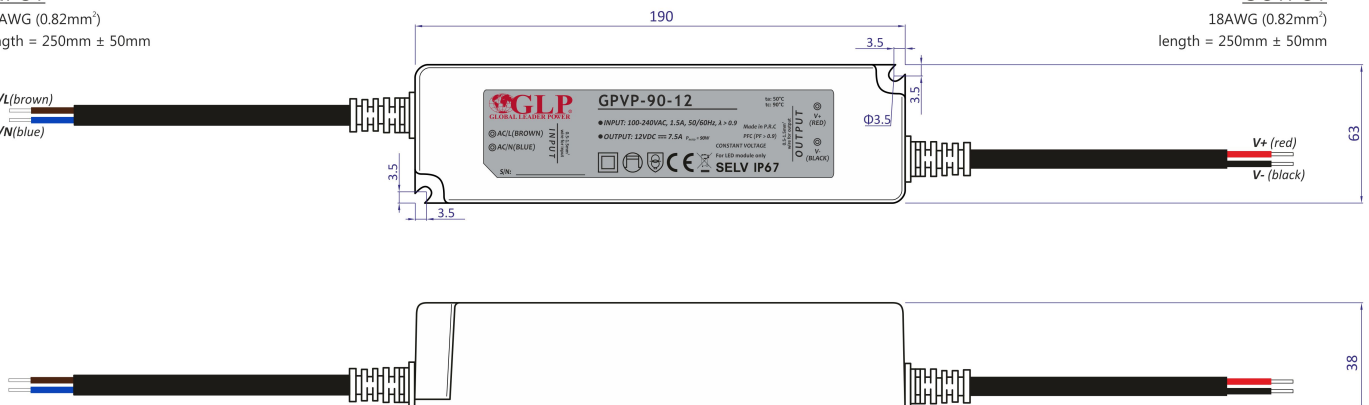
18AWG (0.82mm<sup>2</sup>)  
length = 250mm ± 50mm

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

### OUTPUT

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

V+ (red)  
V- (black)

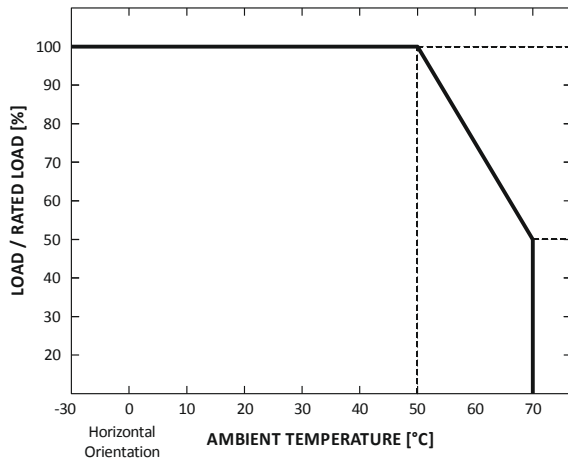


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