

# GPV-20 series

24W Single Output Switching Power Supply



## ■ Features:

- Constant voltage design
- Universal AC input / Full range
- Protections: Short circuit / Overcurrent / Over voltage / Over temperature
- Cooling by free air convection
- 100% full load burn-in test
- Isolation class II
- UL1310 Class 2 power unit
- Fully encapsulated with IP67 level



## ELECTRICAL SPECIFICATION

MODEL	GPV-20-12	GPV-20-24
<b>OUTPUT</b>		
DC VOLTAGE	12V	24V
RATED CURRENT	2A	1A
CURRENT RANGE	0 ÷ 2A	0 ÷ 1A
RATED POWER	24W	
LINE REGULATION	± 1%	
LOAD REGULATION	± 2%	
VOLTAGE TOLERANCE [3]	± 5%	
RIPPLE & NOISE (max.) [2]	200mV <sub>p-p</sub>	300mV <sub>p-p</sub>
SETUP, RISE TIME [4]	500ms, 250ms at full load	
HOLD UP TIME (typ.)	24ms / 115VAC, 50ms / 230VAC at full load	
<b>INPUT</b>		
VOLTAGE RANGE	90 ÷ 264VAC	
FREQUENCY RANGE	47 ÷ 63Hz	
EFFICIENCY (typ.)	83%	84%
AC CURRENT (typ.)	0.6A/115VAC, 0.3A / 230VAC	
INRUSH CURRENT (typ.)	70A / 230VAC, 35A / 115VAC	
LEAKAGE CURRENT(max.)	0.25mA / 240VAC	
<b>PROTECTIONS</b>		
OVERCURRENT	Range: 150 ÷ 200% Type: hiccup mode, auto-recovery.	
SHORT CIRCUIT	Type: hiccup mode, auto-recovery.	
OVER VOLTAGE	13.5 ÷ 16.5V	27 ÷ 33V
	Type: hiccup mode, auto-recovery.	
OVER TEMPERATURE	Range: 140°C ± 10°C detect on main control IC Type: shut off, recovers automatically after temperature goes down	

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## ENVIRONMENT

<b>WORKING TEMPERATURE</b>	-30°C ÷ 70°C (Refer to Derating Curve)
<b>WORKING HUMIDITY</b>	20 ÷ 90% RH non-condensing
<b>STORAGE TEMPERATURE AND HUMIDITY</b>	-40°C ÷ 80°C, 10 ÷ 95% RH non-condensing
<b>TEMPERATURE COEFFICIENT</b>	± 0.03% / °C (0°C ÷ 50°C)
<b>VIBRATION</b>	10 ÷ 500Hz, 2G, 10min / cycle, period for 60min. each along X, Y, Z axes

## SAFETY & EMC REGULATIONS

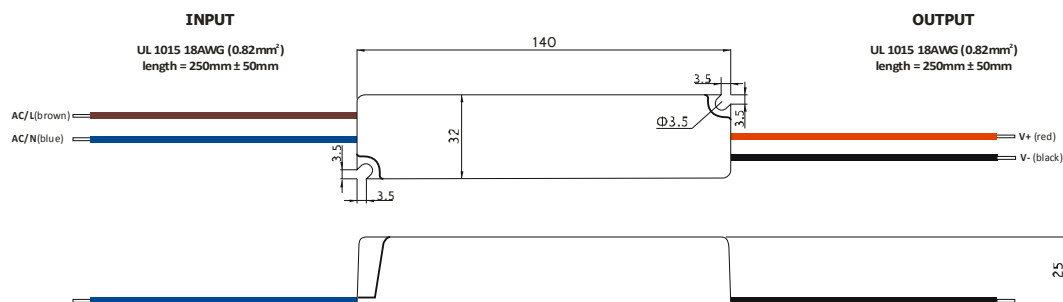
<b>SAFETY STANDARDS</b>	Compliance to EN61347-1, EN61347-2-13, IP67
<b>WITHSTAND VOLTAGE</b>	I-P/O-P: 3kVAC
<b>ISOLATION RESISTANCE</b>	I-P/O-P; O-P/FG; I-P/FG: 100MΩ/500VDC/25°C/70%
<b>EMC EMISSION</b>	Compliance to EN55015
<b>EMC IMMUNITY</b>	Compliance to EN61547; EN55024; EN61000-4-2, -3, -4, -5, -6, -8, -11
<b>HARMONIC CURRENT</b>	Compliance to EN61000-3-3; EN61000-3-2

## OTHERS

<b>DIMENSIONS</b>	140 x 32 x 25mm
<b>WEIGHT AND PACKING</b>	0.2kg; 100pcs./box; box weight and dimensions: 20kg; 34.5 x 29 x 19.5cm

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. Power supply is considered as a component that will be operated in combination with final equipment. Since EMC performance will be affected by the complete installation, the final equipment must be re-qualified to comply with EMC Directives.

## MECHANICAL SPECIFICATION



## DERATING CURVE

