# **GPV-60** series

60W Single Output Switching Power Supply





#### ■ Features:

- Constant voltage design
- Universal AC input / Full range
- Protections: Short circuit / Over current / Over voltage
- Cooling by free air convection
- Isolation class II
- Class 2 power unit
- Fully encapsulated with IP67 level [5]



## **ELECTRICAL SPECIFICATION**

MODEL	GPV-60-5	GPV-60-12	GPV-60-15	GPV-60-24	GPV-60-36
OUTPUT					
RATED VOLTAGE	5V	12V	15V	24V	36V
RATED CURRENT	8A	5A	4A	2.5A	1.67A
CURRENT RANGE	0 ÷ 8A	0 ÷ 5A	0 ÷ 4A	0 ÷ 2.5A	0 ÷ 1.67A
RATED POWER	40W	60W	60W	60W	60.12W
LINE REGULATION	± 1%				
LOAD REGULATION	± 3% ± 2%				
TOLERANCE [3]	± 5%				
RIPPLE & NOISE (max.) [2]	200mV <sub>P-P</sub>	200mV <sub>P-P</sub>	300mV <sub>P-P</sub>	300mV <sub>P-P</sub>	$350 \text{mV}_{\text{P-P}}$
SETUP, RISE TIME [4]	1500ms, 800ms / 230VAC; 2500ms, 800ms / 230VAC at full load				
HOLD UP TIME	24ms / 115VAC, 50ms / 230VAC at full load				
INPUT					
VOLTAGE RANGE	90 ÷ 264VAC; 127 ÷ 370VDC				
FREQUENCY RANGE	47 ÷ 63Hz				
EFFICIENCY (typ.)	81%	82%	83%	84%	85%
AC CURRENT (typ.)	1.4A/115VAC, 0.7A / 230VAC				
INRUSH CURRENT (typ.)	70A / 230VAC, 35A / 115VAC				
LEAKAGE CURRENT (max.)	0.25mA / 240VAC				
PROTECTIONS					
OVER CURRENT	Range: 150 ÷ 200% rated current				
	Type: hiccup mode, auto-recovery.				
SHORT CIRCUIT	Type: hiccup mode, auto-recovery.				
OVER VOLTAGE	8 ÷ 11.5V	13.5 ÷ 18.5V	20 ÷ 24V	27 ÷ 33V	45 ÷ 54V
	Type: hiccup mode, auto-recovery.				

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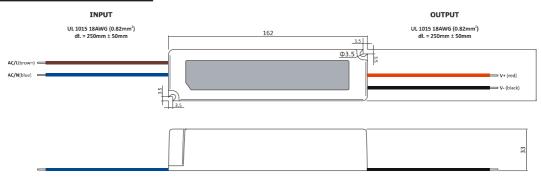
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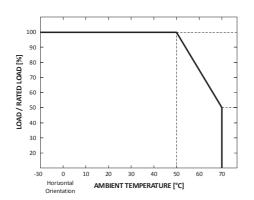
WORKING ENVIRONMENT				
WORKING TEMPERATURE	-30°C ÷ 70°C (Refer to Derating Curve)			
WORKING HUMIDITY	20 ÷ 9,% RH non-condensing			
STORAGE TEMPERATURE AND HUMIDITY	-40°C ÷ 80°C, 10 ÷ 95% RH non-condensing			
TEMPERATURE COEFFICIENT	± 0.03% / °C (0°C ÷ 50°C)			
VIBRATION	10 ÷ 500Hz, 2G, 10min / cycle, period for 60min. each along X, Y, Z axes			
SAFETY AND EMC REGULATIONS				
SAFETY STANDARDS	Compliance to EN61347-1, EN61347-2-13, IP67			
WITHSTAND VOLTAGE	I-P/O-P: 3kVAC			
ISOLATION RESISTANCE	I-P/O-P: 100MΩ/500VDC/25°C/70%			
EMC EMISSION	Compliance to EN55015			
EMC IMMUNITY	Compliance to EN61547; EN55024; EN61000-4-2, -3, -4, -5, -6, -8, -11			
HARMONIC CURRENT	Compliance to EN61000-3-3; EN61000-3-2			
OTHERS				
DIMENSIONS	162 x 42 x 33mm (L x W x H)			
WEIGHT AND PACKING	0.39kg; 50pcs./box; box weight and dimensions: 20kg; 38.5 x 27.5 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. 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 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-qualify to comply with EMC Directives.

## **MECHANICAL SPECIFICATION**







#### **STATIC CHARACTERISTICS**

