

# GPV-20 series

20W Single Output Switching Power Supply



## ■ Features:

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



CE IP67 SELV

## ELECTRICAL SPECIFICATION

MODEL	GPV-60-5	GPV-60-12	GPV-60-15	GPV-60-24	GPV-60-36				
<strong>OUTPUT</strong>									
<strong>RATED VOLTAGE</strong>	5V	12V	15V	24V	36V				
<strong>RATED CURRENT</strong>	3A	2A	1.33A	1A	0.66A				
<strong>CURRENT RANGE</strong>	0 ÷ 3A	0 ÷ 2A	0 ÷ 1.33A	0 ÷ 1A	0 ÷ 0.66A				
<strong>RATED POWER</strong>	15W	24W	24W	24W	24W				
<strong>LINE REGULATION</strong>	± 1%								
<strong>LOAD REGULATION</strong>	± 2%								
<strong>TOLERANCE [3]</strong>	± 3%								
<strong>RIPLLE &amp; NOISE (max.) [2]</strong>	400mV <sub>p-p</sub>	400mV <sub>p-p</sub>	400mV <sub>p-p</sub>	400mV <sub>p-p</sub>	500mV <sub>p-p</sub>				
<strong>SETUP, RISE TIME [4]</strong>	1000ms, 250ms / 115VAC; 500ms, 250ms / 230VAC at full load								
<strong>HOLD UP TIME</strong>	24ms / 115VAC, 50ms / 230VAC at full load								
<strong>INPUT</strong>									
<strong>VOLTAGE RANGE</strong>	90 ÷ 264VAC; 127 ÷ 370VDC								
<strong>FREQUENCY RANGE</strong>	47 ÷ 63Hz								
<strong>EFFICIENCY (typ.)</strong>	70%	82%	82%	82%	84%				
<strong>AC CURRENT (typ.)</strong>	0.4A/115VAC, 0.2A / 230VAC	0.6A/115VAC, 0.3A / 230VAC							
<strong>INRUSH CURRENT (typ.)</strong>	70A / 230VAC, 35A / 115VAC								
<strong>LEAKAGE CURRENT (max.)</strong>	0.25mA / 240VAC								
<strong>PROTECTIONS</strong>									
<strong>OVER CURRENT</strong>	Range: 150 ÷ 200% rated current								
	Type: hiccup mode, auto-recovery.								
<strong>SHORT CIRCUIT</strong>	Type: hiccup mode, auto-recovery.								
<strong>OVER VOLTAGE</strong>	8 ÷ 11.5V	13.5 ÷ 18.5V	20 ÷ 24V	27 ÷ 33V	45 ÷ 54V				
	Type: hiccup mode, auto-recovery.								
<strong>OVER TEMPERATURE</strong>	140°C ± 10°C (detect on main control IC)								
	Type: shut down output voltage. Recovers automatically after temperature goes down.								

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## WORKING ENVIRONMENT

WORKING TEMPERATURE	-20°C ÷ 70°C (Refer to Derating Curve)
WORKING HUMIDITY	20 ÷ 90% 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

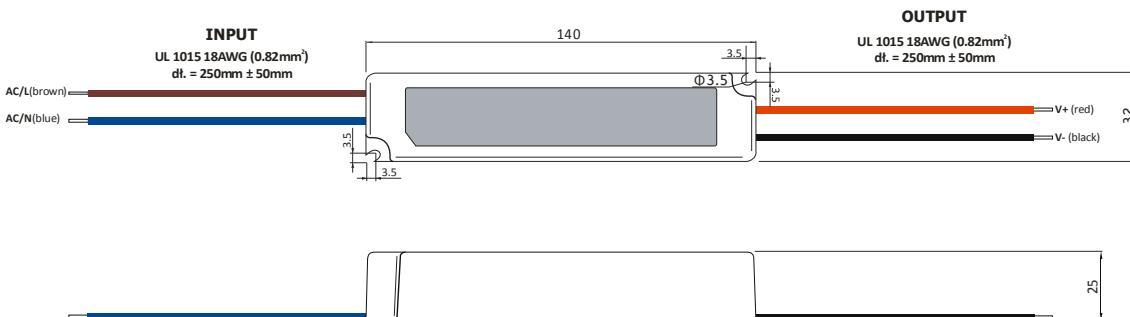
SAFETY STANDARDS	Compliance to EN61347-1, EN61347-2-13, IP67
WITHSTAND VOLTAGE	I-P/O-P: 3kVAC
ISOLATION RESISTANCE	I-P/O-P: 100MΩ/500VDC/25°C/70%
EMC EMISSION	Compliance to EN55015
EMC IMMUNITY	Compliance to EN61547; EN55024; EN61000-4-2, -3, -4, -5, -6, -8, -11
HARMONIC CURRENT	Compliance to EN61000-3-3;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

## OTHERS

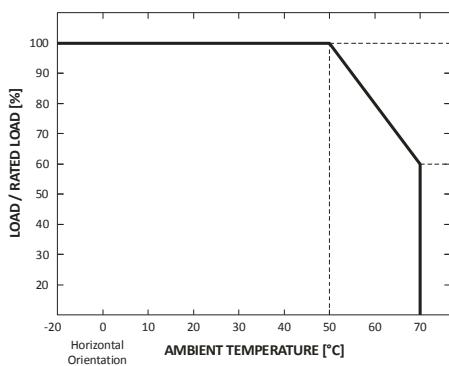
DIMENSIONS	140 x 32 x 25mm (L x W x H)
WEIGHT AND PACKING	0.2kg; 100pcs./box; box weight and dimensions: 20kg; 34.5 x 29 x 23cm

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



## DERATING CURVE



## STATIC CHARACTERISTICS

