

# GPV-18 series

18W Constant Voltage Switching Power Supply



## ■ Features:

- Constant voltage design
- European AC input range
- Protections: Short circuit / Over current
- Cooling by free air convection
- Isolation class II
- Fully encapsulated with IP67 level [5]
- TUV certificate



tc: 80°C

ta: 50°C CONSTANT VOLTAGE

SELV



## ⊙ ELECTRICAL SPECIFICATION

MODEL	GPV-18-12	GPV-18-24				
<b>OUTPUT</b>						
RATED VOLTAGE	12V	24V				
RATED CURRENT	1.5A	0.75A				
CURRENT RANGE	0 ÷ 1.5A	0 ÷ 0.75A				
RATED POWER	18W					
LINE REGULATION	± 1%					
LOAD REGULATION	± 2%					
TOLERANCE [3]	± 3%					
RIPPLE & NOISE (max.) [2]	200mV <sub>p-p</sub>	400mV <sub>p-p</sub>				
SETUP, RISE TIME [4]	500ms, 25ms / 230VAC at full load					
HOLD UP TIME (typ.)	30ms / 230VAC at full load					
<b>INPUT</b>						
VOLTAGE RANGE	180 ÷ 264VAC; 253 ÷ 370VDC					
FREQUENCY RANGE	47 ÷ 63Hz					
EFFICIENCY (typ.)	80%	82%				
AC CURRENT (typ.)	0.2A / 230VAC					
INRUSH CURRENT (typ.)	35A / 230VAC; T <sub>WIDTH</sub> = 180μs					
Max. No. of PSU on Circuit Breaker	B10	B16	C10	C16	D10	D16
	14	20	18	28	20	32
LEAKAGE CURRENT (max.)	0.25mA / 240VAC					

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## PROTECTIONS

<b>OVER CURRENT</b>	Range: 110% ÷ 150% rated current Type: hiccup mode, auto-recovery.
<b>SHORT CIRCUIT</b>	Type: hiccup mode, 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>	-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 AND EMC REGULATIONS

<b>SAFETY STANDARDS</b>	Compliance to TUV EN61347-1, EN61347-2-13, IP67
<b>WITHSTAND VOLTAGE</b>	I-P/O-P: 3kVAC
<b>ISOLATION RESISTANCE</b>	I-P/O-P: 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>Lifetime</b>	70 000 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>	0.15kg; 100pcs./ctn; ctn weight and dimensions: 13.5kg; 34.5 x 29 x 23.5cm

**EAN Code**



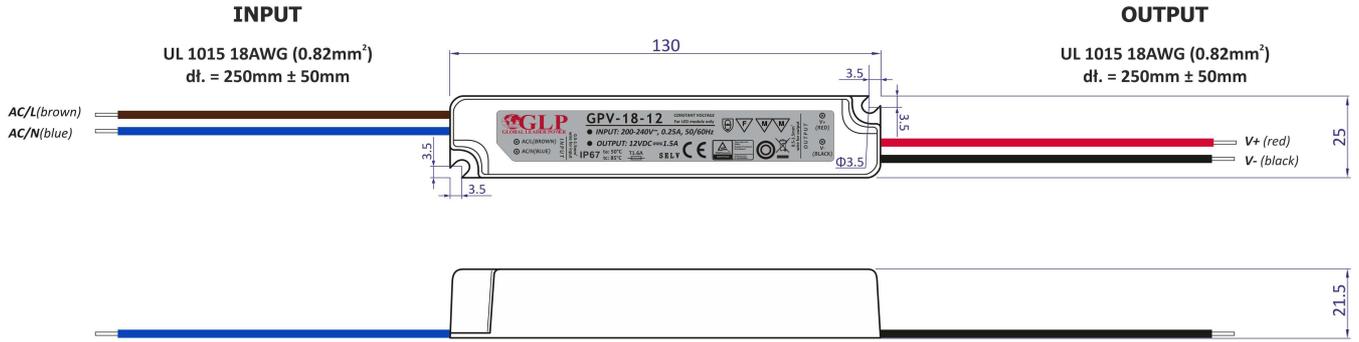
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1μF i 47μF parallel capacitor.
3. Tolerance includes set up tolerance, line regulation 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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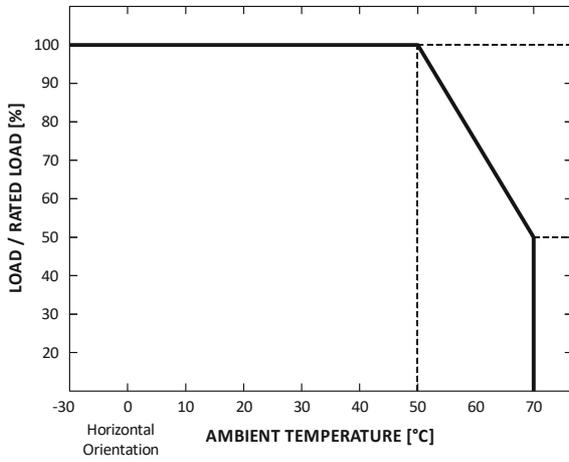
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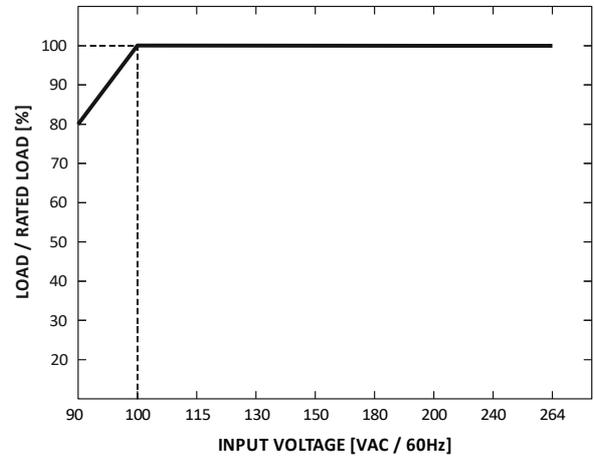
## MECHANICAL SPECIFICATION



## DERATING CURVE



## STATIC CHARACTERISTIC



## LIFETIME vs. AMBIENT TEMPERATURE CURVE

