

GPV-20 series

20W Constant Voltage Switching Power Supply



■ Features:

- Constant voltage design
- Universal AC input range
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Cooling by free air convection
- Isolation class II
- Fully encapsulated with IP67 level [5]
- TUV certificate (only for 12V and 24V)



tc: 80°C

ta: 50°C CONSTANT VOLTAGE

SELV



⊙ ELECTRICAL SPECIFICATION

MODEL	GPV-20-5	GPV-20-12	GPV-20-15	GPV-20-24	GPV-20-36	
OUTPUT						
RATED VOLTAGE	5V	12V	15V	24V	36V	
RATED CURRENT	3A	2A	1.33A	1A	1.33A	
CURRENT RANGE	0 ÷ 3A	0 ÷ 2A	0 ÷ 1.33A	0 ÷ 1A	0 ÷ 1.33A	
RATED POWER	15W	20W				
LINE REGULATION	± 1%					
LOAD REGULATION	± 2%					
TOLERANCE [3]	± 3%					
RIPPLE & NOISE (max.) [2]	200mV _{p-p}	200mV _{p-p}	200mV _{p-p}	300mV _{p-p}	300mV _{p-p}	
SETUP, RISE TIME [4]	800ms, 50ms / 230VAC at full load					
HOLD UP TIME (typ.)	30ms / 230VAC at full load					
INPUT						
VOLTAGE RANGE	90 ÷ 264VAC					
FREQUENCY RANGE	47 ÷ 63Hz					
EFFICIENCY (typ.)	70%	83%	83%	84%	85%	
AC CURRENT (typ.)	0.55A / 115VAC, 0.3A / 230VAC					
INRUSH CURRENT (typ.)	15A / 230VAC; T _{WIDTH} = 390μs					
Max. No. of PSU on Circuit Breaker	B10	B16	C10	C16	D10	D16
	14	21	18	28	20	32
LEAKAGE CURRENT (max.)	0.25mA / 240VAC					

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PROTECTIONS

OVER CURRENT	Range: 150% ÷ 200% rated current				
	Type: hiccup mode, auto-recovery.				
SHORT CIRCUIT	Type: hiccup mode, auto-recovery.				
OVER VOLTAGE	Max. 10V	Max. 24V	Max. 30V	Max. 36V	Max. 48V
	Type: hiccup mode, auto-recovery.				
OVER TEMPERATURE	140°C±10°C(detect on main control IC)				
	Type: shut down output voltage. After temperature goes down re-power on to recovery.				

WORKING ENVIRONMENT

WORKING TEMPERATURE	-30°C ÷ 70°C (Refer to Derating Curve), ta: 50°C; tc: 80°C
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 TUV 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

Lifetime	70 000 hours at 230VAC input, ambient temperature 25°C, full load
DIMENSIONS	140 x 32 x 25mm (L x W x H)
WEIGHT AND PACKING	0.19kg; 100pcs./ctn; ctn weight and dimensions: 20kg; 34.5 x 29 x 23.5cm

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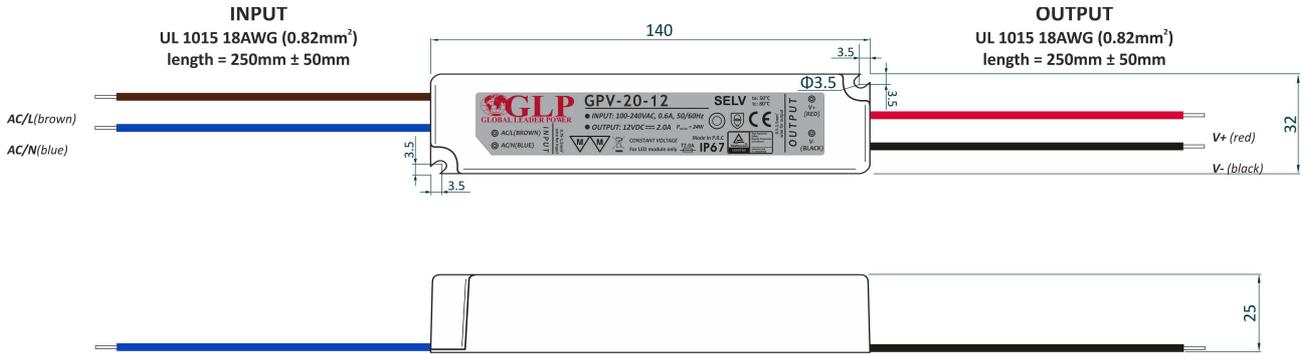
1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1µF i 47µF parallel capacitor.
3. Tolerance includes set up tolerance, line regulation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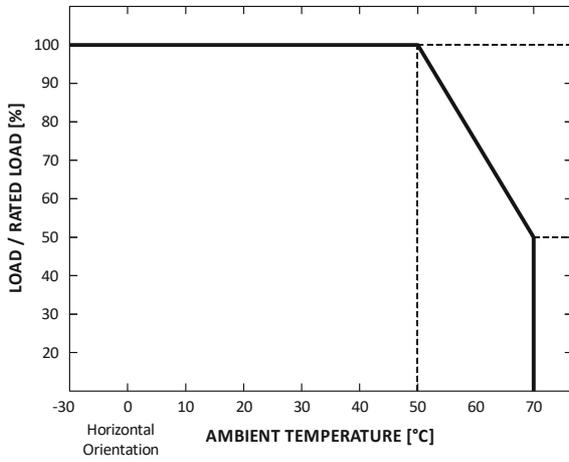
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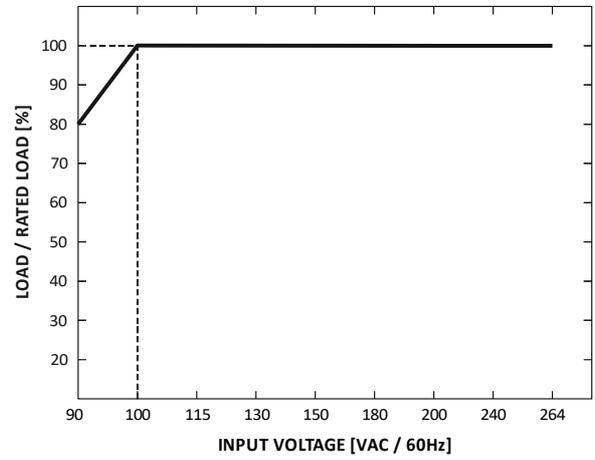
MECHANICAL SPECIFICATION



DERATING CURVE



STATIC CHARACTERISTIC



LIFETIME vs. AMBIENT TEMPERATURE CURVE

