# **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            |
|---------------------------|---|-----------------------|----------------------|----------------------|----------------------|
| ОИТРИТ                    |   |                       |                      |                      |                      |
| 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] | $200 mV_{\text{\tiny P-P}}$                                 | $200 mV_{\text{P-P}}$ | 300mV <sub>P-P</sub> | 300mV <sub>P-P</sub> | 350mV <sub>P-P</sub> |
| 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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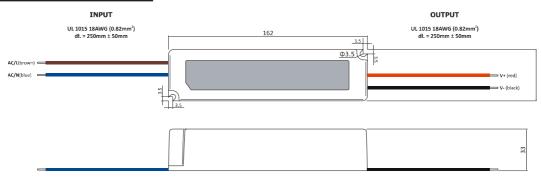
60W Single Output Switching Power Supply



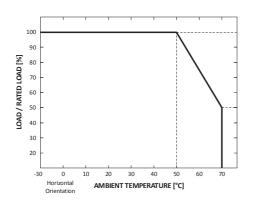
| WORKING ENVIRONMENT  |   |  |  |  |
|--|---|--|--|--|
| WORKING TEMPERATURE  | -30°C ÷ 70°C (Refer to Derating Curve)                                    |  |  |  |
| WORKING HUMIDITY   | 20 ÷ 9,% RH non-condensing  |  |  |  |
| STORAGE TEMPERATURE AND HUMIDITY   | -40°C ÷ 80°C, 10 ÷ 95% RH non-condensing                                  |  |  |  |
| 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**

