



■ Features

- AC input 180~264VAC
- Withstand 300VAC surge input for 5 seconds
- Design against rain splash
- Protections: Short circuit / Overload / Over voltage/ Over temperature
- Cooling by free air convection
- LED indicator for power on
- Low cost, high reliability
- 100% full load burn-in test
- 3 years warranty

■ Applications

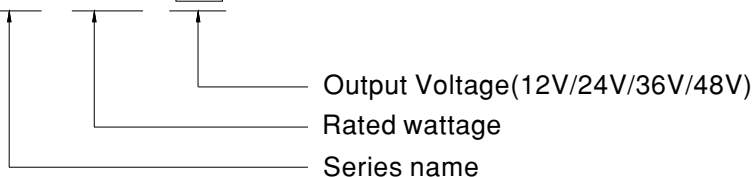
- LED strip lighting
- LED channel letters
- LED moving sign

■ Description

ERP-350 series is a 350W single output enclosed type AC/DC power supply . It adopts an aluminum case and the interior is semi-potted, protecting the internal electronic components from rain splash and dust. With the complete protection functions, ERP-350 is suitable for the applications such as outdoor LED channel letters, billboard, commercial signs, etc.

■ Model Encoding

ERP - 350 - 12



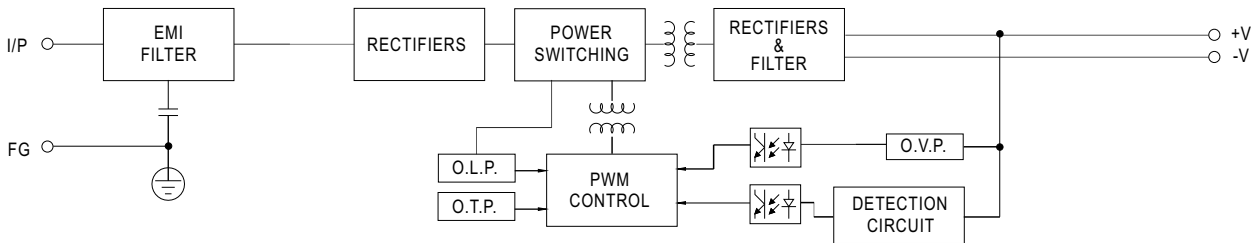


SPECIFICATION

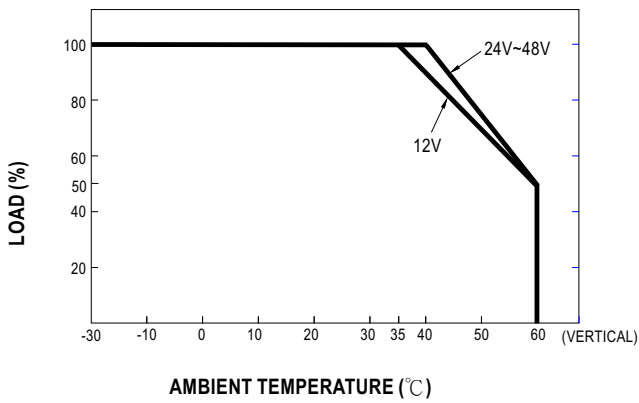
| MODEL | | ERP-350-12 | ERP-350-24 | ERP-350-36 | ERP-350-48 |
|---------------------|---|---|--------------|--------------|--------------|
| OUTPUT | DC VOLTAGE | 12V | 24V | 36V | 48V |
| | RATED CURRENT | 26.7A | 14.6A | 9.7A | 7.3A |
| | CURRENT RANGE | 0 ~ 26.7A | 0 ~ 14.6A | 0 ~ 9.7A | 0 ~ 7.3A |
| | RATED POWER | 320.4W | 350.4W | 349.2W | 350.4W |
| | RIPPLE & NOISE (max.) Note.2 | 150mVp-p | 150mVp-p | 240mVp-p | 240mVp-p |
| | VOLTAGE ADJ. RANGE | 10.8 ~ 13.2V | 21.6 ~ 26.4V | 32.4 ~ 39.6V | 43.2 ~ 52.8V |
| | VOLTAGE TOLERANCE Note.3 | ±1.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | SETUP, RISE TIME | 1500ms, 200ms/230VAC | | | |
| HOLD UP TIME (Typ.) | 20ms/230VAC | | | | |
| INPUT | VOLTAGE RANGE | 180 ~ 264VAC 254 ~ 370VDC | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | |
| | EFFICIENCY (Typ.) | 87% | 89% | 90% | 90% |
| | AC CURRENT (Typ.) | 4A/230VAC | | | |
| | INRUSH CURRENT (Typ.) | 90A/230VAC | | | |
| | LEAKAGE CURRENT | <1mA / 240VAC | | | |
| PROTECTION | OVER LOAD | 110 ~ 140% rated output power 130 ~ 180% rated output power 120 ~ 160% rated output power 12-36V Hiccup mode, recovers automatically after fault condition is removed 48V Shut down and latch off o/p voltage, re-power on to recover | | | |
| | OVER VOLTAGE | 13.8 ~ 16.2V | 27.6 ~ 32.4V | 41.4 ~ 46.8V | 55.2 ~ 64.8V |
| | | 12-36V Hiccup mode, recovers automatically after fault condition is removed 48V Shut down and latch off o/p voltage, re-power on to recover | | | |
| | OVER TEMPERATURE | 12-36V Shut down O/P voltage, recovers automatically after temperature goes down 48V Shut down and latch off o/p voltage, re-power on to recover | | | |
| ENVIRONMENT | WORKING TEMP. | -30 ~ +60°C (Refer to output load derating curve) | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | |
| | STORAGE TEMP., HUMIDITY | -30 ~ +85°C, 10 ~ 95% RH | | | |
| | TEMP. COEFFICIENT | ±0.05%/°C (0 ~ 50°C) | | | |
| | VIBRATION | 10 ~ 500Hz, 3G 10min./1cycle, 60min. each along X, Y, Z axes | | | |
| SAFETY & EMC | SAFETY STANDARDS | UL 62368-1, IEC 62368-1, GB4943.1-2011, EAC TP TC 004 approved | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms/500VDC / 25°C / 70% RH | | | |
| | EMC EMISSION | Refer to EN55022 (CISPR22) class A, EAC TP TC 020 | | | |
| | EMC IMMUNITY | Refer to EN61000-4-5; light industry level, criteria A, EAC TP TC 020 | | | |
| OTHERS | MTBF | 321.040Khrs min. MIL-HDBK-217F (25°C) | | | |
| | DIMENSION | 220.4*130*48mm (L*W*H) | | | |
| | PACKING | 0.9Kg; 9 pcs/11Kg/0.63CUFT | | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> | | | | |

■ Block Diagram

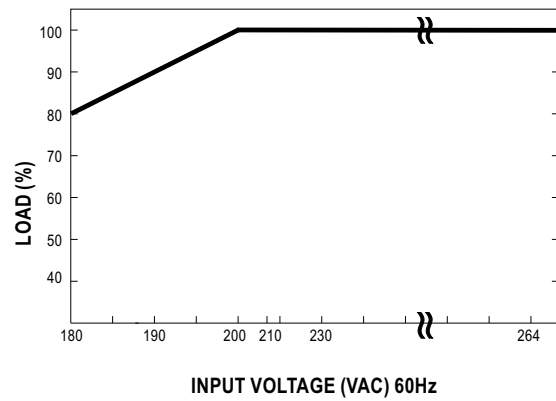
fosc : 90KHz



■ Derating Curve

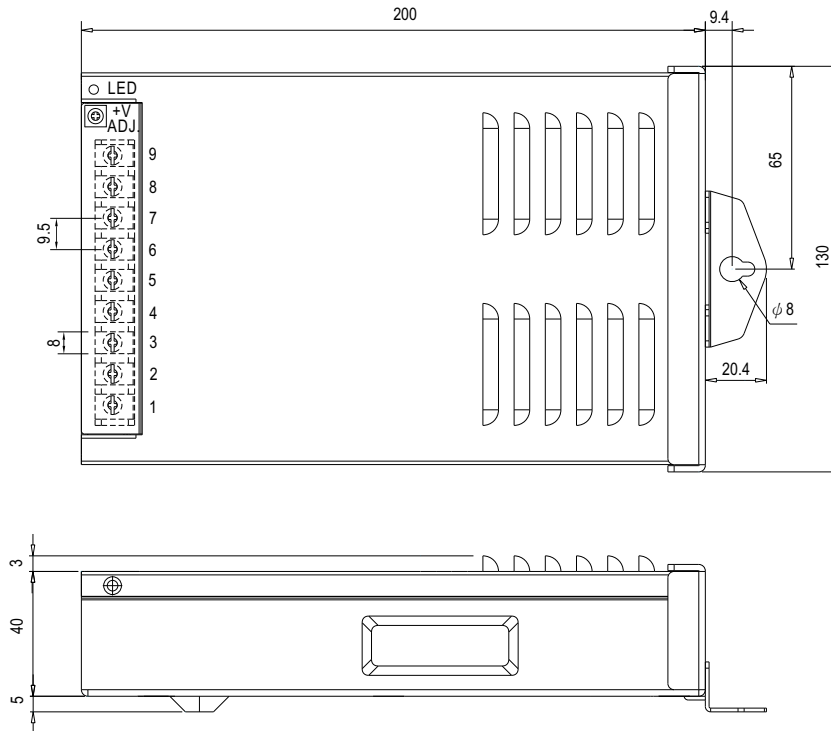


■ Static Characteristics



■ Mechanical Specification

Case No.230 Unit:mm

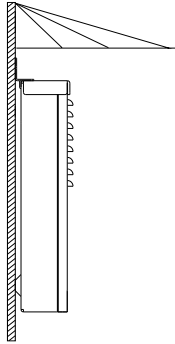


Terminal Pin No. assignment :

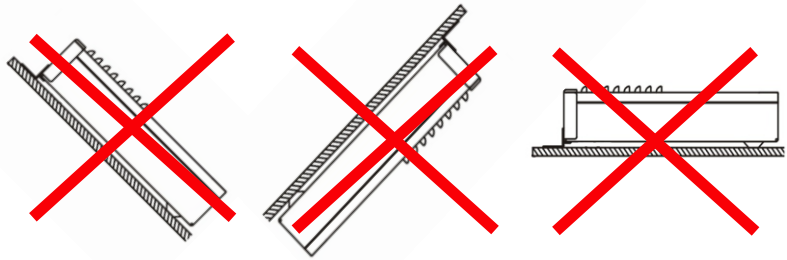
| Pin No. | Assignment | Pin No. | Assignment |
|---------|-------------|---------|--------------|
| 1 | AC/L | 4~6 | DC OUTPUT -V |
| 2 | AC/N | 7~9 | DC OUTPUT +V |
| 3 | FG \equiv | | |

■ Installation

- 1. ERP-350 is designed for outdoor application and should be installed in the place with shelter.
- 2. ERP-350 should be installed in an upright position, leaning forward, backward or lay flat are not allowed.



Correct installation method



Faulty installation methods

- 3. For heat dissipation, at least 10cm installation distance around the PSU should be kept, shown as below:

