350W Single Output Switching Power Supply

ERP-350 series

User's Manual

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 display

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 display, etc.

Model Encoding

ERP - 350 - 12

- 12 — Output Voltage(12V/24V/36V/48V)
- 350 — Rated wattage
- ERP — Series name

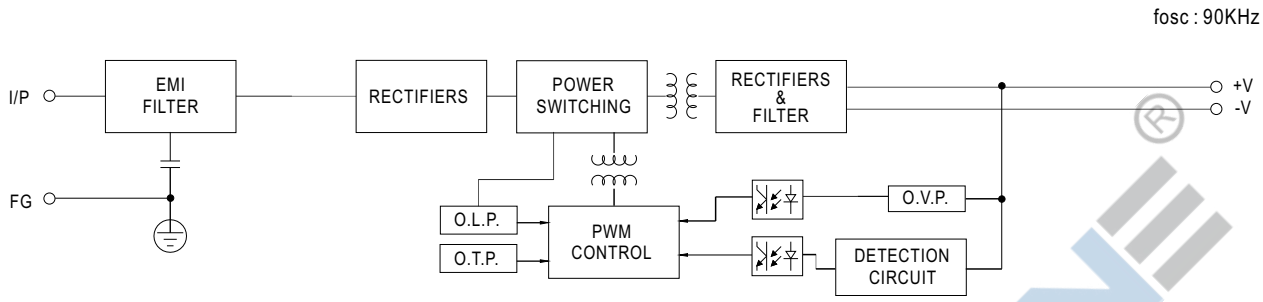
350W Single Output Switching Power Supply

ERP-350 series

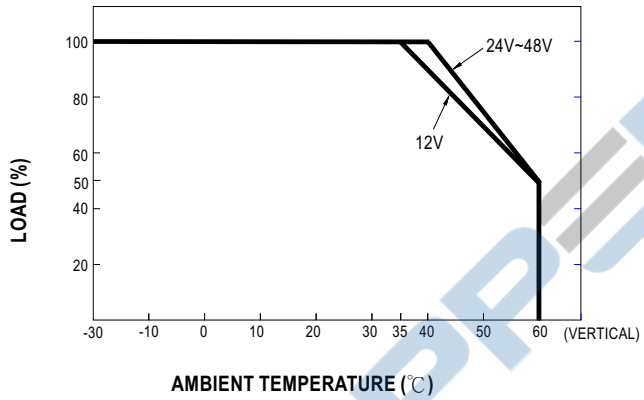
SPECIFICATION

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℃ (Refer to output load derating curve)			
	WORKING HUMIDITY	20 ~ 90% RH non-condensing			
	STORAGE TEMP., HUMIDITY	-30 ~ +85℃, 10 ~ 95% RH			
	TEMP. COEFFICIENT	±0.05%/℃ (0 ~ 50℃)			
	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℃/ 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℃)			
	DIMENSION	220.4*130*48mm (L*W*H)			
	PACKING	0.9Kg; 9 pcs/11Kg/0.63CUFT			
NOTE	1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft). ※ Product Liability Disclaimer : For detailed information, please refer to https://www.meanwell.com/serviceDisclaimer.aspx				

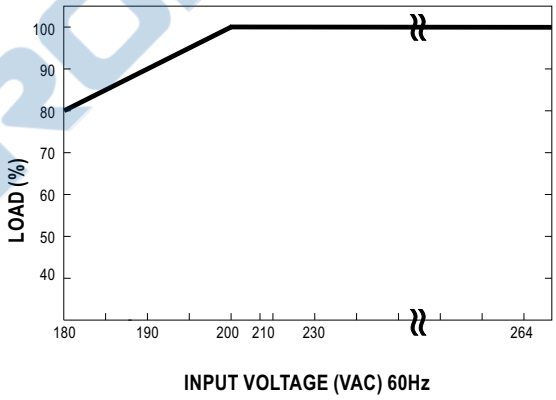
■ Block Diagram



■ Derating Curve

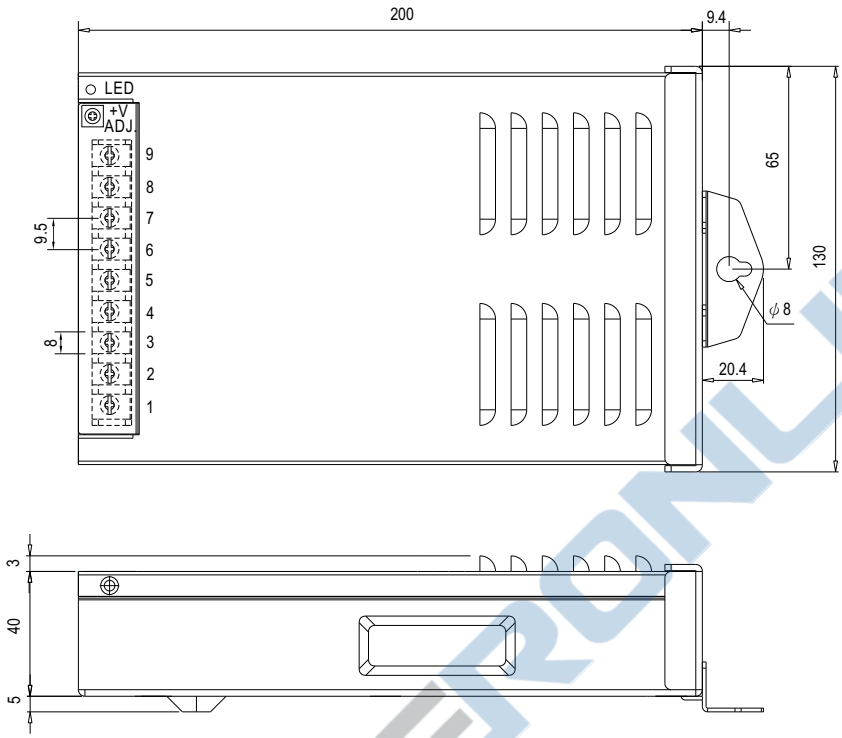


■ Static Characteristics



■ Mechanical Specification

Case No.230 Unit:mm

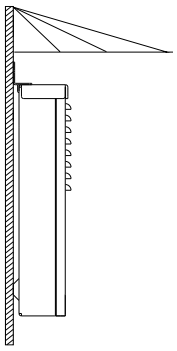


Terminal Pin No. assignment :

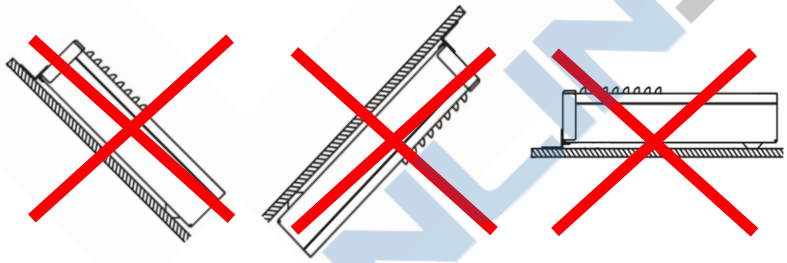
Pin No.	Assignment	Pin No.	Assignment
1	AC/L	4~6	DC OUTPUT -V
2	AC/N	7~9	DC OUTPUT +V
3	FG ⏚		

■ 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: