35W Single Output Switching Power Supply

EPS-35 series

■ Features :

- Universal AC input / Full range
- High efficiency up to 90%
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 3"×2" compact size
- LED indicator for power on
- No load power consumption<0.3W
- 3 years warranty

SPECIFICATION

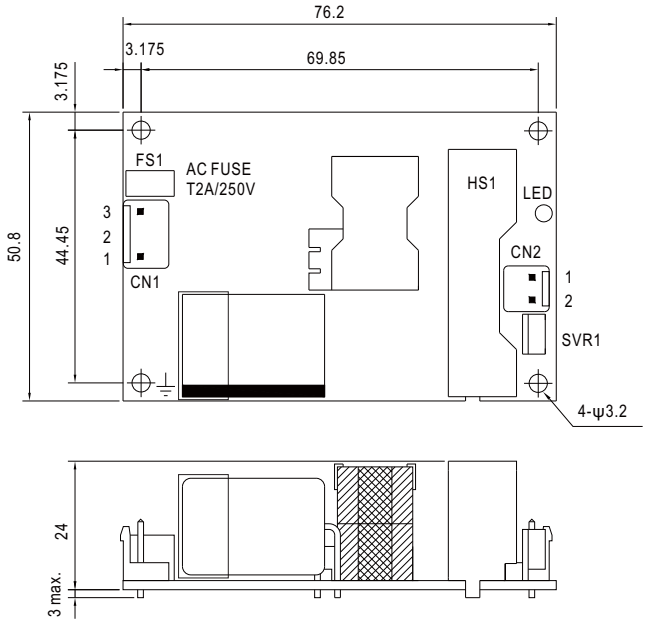
MODEL		EPS-35-3.3	EPS-35-5	EPS-35-7.5	EPS-35-12	EPS-35-15	EPS-35-24	EPS-35-27	EPS-35-36	EPS-35-48
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	27V	36V	48V
	RATED CURRENT	6A	6A	4.7A	3A	2.4A	1.5A	1.3A	1A	0.75A
	CURRENT RANGE	0 ~ 6.6A	0 ~ 6.6A	0 ~ 5.2A	0 ~ 3.3A	0 ~ 2.65A	0 ~ 1.65A	0 ~ 1.45A	0 ~ 1.1A	0 ~ 0.82A
	RATED POWER	19.8W	30W	35.25W	36W	36W	36W	35.1W	36W	36W
	PEAK LOAD(10sec.) Note.6	21.78W	33W	39W	39.6W	39.75W	39.6W	39.15W	39.6W	39.36W
	RIPPLE & NOISE (max.) Note.2	60mVp-p	70mVp-p	80mVp-p	100mVp-p	100mVp-p	180mVp-p	180mVp-p	200mVp-p	240mVp-p
	VOLTAGE ADJ. RANGE	3.1 ~ 3.6V	4.75 ~ 5.5V	7.13 ~ 8.25V	10.8 ~ 13.5V	13.5 ~ 16.5V	21.6 ~ 27V	24.3 ~ 29.7V	32.4 ~ 39.6V	43.2 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	±2.5%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%	±1.0%
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	LOAD REGULATION	±1.5%	±1.0%	±1.0%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%
	SETUP, RISE TIME	1000ms, 30ms/230VAC 1000ms, 30ms/115VAC at full load								
	HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load								
INPUT	VOLTAGE RANGE Note.5	85 ~ 264VAC 120 ~ 370VDC								
	FREQUENCY RANGE	47 ~ 63Hz								
	EFFICIENCY (Typ.)	80%	82%	84%	87%	88%	89%	89%	89%	90%
	AC CURRENT (Typ.)	0.75A/115VAC 0.5A/230VAC								
	INRUSH CURRENT (Typ.)	COLD START 40A/230VAC								
	LEAKAGE CURRENT	<1mA/240VAC								
PROTECTION	OVER LOAD	115 ~ 170% rated output power								
		Protection type : Hiccup mode, recovers automatically after fault condition is removed								
	OVER VOLTAGE	3.7 ~ 4.6V	5.6 ~ 6.75V	8.63~ 10.5V	14 ~ 17V	17.25 ~ 20.25V	27.6 ~ 32.4V	31.05 ~ 36.45V	39.7 ~ 46.8V	53.3 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover								
ENVIRONMENT	WORKING TEMP.	-30 ~ +70℃ (Refer to "Derating Curve")								
	WORKING HUMIDITY	20 ~ 90% RH non-condensing								
	STORAGE TEMP., HUMIDITY	-40 ~ +85℃, 10 ~ 95% RH								
	TEMP. COEFFICIENT	±0.03%/℃ (0 ~ 50℃)								
	OPERATING ALTITUDE Note.8	2000 meters								
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes								
SAFETY & EMC (Note 4)	SAFETY STANDARDS	UL62368-1, TUV EN62368-1, 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	Compliance to EN55032 (CISPR32) Class B, EN61000-3-2,-3, EAC TP TC 020								
	EMC IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, heavy industry level, criteria A, EAC TP TC 020								
OTHERS	MTBF	649.1K hrs min. MIL-HDBK-217F (25℃)								
	DIMENSION	76.2*50.8*24mm (L*W*H)								
	PACKING	0.085Kg; 120pcs/11.2Kg/0.97CUFT								

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 power supply is considered a component which will be installed into a final equipment. All the EMC tests are been executed by mounting the unit on a 360mm*360mm metal plate with 1mm of thickness. The final equipment must be re-confirmed that it still meets EMC directives. For guidance on how to perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)
5. Derating may be needed under low input voltage. Please check the static characteristics for more details.
6. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.
7. EPS-35-24/27/36/48 without Hs1.
8. 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).

■ Mechanical Specification

Unit:mm



AC Input Connector (CN1) : JST B3P-VH or equivalent

Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

DC Output Connector (CN2) : JST B2P-VH or equivalent

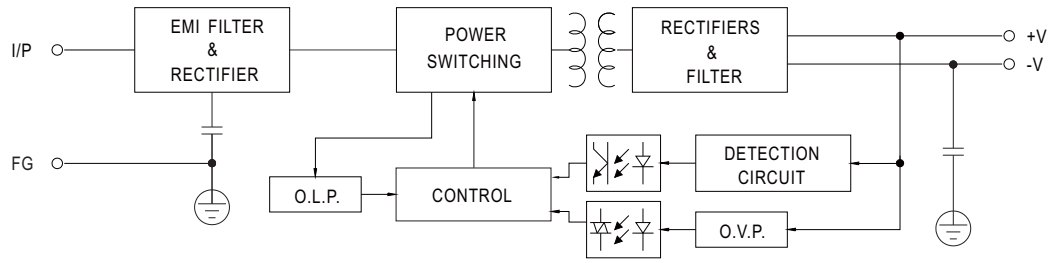
Pin No.	Assignment	Mating Housing	Terminal
1	-V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	+V		

⚠ HS1(Note.7) must have safety isolation distance with system case.

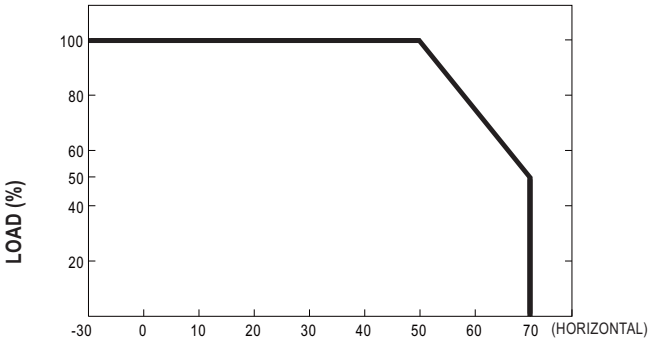
⏚ : Grounding required

■ Block Diagram

fosc : 100KHz



■ Output Derating



■ Static Characteristics