



E-Star Power Development Co., Ltd. (E-STAR)
1F., No.40, Juren Ln., Sec. 2, Sanmin Rd., Banciao Dist., New Taipei City
22069, Taiwan (R.O.C.)
Phone : 886-2-2957 5580 Fax : 886-2-2957 7473

35W Open Frame type Single output power supply > EPS-35



■ 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°C (Refer to "Derating Curve")									
	WORKING HUMIDITY	20 ~ 90% RH non-condensing									
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH									
	TEMP. COEFFICIENT	±0.03%/°C (0 ~ 50°C)									
	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°C / 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°C)									
	DIMENSION	76.2*50.8*24mm (L*W*H)									
	PACKING	0.085Kg; 120pcs/11.2Kg/0.94CUFT									
NOTE	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 0.1uf & 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." 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°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft).										



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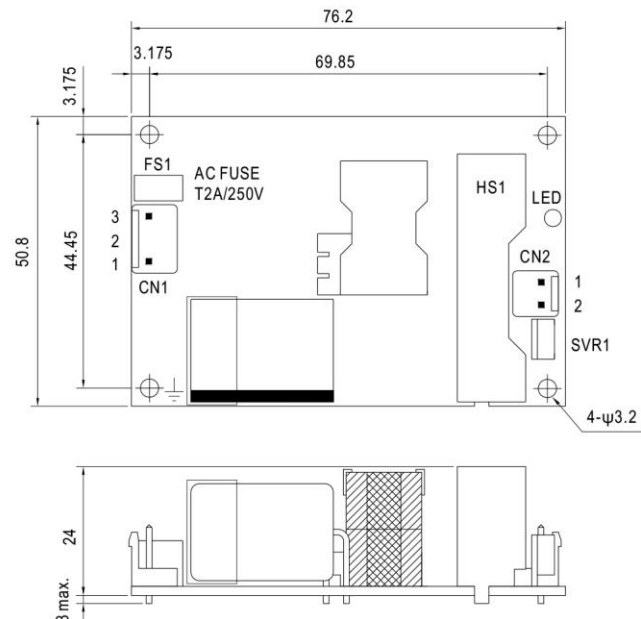
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Mechanical Specification

Unit:mm



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

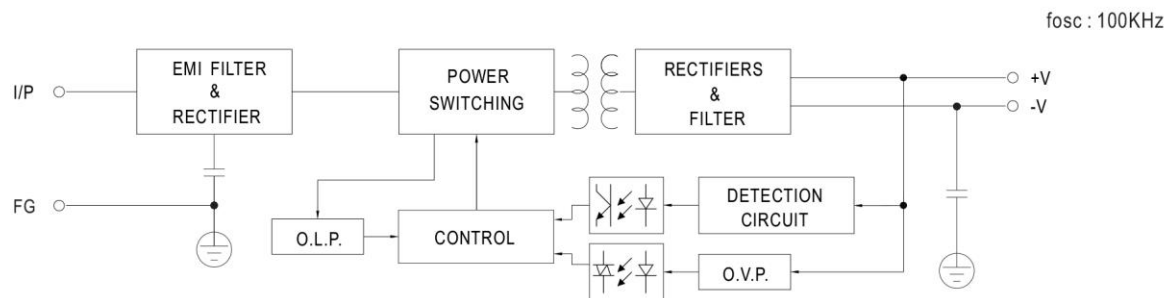
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

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

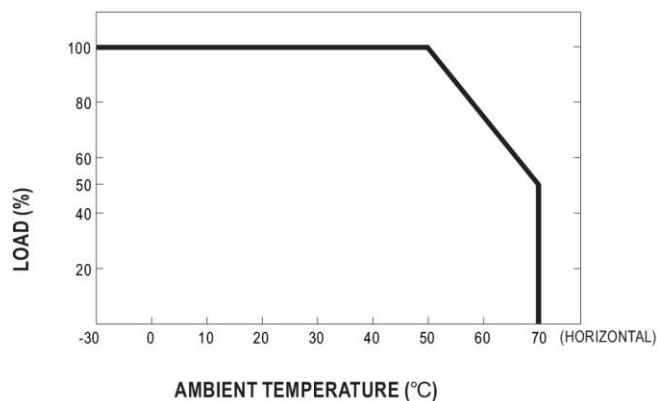
Pin No.	Assignment	Mating Housing	Terminal
1	-V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	+V		

⚠ HS1(Note.7) must have safety isolation distance with system case.
⚡ : Grounding required

Block Diagram



Output Derating



Static Characteristics

