



45W Single Output Switching Power Supply

EPS-45 series



■ Features :

- Universal AC input / Full range
- Optional L-Bracket and cover
- High efficiency up to 90%
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 2" X 4" compact size
- LED indicator for power on
- No load power consumption<0.3W
- 3 years warranty

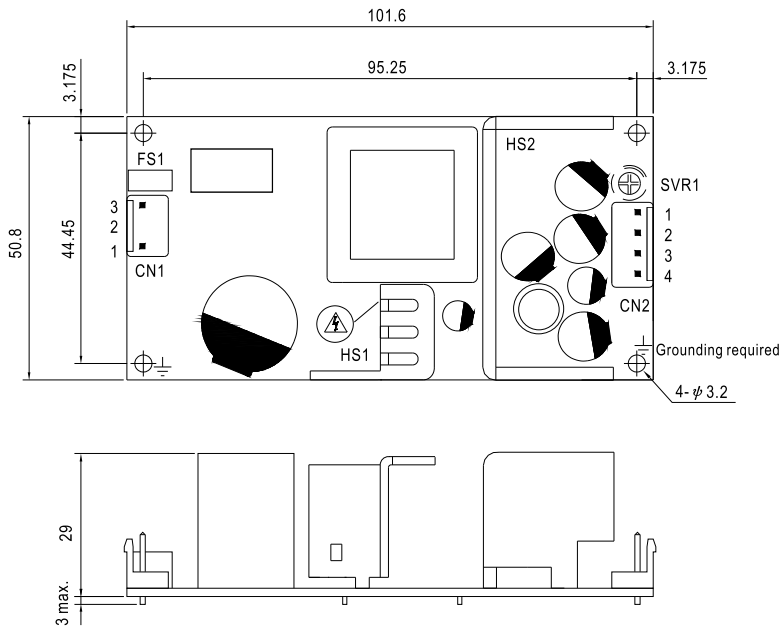


EPS-45-3.3 ☐ -C ☐ =Blank, -C ; Blank=PCB only, -C=Enclosed type

SPECIFICATION

MODEL		EPS-45-3.3 ☐	EPS-45-5 ☐	EPS-45-7.5 ☐	EPS-45-12 ☐	EPS-45-15 ☐	EPS-45-24 ☐	EPS-45-36 ☐	EPS-45-48 ☐
OUTPUT	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	36V	48V
	RATED CURRENT	8A	8A	5.4A	3.75A	3A	1.9A	1.25A	1A
	CURRENT RANGE	0 ~ 9A	0 ~ 9A	0 ~ 6A	0 ~ 4.2A	0 ~ 3.3A	0 ~ 2.1A	0 ~ 1.4A	0 ~ 1.1A
	RATED POWER	26.4W	40W	40.5W	45W	45W	45.6W	45W	48W
	PEAK LOAD(10sec.) Note.6	29.7W	45W	42W	50.4W	49.5W	50.4W	50.4W	52.8W
	RIPPLE & NOISE (max.) Note.2	80mVp-p	80mVp-p	100mVp-p	120mVp-p	150mVp-p	240mVp-p	280mVp-p	300mVp-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	32.4 ~ 39.6V	43.2 ~ 52.8V
	VOLTAGE TOLERANCE Note.3	± 3.0%	± 2.0%	± 2.0%	± 2.0%	± 2.0%	± 1.0%	± 1.0%	± 1.0%
	LINE REGULATION	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%	± 0.5%
	LOAD REGULATION	± 2.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%	± 1.0%
INPUT	SETUP, RISE TIME	1000ms, 50ms/230VAC 2000ms, 50ms/115VAC at full load							
	HOLD UP TIME (Typ.)	50ms/230VAC 16ms/115VAC at full load							
	VOLTAGE RANGE Note.5	90 ~ 264VAC 127 ~ 370VDC							
	FREQUENCY RANGE	47 ~ 63Hz							
	EFFICIENCY (Typ.)	80%	82%	84%	87%	88%	89%	89%	90%
	AC CURRENT (Typ.)	1.8A/115VAC 1 A/230VAC							
PROTECTION	INRUSH CURRENT (Typ.)	COLD START 60A/230VAC							
	LEAKAGE CURRENT	<2mA/240VAC							
	OVER LOAD	115 ~ 160% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed							
ENVIRONMENT	OVER VOLTAGE	3.7 ~ 4.45V	5.6 ~ 6.75V	8.63 ~ 10.1V	13.8 ~ 16.2V	17.25 ~ 20.25V	27.6 ~ 32.4V	39.7 ~ 46.8V	53.3 ~ 64.8V
		Protection type : Shut down o/p voltage, re-power on to recover							
	WORKING TEMP.	-30 ~ +70°C (Refer to output load derating curve)							
SAFETY & EMC (Note 4)	WORKING HUMIDITY	20 ~ 90% RH non-condensing							
	STORAGE TEMP., HUMIDITY	-40 ~ +85°C, 10 ~ 95% RH							
	TEMP. COEFFICIENT	± 0.03%/°C (0 ~ 50°C)							
OTHERS	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved							
	WITHSTAND VOLTAGE	I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC							
NOTE	ISOLATION RESISTANCE	I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH							
	EMI CONDUCTION & RADIATION	Compliance to EN55022 (CISPR22) Class B							
	HARMONIC CURRENT	Compliance to EN61000-3-2, -3							
MTBF	EMS IMMUNITY	Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, heavy industry level, criteria A							
	MTBF	652.3Khrs min. MIL-HDBK-217F (25°C)							
	DIMENSION	PCB:101.6*50.8*29mm (L*W*H) ; with optional CASE:103.4*62*37mm (L*W*H)							
PACKING	PACKING	PCB: 0.14Kg; 96pcs/ 14.5Kg/0.89CUFT ; with optional CASE: 0.3Kg; 45pcs/ 14.5Kg/0.67CUFT							

Mechanical Specification



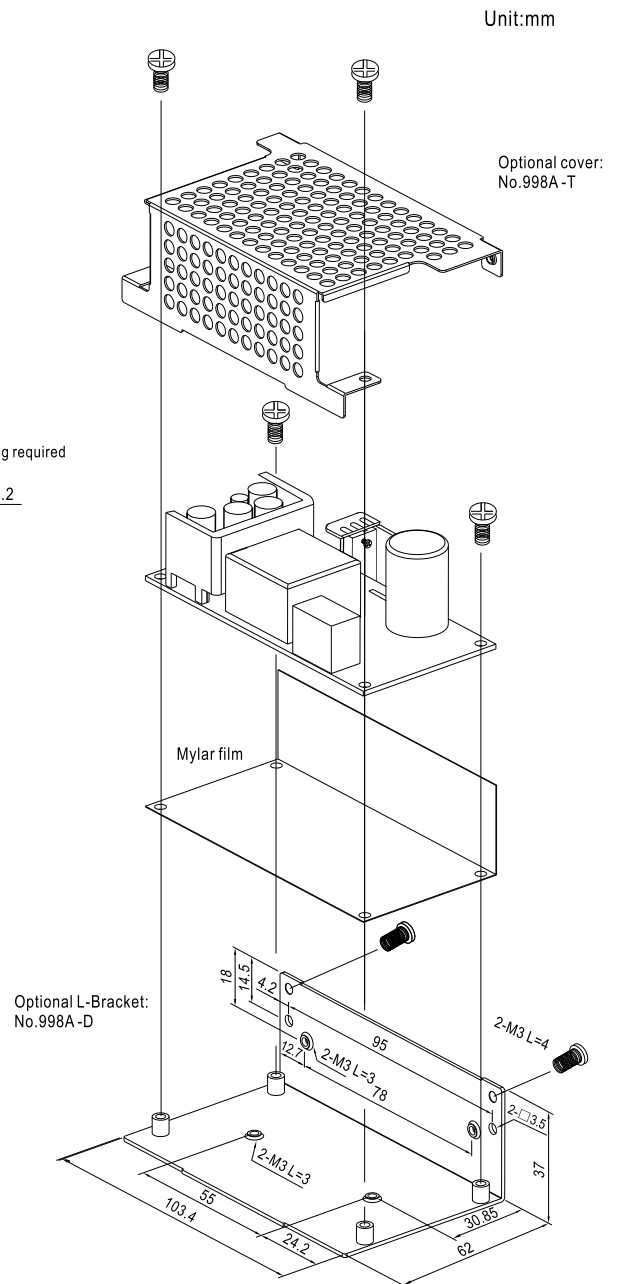
- 1.HS1,HS2 can not be shorted.
- 2.HS1 must have safety isolation distance with system case.

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

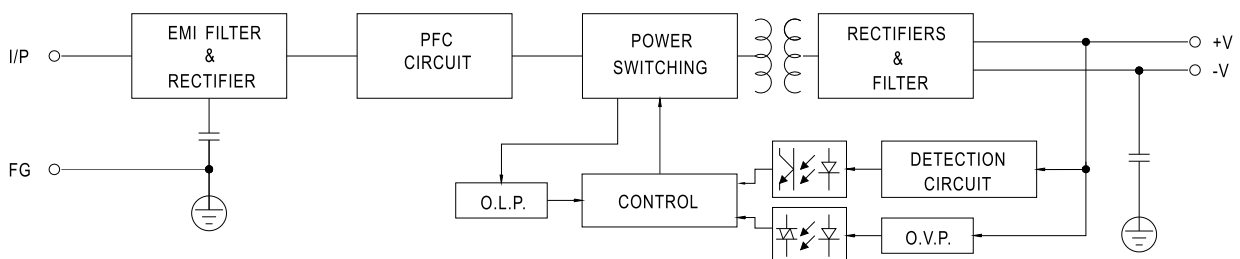
Pin No.	Assignment	Mating Housing	Terminal
1	AC/N	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
2	No Pin		
3	AC/L		

DC Output Connector (CN2) : JST B4P-VH or equivalent

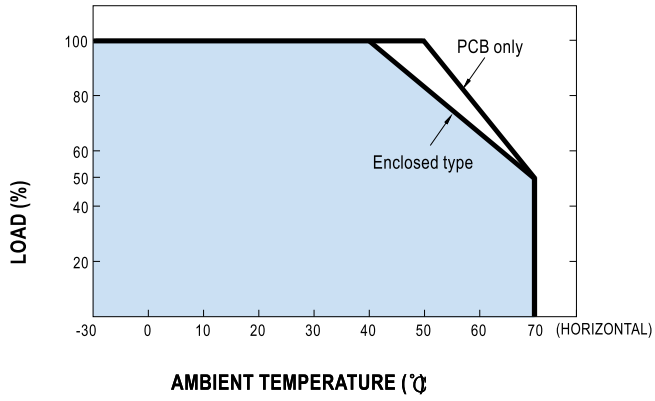
Pin No.	Assignment	Mating Housing	Terminal
1,2	+V	JST VHR or equivalent	JST SVH-21T-P1.1 or equivalent
3,4	-V		



Block Diagram



Output Derating



Static Characteristics

