

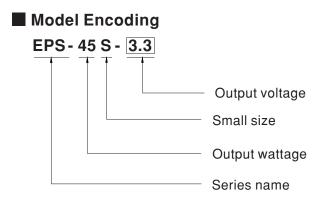




- 3"×2" miniature size
- Universal AC input / Full range
- Class II (without FG) installations
- No load power consumption<0.1W
- High efficiency up to 91%
- For 1U applications
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- -30~70 $^\circ \rm C$ wide range of operating temperature
- Operating altitude up to 5000 meters(Note 7.)
- · LED indicator for power on
- · 3 years warranty

Description

EPS-45S is a 45W highly reliable green PCB type industrial power supply with a high power density on the 3" by 2" footprint. It accepts $80 \sim 264$ VAC input and offers various output voltages between 3.3V and 48V. The working efficiency is up to 91% and the extremely low no load power consumption is down below 0.1W. EPS-45S is able to be used for Class II (no FG) system design.





Applications

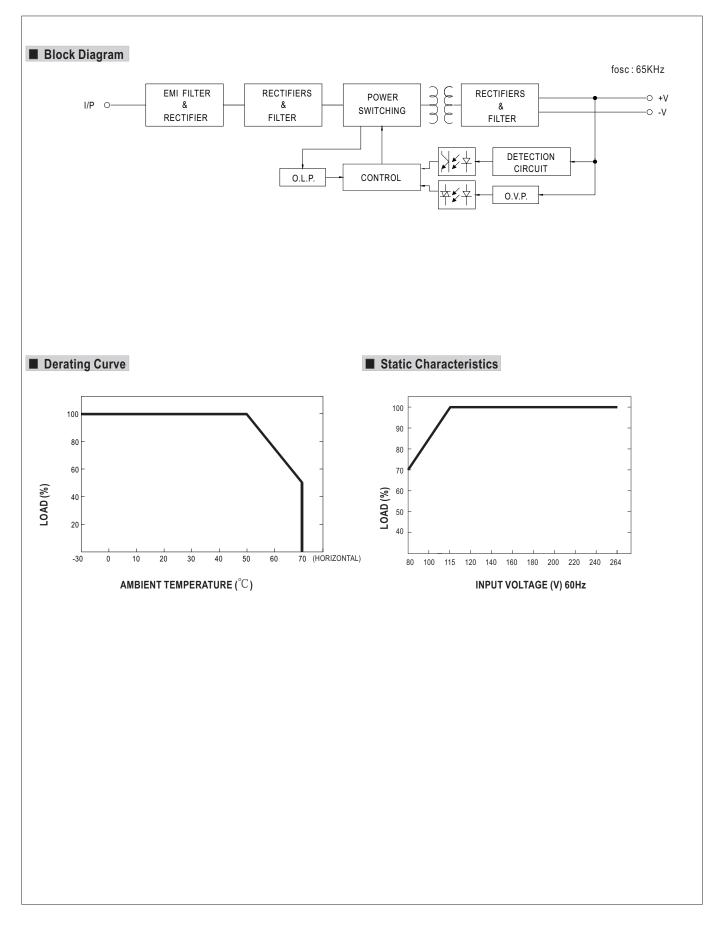
- Industrial electrical equipment
- Mechanical equipment
- Factory automation equipment
- Handheld electronic device



SPECIFICATION

ORDER NO		EPS-45S-3.3	EPS-45S-5	EPS-45S-7.5	EPS-45S-12	EPS-45S-15	EPS-45S-24	EPS-45S-48	
	DC VOLTAGE	3.3V	5V	7.5V	12V	15V	24V	48V	
	RATED CURRENT	8A	8A	5.4A	3.8A	3A	1.9A	0.94A	
	CURRENT RANGE	0~8.8A	0~8.8A	0~5.95A	0~4.18A	0~3.3A	0~2.1A	0~1.03A	
	RATED POWER	26.4W	40W	40.5W	45.6W	45W	45.6W	45.1W	
OUTPUT	PEAK LOAD(10sec.) Note.2	29W	44W	44.6W	50.2W	49.5W	50.2W	49.4W	
	RIPPLE & NOISE (max.) Note.3		80mVp-p	80mVp-p	120mVp-p	150mVp-p	240mVp-p	300mVp-p	
	VOLTAGE ADJ.RANGE	3.1~3.6V	4.7~5.5V	7.12~8.3V	11.4~13.2V	13.5~16.5V	22.8~27.6V	45.6~52.8V	
	VOLTAGE TOLERANCE Note.4		±2.0%	±2.0%	±2.0%	±1.0%	±1.0%	±1.0%	
		$\pm 0.5\%$	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	
	LOAD REGULATION	±2.0%	±2.0%	±2.0%	±2.0%	<u>= 0.0%</u> 土1.0%	<u>= 0.0%</u> ±1.0%	±1.0%	
	SETUP, RISE TIME	500ms, 30ms / 23				- 1.070	± 1.0 %	- 1.0 /0	
	HOLD UP TIME (Typ.)	500ms, 30ms / 230VAC 500ms, 30ms / 115VAC at full load 30ms / 230VAC 12ms / 115VAC at full load							
		50 ~ 264VAC							
	FREQUENCY RANGE	5 80 ~ 264VAC 47 ~ 63Hz							
NPUT			83%	050/	0.00/	000/	000/	010/	
NFUI	EFFICIENCY (Typ.)	80%		85%	88%	89%	90%	91%	
	AC CURRENT (Typ.)	1.2A/115VAC 1A/230VAC							
	INRUSH CURRENT (Typ.)	COLD STAR 30A/115VAC 60A/230VAC							
	LEAKAGE CURRENT(max.)	0.25mA/264VAC							
	OVERLOAD	115 ~ 150% rated output power							
		Protection type : Hiccup mode, recovers automatically after fault condition is removed							
PROTECTION	OVER VOLTAGE	3.8~5V	5.7~6.8V	8.62~11.3V	13.8~16.2V	17.25~20.3V	28.4~32.4V	55.2~64.8V	
		Protection type : Shut down o/p voltage, re-power on to recover							
	WORKING TEMP.	-30 ~ +70 $^{\circ}$ C (Refer to "Derating Curve")							
	WORKING HUMIDITY	20% ~ 90% RH non-condensing							
ENVIRONMENT	STORAGE TEMP., HUMIDITY	-40 ~ +85°C , 10 ~ 95% RH							
	TEMP. COEFFICIENT	±0.03% /°C (0~50°C)							
	VIBRATION	10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes							
	SAFETY STANDARDS	UL60950-1, TUV EN60950-1 approved							
SAFETY &	ISOLATION LEVEL	Primary-Secondary: 2xMOPP							
EMC	WITHSTAND VOLTAGE	I/P-O/P: 3KVAC							
(Note. 7)	ISOLATION RESISTANCE	I/P-O/P:100M Ohms / 500VDC / 25°C / 70% RH							
	EMC EMISSION	Compliance to EN55022(CISPR22) Class B, EN61000-3-2,3							
	EMC IMMUNITY	Compliance to EN	161000-4-2,3,4,5,6,	8,11, EN55024, He	avy industry Level	criteria A			
	MTBF	726.2Khrs min. MIL-HDBK-217(25°C)							
OTHERS	DIMENSION	76.2*50.8*24mm or 3" * 2" *0.945" inch (L*W*H)							
	PACKING	0.11Kg; 120pcs/1	4.2Kg/0.97CUFT						
NOTE	 All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. Tolerance : includes set up tolerance, line regulation and load regulation. Derating may be needed under low input voltages. Please check the derating curve for more details. Touch current was measured from primary input to DC output. The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m (6500ft). 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) 								







EPS-45S series

Mechanical Specification Case No. Unit:mm 76.2 3.175 69.85 3.175 \oplus \oplus HS100 FS1 AC FUSE T2A/250V 3 2 CN2 1 44.45 1 50.8 CN1 2 3 4 LED С SVR1 æ \oplus HS1 4-ψ3.2 24 3 max.

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

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

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

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

Installation Manual

Please refer to : http://www.meanwell.com/webnet/search/InstallationSearch.html