

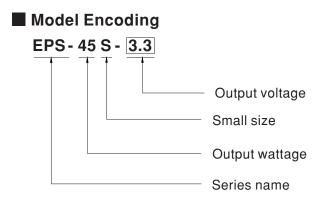




- 3"×2" miniature size
- Universal AC input / Full range
- Class II (without FG) installations
- No load power consumption<0.1W
- High efficiency up to 91%
- For 1U applications
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- -30~70  $^\circ \rm C$  wide range 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

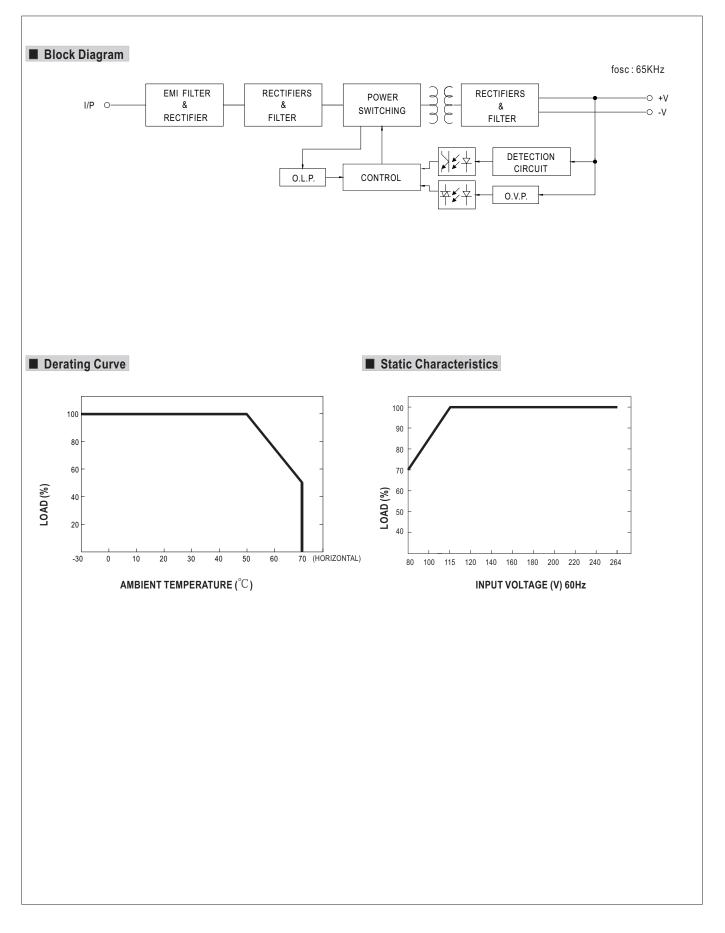
- Industrial electrical equipment
- Mechanical equipment
- Factory automation equipment
- Handheld electronic device



# 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	<ol> <li>All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.</li> <li>Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>Derating may be needed under low input voltages. Please check the derating curve for more details.</li> <li>Touch current was measured from primary input to DC output.</li> <li>The ambient temperature derating of 5°C/1000m is needed for operating altitude greater than 2000m (6500ft).</li> <li>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)</li> </ol>								







# 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