



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



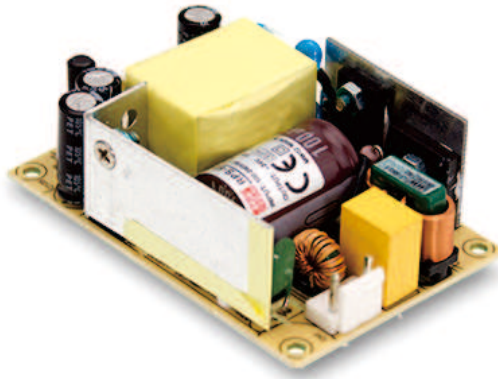
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■ Features

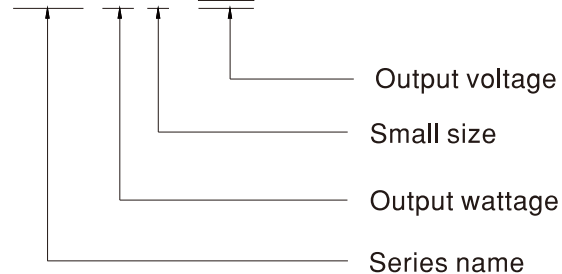
- 3"×2" miniature size
- Universal AC input / Full range
- Class II (without FG) installations
- No load power consumption<0.1W
- High efficiency up to 91%
- For 1U applications
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- -30~70°C wide range of operating temperature
- Operating altitude up to 5000 meters
- 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 80~264VAC 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.

■ Model Encoding

EPS - 45 S - 3.3



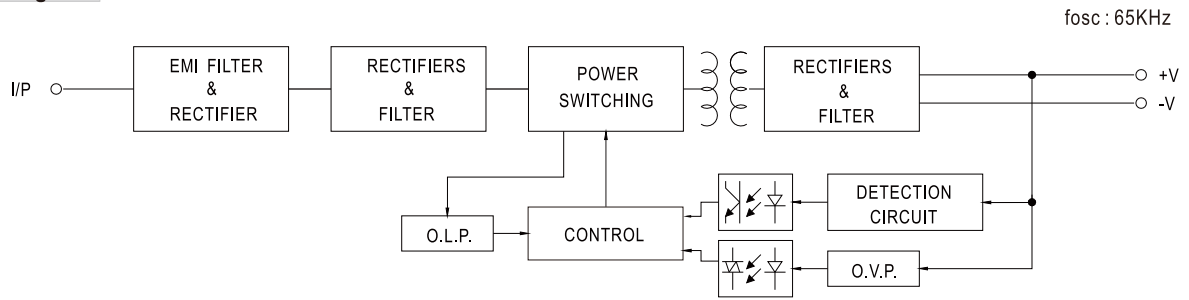
■ Applications

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

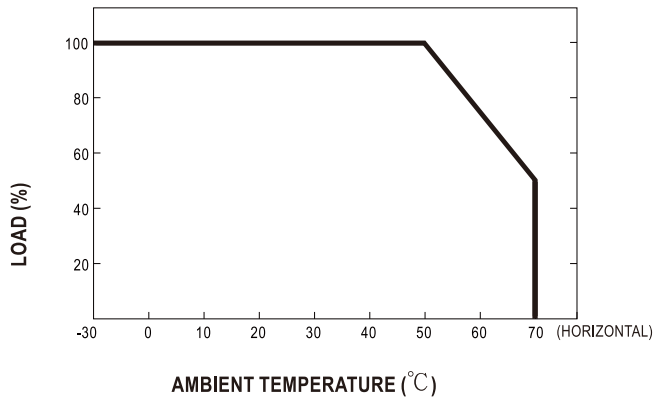
SPECIFICATION

| 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 | |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-------------|------------|------------|-------------|------------|------------|
| OUTPUT | 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 |
| | 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 | 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% | ±2.0% | ±1.0% | ±1.0% | ±1.0% |
| | LINE REGULATION | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% | ±0.5% |
| | LOAD REGULATION | ±2.0% | ±2.0% | ±2.0% | ±2.0% | ±1.0% | ±1.0% | ±1.0% |
| | SETUP, RISE TIME | 500ms, 30ms / 230VAC 500ms, 30ms / 115VAC at full load | | | | | | |
| HOLD UP TIME (Typ.) | 30ms / 230VAC 12ms / 115VAC at full load | | | | | | | |
| INPUT | VOLTAGE RANGE Note.5 | 80 ~ 264VAC | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | |
| | EFFICIENCY (Typ.) | 80% | 83% | 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 | | | | | | |
| PROTECTION | OVERLOAD | 115 ~ 150% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | |
| | 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 |
| 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.7 | 5000 meters | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | |
| SAFETY & EMC (Note. 8) | SAFETY STANDARDS | UL60950-1, TUV EN60950-1, EAC TP TC 004 approved | | | | | | |
| | ISOLATION LEVEL | Primary-Secondary: 2xMOPP | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P: 3KVAC | | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P: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 | 726.2Khrs min. MIL-HDBK-217(25°C) | | | | | | |
| | DIMENSION | 76.2*50.8*24mm or 3" * 2" *0.945" inch (L*W*H) | | | | | | |
| | PACKING | 0.11Kg; 120pcs/14.2Kg/0.97CUFT | | | | | | |
| NOTE | <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.</p> <p>3. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.</p> <p>4. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>5. Derating may be needed under low input voltages. Please check the derating curve for more details.</p> <p>6. Touch current was measured from primary input to DC output.</p> <p>7. 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).</p> <p>8. 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)</p> | | | | | | | |

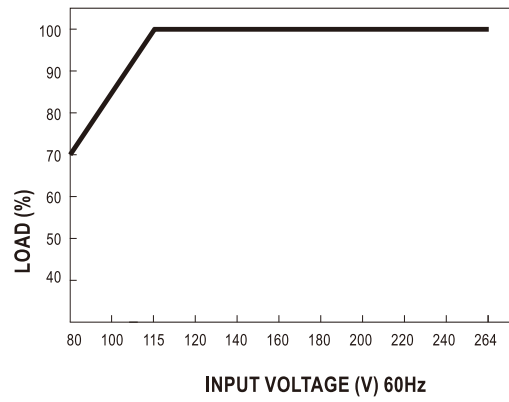
■ Block Diagram



■ Derating Curve



■ Static Characteristics

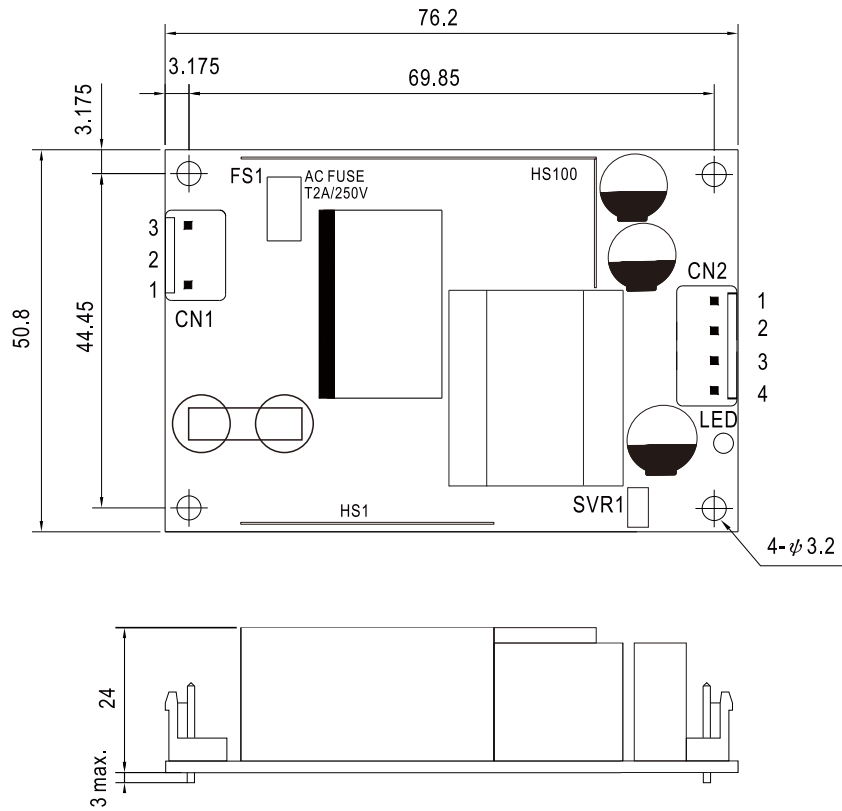


45W Single Output Switching Power Supply

EPS-45S series

Mechanical Specification

Case No. 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 | | |
| 3 | -V | | |
| 4 | -V | | |

Installation Manual

Please refer to : <http://www.meanwell.com/manual.html>