



65W Single Output Switching Power Supply

EPS-65 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
- 4"×2" compact size
- LED indicator for power on
- No load power consumption<0.3W
- Operating altitude up to 4000 meters
- 3 years warranty

User's Manual



■ GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>

TPTC004 UL62368-1 BS EN/EN62368-1 GB4943.1 IEC62368-1

EPS-65-3.3 -C =Blank, -C ; Blank=PCB only, -C=Enclosed type

SPECIFICATION

| MODEL | EPS-65-3.3 <input type="checkbox"/> | EPS-65-5 <input type="checkbox"/> | EPS-65-7.5 <input type="checkbox"/> | EPS-65-12 <input type="checkbox"/> | EPS-65-15 <input type="checkbox"/> | EPS-65-24 <input type="checkbox"/> | EPS-65-36 <input type="checkbox"/> | EPS-65-48 <input type="checkbox"/> | |
|-----------------------|--|---|-------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|------------------------------------|--------------|
| OUTPUT | DC VOLTAGE | 3.3V | 5V | 7.5V | 12V | 15V | 24V | 36V | 48V |
| | RATED CURRENT | 11A | 11A | 8A | 5.42A | 4.34A | 2.71A | 1.81A | 1.36A |
| | CURRENT RANGE | 0 ~ 12A | 0 ~ 12A | 0 ~ 8.8A | 0 ~ 6A | 0 ~ 4.8A | 0 ~ 3A | 0 ~ 2A | 0 ~ 1.5A |
| | RATED POWER | 36.3W | 55W | 60W | 65.04W | 65.1W | 65.04W | 65.16W | 65.28W |
| | PEAK LOAD(10sec.) Note.6 | 39.6W | 60W | 66W | 72W | 72W | 72W | 72W | 72W |
| | 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% |
| SETUP, RISE TIME | 100ms, 50ms/230VAC 2000ms, 50ms/115VAC at full load | | | | | | | | |
| HOLD UP TIME (Typ.) | 50ms/230VAC 12ms/115VAC at full load | | | | | | | | |
| INPUT | VOLTAGE RANGE Note.5 | 90 ~ 264VAC 127 ~ 370VDC [DC input operation possible by connecting AC/N(+), AC/L(-)] | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | | | |
| | EFFICIENCY (Typ.) | 80% | 82% | 84% | 86% | 87% | 88% | 89% | 90% |
| | AC CURRENT (Typ.) | 1.8A/115VAC | | 1 A/230VAC | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 60A/230VAC | | | | | | | |
| LEAKAGE CURRENT | <2mA/240VAC | | | | | | | | |
| PROTECTION | OVER LOAD | 115 ~ 180% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | | | |
| | 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 |
| ENVIRONMENT | WORKING TEMP. | -30 ~ +70°C (Refer to output load 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 | 4000 meters | | | | | | | |
| SAFETY & EMC (Note 4) | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | |
| | SAFETY STANDARDS | UL62368-1, TUV BS EN/EN62368-1, CCC GB4943.1, 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 BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, GB9254.1 Class B, GB17625 Class A, EAC TP TC 020 | | | | | | | |
| EMC IMMUNITY | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55035, heavy industry level, EAC TP TC 020 | | | | | | | | |
| OTHERS | MTBF | 3077.6K hrs min. Telcordia SR-332 (Bellcore) ; 563.0K hrs 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 | PCB: 0.15Kg; 96pcs/ 15.4 Kg/1.39CUFT ; with optional CASE: 0.3Kg; 45pcs/ 14.5Kg/0.63CUFT | | | | | | | |

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 0.1 μF & 47 μF parallel capacitor.
 3. Tolerance : includes set up tolerance, line regulation and load regulation.
 4. Derating may be needed under low input voltage. Please check the static characteristics for more details.
 5. 33% Duty cycle maximum within every 30 seconds. Average output power should not exceed the rated power.
 6. 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 https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf)
 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).
- ※ Product Liability Disclaimer : For detailed information, please refer to <https://www.meanwell.com/serviceDisclaimer.aspx>

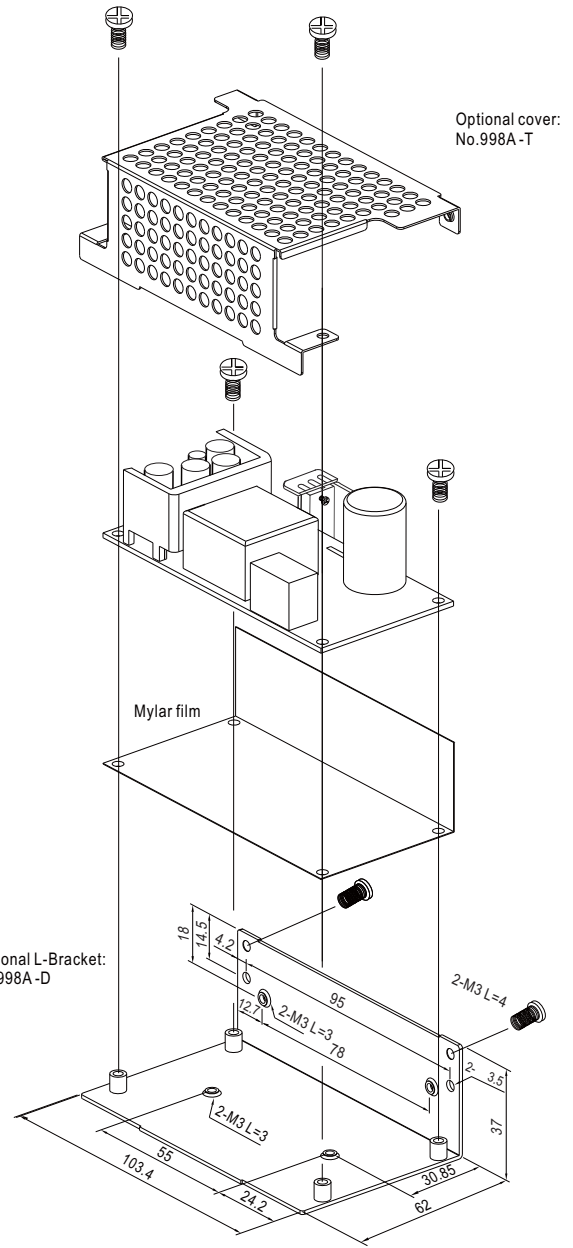
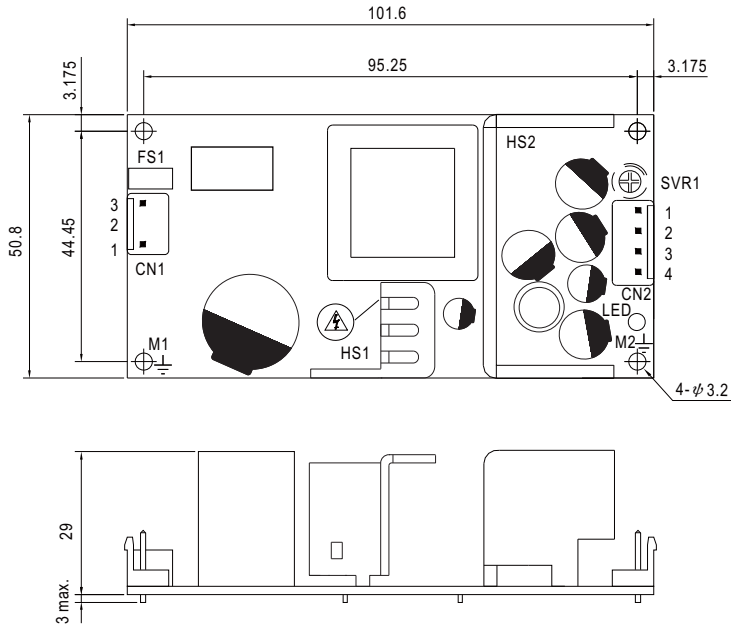


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Mechanical Specification

(Unit: mm , tolerance ± 1 mm)



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

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

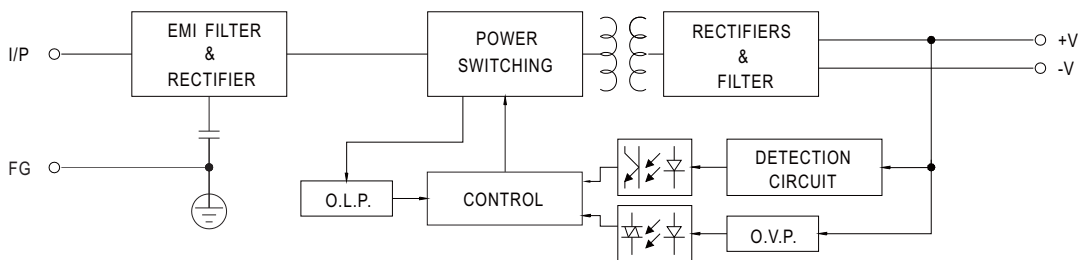
| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|-----------------------|--------------------------------|
| 1 | AC/N | JST VHR or equivalent | JST SVH-21T-P1.1 or equivalent |
| 2 | No Pin | | |
| 3 | AC/L | | |

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 | | |

\perp : Grounding Required ;M1 and M2 are Safety ground and should all be grounded

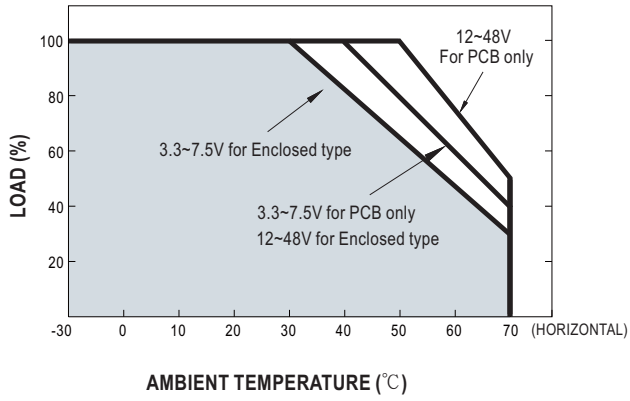
Block Diagram





■ Output Derating

(Unit: mm , tolerance ± 1 mm)



■ Static Characteristics

