



45W Triple Output Switching Power Supply

PT-45 series



■ Features :

- Universal AC input/Full range
- Low leakage current<0.5mA
- Protections: Short circuit / Overload / Over voltage
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 65KHz
- 2 years warranty

User's Manual



UL62368-1



BS EN/EN62368-1 TPTC004

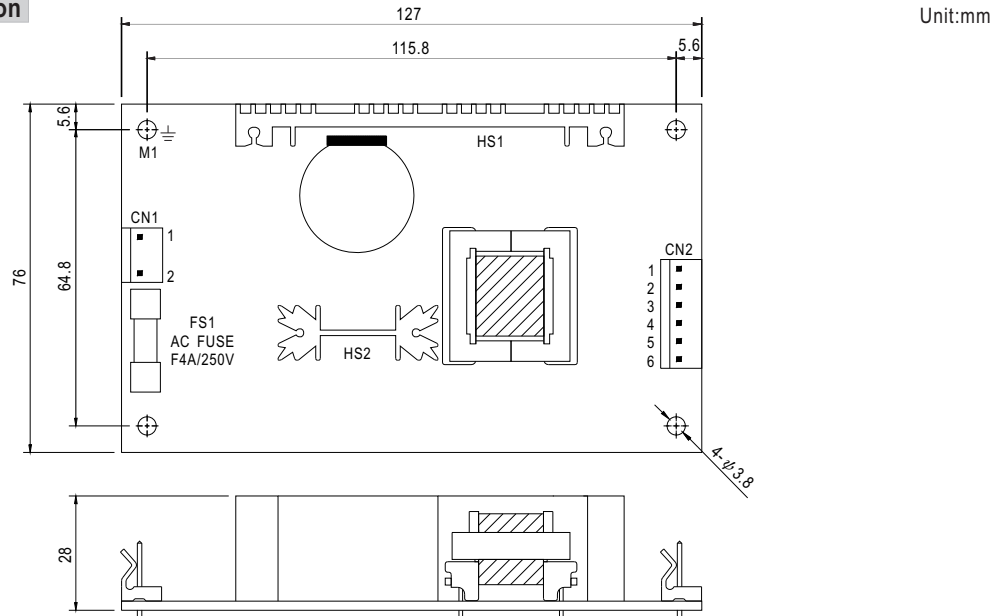


IEC62368-1

SPECIFICATION

| MODEL | | PT-45A | | | PT-45B | | | PT-45C | | |
|--------------------------|--|--|------------|----------|----------|------------|----------|----------|------------|----------|
| OUTPUT | OUTPUT NUMBER | CH1 | CH2 | CH3 | CH1 | CH2 | CH3 | CH1 | CH2 | CH3 |
| | DC VOLTAGE | 5V | 12V | -5V | 5V | 12V | -12V | 5V | 15V | -15V |
| | RATED CURRENT | 3A | 2A | 0.3A | 3A | 2A | 0.3A | 3A | 1.6A | 0.3A |
| | CURRENT RANGE | 0.4 ~ 5A | 0.2 ~ 2.5A | 0 ~ 0.5A | 0.4 ~ 5A | 0.2 ~ 2.5A | 0 ~ 0.5A | 0.4 ~ 5A | 0.2 ~ 2.3A | 0 ~ 0.5A |
| | RATED POWER | 40.5W | | | 42.6W | | | 43.5W | | |
| | OUTPUT POWER (max.) | Rated output power for convection; 52W with 18CFM min. Forced air | | | | | | | | |
| | RIPPLE & NOISE (max.) Note.2 | 50mVp-p | 120mVp-p | 50mVp-p | 50mVp-p | 120mVp-p | 100mVp-p | 50mVp-p | 120mVp-p | 100mVp-p |
| | VOLTAGE ADJ. RANGE | CH1:4.75 ~ 5.5V | | | | | | | | |
| | VOLTAGE TOLERANCE Note.3 | ±4.0% | ±7.0% | ±5.0% | ±4.0% | ±7.0% | ±5.0% | ±4.0% | ±7.0% | ±5.0% |
| | LINE REGULATION | ±1.0% | ±2.0% | ±1.0% | ±1.0% | ±2.0% | ±1.0% | ±1.0% | ±2.0% | ±1.0% |
| | LOAD REGULATION | ±3.0% | ±4.0% | ±1.0% | ±3.0% | ±4.0% | ±1.0% | ±3.0% | ±4.0% | ±1.0% |
| SETUP, RISE TIME | 800ms, 20ms at full load | | | | | | | | | |
| HOLD UP TIME (Typ.) | 60ms at full load | | | | | | | | | |
| INPUT | VOLTAGE RANGE | 90 ~ 264VAC 127 ~370VDC | | | | | | | | |
| | FREQUENCY RANGE | 47 ~ 440Hz | | | | | | | | |
| | EFFICIENCY (Typ.) | 75% | | | | 75% | | | 75% | |
| | AC CURRENT (Typ.) | 1A/115VAC 0.7A/230VAC | | | | | | | | |
| | INRUSH CURRENT (Typ.) | COLD START 15A/115VAC 30A/230VAC | | | | | | | | |
| | LEAKAGE CURRENT | <0.75mA | | | | | | | | |
| PROTECTION | OVERLOAD | 53 ~ 75W rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed. | | | | | | | | |
| | OVER VOLTAGE | CH1: 5.75 ~ 6.75VDC Protection type : Hiccup mode, recovers automatically after fault condition is removed. | | | | | | | | |
| | | | | | | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60℃ (Refer to "Derating Curve") | | | | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85℃, 10 ~ 95% RH | | | | | | | | |
| | TEMP. COEFFICIENT | ±0.04%/℃ (0 ~ 50℃) on +5V output | | | | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes | | | | | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | UL62368-1, TUV BS EN/EN62368-1, EAC TP TC 004 approved | | | | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:3KVAC I/P-FG:2KVAC O/P-FG:0.5KVAC 1min. | | | | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH | | | | | | | | |
| | EMC EMISSION | Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,-3, EAC TP TC 020 | | | | | | | | |
| | EMC IMMUNITY | Compliance to BS EN/EN61000-4-2,3,4,5,6,8,11, BS EN/EN55024, light industry level, criteria A, EAC TP TC 020 | | | | | | | | |
| OTHERS | MTBF | 288.1K hrs min. MIL-HDBK-217F (25℃) | | | | | | | | |
| | DIMENSION | 127*76*28mm (L*W*H) | | | | | | | | |
| | PACKING | 0.21Kg; 72pcs/17Kg/1.28CUFT | | | | | | | | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25℃ of ambient temperature. 2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor. 3. Tolerance : includes set up tolerance, line regulation and load regulation. 4. 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) 5. Mounting holes M1 and M2 should be grounded for EMI purposes. 6. Heat Sink HS1,HS2 can not be shorted. 7. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/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 | | | | | | | | | |

Mechanical Specification



AC Input Connector (CN1) : Molex 5277-02 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|--------------------------|
| 1 | AC/N | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 2 | AC/L | | |

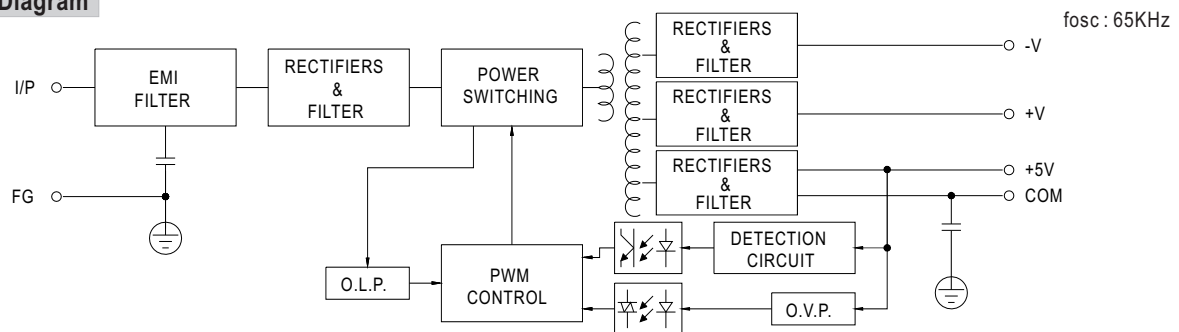
⏏ : Grounding Required

- ⚠ 1.HS1,HS2 cannot be shorted
- 2.M1 is safety ground

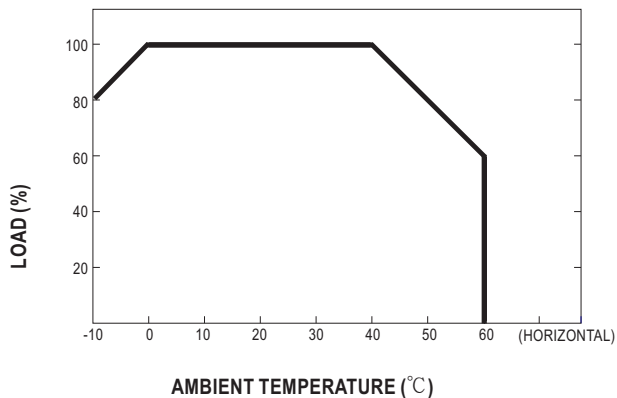
DC Output Connector (CN2) : Molex 5273-06 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|--------------------------|
| 1 | +V | Molex 5195 or equivalent | Molex 5194 or equivalent |
| 2,3 | +5V | | |
| 4,5 | COM | | |
| 6 | -V | | |

Block Diagram



Derating Curve



Static Characteristics (B)

