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■ Features :

- Universal AC input / Full range
- Low leakage current $\leq 0.3\text{mA}$
- Protections: Short circuit/Over load/Over voltage/Over temperature
- Fixed switching frequency at 100KHz
- Low cost
- High reliability
- 3 years warranty

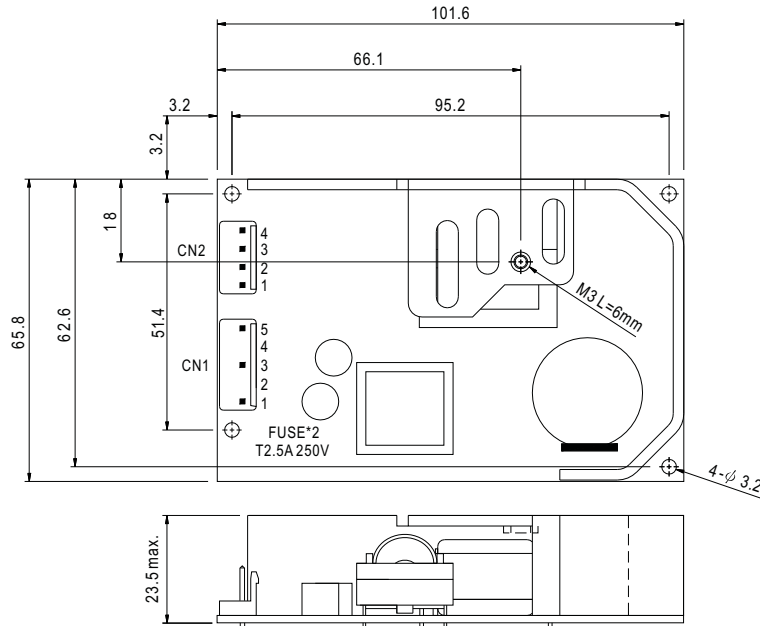


SPECIFICATION

| MODEL | MPS-30-5 | MPS-30-12 | MPS-30-15 | MPS-30-24 | MPS-30-27 | MPS-30-48 | |
|--|---|--|--------------|---------------|--------------|---------------|--------------|
| OUTPUT | DC VOLTAGE | 5V | 12V | 15V | 24V | 27V | 48V |
| | RATED CURRENT | 5A | 2.5A | 2A | 1.2A | 1.1A | 0.6A |
| | CURRENT RANGE | 0 ~ 5A | 0 ~ 2.5A | 0 ~ 2A | 0 ~ 1.2A | 0 ~ 1.1A | 0 ~ 0.6A |
| | RATED POWER | 25W | 30W | 30W | 28.8W | 29.7W | 28.8W |
| | RIPPLE & NOISE (max.) Note.2 | 80mVp-p | 120mVp-p | 150mVp-p | 240mVp-p | 240mVp-p | 240mVp-p |
| | VOLTAGE TOLERANCE Note.3 | $\pm 3.0\%$ | $\pm 3.0\%$ | $\pm 3.0\%$ | $\pm 3.0\%$ | $\pm 3.0\%$ | $\pm 2.0\%$ |
| | LINE REGULATION | $\pm 1.0\%$ | $\pm 1.0\%$ | $\pm 0.5\%$ | $\pm 0.5\%$ | $\pm 0.5\%$ | $\pm 0.5\%$ |
| | LOAD REGULATION | $\pm 2.0\%$ | $\pm 1.0\%$ | $\pm 1.0\%$ | $\pm 1.0\%$ | $\pm 1.0\%$ | $\pm 1.0\%$ |
| SETUP, RISE, HOLD TIME | 500ms, 30ms, 50ms/230VAC 500ms, 30ms, 10ms/115VAC at full load | | | | | | |
| INPUT | VOLTAGE RANGE | 88 ~ 264VAC auto switch 120 ~ 370VDC | | | | | |
| | FREQUENCY RANGE | 47 ~ 63Hz | | | | | |
| | EFFICIENCY(Typ.) | 72% | 75% | 76% | 77% | 78% | 78% |
| | AC CURRENT | 0.8A/115VAC 0.5A/230VAC | | | | | |
| | INRUSH CURRENT(max.) | COLD START 35A/230VAC | | | | | |
| LEAKAGE CURRENT | <0.3mA / 264VAC | | | | | | |
| PROTECTION | OVER LOAD | Above 105% rated output power Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 5.5 ~ 6.75V | 13.2 ~ 16.2V | 16.5 ~ 20.25V | 26.4 ~ 32.4V | 29.7 ~ 36.45V | 52.8 ~ 64.8V |
| | OVER TEMPERATURE | Tj 135°C typically (U1) Detect on main control IC Protection type : Shut down o/p voltage, recovers automatically after temperature goes down | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +50°C (Refer to output load derating curve) | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85°C, 10 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | $\pm 0.03\%/^{\circ}\text{C}$ (0 ~ 50°C) | | | | | |
| SAFETY & EMC (Note 4) | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, Period for 60min.each along X, Y, Z axes | | | | | |
| | SAFETY STANDARDS | UL2601-1, TUV EN60601-1, IEC601-1 Approved | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:4KVAC I/P-FG:1.5KVAC O/P-FG:SHORT | | | | | |
| | ISOLATION RESISTANCE | I/P-O/P, I/P-FG:100M Ohms/500VDC | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55011 (CISPR11) Class B | | | | | |
| OTHERS | HARMONIC CURRENT | Compliance to EN61000-3-2,-3 | | | | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, EN60601-1-2 Medical level, criteria A | | | | | |
| | MTBF | 547Khrs min. MIL-HDBK-217F (25°C) | | | | | |
| NOTE | DIMENSION | 101.6*65.8*23.5mm (L*W*H) | | | | | |
| | PACKING | 0.16Kg; 90pcs/15.8Kg/1.02CUFT | | | | | |
| <p>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</p> <p>2. 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>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.</p> | | | | | | | |

■ Mechanical Specification

Unit:mm



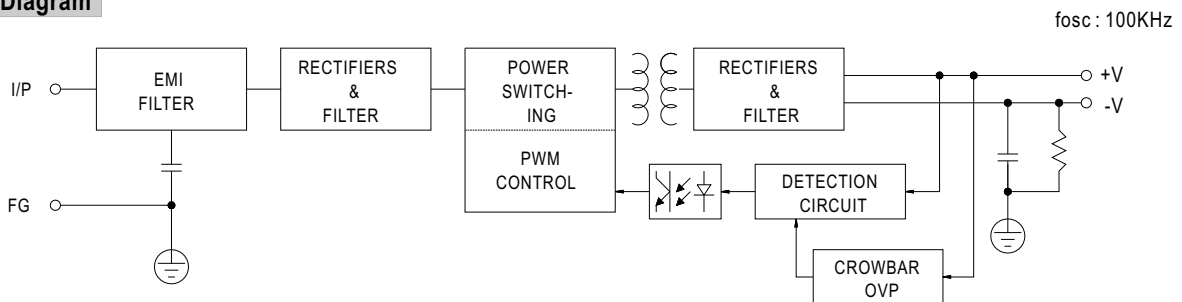
AC Input Connector (CN1) : Molex 41791-5 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|-------------|--------------------------|--------------------------|
| 1 | FG \equiv | Molex 2139 or equivalent | Molex 2478 or equivalent |
| 2,4 | No Pin | | |
| 3 | AC/N | | |
| 5 | AC/L | | |

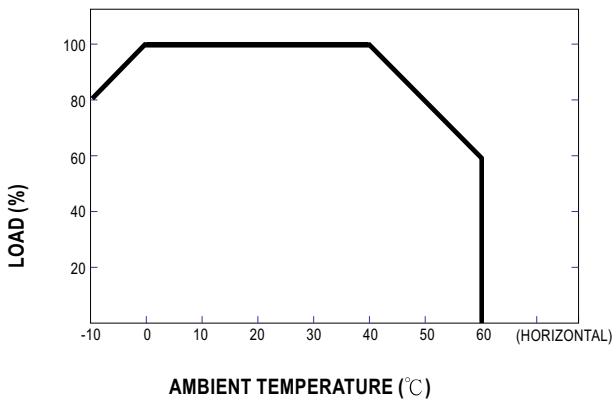
DC Output Connector (CN2) : Molex 41791-4 or equivalent

| Pin No. | Assignment | Mating Housing | Terminal |
|---------|------------|--------------------------|--------------------------|
| 1,2 | -V | Molex 2139 or equivalent | Molex 2478 or equivalent |
| 3,4 | +V | | |

■ Block Diagram



■ Output Derating



■ Static Characteristics

