



### ■ Features :

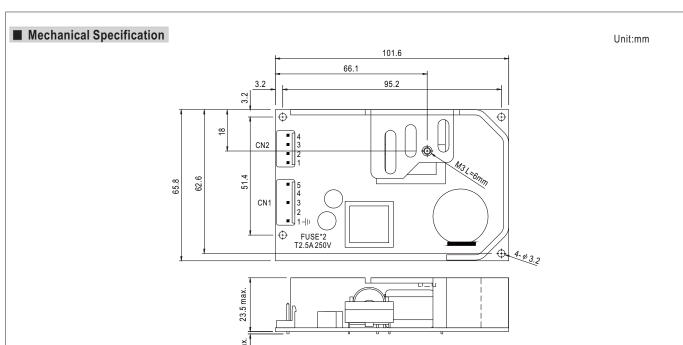
- Universal AC input / Full range
- Low leakage current <200µA
- Protections: Short circuit / Overload / Over voltage / Over temperature
- Medical safety approved (2 x MOPP between primary to secondary)
- Fixed switching frequency at 100KHz
- · Low cost
- High reliability
- 3 years warranty

# **SPECIFICATION**



| MODEL       |   | MPS-30-5  | MPS-30-12    | MPS-30-15     | MPS-30-24    | MPS-30-27     | MPS-30-48    |  |  |
|-------------|---|---|--------------|---------------|--------------|---------------|--------------|--|--|
|             | DC VOLTAGE  | 5V  | 12V          | 15V           | 24V          | 27V           | 48V          |  |  |
| ОИТРИТ      | 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  | ±3.0%   | ±3.0%        | ±3.0%         | ±3.0%        | ±3.0%         | ±2.0%        |  |  |
|             | LINE REGULATION   | ±1.0%   | ±1.0%        | ±0.5%         | ±0.5%        | ±0.5%         | ±0.5%        |  |  |
|             | LOAD REGULATION   | ±2.0%   | ±1.0%        | ±1.0%         | ±1.0%        | ±1.0%         | ±1.0%        |  |  |
|             | SETUP, RISE TIME  | 500ms, 30ms/230VAC 500ms, 30ms/115VAC at full load  |              |               |              |               |              |  |  |
|             | HOLD UP TIME (Typ.)   | 70ms/230VAC 12ms/115VAC at full load  |              |               |              |               |              |  |  |
|             | VOLTAGE RANGE   | 88 ~ 264VAC auto switch   |              |               |              |               |              |  |  |
|             | FREQUENCY RANGE   | 47 ~ 63Hz   |              |               |              |               |              |  |  |
|             | EFFICIENCY (Typ.)   | 72%   | 75%          | 76%           | 77%          | 78%           | 78%          |  |  |
| INPUT       | AC CURRENT (Typ.)   |   | .5A/230VAC   |               |              |               |              |  |  |
|             | INRUSH CURRENT (Typ.)   | COLD START 30A/230VAC   |              |               |              |               |              |  |  |
|             | LEAKAGE CURRENT   | Earth leakage current < 200μA/264VAC  |              |               |              |               |              |  |  |
|             | OVERLOAD  | Above 105% rated output power  Protection type: Hiccup mode, recovers automatically after fault condition is removed  |              |               |              |               |              |  |  |
| PROTECTION  | 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 |  |  |
|             |   | Protection type: Hiccup mode, recovers automatically after fault condition is removed   |              |               |              |               |              |  |  |
|             | OVER TEMPERATURE  | Shut down o/p voltage, re-power on to recover   |              |               |              |               |              |  |  |
|             | WORKING TEMP.   | -10 ~ +60 °C (Refer to "Derating Curve")  |              |               |              |               |              |  |  |
|             | WORKING HUMIDITY  | 20 ~ 90% RH non-condensing  |              |               |              |               |              |  |  |
| ENVIRONMENT | STORAGE TEMP., HUMIDITY   | -20 ~ +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  | ANSI/AAMI ES60601-1, TUV EN60601-1, IEC60601-1 approved   |              |               |              |               |              |  |  |
| SAFETY &    | ISOLATION LEVEL   | Primary-Secondary: 2xMOPP, Primary-Earth:1xMOPP   |              |               |              |               |              |  |  |
| EMC         | WITHSTAND VOLTAGE   | I/P-O/P:4KVAC I/P-FG:2KVAC O/P-FG:SHORT   |              |               |              |               |              |  |  |
| (Note 4)    | ISOLATION RESISTANCE  | I/P-O/P, I/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH   |              |               |              |               |              |  |  |
|             | EMC EMISSION  | Compliance to EN55011 (CISPR11) Class B, EN61000-3-2,-3   |              |               |              |               |              |  |  |
|             | EMC IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11, EN55024, EN60601-1-2, medical level, criteria A   |              |               |              |               |              |  |  |
|             | MTBF  | 547Khrs min. MIL-HDBK-217F (25°C)   |              |               |              |               |              |  |  |
| OTHERS      | DIMENSION   | 101.6*65.8*23.5mm (L*W*H)   |              |               |              |               |              |  |  |
|             | PACKING   | 0.16Kg; 90pcs/15.8Kg/1.02CUFT   |              |               |              |               |              |  |  |
| NOTE        | Ripple & noise are measure     Tolerance : includes set up     The power supply is consid     a 360mm*360mm metal pla     perform these EMC tests, p     When the input vlotage is le | parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.  pole & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.  prance: includes set up tolerance, line regulation and load regulation.  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 50mm*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 form these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)  en the input vlotage is less than 40VAC, the SPS may exhibit degradation of performance. The final product manufacturers must re-confirm this iation that does not affect basic safety or essential performance. |              |               |              |               |              |  |  |





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

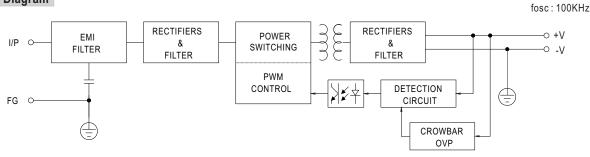
| Pin No. | Assignment | Mating Housing | Terminal      |
|---------|------------|----------------|---------------|
| 1       | FG ±       |                |               |
| 2,4     | No Pin     | Molex 2139     | Molex 2478    |
| 3       | AC/N       | or equivalent  | or equivalent |
| 5       |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

± : Grounding Required
CN1:Pin 1 is safety ground

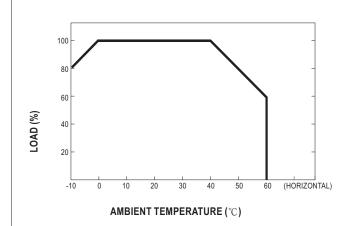
### DC Output Connector (CN2): Molex 41791-4 or equivalent

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

# **■** Block Diagram



# ■ Derating Curve



### **■** Static Characteristics

