



# MEAN WELL

## SWITCHING POWER SUPPLY

ISO-9001 CERTIFIED MANUFACTURER

## MPT-65 SERIES

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .INTERNATIONAL AC INPUT RANGE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .SOFT-START CIRCUIT, LIMITING AC SURGE CURRENT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED
- .COMPACT SIZE, LIGHT WEIGHT
- .100% FULL LOAD BURN-IN TEST
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE

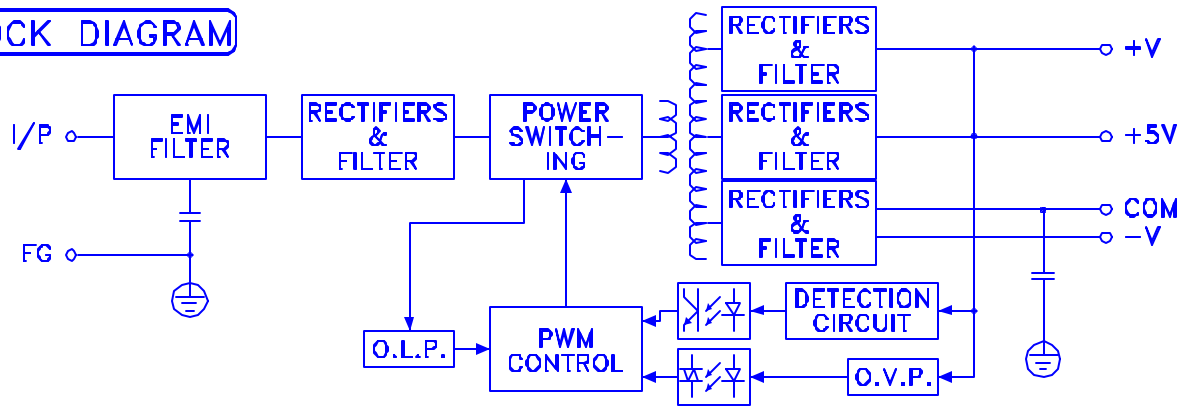


| SPECIFICATION           | MPT-65A  |         |      | MPT-65B  |         |      | MPT-65C  |         |      |
|-------------------------|--|---------|------|----------|---------|------|----------|---------|------|
|                         | CH1  | CH2     | CH3  | CH1      | CH2     | CH3  | CH1      | CH2     | CH3  |
| DC OUTPUT VOLTAGE       | 5V   | 12V     | -5V  | 5V       | 12V     | -12V | 5V       | 15V     | -15V |
| OUTPUT V. TOLERANCE     | ±4%  | +10,-7% | ±5%  | ±4%      | +10,-7% | ±5%  | ±4%      | +10,-7% | ±5%  |
| OUTPUT RATED CURRENT    | 5.5A   | 2.5A    | 0.5A | 5.5A     | 2.5A    | 0.5A | 5.5A     | 2A      | 0.5A |
| OUTPUT MIN. RANGE       | 0.4A   | 0.2A    | 0A   | 0.4A     | 0.2A    | 0A   | 0.4A     | 0.2A    | 0A   |
| OUTPUT MAX. RANGE       | 7A   | 3.2A    | 0.7A | 7A       | 3.2A    | 0.7A | 7A       | 2.6A    | 0.7A |
| RIPPLE & NOISE (Vp-p)   | 60m  | 120m    | 60m  | 60m      | 160m    | 100m | 60m      | 180m    | 100m |
| LINE REGULATION         | ±1%  | ±2%     | ±1%  | ±1%      | ±2%     | ±1%  | ±1%      | ±2%     | ±1%  |
| LOAD REGULATION         | ±3%  | ±4%     | ±1%  | ±3%      | ±4%     | ±1%  | ±3%      | ±4%     | ±1%  |
| RATED OUTPUT POWER      | 60W  |         |      | 63.5W    |         |      | 65W      |         |      |
| MAXIMUM OUTPUT POWER    | 72W WITH 18 CFM MIN. FORCED AIR CONVECTION   |         |      |          |         |      |          |         |      |
| EFFICIENCY              | 74%  |         |      | 74%      |         |      | 74%      |         |      |
| DC VOLTAGE ADJ.         | CH1:±10%   |         |      | CH1:±10% |         |      | CH1:±10% |         |      |
| INPUT VOLTAGE RANGE     | 90-264VAC 47-440Hz ; 127-370VDC  |         |      |          |         |      |          |         |      |
| AC CURRENT              | 1.6A/115V 1A/230V  |         |      |          |         |      |          |         |      |
| INRUSH CURRENT          | COLD START 20A/115V 40A/230V   |         |      |          |         |      |          |         |      |
| LEAKAGE CURRENT         | <0.3mA/264VAC  |         |      |          |         |      |          |         |      |
| OVERLOAD PROTECTION     | 73-95W TYPE:PULSING HICCUP SHUTDOWN RESET:AUTO RECOVERY                              |         |      |          |         |      |          |         |      |
| OVER VOLTAGE PROTECTION | 5.75-6.75VDC ON CH1  |         |      |          |         |      |          |         |      |
| TEMP. COEFFICIENT       | ±0.04% / °C (0-50°C) ON +5V OUTPUT   |         |      |          |         |      |          |         |      |
| SETUP,RISE,HOLD UP TIME | 800ms, 20ms, 20ms/230VAC 800ms, 20ms, 12ms/115VAC                                    |         |      |          |         |      |          |         |      |
| VIBRATION               | 10-500Hz, 2G 3AXES 10min. / 1cycle ( 1 HOUR / EACH AXES )                            |         |      |          |         |      |          |         |      |
| WITHSTAND VOLTAGE       | I/P-O/P:4KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC 1min.                                    |         |      |          |         |      |          |         |      |
| ISOLATION RESISTANCE    | I/P-O/P,I/P-FG,O/P-FG:500VDC / 100M Ohms   |         |      |          |         |      |          |         |      |
| WORKING TEMP., HUMIDITY | -10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%-90% RH                              |         |      |          |         |      |          |         |      |
| STORAGE TEMP., HUMIDITY | -20°C~+85°C, 10%-95% RH  |         |      |          |         |      |          |         |      |
| DIMENSION               | 127*76.2*40mm (L*W*H) PCB ONLY   |         |      |          |         |      |          |         |      |
| WEIGHT                  | 0.28Kgs  |         |      |          |         |      |          |         |      |
| SAFETY STANDARDS        | UL2601-1, EN60601-1 APPROVED   |         |      |          |         |      |          |         |      |
| EMC STANDARDS           | CISPR11 (EN55011), IEC61000-4-2,3,4,5,6,8,11 IEC61000-3-2,3 EN60601-1-2 VERIFICATION |         |      |          |         |      |          |         |      |

- NOTE :
- 1.ALL PARAMETERS ARE SPECIFIED AT 230VAC INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
  - 2.TOLERANCE INCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
  - 3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
  - 4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
  - 5.MOUNTING HOLES M1 AND M2 SHOULD BE GROUNDED FOR EMI PURPOSES.

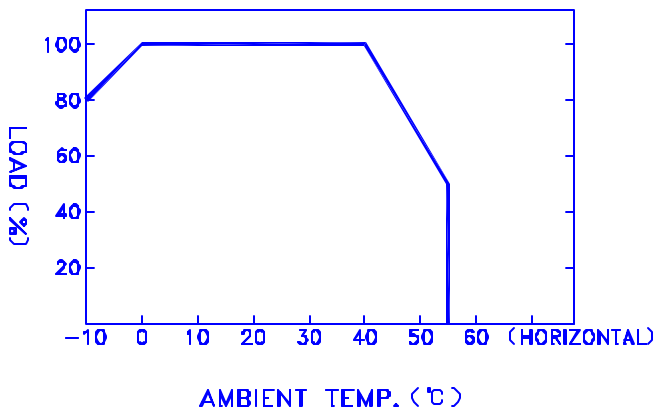
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## BLOCK DIAGRAM

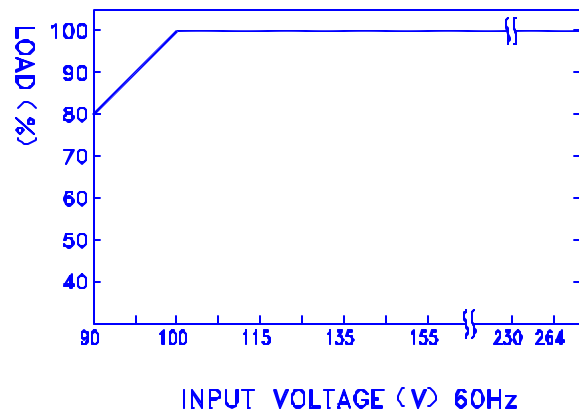


fosc = 45KHz

## OUTPUT DERATING



## STATIC CHARACTERISTICS



## DIMENSION (mm)

### ☒ TERMINAL PIN NO. ASSIGNMENT

- ☒ CN1 : MOLEX 5277-02  
PIN 1,2 : AC INPUT
- ☒ CN2 : MOLEX 5273-06
  - ☒ PIN 1 : DC OUTPUT +V
  - ☒ PIN 2,3 : DC OUTPUT +5V
  - ☒ PIN 4,5 : DC OUTPUT COM
  - ☒ PIN 6 : DC OUTPUT -V

### ☒ MATING CONNECTORS

- ☒ CN1,2 MATING CONNECTOR TYPE MOLEX 5195 AND 5239 SERIES OR EQUIVALENT WITH MOLEX 5194 AND 5225 OR EQUIVALENT CRIMP TERMINALS.

