



### ■ Features :

- Universal AC input / Full range
- 3 pole AC inlet IEC320-C14
- Class I power ( with earth pin)
- Full output 3~48V safety approval
- Protections: Short circuit/ Over load/ Over voltage/ Over temp.
- Fully enclosed plastic case
- Fix switching frequency and regulation
- Topology: Top switch circuit
- LED indicator for power on
- Approvals: UL/ CUL/ TUV/ CB/ CE

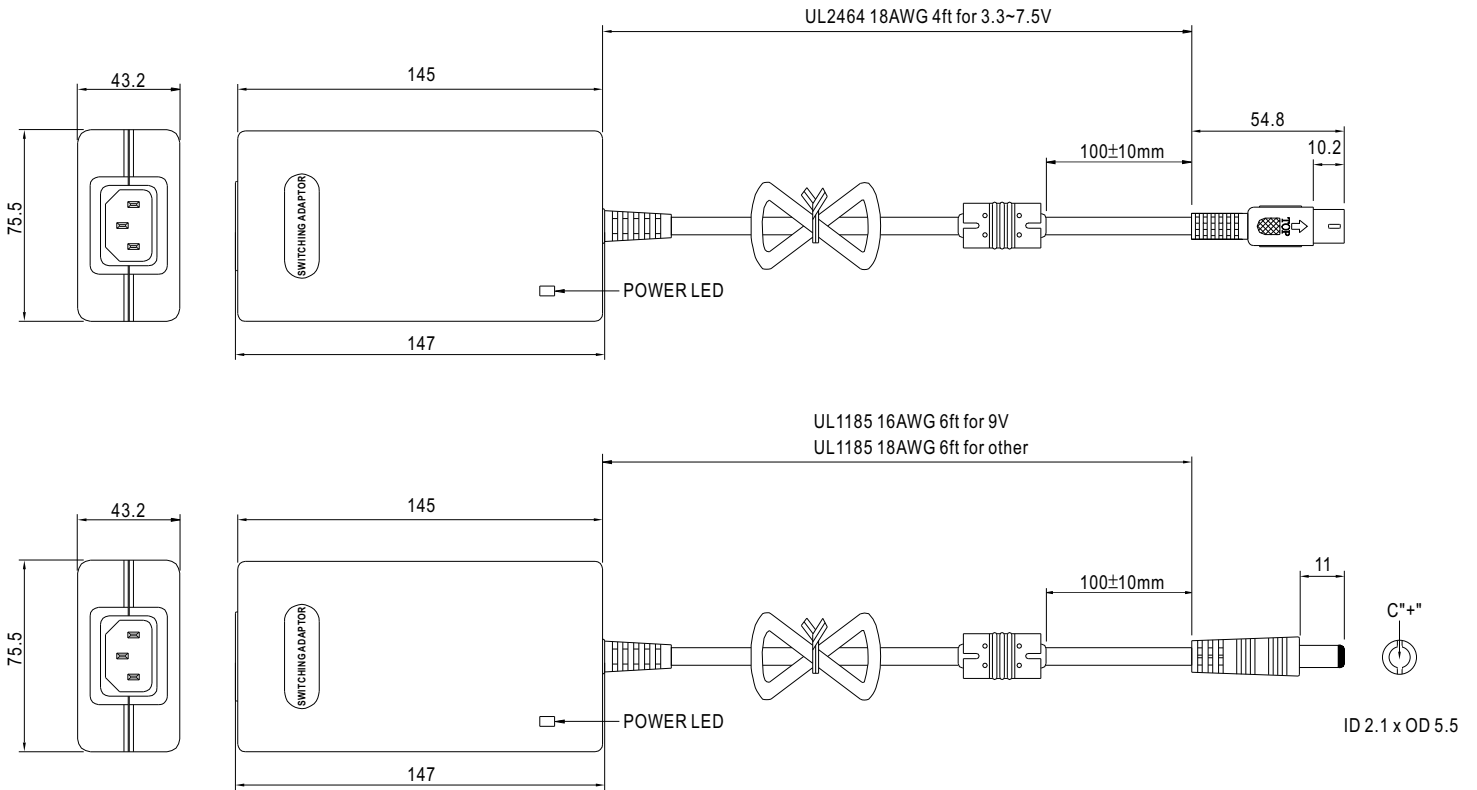


## SPECIFICATION

| ORDER NO.                             | MES50A-0R1B  | MES50A-1R1B  | MES50A-1-1R1B | MES50A-2P1J | MES50A-3P1J | MES50A-4P1J  | MES50A-5P1J | MES50A-6P1J | MES50A-8P1J |           |  |
|---------------------------------------|--|--|---------------|-------------|-------------|--|-------------|-------------|-------------|-----------|--|
| OUTPUT                                | SAFETY MODEL NO.   | MES50A-0   | MES50A-1      | MES50A-1-1  | MES50A-2    | MES50A-3   | MES50A-4    | MES50A-5    | MES50A-6    | MES50A-8  |  |
|                                       | DC VOLTAGE <small>Note.2</small>   | 3.3V   | 5V            | 7.5V        | 9V          | 12V  | 15V         | 18V         | 24V         | 48V       |  |
|                                       | RATED CURRENT  | 7.5A   | 7.5A          | 5.33A       | 5.0A        | 4.16A  | 3.33A       | 2.77A       | 2.08A       | 1.04A     |  |
|                                       | CURRENT RANGE  | 0 ~ 7.5A   | 0 ~ 7.5A      | 0 ~ 5.33A   | 0 ~ 5.0A    | 0 ~ 4.16A  | 0 ~ 3.33A   | 0 ~ 2.77A   | 0 ~ 2.08A   | 0 ~ 1.04A |  |
|                                       | RATED POWER  | 24.75W   | 37.5W         | 40W         | 45W         | 50W  | 50W         | 50W         | 50W         | 50W       |  |
|                                       | RIPPLE & NOISE (max.) <small>Note.3</small>  | 50mVp-p  | 50mVp-p       | 75mVp-p     | 90mVp-p     | 100mVp-p   | 100mVp-p    | 150mVp-p    | 150mVp-p    | 200mVp-p  |  |
|                                       | VOLTAGE ADJ. RANGE   | Fixed  |               |             |             |  |             |             |             |           |  |
|                                       | VOLTAGE TOLERANCE <small>Note.4</small>  | ±8.0%  | ±6.0%         | ±5.0%       | ±5.0%       | ±3.0%  | ±3.0%       | ±3.0%       | ±2.0%       | ±2.0%     |  |
|                                       | LINE REGULATION <small>Note.5</small>  | ±1.0%  | ±1.0%         | ±1.0%       | ±1.0%       | ±1.0%  | ±1.0%       | ±1.0%       | ±1.0%       | ±1.0%     |  |
|                                       | LOAD REGULATION <small>Note.6</small>  | ±8.0%  | ±6.0%         | ±5.0%       | ±5.0%       | ±3.0%  | ±3.0%       | ±3.0%       | ±2.0%       | ±2.0%     |  |
| SETUP, RISE, HOLD TIME                | 300ms, 50ms, 16ms at full load   |  |               |             |             |  |             |             |             |           |  |
| INPUT                                 | VOLTAGE RANGE  | 90 ~ 264VAC 135~370VDC   |               |             |             |  |             |             |             |           |  |
|                                       | FREQUENCY RANGE  | 47~63Hz  |               |             |             |  |             |             |             |           |  |
|                                       | EFFICIENCY (Typ.)  | 60%  | 67%           | 70%         | 72%         | 74%  | 75%         | 78%         | 78%         | 80%       |  |
|                                       | AC CURRENT   | 1.5A / 100VAC  |               |             |             |  |             |             |             |           |  |
|                                       | INRUSH CURRENT (max.)  | 90A / 230VAC   |               |             |             |  |             |             |             |           |  |
|                                       | LEAKAGE CURRENT (max.)   | 0.5mA / 240VAC   |               |             |             |  |             |             |             |           |  |
| PROTECTION                            | OVER LOAD  | 112 ~ 250% rated output power  |               |             |             | 150 ~ 350% rated output power  |             |             |             |           |  |
|                                       |  | Protection type : Hiccup mode, recovers automatically after fault condition is removed |               |             |             |  |             |             |             |           |  |
|                                       | OVER VOLTAGE   | 110 ~ 150% rated output voltage  |               |             |             | Protection type : Hiccup mode, recovers automatically after fault condition is removed |             |             |             |           |  |
|                                       | Protection type : Shut down o/p voltage, recovers automatically after temperature goes down  |  |               |             |             |  |             |             |             |           |  |
| ENVIRONMENT                           | WORKING TEMP.  | 0 ~ +65°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  | ±0.03% / °C (0 ~ 50°C)   |               |             |             |  |             |             |             |           |  |
|                                       | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes                |               |             |             |  |             |             |             |           |  |
| SAFETY & EMC <small>(Note. 7)</small> | SAFETY STANDARDS   | UL2601-1, IEC60601-1, EN60601-1 Approved   |               |             |             |  |             |             |             |           |  |
|                                       | WITHSTAND VOLTAGE  | I/P-O/P: 5656VDC, I/P-FG: 2828VDC  |               |             |             |  |             |             |             |           |  |
|                                       | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG: 100M Ohms / 500VDC  |               |             |             |  |             |             |             |           |  |
|                                       | EMI CONDUCTION & RADIATION   | Compliance to EN55011(CISPR11) class B   |               |             |             |  |             |             |             |           |  |
|                                       | HARMONIC CURRENT   | Compliance to EN61000-3-2,3  |               |             |             |  |             |             |             |           |  |
|                                       | EMS IMMUNITY   |  |               |             |             |  |             |             |             |           |  |
|                                       | Compliance to EN60601-1-2 (EN61000-4-2,3,4,5,6,8,11) Light industry level, criteria A  |  |               |             |             |  |             |             |             |           |  |
| OTHERS                                | MTBF   | -----  |               |             |             |  |             |             |             |           |  |
|                                       | DIMENSION  | 147*75.5*43.2mm (L*W*H)  |               |             |             |  |             |             |             |           |  |
|                                       | PACKING  | 0.55Kg ; 36pcs / 21Kg / CARTON   |               |             |             |  |             |             |             |           |  |
| CONNECTOR                             | PLUG   | See page 2, Other type available by customer requested                                 |               |             |             |  |             |             |             |           |  |
|                                       | CABLE  | See page 2, Other type available by customer requested                                 |               |             |             |  |             |             |             |           |  |
| NOTE                                  | <p>1.All parameters are specified at 230VAC input, rated load, 25°C 70% RH. Ambient.</p> <p>2.DC voltage: The output voltage set at point measure by plug terminal &amp; 50% load.</p> <p>3.Ripple &amp; noise are measured at 20MHz by using a 12" twisted pair terminated with a 0.1uf &amp; 47uf capacitor.</p> <p>4.Tolerance: includes set up tolerance, line regulation, load regulation.</p> <p>5.Line regulation is measured from low line to high line at rated load.</p> <p>6.Load regulation is measured from 0% to 100% rated load.</p> <p>7.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

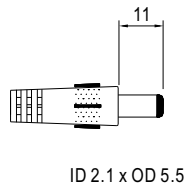
Unit:mm



## Plug Assignment

Standard plug: Others P1J (option)

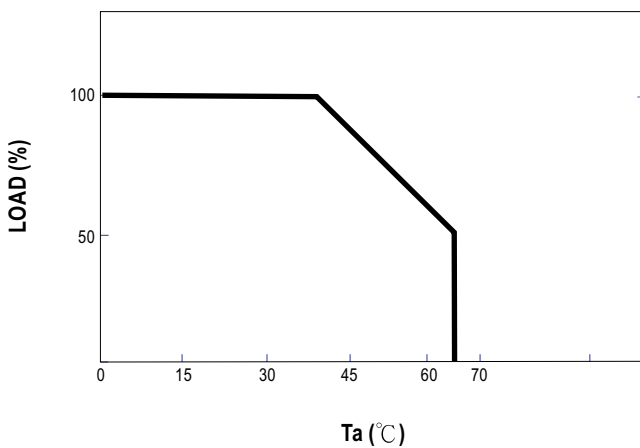
| P1J    |        |
|--------|--------|
| P/N    | OUTPUT |
| CENTER | +      |



Standard plug: 3.3V,5V,7.5V R1B (option)

| PIN NO | OUTPUT |
|--------|--------|
| 1      | COM    |
| 2      | COM    |
| 3      | +Vout  |
| 4      | COM    |
| 5      | +Vout  |

## Derating Curve



## Static Characteristics

