



## 75W Single Output Switching Power Supply

# SCP-75 series



### ■ Features :

- Universal AC input/Full range
- Protections: Short circuit / Overload / Over voltage / Battery polarity protections (by fuse)
- Built-in temperature compensation function
- Output voltage detection signal
- Cooling by free air convection
- LED indicator for power on
- No load power consumption <0.75W
- Suitable for installation in metallic or non-metallic system enclosure
- 100% full load burn-in test
- 2 years warranty

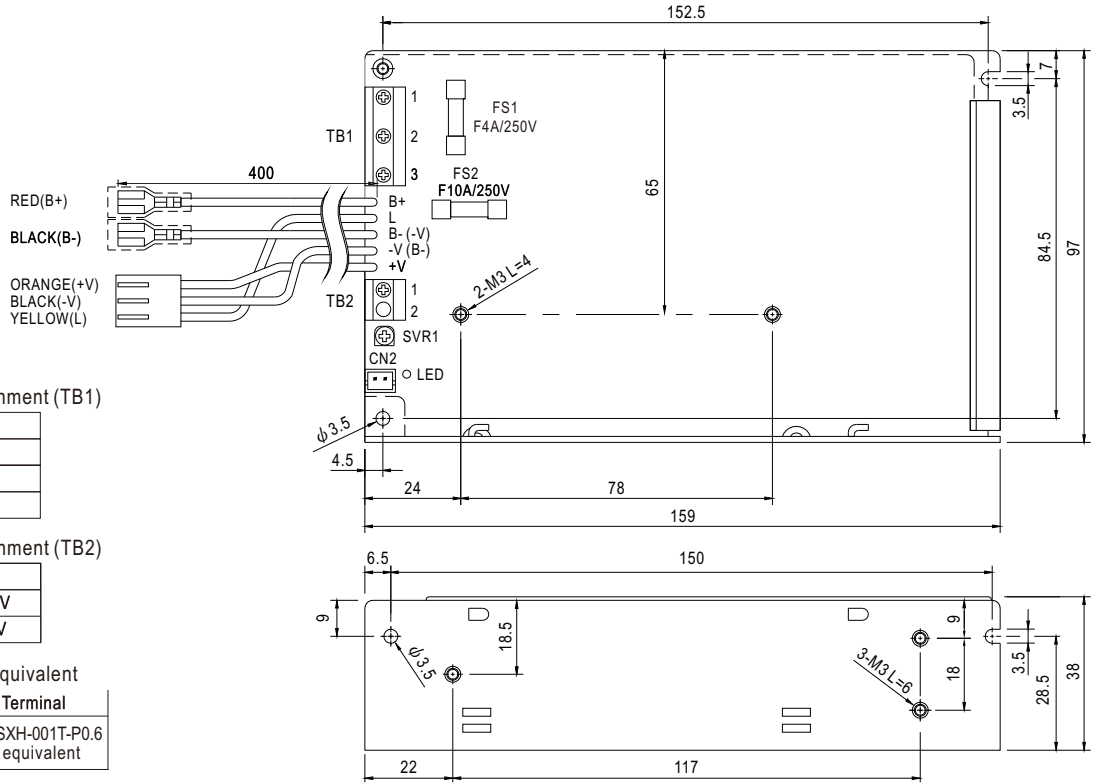


### SPECIFICATION

| MODEL                 |  | SCP-75-12   | SCP-75-24                     |
|-----------------------|--|---|-------------------------------|
| OUTPUT                | DC VOLTAGE   | 13.8V   | 27.6V                         |
|                       | RATED CURRENT  | 5.4A  | 2.7A                          |
|                       | CURRENT RANGE  | 0 ~ 5.4A  | 0 ~ 2.7A                      |
|                       | PEAK 5S <small>Note.6</small>  | 6.5A  | 3.2A                          |
|                       | RATED POWER  | 74.5W   | 74.5W                         |
|                       | RIPPLE & NOISE (max.) <small>Note.2</small>  | 120mVp-p  | 200mVp-p                      |
|                       | VOLTAGE ADJ. RANGE   | +15,-5%   | +15,-5%                       |
|                       | VOLTAGE TOLERANCE <small>Note.3</small>  | ± 2.0%  | ± 1.0%                        |
|                       | LINE REGULATION <small>Note.4</small>  | ± 1.0%  | ± 1.0%                        |
|                       | LOAD REGULATION <small>Note.5</small>  | ± 2.0%  | ± 1.0%                        |
| SETUP, RISE TIME      | 500ms, 30ms/230VAC    1200ms, 30ms/115VAC at full load   |   |                               |
| HOLD UP TIME (Typ.)   | 50ms/230VAC    16ms/115VAC at full load  |   |                               |
| INPUT                 | VOLTAGE RANGE  | 85 ~ 264VAC    120 ~ 370VDC   |                               |
|                       | FREQUENCY RANGE  | 47 ~ 63Hz   |                               |
|                       | EFFICIENCY (Typ.)  | 80%   | 84%                           |
|                       | AC CURRENT (Typ.)  | 1.5A/115VAC    0.9A/230VAC  |                               |
|                       | INRUSH CURRENT (Typ.)  | COLD START 45A  |                               |
| LEAKAGE CURRENT       | <2mA / 240VAC  |   |                               |
| FUNCTION              | TEMP. COMPENSATION   | By NTC (not provide with the power supply)  |                               |
|                       | OUTPUT VOLTAGE SENSOR  | L=output voltage +0.2 ~ 0.7V(AC OK); L=0V(AC Fail)  |                               |
| PROTECTION            | OVERLOAD   | 6.5 ~ 8.7A rated output power   | 3.2 ~ 4.3A rated output power |
|                       | OVER VOLTAGE   | 16.6 ~ 19.3V  | 33.1 ~ 38.6V                  |
| ENVIRONMENT           | WORKING TEMP.  | -20 ~ +60°C (Refer to output load derating curve)   |                               |
|                       | WORKING HUMIDITY   | 20 ~ 90% RH non-condensing  |                               |
|                       | STORAGE TEMP., HUMIDITY  | -40 ~ +85°C, 10 ~ 95% RH  |                               |
|                       | TEMP. COEFFICIENT  | ± 0.05% /°C (0 ~ 45°C)  |                               |
|                       | VIBRATION  | 10 ~ 500Hz, 2G 10min./1cycle, period for 60min. each along X, Y, Z axes   |                               |
| SAFETY & EMC (Note 6) | SAFETY STANDARDS   | UL62368-1, CB(IEC62368-1), EAC TP TC 004 approved, Design refer to BS EN/EN62368-1  |                               |
|                       | WITHSTAND VOLTAGE  | I/P-O/P:3KVAC    I/P-FG:2.0KVAC    O/P-FG:0.5KVAC   |                               |
|                       | ISOLATION RESISTANCE   | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C/ 70% RH   |                               |
|                       | EMC EMISSION   | Compliance to BS EN/EN55032 (CISPR32) Class B, BS EN/EN61000-3-2,3, EAC TP TC 020   |                               |
| OTHERS                | EMC IMMUNITY   | Compliance to BS EN/EN61000-4-2, 3, 4, 5, 6, 8, 11, BS EN/ENV50204, BS EN/EN55024, BS EN/EN61000-6-1, light industry level, criteria A, EAC TP TC 020 |                               |
|                       | MTBF   | 461.2K hrs min.    MIL-HDBK-217F (25°C)   |                               |
|                       | DIMENSION  | 159*97*38mm (L*W*H)   |                               |
|                       | PACKING  | 0.5Kg; 30pcs/16Kg/1CUFT   |                               |
| NOTE                  | <ol style="list-style-type: none"> <li>1. All parameters NOT specially mentioned are measured at 230VAC input, rated load and 25°C of ambient temperature.</li> <li>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf &amp; 47uf parallel capacitor.</li> <li>3. Tolerance : includes set up tolerance, line regulation and load regulation.</li> <li>4. Line regulation is measured from low line to high line at rated load.</li> <li>5. Load regulation is measured from 0% to 100% rated load.</li> <li>6. 33% Duty cycle maximum within every 15 seconds. Average output power should not exceed the rated power.</li> <li>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.</li> <li>8. The ambient temperature derating of 3.5°C/1000m with fanless models and of 5°C/1000m with fan models for operating altitude higher than 2000m(6500ft). (As available on <a href="http://www.meanwell.com">http://www.meanwell.com</a>)</li> </ol> <p>※ Product Liability Disclaimer : For detailed information, please refer to <a href="https://www.meanwell.com/serviceDisclaimer.aspx">https://www.meanwell.com/serviceDisclaimer.aspx</a></p> |   |                               |

**Mechanical Specification**

Case No. 901 Unit:mm



**Terminal Pin No. Assignment (TB1)**

| Pin No. | Assignment |
|---------|------------|
| 1       | AC/L       |
| 2       | AC/N       |
| 3       | FG $\pm$   |

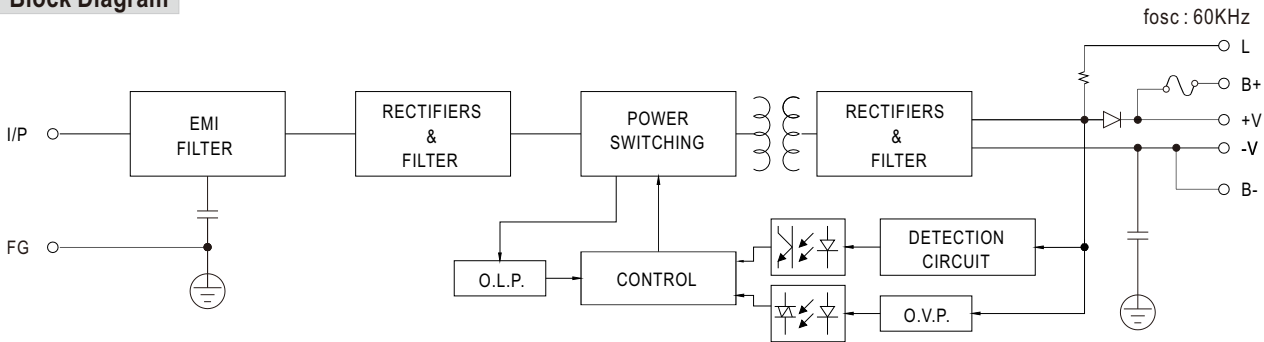
**Terminal Pin No. Assignment (TB2)**

| Pin No. | Assignment   |
|---------|--------------|
| 1       | DC OUTPUT +V |
| 2       | DC OUTPUT -V |

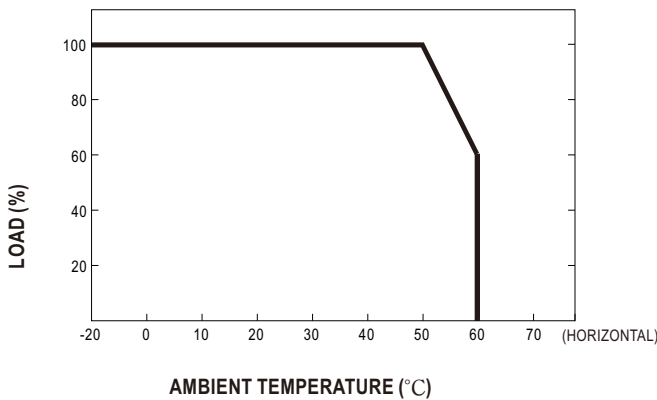
CN2 : JST B2B-XH or equivalent

| Mating Housing        | Terminal                        |
|-----------------------|---------------------------------|
| JST XHP or equivalent | JST SXH-001T-P0.6 or equivalent |

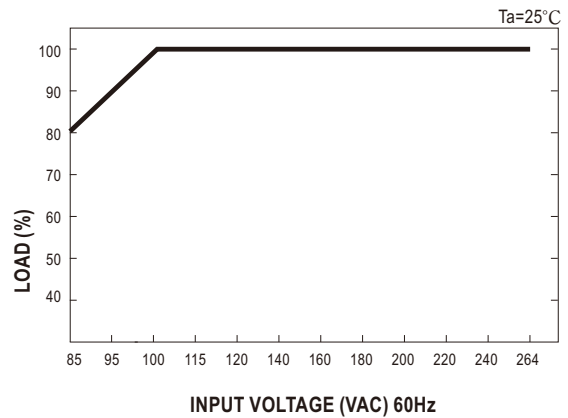
**Block Diagram**



**Derating Curve**



**Output Derating VS Input Voltage**



**Function Description**

**1.B+,B-**

Connect the battery : B+ connected to battery positive.  
B- connected to battery negative.

**2.L**

Output voltage detection, detect output voltage or battery voltage ( if battery is used).

|         | Voltage of L Pin                                 |
|---------|--|
| AC OK   | Output voltage +0.2~0.7V(depends on Vf of diode) |
| AC Fail | 0V   |

**3.+V,-V**

Output voltage. Can't connect the battery.

**4.CN2**

Temperature sensor can be connected to the unit to allow temperature compensation of the charging voltage.

If the sensor is not used, the charger still works normally.

Reference example: (Under rated DC output voltage)

Connect 100K $\Omega$  Thermistor(THINKING) on NTC. The output voltage will change along

with the temperature change. If the output voltage is adjusted other than the rated value by internal potential meter, please consult Meanwell for suitable value of Thermistor.

|           | Ta :0°C         | Ta :25°C        | Ta :50°C        |
|-----------|-----------------|-----------------|-----------------|
| SCP-75-12 | 14.4 $\pm$ 0.2V | 13.8 $\pm$ 0.1V | 13.2 $\pm$ 0.2V |
| SCP-75-24 | 29.3 $\pm$ 0.4V | 27.6 $\pm$ 0.2V | 26.4 $\pm$ 0.4V |

