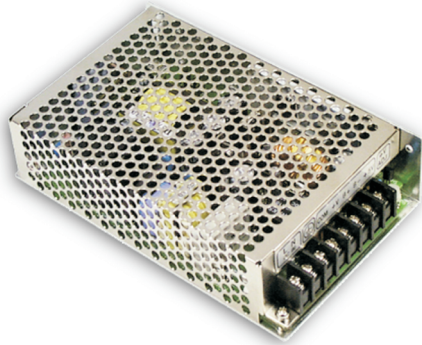




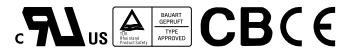
# 55W Dual Output with Battery Charger(USP Function)

# ADD-55 series



### ■ Features :

- Universal AC input / Full range
- Protections: Short circuit / Overload / Over voltage
- Battery low protections
- Cooling by free air convection
- 100% full load burn-in test
- Fixed switching frequency at 45KHz
- 2 years warranty

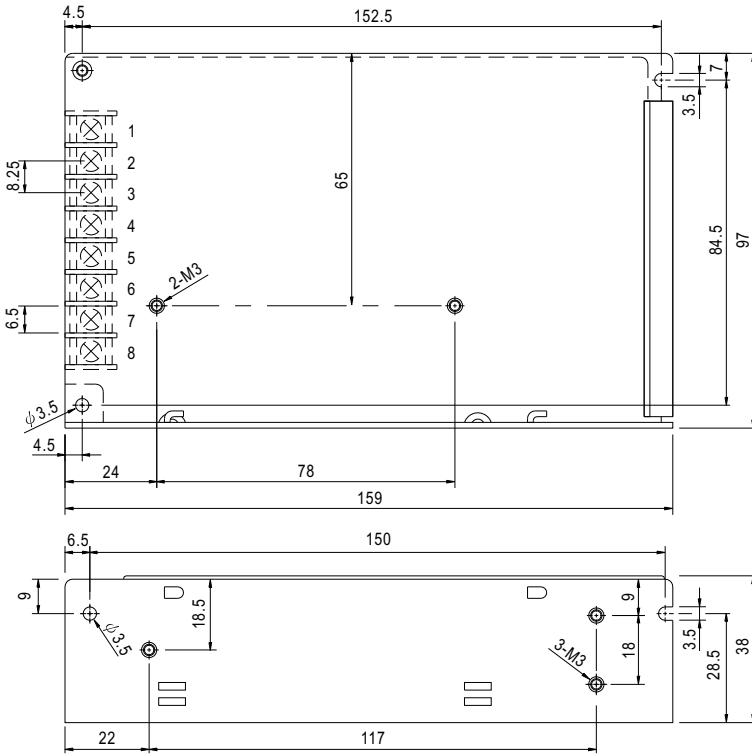


### SPECIFICATION

| MODEL                 |   | ADD-55A   |          |       | ADD-55B  |          |       |
|-----------------------|---|---|----------|-------|--|----------|-------|
| OUTPUT                | OUTPUT NUMBER   | CH1   | CH2      | CH3   | CH1  | CH2      | CH3   |
|                       | DC VOLTAGE  | 13.8V   | 5V       | 13.4V | 27.6V  | 5V       | 26.5V |
|                       | RATED CURRENT   | 2.5A  | 3A       | 0.23A | 1.3A   | 3A       | 0.16A |
|                       | CURRENT RANGE   | 0 ~ 3.5A  | 0 ~ 4A   | ----- | 0 ~ 2A   | 0 ~ 4A   | ----- |
|                       | RATED POWER   | 52.58W  |          |       | 55.12W   |          |       |
|                       | RIPPLE & NOISE (max.) Note.2  | 100mVp-p  | 100mVp-p | ----- | 150mVp-p   | 150mVp-p | ----- |
|                       | VOLTAGE ADJ. RANGE  | CH1: 12 ~ 14.5V   |          |       | CH1: 24 ~ 29V  |          |       |
|                       | VOLTAGE TOLERANCE Note.3  | ±1.0%   | ±3.0%    | ----- | ±1.0%  | ±3.0%    | ----- |
|                       | LINE REGULATION   | ±1.0%   | ±0.5%    | ----- | ±1.0%  | ±0.5%    | ----- |
|                       | LOAD REGULATION   | ±1.0%   | ±0.5%    | ----- | ±1.0%  | ±0.5%    | ----- |
| SETUP, RISE TIME      | 800ms, 50ms/230VAC 1600ms, 50ms/115VAC at full load   |   |          |       |  |          |       |
| HOLD UP TIME (Typ.)   | 80ms/230VAC 16ms/115VAC at full load  |   |          |       |  |          |       |
| INPUT                 | VOLTAGE RANGE   | 88 ~ 264VAC 124 ~ 370VDC  |          |       |  |          |       |
|                       | FREQUENCY RANGE   | 47 ~ 63Hz   |          |       |  |          |       |
|                       | EFFICIENCY (Typ.)   | 71%   |          |       | 74%  |          |       |
|                       | AC CURRENT (Typ.)   | 1.6A/115VAC 1A/230VAC   |          |       |  |          |       |
|                       | INRUSH CURRENT (Typ.)   | COLD START 20A/115VAC 40A/230VAC  |          |       |  |          |       |
| LEAKAGE CURRENT       | <1mA / 240VAC   |   |          |       |  |          |       |
| PROTECTION            | OVERLOAD  | 105 ~ 150% rated output power<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |          |       |  |          |       |
|                       | OVER VOLTAGE  | CH1:14.49 ~ 18.63V  |          |       | CH1:28.98 ~ 37.26V<br>Protection type : Hiccup mode, recovers automatically after fault condition is removed |          |       |
| FUNCTION              | DC ALARM SIGNAL(OPTIONAL)   | AC fail CN1 PIN2<br>Battery low under charge voltage 82.5%±2% CN1 PIN1<br>Normal 0.8V max. Abnormal 5V±0.5V             |          |       |  |          |       |
|                       |   |   |          |       |  |          |       |
| ENVIRONMENT           | WORKING TEMP.   | -10 ~ +60°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) on CH1 output  |          |       |  |          |       |
| VIBRATION             | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes  |   |          |       |  |          |       |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS  | UL60950-1, TUV EN60950-1 approved   |          |       |  |          |       |
|                       | WITHSTAND VOLTAGE   | I/P-O/P:3KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC   |          |       |  |          |       |
|                       | ISOLATION RESISTANCE  | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH  |          |       |  |          |       |
|                       | EMI CONDUCTION & RADIATION  | Compliance to EN55022 (CISPR22) Class B   |          |       |  |          |       |
|                       | HARMONIC CURRENT  | Compliance to EN61000-3-2,-3  |          |       |  |          |       |
|                       | EMS IMMUNITY  | Compliance to EN61000-4-2,3,4,5,6,8,11; ENV50204, EN55024, light industry level, criteria A                             |          |       |  |          |       |
| OTHERS                | MTBF  | 241.3K hrs min. MIL-HDBK-217F (25°C)  |          |       |  |          |       |
|                       | DIMENSION   | 159*97*38mm (L*W*H)   |          |       |  |          |       |
|                       | PACKING   | 0.57Kg; 24pcs/13.7Kg/0.75CUFT   |          |       |  |          |       |
| 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. 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> </ol> |   |          |       |  |          |       |

**Mechanical Specification**

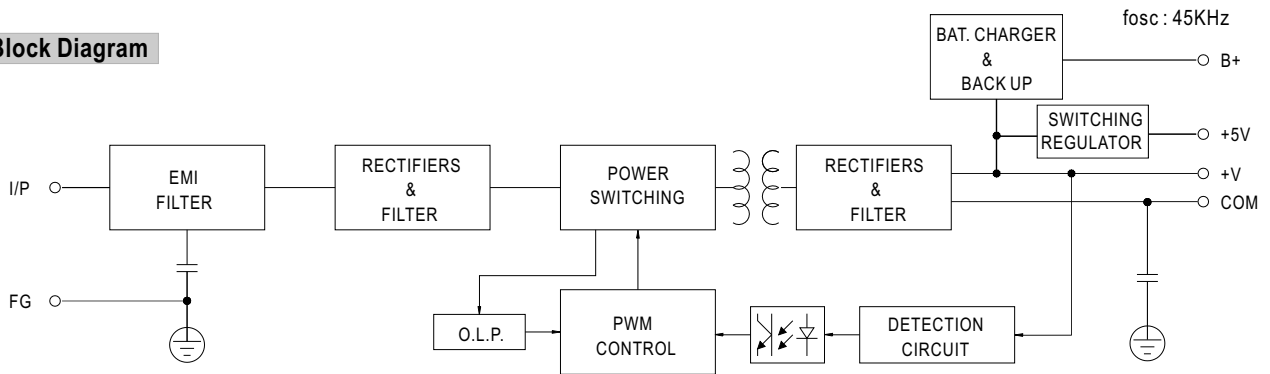
Case No. 901 Unit:mm



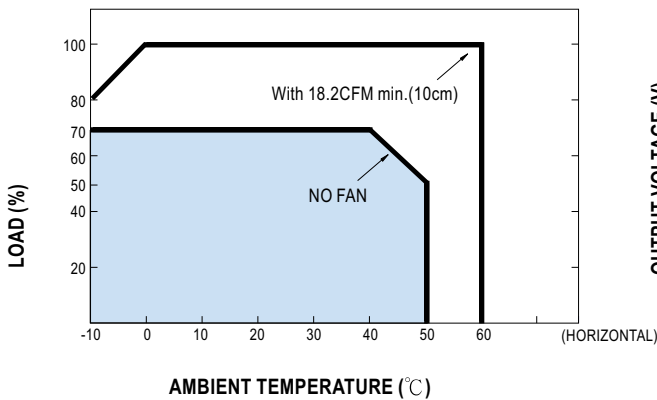
Terminal Pin No. Assignment

| Pin No. | Assignment    | Pin No. | Assignment       |
|---------|---------------|---------|------------------|
| 1       | AC/L          | 5       | DC OUTPUT +V     |
| 2       | AC/N          | 6       | BAT. +           |
| 3       | FG $\perp$    | 7       | BAT.-/COM        |
| 4       | DC OUTPUT COM | 8       | DC/DC OUTPUT +5V |

**Block Diagram**



**Derating Curve**



**Static Characteristics (A)**

