

#### ■ Features :

- 2:1 wide input range
- Protections: Short circuit / Overload / Over voltage
- 1500VAC I/O isolation
- Built-in EMI filter, low ripple noise
- Low cost
- High reliability
- 2 years warranty

#### **SPECIFICATION**

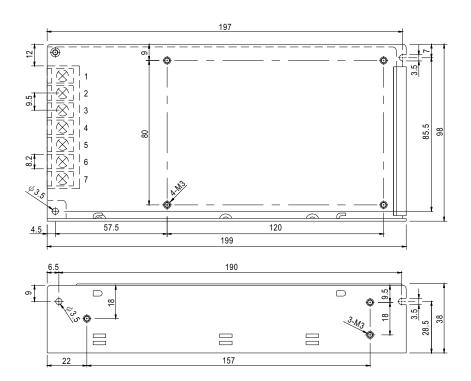
CB(for D type only) ( €

| MODEL       |   | SD-100A-5  | SD-100B-5       | SD-100C-5 | SD-100D-5   | SD-100A-12                                     | SD-100B-12 | SD-100C-12 | SD-100D-12 | SD-100A-24 | SD-100B-24 | SD-100C-24 | SD-100D-24 |
|-------------|---|--|-----------------|-----------|---|--|------------|------------|------------|------------|------------|------------|------------|
|             | DC VOLTAGE  | 5V   |                 | 12V       | 12V   |  |            | 24V        |            |            |            |            |            |
| ОИТРИТ      | RATED CURRENT   | 18A 20A  |                 |           | 8.5A  |  |            | 4.2A       |            |            |            |            |            |
|             | CURRENT RANGE   | 0 ~ 18A  | 0 ~ 18A 0 ~ 20A |           |   | 0 ~ 8.5A                                       |            |            | 0 ~ 4.2A   |            |            |            |            |
|             | RATED POWER   | 90W 100W   |                 |           | 102W  |  |            | 100.8W     |            |            |            |            |            |
|             | RIPPLE & NOISE (max.) Note.2  | 100mVp-p   |                 |           | 120mVp-p  |  |            | 150mVp-p   |            |            |            |            |            |
|             | VOLTAGE ADJ. RANGE  | 4.5 ~ 5.5VDC   |                 |           | 11 ~ 16VDC  |  |            | 23 ~ 30VDC |            |            |            |            |            |
|             | VOLTAGE TOLERANCE Note.3  | ±2.0%  |                 |           | ±1.0%   |  |            | ±1.0%      |            |            |            |            |            |
|             | LINE REGULATION   | ±0.5%  |                 |           | ±0.3%   |  |            | ±0.2%      |            |            |            |            |            |
|             | LOAD REGULATION   | ±0.5%  |                 |           | ±0.3%   |  |            | ±0.2%      |            |            |            |            |            |
|             | SETUP, RISE TIME  | 2s, 50ms(only D mode) at full load   |                 |           |   |  |            |            |            |            |            |            |            |
|             | HOLD UP TIME (Typ.)   | 20ms(only D mode) at full load   |                 |           |   |  |            |            |            |            |            |            |            |
|             | VOLTAGE RANGE   | A:9.5 ~ 18VDC B:19 ~ 36VDC C:36 ~ 72VDC D:72 ~ 144VDC or 85 ~ 132VAC   |                 |           |   |  |            |            |            |            |            |            |            |
| INPUT       | EFFICIENCY (Typ.)   | 78%  | 74%             | 75%       | 76%   | 82%  | 75%        | 77%        | 80%        | 84%        | 78%        | 81%        | 83%        |
|             | DC CURRENT (Typ.)   | 9.7A/12V   | 4.8A/24V        | 2.4A/48V  | 1.8A/96V  | 10.4A/12V                                      | 4.8A/24V   | 2.4A/48V   | 1.8A/96V   | 10A/12V    | 4.8A/24V   | 2.4A/48V   | 1.8A/96V   |
|             | INRUSH CURRENT (Typ.)   | D:18A/96VDC  |                 |           |   |  |            |            |            |            |            |            |            |
|             | LEAKAGE CURRENT   | <0.75mA/120VAC(SD-100D)  |                 |           |   |  |            |            |            |            |            |            |            |
| PROTECTION  | 01/501 040  | 105 ~ 135% rated output power  |                 |           |   |  |            |            |            |            |            |            |            |
|             | OVERLOAD  | Protection type: Hiccup mode, recovers automatically after fault condition is removed                                    |                 |           |   |  |            |            |            |            |            |            |            |
|             | OVER VOLTAGE  | 5.75 ~ 6.75V/10% load   16.8 ~ 20V/10% load   31.5 ~ 37.5V   31.5 ~ 37.5V/10% load                                       |                 |           |   |  |            |            |            |            |            |            |            |
|             | OVER VOLIAGE  | Protection type : Hiccup mode, recovers  |                 |           |   | automatically after fault condition is removed |            |            |            |            |            |            |            |
|             | WORKING TEMP.   | -15 $\sim$ +60 $^{\circ}$ C(SD-100A), -10 $\sim$ +60 $^{\circ}$ C(SD-100B/C/D) (Refer to "Derating Curve")               |                 |           |   |  |            |            |            |            |            |            |            |
|             | WORKING HUMIDITY  | 20 ~ 90% RH non-condensing   |                 |           |   |  |            |            |            |            |            |            |            |
| ENVIRONMENT | STORAGE TEMP., HUMIDITY   | $-20 \sim +85^{\circ}$ C, $10 \sim 95\%$ RH non-condensing   |                 |           |   |  |            |            |            |            |            |            |            |
|             | TEMP. COEFFICIENT   | ±0.03%/°C (0~50°C)   |                 |           |   |  |            |            |            |            |            |            |            |
|             | VIBRATION   | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes   |                 |           |   |  |            |            |            |            |            |            |            |
|             | SAFETY STANDARDS  | IEC60950-1 CB approved by TUV (for D type only)  |                 |           |   |  |            |            |            |            |            |            |            |
| SAFETY &    | WITHSTAND VOLTAGE   | I/P-O/P:1.5KVAC I/P-FG:1.5KVAC O/P-FG:0.5KVAC  |                 |           |   |  |            |            |            |            |            |            |            |
| EMC         | ISOLATION RESISTANCE  | /P-O/P,  /P-FG, O/P-FG:100M Ohms / 500VDC / 25°C / 70% RH  |                 |           |   |  |            |            |            |            |            |            |            |
| (Note 4)    | EMC EMISSION  | Compliance to EN55032 (CISPR32) Class B  |                 |           |   |  |            |            |            |            |            |            |            |
|             |   |  |                 |           | liance to EN61000-4-2,3,4,6,8, light industry level, criteria A |  |            |            |            |            |            |            |            |
| OTHERS      | MTBF  | 399.9K hrs min.(SD-100A) 356.7K hrs min.(SD-100B) 355.5K hrs min.(SD-100C) 341.9K Hrs min.(SD-100D) MIL-HDBK-217F (25°C) |                 |           |   |  |            |            |            |            |            |            |            |
|             | DIMENSION   | 199*98*38mm (L*W*H) 0.65Kq; 20pcs/13.8Kq/0.8CUFT   |                 |           |   |  |            |            |            |            |            |            |            |
|             | PACKING   | 0,   | •               | 0         |   | 0) (D.O.)                                      |            | 1 10500    |            |            |            |            |            |
| NOTE        | <ol> <li>All parameters NOT specially mentioned are measured at 12,24,48,96VDC input, rated load and 25℃ of ambient temperature.</li> <li>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>Tolerance: includes set up tolerance, line regulation and load regulation.</li> <li>The 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 a 360mm*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 perform these EMC tests, please refer to "EMI testing of component power supplies." (as available on http://www.meanwell.com)</li> </ol> |  |                 |           |   |  |            |            |            |            |            |            |            |

# MEAN WELL

### ■ Mechanical Specification

Case No. 902 Unit:mm



Terminal Pin No. Assignment

| · ·     |            |         |              |  |  |  |
|---------|------------|---------|--------------|--|--|--|
| Pin No. | Assignment | Pin No. | Assignment   |  |  |  |
| 1,2     | INPUT ※    | 4,5     | DC OUTPUT -V |  |  |  |
| 3       | FG ≟       | 6,7     | DC OUTPUT +V |  |  |  |

※ SD-100A,B,C

| , |             |  |  |  |  |
|---|-------------|--|--|--|--|
| Pin No.                                 | Assignment  |  |  |  |  |
| 1                                       | DC INPUT V+ |  |  |  |  |
| 2                                       | DC INPUT V- |  |  |  |  |

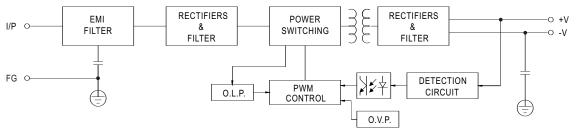
**%** SD-100D

| Pin No. | Assignment  |
|---------|-------------|
| 1,2     | AC/DC INPUT |

## ■ Block Diagram

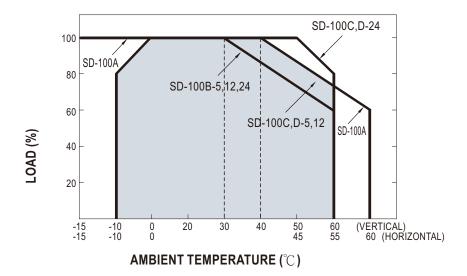
fosc:83KHz

A-type : 65KHz





# ■ Derating Curve



### ■ Output Derating VS Input Voltage

