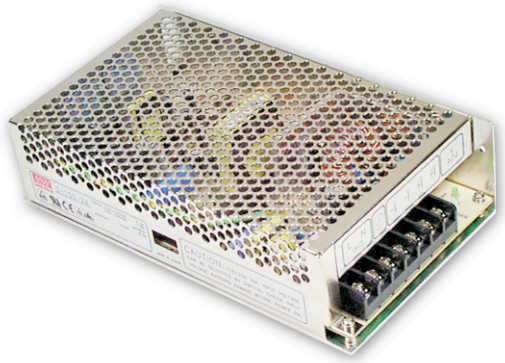
MEAN WELL

# 150W Single Output DC-DC Converter

# SD-150 series



■ Features :

- 2:1 wide input range
- Protections:Short circuit/Over load/Over voltage
- 1500VDC I/O isolation
- Built-in EMI filter, low ripple noise
- 100% full load burn-in test
- 24V and 48V input voltage design refer to LVD
- Low cost
- High reliability
- 1 year warranty

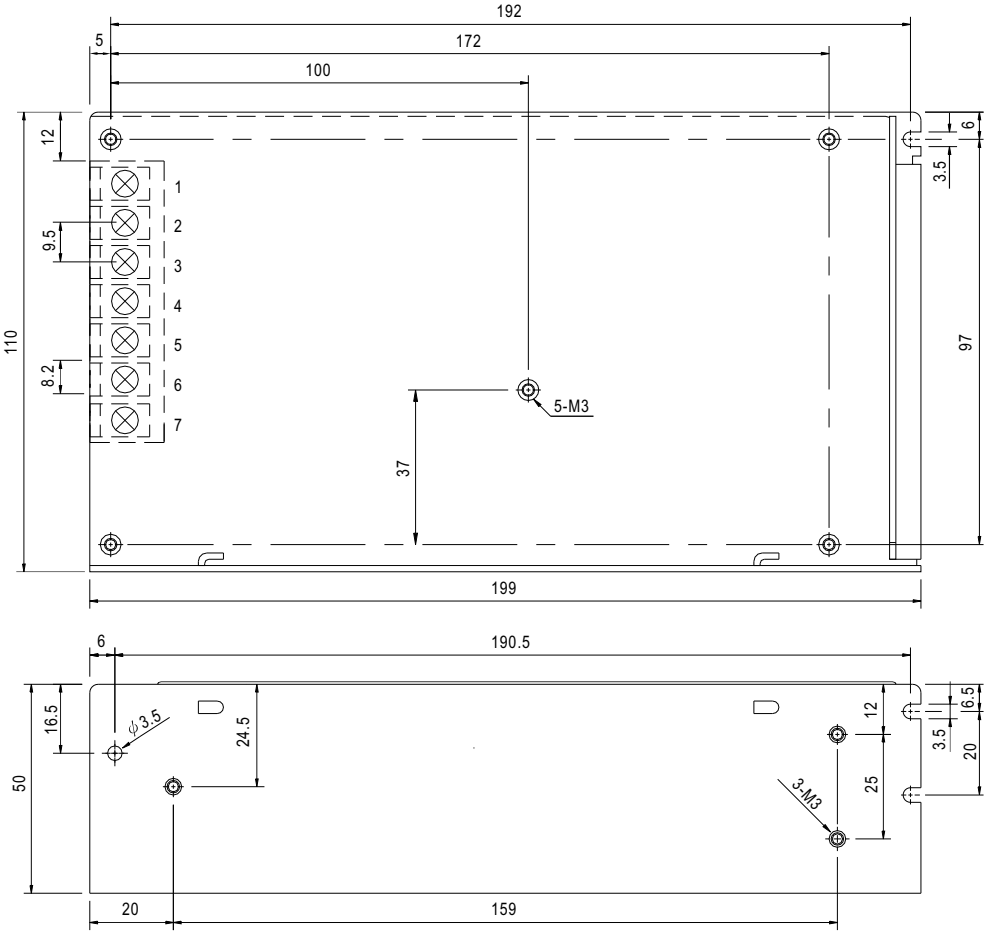
CB (for D type only) CE

## SPECIFICATION

| MODEL | | SD-150B-12 | SD-150C-12 | SD-150D-12 | SD-150B-24 | SD-150C-24 | SD-150D-24 |
|---|---|---|---|---|---|---|---|
| OUTPUT | DC VOLTAGE | 12V | | | 24V | | |
| | RATED CURRENT | 12.5A | | | 6.3A | | |
| | CURRENT RANGE | 0 ~ 12.5A | | | 0 ~ 6.3A | | |
| | RATED POWER | 150W | | | 151.2W | | |
| | RIPPLE & NOISE (max.) Note.2 | 120mVp-p | | | 150mVp-p | | |
| | VOLTAGE ADJ. RANGE | 11 ~ 16VDC | | | 23 ~ 30VDC | | |
| | VOLTAGE TOLERANCE Note.3 | ±1.0% | | | ±1.0% | | |
| | LINE REGULATION | ±0.5% | | | ±0.3% | | |
| | LOAD REGULATION | ±0.5% | | | ±0.3% | | |
| | SETUP, RISE TIME | 2s, 50ms(only D mode) at full load | | | | | |
| | HOLD TIME (Typ.) | 24ms(only D mode) at full load | | | | | |
| INPUT | VOLTAGE RANGE | B:19 ~ 36VDC | C:36 ~ 72VDC | D:72 ~144VDC or 85 ~ 132VAC | | | |
| | EFFICIENCY (Typ.) | 75% | 77% | 79% | 77% | 80% | 82% |
| | DC CURRENT (Typ.) | 6.8A/24V | 3.4A/48V | 2.7A/96V | 6.8A/24V | 3.4A/48V | 2.7A/96V |
| | INRUSH CURRENT (Typ.) | D:22.5A/96VDC | | | | | |
| | LEAKAGE CURRENT | <0.75mA / 120VAC (SD-150D) | | | | | |
| PROTECTION | OVER LOAD | 105 ~ 135% rated output power | | | | | |
| | | Protection type : Fold back current limiting, recovers automatically after fault condition is removed | | | | | |
| | OVER VOLTAGE | 16.8V ~ 20V/10% LOAD | | | 31.5 ~ 37.5V/10% LOAD | | |
| | | Protection type : Hiccup mode, recovers automatically after fault condition is removed | | | | | |
| ENVIRONMENT | WORKING TEMP. | -10 ~ +60℃ (Refer to output load derating curve) | | | | | |
| | WORKING HUMIDITY | 20 ~ 90% RH non-condensing | | | | | |
| | STORAGE TEMP., HUMIDITY | -20 ~ +85℃, 10 ~ 95% RH | | | | | |
| | TEMP. COEFFICIENT | ±0.03%/℃ (0 ~ 50℃) | | | | | |
| | VIBRATION | 10 ~ 500Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes | | | | | |
| SAFETY & EMC (Note 4) | SAFETY STANDARDS | EN60950-1 CB Approved by TUV (for D type only) | | | | | |
| | WITHSTAND VOLTAGE | I/P-O/P:1.5KVAC 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 | | | | | |
| | EMI CONDUCTION & RADIATION | Compliance to EN55022 (CISPR22) Class B | | | | | |
| | EMS IMMUNITY | Compliance to EN61000-4-2,3,4,6,8; ENV50204 Light industry level, criteria A | | | | | |
| OTHERS | MTBF | 296.2K hrs min.(SD-150B) 289.9K hrs min.(SD-150C) 289K Hrs min.(SD-150D) MIL-HDBK-217F (25℃) | | | | | |
| | DIMENSION | 199*110*50mm (L*W*H) | | | | | |
| | PACKING | 0.86Kg; 16pcs/14.5Kg/0.95CUFT | | | | | |
| NOTE | 1. All parameters NOT specially mentioned are measured at 24,48,96VDC input, rated load and 25℃ of ambient temperature.<br>2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.<br>3. Tolerance : includes set up tolerance, line regulation and load regulation.<br>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. | | | | | | |

## ■ Mechanical Specification

Case No. 906 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 |

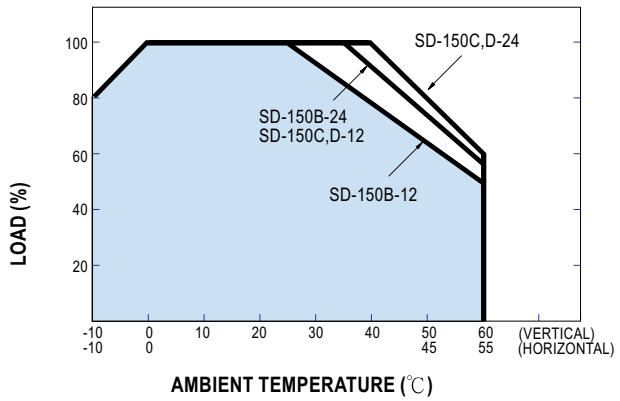
※ SD-150B,C

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

※ SD-150D

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

## ■ Derating Curve




## ■ Static Characteristics (24V)

