



Наличие и актуальные цены на

**SD-50A-5**

<https://www.mean-well.ru/store/SD-50A-5/>



## 50W Single Output DC-DC Converter

## SD-50 series



- Features :
  - 2:1 wide input range
  - Protections: Short circuit / Overload / Over voltage
  - 1500VAC I/O isolation
  - Built-in EMI filter, low ripple noise
  - 100% full load burn-in test
  - Fixed switching frequency at 83KHz
  - Low cost
  - High reliability
  - 2 years warranty

User's Manual



### GTIN CODE

MW Search: <https://www.meanwell.com/serviceGTIN.aspx>



AS/NZS62368-1 TPTC004

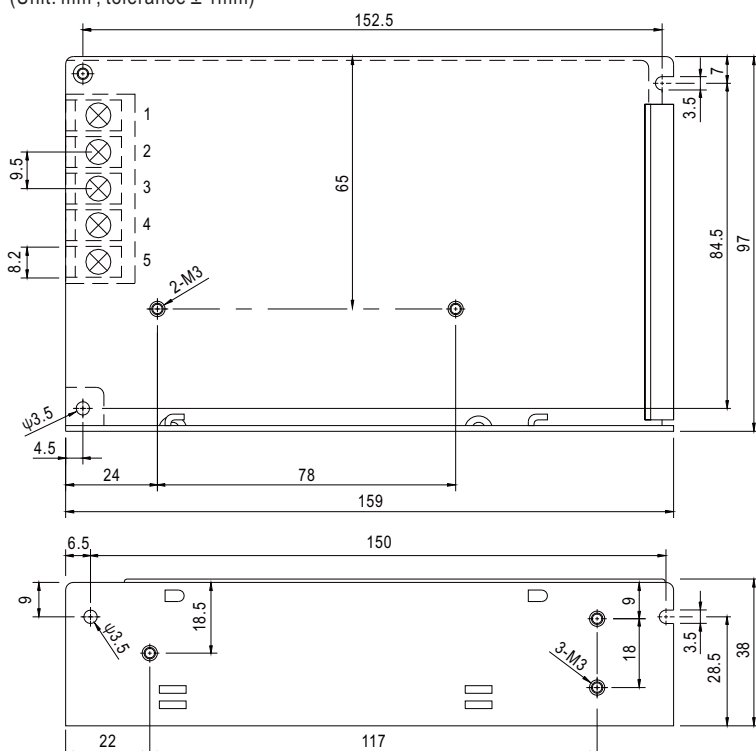
### SPECIFICATION

| MODEL                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SD-50A-5                                                                                                                | SD-50B-5 | SD-50C-5 | SD-50A-12           | SD-50B-12 | SD-50C-12 | SD-50A-24             | SD-50B-24 | SD-50C-24 |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|----------|----------|---------------------|-----------|-----------|-----------------------|-----------|-----------|
| OUTPUT                   | DC VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5V                                                                                                                      |          |          | 12V                 |           |           | 24V                   |           |           |
|                          | RATED CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 10A                                                                                                                     |          |          | 4.2A                |           |           | 2.1A                  |           |           |
|                          | CURRENT RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 0 ~ 10A                                                                                                                 |          |          | 0 ~ 4.2A            |           |           | 0 ~ 2.1A              |           |           |
|                          | RATED POWER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 50W                                                                                                                     |          |          | 50.4W               |           |           | 50.4W                 |           |           |
|                          | 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, HOLD UP TIME                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 2.5s, 50ms, ----- at full load                                                                                          |          |          |                     |           |           |                       |           |           |
| INPUT                    | VOLTAGE RANGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | A:9.2 ~ 18VDC    B:19 ~ 36VDC    C:36 ~ 72VDC                                                                           |          |          |                     |           |           |                       |           |           |
|                          | EFFICIENCY (Typ.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 70%                                                                                                                     | 73%      | 76%      | 72%                 | 75%       | 78%       | 74%                   | 80%       | 83%       |
|                          | DC CURRENT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 7A/12V                                                                                                                  | 3A/24V   | 1.5A/48V | 7A/12V              | 3A/24V    | 1.5A/48V  | 7A/12V                | 3A/24V    | 1.5A/48V  |
| PROTECTION               | OVERLOAD                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 105 ~ 150% rated output power<br>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/10% load |           |           |
|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Protection type : Hiccup mode, recovers automatically after fault condition is removed                                  |          |          |                     |           |           |                       |           |           |
| ENVIRONMENT              | WORKING TEMP.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | -10 ~ +60℃ (Refer to "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<br>(Note 4) | SAFETY STANDARDS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | EAC TP TC 004 approved, Design refer to LVD, AS/NZS 62368.1                                                             |          |          |                     |           |           |                       |           |           |
|                          | WITHSTAND VOLTAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | I/P-O/P:1.5KVAC    I/P-FG:2KVAC    O/P-FG:0.5KVAC                                                                       |          |          |                     |           |           |                       |           |           |
|                          | ISOLATION RESISTANCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | I/P-O/P, I/P-FG, O/P-FG:100M Ohms / 500VDC / 25℃ / 70% RH                                                               |          |          |                     |           |           |                       |           |           |
|                          | EMC EMISSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Compliance to BS EN/EN55032 (CISPR32) Class B,    EAC TP TC 020                                                         |          |          |                     |           |           |                       |           |           |
|                          | EMC IMMUNITY                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Compliance to BS EN/EN61000-4-2,3,4,6,8, BS EN/EN55035, heavy industry level, EAC TP TC 020                             |          |          |                     |           |           |                       |           |           |
| OTHERS                   | MTBF                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 3293.1K hrs min.    Telcordia SR-332 (Bellcore) ; 512.8K hrs min.    MIL-HDBK-217F (25℃)                                |          |          |                     |           |           |                       |           |           |
|                          | DIMENSION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 159*97*38mm (L*W*H)                                                                                                     |          |          |                     |           |           |                       |           |           |
|                          | PACKING                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.43Kg; 24pcs/11.35Kg/0.83CUFT                                                                                          |          |          |                     |           |           |                       |           |           |
| NOTE                     | <p>1. All parameters NOT specially mentioned are measured at 12,24,48VDC input, rated load and 25℃ of ambient temperature.</p> <p>2. Ripple &amp; noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1 μF &amp; 47 μF parallel capacitor.</p> <p>3. Tolerance : includes set up tolerance, line regulation and load regulation.</p> <p>4. 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."<br/>(as available on <a href="https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf">https://www.meanwell.com/Upload/PDF/EMI_statement_en.pdf</a> )</p> <p>5. The ambient temperature derating of 3.5℃/1000m with fanless models and of 5℃/1000m with fan models for operating altitude higher than 2000m(6500ft).</p> <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

(Unit: mm , tolerance  $\pm 1$ mm)

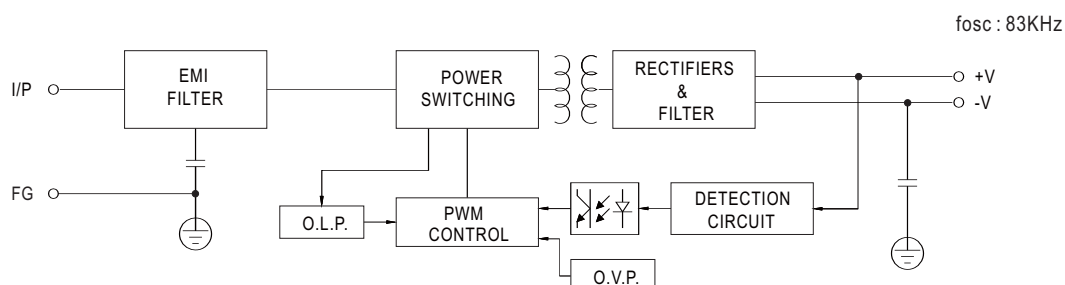
Case No. 901



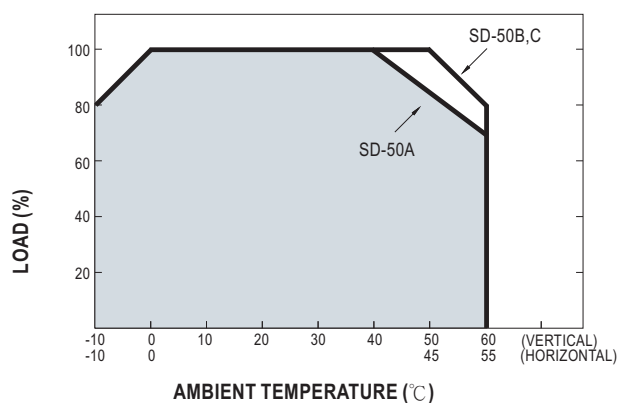
### Terminal Pin No. Assignment

| Pin No. | Assignment  | Pin No. | Assignment   |
|---------|-------------|---------|--------------|
| 1       | DC INPUT V+ | 4       | DC OUTPUT -V |
| 2       | DC INPUT V- | 5       | DC OUTPUT +V |
| 3       | FG $\perp$  |         |              |

### ■ Block Diagram



### Derating Curve



### ■ Static Characteristics(SD-50C-24V)

