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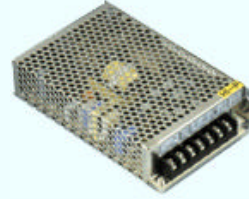
# MEAN WELL

SWITCHING POWER SUPPLY  
ISO-9001 CERTIFIED MANUFACTURER

# SD-50 SERIES

Jameco Part  
Number 212521

- .LOW COST, HIGH RELIABILITY
- .105°C OUTPUT CAPACITOR
- .BUILT IN EMI FILTER, LOW RIPPLE NOISE
- .HIGH EFFICIENCY, LOW WORKING TEMPERATURE
- .COMPACT SIZE, LIGHT WEIGHT
- .SHORT CIRCUIT, OVERLOAD, OVER VOLTAGE PROTECTED

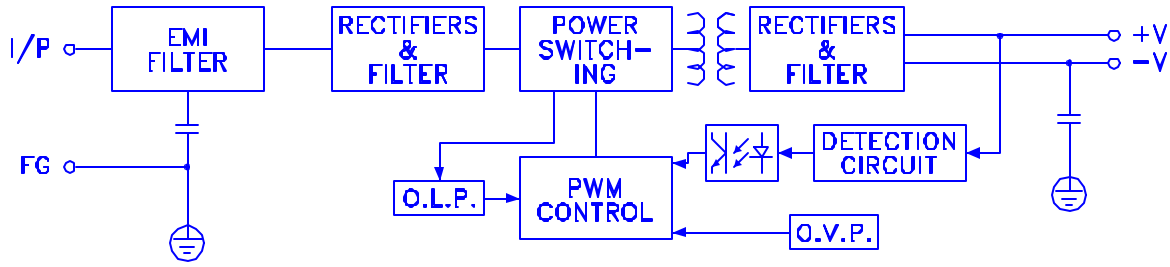


| MODEL                     | SD-50A-5   | SD-50B-5 | SD-50C-5 | SD-50A-12          | SD-50B-12 | SD-50C-12 | SD-50A-24            | SD-50B-24 | SD-50C-24 |
|---------------------------|--|----------|----------|--------------------|-----------|-----------|----------------------|-----------|-----------|
| DC OUTPUT VOLTAGE         | 5V   |          |          | 12V                |           |           | 24V                  |           |           |
| OUTPUT V. TOLERANCE       | ±2%  |          |          | ±1%                |           |           | ±1%                  |           |           |
| OUTPUT RATED CURRENT      | 10A  |          |          | 4.2A               |           |           | 2.1A                 |           |           |
| OUTPUT CURRENT RANGE      | 0-10A  |          |          | 0-4.2A             |           |           | 0-2.1A               |           |           |
| RIPPLE & NOISE            | 100mVp-p   |          |          | 120mVp-p           |           |           | 150mVp-p             |           |           |
| LINE REGULATION           | ±0.5%  |          |          | ±0.3%              |           |           | ±0.2%                |           |           |
| LOAD REGULATION           | ±0.5%  |          |          | ±0.3%              |           |           | ±0.2%                |           |           |
| DC OUTPUT POWER           | 50W  |          |          | 50.4W              |           |           | 50.4W                |           |           |
| EFFICIENCY                | 70%  | 73%      | 76%      | 72%                | 75%       | 78%       | 74%                  | 80%       | 83%       |
| DC VOLTAGE ADJ.           | 4.5-5.5V   |          |          | 11-16V             |           |           | 23-30V               |           |           |
| INPUT VOLTAGE RANGE       | A:9.2~18VDC B:19~36VDC C:36~72VDC                                      |          |          |                    |           |           |                      |           |           |
| INPUT CURRENT             | A:7A/12V B:3A/24V C:1.5A/48V   |          |          |                    |           |           |                      |           |           |
| INRUSH CURRENT            | -----  |          |          |                    |           |           |                      |           |           |
| LEAKAGE CURRENT           | -----  |          |          |                    |           |           |                      |           |           |
| OVERLOAD PROTECTION       | 105%~150% TYPE:FOLDBACK CURRENT LIMITING RESET:AUTO RECOVERY           |          |          |                    |           |           |                      |           |           |
| OVER VOLTAGE PROTECTION   | 5.75V~6.75V/10% LOAD   |          |          | 16.8V~20V/10% LOAD |           |           | 31.5V~37.5V/10% LOAD |           |           |
| OVER TEMP. PROTECTION     | -----  |          |          |                    |           |           |                      |           |           |
| TEMP. COEFFICIENT         | ±0.03% / °C (0~50°C)   |          |          |                    |           |           |                      |           |           |
| SETUP, RISE, HOLD UP TIME | 2.5s, 50ms, -----  |          |          |                    |           |           |                      |           |           |
| VIBRATION                 | 10~500Hz, 2G 10min./1cycle, PERIOD FOR 60min. EACH AXES                |          |          |                    |           |           |                      |           |           |
| 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:500VDC / 100M Ohms                             |          |          |                    |           |           |                      |           |           |
| WORKING TEMP., HUMIDITY   | -10°C~+60°C(REFER TO OUTPUT DERATING CURVE), 20%~90% RH                |          |          |                    |           |           |                      |           |           |
| STORAGE TEMP., HUMIDITY   | -20°C~+85°C, 10%~95% RH  |          |          |                    |           |           |                      |           |           |
| DIMENSION                 | 159*97*38mm CASE:901   |          |          |                    |           |           |                      |           |           |
| WEIGHT                    | 0.5Kgs   |          |          |                    |           |           |                      |           |           |
| SAFETY STANDARDS          | -----  |          |          |                    |           |           |                      |           |           |
| EMC STANDARDS             | EN55022 CLASS B (RADIATION), EN61000-4-2,3,4,6,8 ENV50204 VERIFICATION |          |          |                    |           |           |                      |           |           |

- NOTE :
- 1.ALL PARAMETERS ARE SPECIFIED AT RATED INPUT, RATED LOAD, 25°C 70% RH. AMBIENT.
  - 2.TOLERANCE GINCLUDE SET UP TOLERANCE, LINE REGULATION, LOAD REGULATION.
  - 3.RIPPLE & NOISE ARE MEASURED AT 20MHz BY USING A 12" TWISTED PAIR TERMINATED WITH A 0.1uF & 47uF CAPACITOR.
  - 4.LINE REGULATION IS MEASURED FROM LOW LINE TO HIGH LINE AT RATED LOAD.
  - 5.LOAD REGULATION IS MEASURED FROM 0% TO 100% RATED LOAD.

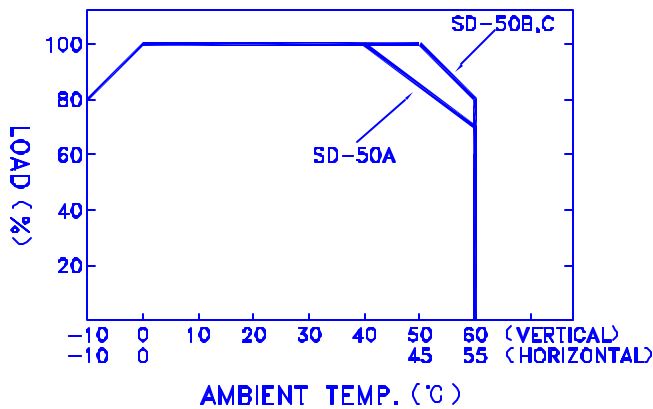
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## BLOCK DIAGRAM

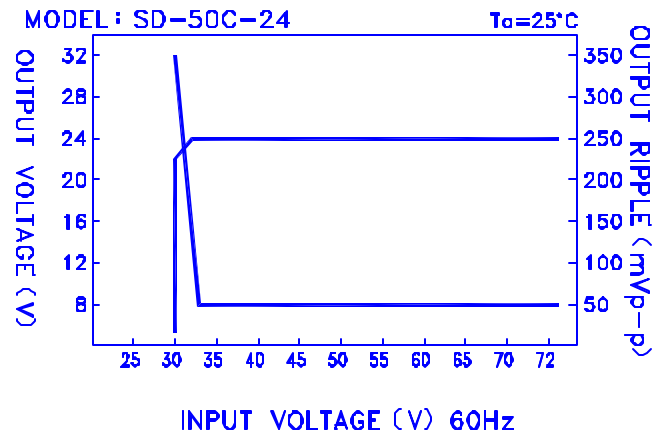


$f_{osc} : 83\text{KHz}$

## OUTPUT DERATING



## STATIC CHARACTERISTICS



## DIMENSION (mm)

- ☒ CASE : 901
- ☒ TERMINAL PIN NO. ASSIGNMENT
- ☒ PIN 1 : DC INPUT V+
- ☒ PIN 2 : DC INPUT V-
- ☒ PIN 3 : FG
- ☒ PIN 4 : DC OUTPUT -V
- ☒ PIN 5 : DC OUTPUT +V

