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# SDS-050M-xx Series

50W, Single Output  
 24V / 48V DC INPUT



99 x 82 x 35 mm  
 3.9 x 3.23 x 1.38 inch



## Features:

- \* DC Input 19V ~ 72V
- \* Input protection: 4A/250V fuses
- \* Inrush current limitation soft start function
- \* Input & output isolation
- \* Input polarity reverse protection
- \* Over voltage, over load & short circuit protection
- \* Output voltage  $\pm 10\%$  adjustment
- \* 100% full load burn-in test
- \* Meet LVD standard
- \* 2 years warranty

## Specification:

|             |                                      |  |            |            |            |
|-------------|--------------------------------------|--|------------|------------|------------|
| INPUT       | <b>Voltage</b>                       | 19V ~ 72V DC   |            |            |            |
|             | <b>Current</b>                       | <2.8A@24 V DC input full load condition  |            |            |            |
| OUTPUT      | <b>Voltage</b>                       | <b>5V</b>  | <b>12V</b> | <b>24V</b> | <b>48V</b> |
|             | <b>Min Load</b>                      | 0A   | 0A         | 0A         | 0A         |
|             | <b>Max Load</b>                      | 9A   | 4.2A       | 2.1A       | 1.1A       |
|             | <b>Output Tolerance</b> ②            | $\pm 2\%$  | $\pm 1\%$  | $\pm 1\%$  | $\pm 1\%$  |
|             | <b>Ripple Noise MAX.</b> ③           | 70mV   | 120mV      | 150mV      | 240mV      |
|             | <b>Efficiency (TYP)</b>              | 77%  | 82%        | 84%        | 86%        |
|             | <b>Output MAX.</b>                   | 45W  | 50W        | 50W        | 53W        |
| PROTECTION  | <b>Over Voltage</b>                  | 5.8~7.0V   | 13.8~16.8V | 27.6~33.6V | 55.2~67.2V |
|             |                                      | Shutdown and latch off, recover after re-start up.   |            |            |            |
|             | <b>Over Load &amp; Short Circuit</b> | When power supply over 105%~ 150% max load or short circuit acted, power supply will be shutdown and recover automatically after the fault is removed. |            |            |            |
| ELEC. CHAR. | <b>Rise time</b>                     | <20mS  |            |            |            |
| ENVIRONMENT | <b>Temperature</b> ④                 | Operating: -20 ~ +70°C ; De-rating: 45 ~ 70°C : 2.5%/°C ; Storage: -40 ~ +85°C   |            |            |            |
|             | <b>Humidity</b>                      | Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH (non condensing)   |            |            |            |
| SAFETY      | <b>Withstand voltage</b>             | I/P-O/P:2.0KVAC, I/P-PE:1.5KVAC, O/P-PE:0.5KVAC, 1minute   |            |            |            |
|             | <b>Isolation resistance</b>          | I/P-O/P, I/P-PE, O/P-PE > 100MΩ/500VDC at 25°C / 70% RH  |            |            |            |
| EMC         | <b>EMI</b>                           | EN 55022 CLASS B 、FCC CFR 47 PART 15 CLASS B 、CNS 13438 CLASS B.   |            |            |            |
|             | <b>EMS</b>                           | EN 55024 : EN 61000-4-2,3,4,5,6,8 ; ENV 50204  |            |            |            |
| OTHERS      | <b>Cooling</b>                       | Natural cooling  |            |            |            |
|             | <b>M.T.B.F.</b>                      | 417 K hours  |            |            |            |
|             | <b>Dimension</b>                     | 99 x 82 x 35 mm (L*W*H)  |            |            |            |
|             | <b>Packing</b>                       | N.W.:0.34Kg / 1pc; 46pcs / 1.22 CUFT / 1 CTN   |            |            |            |

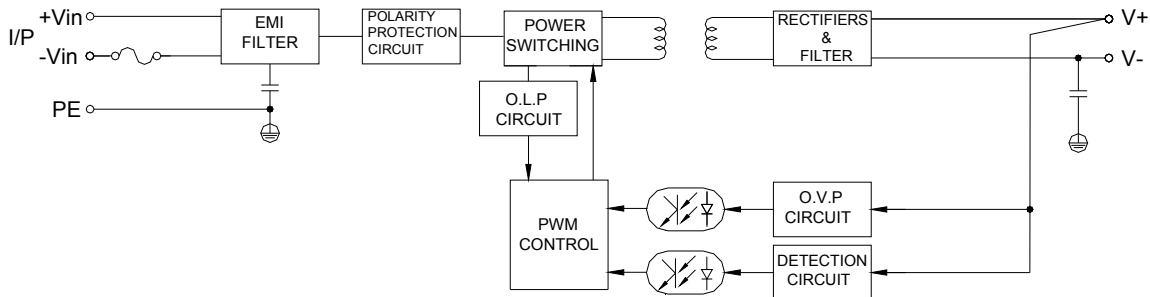
|      |  |
|------|--|
| NOTE | ① All measurements which not mentioned are based on 24VDC input, <b>output Max</b> at ambient 25°C / 70%RH   |
|      | ② Output tolerance included set up voltage, line regulation and load regulation.   |
|      | ③ Ripple & noise are measured at 21~72VDC input with 0~50°C condition and 20MHz of bandwidth by using a 10" ~ 15" twisted pair-wire terminated with a 0.1uF & a 47uF parallel capacitor. |
|      | ④ The operating temperature shall follow the de-rating curve in spec   |
|      | ⑤ The power supply is considered a component of end-equipment. The end-equipment must be re-confirmed whether comply with EMC directives.  |



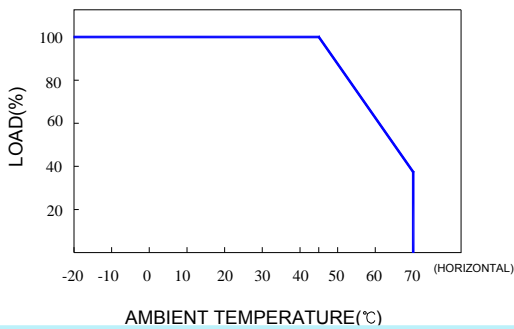
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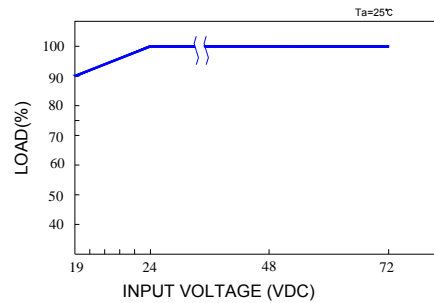
## Block Diagram : DS2



## De-rating Curve :

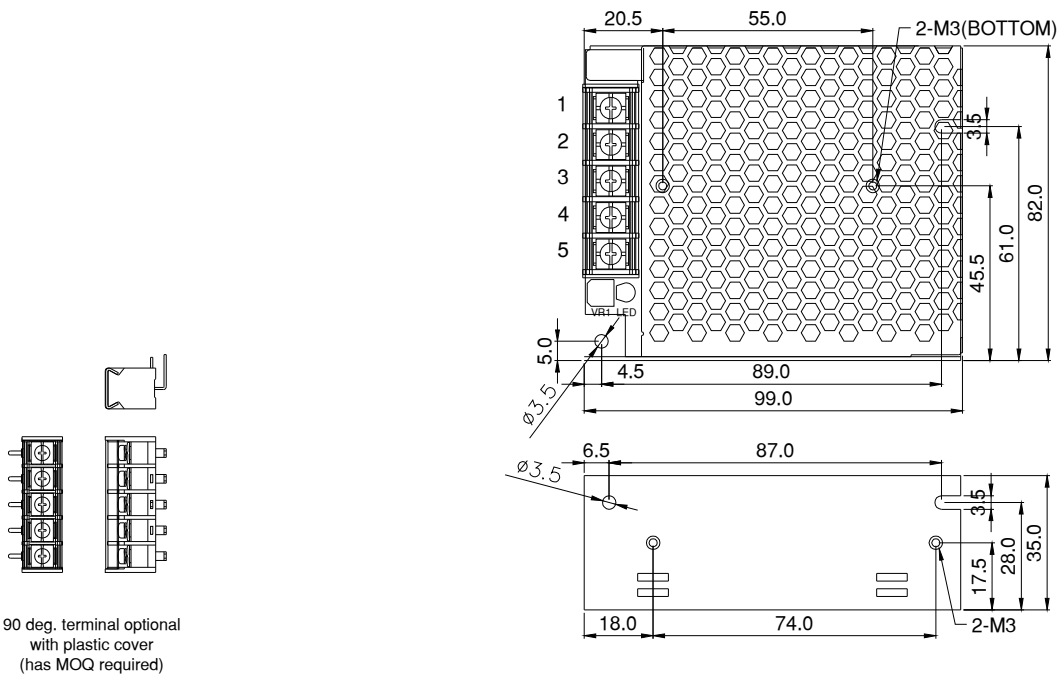


## Output De-rating Vs Input Voltage :



## Dimension:

(Unit: mm)



## NOTES:

| MODEL No.   | 1    | 2    | 3  | 4  | 5  |
|-------------|------|------|----|----|----|
| SDS-050M-xx | +Vin | -Vin | PE | -V | +V |