

SDS-050L-xx Series

50W, Single Output
12V / 24V DC INPUT



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



Features:

- * DC Input 9.5 ~ 36 V
- * Input protection: 8A/250V fuses
- * Inrush current limitation soft start function
- * Input & output isolation
- * Input polarity reverse protection
- * Over load, over voltage & short circuit protection
- * Output voltage $\pm 10\%$ adjustment
- * 100% full load burn-in test
- * Meet LVD standard

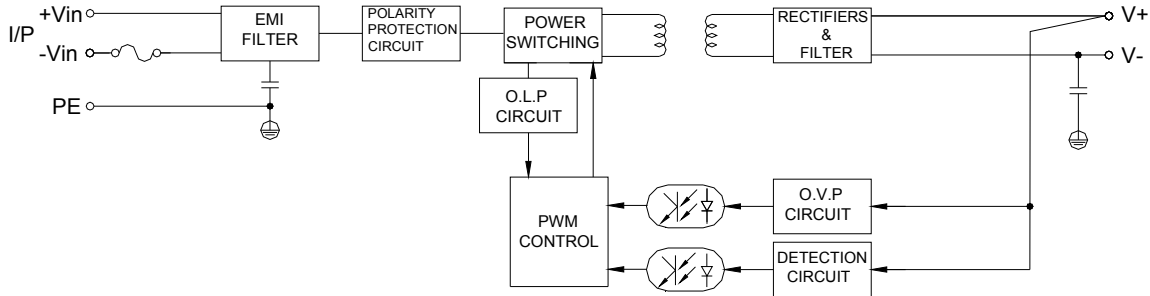
Specification:

| INPUT | Voltage | 9.5 ~ 36V DC | | | |
|-------------|---------------------------|--|------------|------------|------------|
| | Current | <5.7A@12V DC input full load condition | | | |
| OUTPUT | Voltage | 5V | 12V | 24V | 48V |
| | Min Load | 0A | 0A | 0A | 0A |
| | Max Load | 9A | 4.2A | 2.1A | 1.1A |
| | Output Tolerance ② | $\pm 2\%$ | $\pm 1\%$ | $\pm 1\%$ | $\pm 1\%$ |
| | Ripple Noise MAX. ③ | 70mV | 120mV | 150mV | 240mV |
| | Efficiency (TYP) | 75% | 80% | 82% | 84% |
| | Output MAX. | 45W | 50W | 50W | 53W |
| PROTECTION | Over Voltage | 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. | | | |
| | Over Load & Short Circuit | 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. | Rise time | <20mS | | | |
| ENVIRONMENT | Temperature ④ | Operating: -20 ~ +70°C ; De-rating: 45 ~ 70°C : 2.5%/°C ; Storage: -40 ~ +85°C | | | |
| | Humidity | Operating: 20% ~ 90% RH (non condensing); Storage: 10% ~ 95% RH (non condensing) | | | |
| SAFETY | Withstand voltage | I/P-O/P:2.0KVAC, I/P-PE:1.5KVAC, O/P-PE:0.5KVAC, 1minute | | | |
| | Isolation resistance | I/P-O/P, I/P-PE, O/P-PE > 100MΩ/500VDC at 25°C / 70% RH | | | |
| EMC | EMI | EN 55022 CLASS B · FCC CFR 47 PART 15 CLASS B · CNS 13438 CLASS B. | | | |
| | EMS | EN 55024 : EN 61000-4-2,3,4,5,6,8 ; ENV 50204 | | | |
| OTHERS | Cooling | Natural cooling | | | |
| | M.T.B.F. | 417 K hours | | | |
| | Dimension | 99 x 82 x 35 mm (L*W*H) | | | |
| | Packing | N.W.:0.34Kg / 1pc; 46pcs / 1.22 CUFT / 1 CTN | | | |

| NOTE | |
|------|--|
| | ① All measurements which not mentioned are based on 12VDC input, output Max at ambient 25°C / 70%RH |
| | ② Output tolerance included set up voltage, line regulation and load regulation. |
| | ③ Ripple & noise are measured at 12~36VDC 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. |

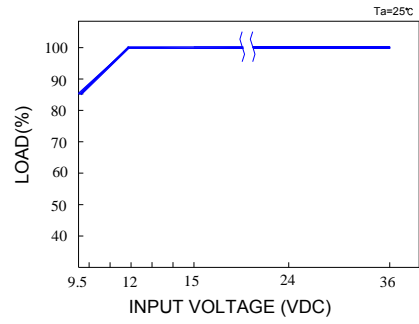
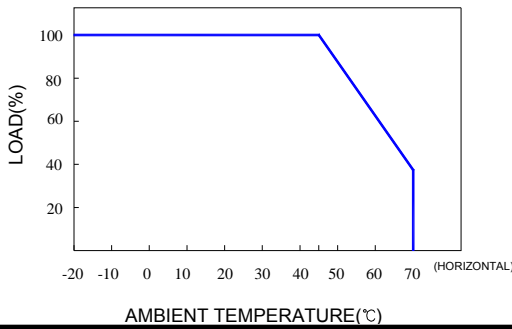
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Block Diagram : DS2



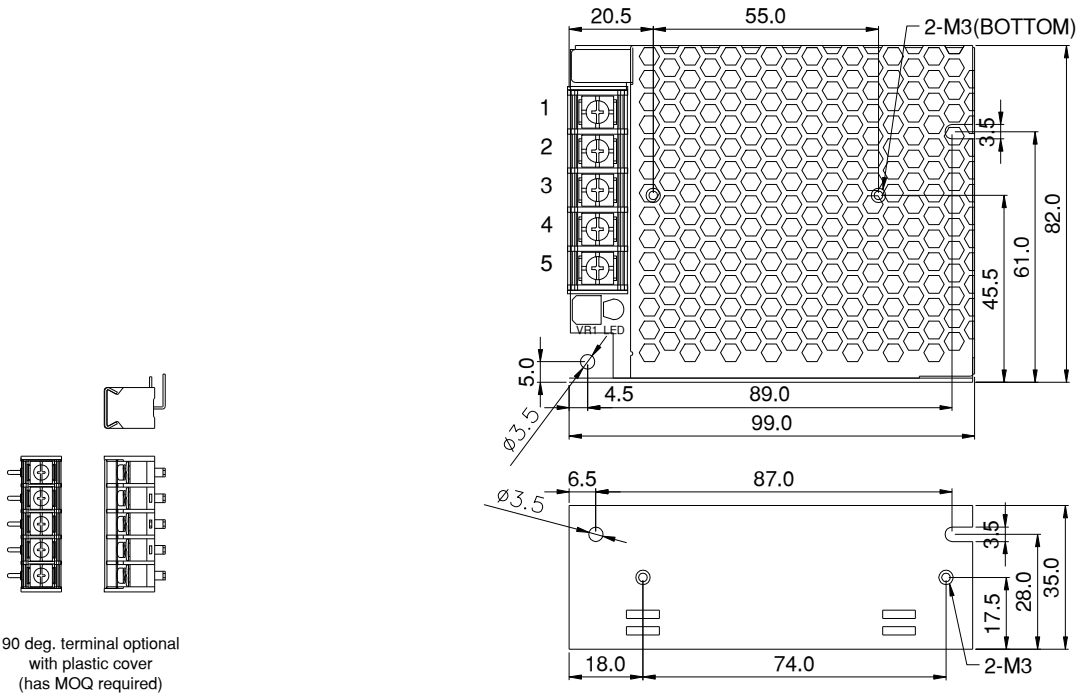
De-rating Curve :

Output De-rating Vs Input Voltage :



Dimension:

(Unit: mm)



NOTES:

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