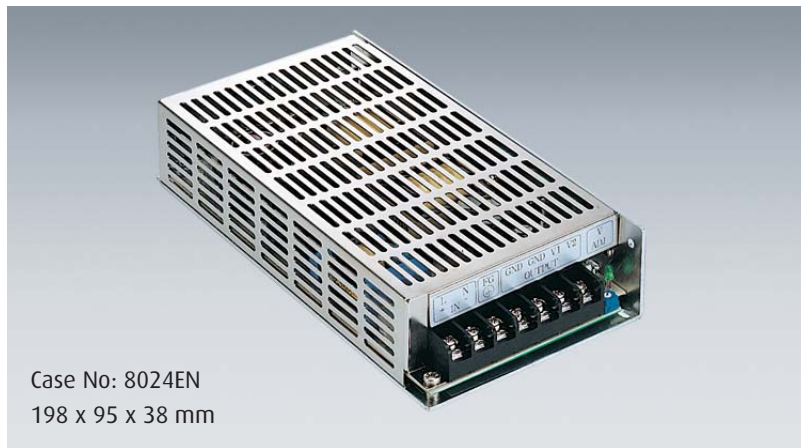


SDS-100D Series

100W Single Output DC/DC Power Supplies



Case No: 8024EN
198 x 95 x 38 mm

Features

- Power ON with LED indicator
- Input and output isolation
- Soft start function, low inrush current
- No min. load requirement
- Input over voltage and over voltage protection
- Input polarity reverse protection
- Over voltage, over load & short circuit protection
- Output voltage $\pm 10\%$ adjustment
- 100% full load burn-in test



Specification

| | | | | | | |
|--------------------------------------|-----------------------------|---|--|--------------------|--------------------|--------------------|
| INPUT | Voltage | 72~144VDC (Typical 96V) | | | | |
| | Current | <2A@72VDC, full load condition | | | | |
| | Inrush Current | <30A@96VDC, Cold start at 25°C ambient | | | | |
| | Protection | Ceramic fuse 4A@250V | | | | |
| OUTPUT | MODEL No. | SDS-100D-3.3 | SDS-100D-5 | SDS-100D-12 | SDS-100D-24 | SDS-100D-48 |
| | Voltage | 3.3V | 5V | 12V | 24V | 48V |
| | Min Load | 0A | 0A | 0A | 0A | 0A |
| | Max Load | 25A | 20A | 8.5A | 4.2A | 2.1A |
| | Output Tolerance | $\pm 3\%$ | $\pm 2\%$ | $\pm 1\%$ | $\pm 1\%$ | $\pm 1\%$ |
| | Ripple Noise MAX. | 70mV | 70mV | 120mV | 200mV | 250mV |
| | Efficiency (TYP.) | 68% | 72% | 75% | 78% | 84% |
| | Power | 83W | 100W | 100W | 100W | 100W |
| | Over Voltage | 3.8~4.6V | 5.8~7V | 13.8~16.8V | 27.6~33.6V | 55.2~67.2V |
| | PROTECTION | | Hiccup and recovers automatically after the fault is removed | | | |
| Over Load & Short Circuit | | When the power supply is over 105%~ 180% max load or short circuited it will go into hiccup mode and recover automatically after the fault is removed | | | | |
| ELEC. CHAR. | Rise Time | <50mS @ nominal AC input at full load | | | | |
| | Setup Time | <0.5 Sec@230V; 1.2 Sec@115VAC | | | | |
| ENVIRONMENT | Temperature | Operating: -10 ~ +70°C ; Storage: -20~ +85°C | | | | |
| | Humidity | Operating: 20% ~ 90% RH; Storage: 10% ~ 95% RH (non condensing) | | | | |
| SAFETY | Withstand Voltage | I/P-O/P:2KVAC, I/P-FG:1.5KVAC, 1minute | | | | |
| | Isolation Resistance | I/P-O/P, I/P-FG 100M Ω /500VDC | | | | |
| EMC | EMI | Compliance to EN55022 Class B, FCC CFR 47 part 15 class B, CNS 13438 class B | | | | |
| | EMS | EN55024; EN61000-4-2,3,4,6,8; ENV50204 | | | | |
| OTHERS | Cooling | Natural cooling | | | | |
| | M.T.B.F. | 262Khrs min. MIL-HDBK-217F (°C) | | | | |
| | Packing | 0.75Kg; 1 pc; 24 pcs/1.22 CUFT/1 CTN | | | | |

1 All measurements which are not mentioned are based on the 24/48/96VDC input, output max at ambient 25°C/70% RH

2 Output tolerance included set up voltage, line regulation and load regulation

3 Ripple and noise are measured at 21~36V/42~72V/82~144VDC input with 10~50°C condition and 20MHz of bandwidth by terminated using a 10~15" twisted pair wire with a 0.1uF and a 47uF parallel capacitor.

4 The operating temperature shall follow the de-ratign curve in the specification

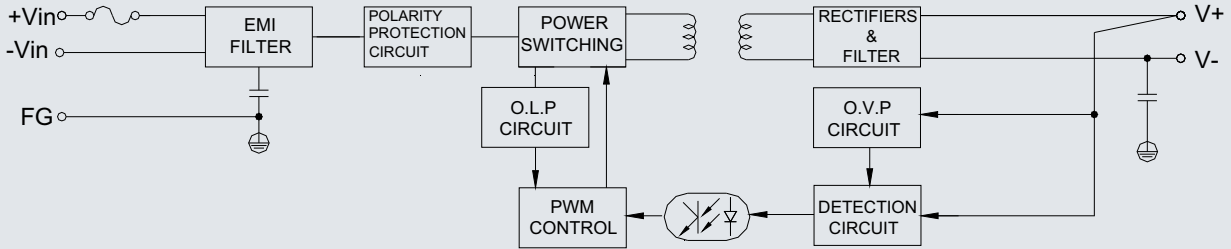
5 The power supply is considered a component which will be installed into a final equipment. The final equipment must be re-confirmed that it still meets EMC directives.

SDS-100B Series

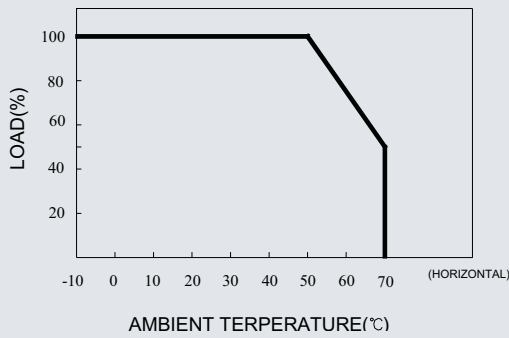
100W Single Output DC/DC Power Supplies



Block Diagram



De-Rating Curve



Dimensions

Terminal Block: 7P, pitch 9.5mm
with DC cover

| Model No. | Assignment |
|-----------|------------|
| 1 | +Vin |
| 2 | -Vin |
| 3 | FG |
| 4 | -V |
| 5 | -V |
| 6 | +V |
| 7 | +V |

