## SPECIFICATION

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DC VOLTAGE</th>
<th>INPUT VOLTAGE ADJ. RANGE</th>
<th>OUTPUT VOLTAGE ADJ. RANGE</th>
<th>OUTPUT VOLTAGE ADJ. RANGE</th>
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<tbody>
<tr>
<td>SD-100B-5</td>
<td>5V</td>
<td>4.5 – 5.5VDC</td>
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<td>SD-100B-12</td>
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<td>11 – 16VDC</td>
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<td>SD-100C-5</td>
<td>8.5A</td>
<td>23 – 30VDC</td>
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<td>SD-100C-12</td>
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<td>SD-100D-5</td>
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<td>0 – 4.2A</td>
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<td>100.8W</td>
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<tr>
<td>SD-100D-24</td>
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<tr>
<td>SD-100D-24</td>
<td>0.5%</td>
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<td>SD-100D-24</td>
<td>0.03%/ (0–50°C)</td>
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<td>SD-100D-24</td>
<td>1.8A/96V</td>
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<tr>
<td>SD-100D-24</td>
<td>1.8A/96V</td>
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</table>

### 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
- 24V and 48V input voltage design refer to LVD
- Low cost
- High reliability
- 2 years warranty

### Protection
- Overload: 105 ~ 135% rated output power
- Protection type: Hiccup mode, recovers automatically after fault condition is removed
- Over Voltage: 5.75 ~ 6.75V/10% load
- Protection type: Hiccup mode, recovers automatically after fault condition is removed

### Environment
- Working Temp.: -10 ~ +60°C (Refer to "Derating Curve")
- Working Humidity: 20 ~ 90% RH non-condensing
- Storage Temp., Humidity: -20 ~ +85°C, 10 ~ 95% RH
- Temp. Coefficient: ±0.03%/°C (0 ~ 50°C)
- Vibration: 10 ~ 50Hz, 2G 10min./1cycle, 60min. each along X, Y, Z axes

### Safety & EMC
- Safety Standards: IEC60950-1 CB approved by TUV (for D type only)
- Withstand Voltage: 1/P-O/P: 1.5kVAC, 1/P-FG: 1.5kVAC, O/P-FG: 0.5kVAC
- Isolation Resistance: 1/P-O/P, 1/P-FG, O/P-FG: 100M Ohms / 500VDC / 25°C / 70% RH
- EMI Emission: Compliance to EN55022 (CISPR22) Class B
- EMI Immunity: Compliance to EN61000-4-2, 3, 4, 6, 8, 11, industry level, criteria A

### Others
- MTBF: 356.7K hrs min.(SD-100B) 355.5K hrs min.(SD-100C) 341.9K Hrs min.(SD-100D) MIL-HDBK-217F (25°C)

### Notes:
1. All parameters not specially mentioned are measured at 24,48,96VDC input, rated load and 25°C of ambient temperature.
2. Ripple & noise are measured at 20MHz of bandwidth by using a 12" twisted pair-wire terminated with a 0.1uf & 47uf parallel capacitor.
3. Tolerance: includes set up tolerance, line regulation and load regulation.
4. 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. For guidance on how to perform these EMC tests, please refer to “EMI testing of component power supplies.”

File Name: SD-100-SPEC 2011-08-23

SD-100 Series
Mechanical Specification

Case No. 902 Unit:mm

AMBIENT TEMPERATURE (°C)

INPUT VOLTAGE (V) OUTPUT VOLTAGE (V) OUTPUT RIPPLE (mVp-p)

<table>
<thead>
<tr>
<th>LOAD (%)</th>
<th>0</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
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<td>15</td>
<td>20</td>
<td>25</td>
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<table>
<thead>
<tr>
<th>OUTPUT VOLTAGE (V)</th>
<th>OUTPUT RIPPLE (mVp-p)</th>
</tr>
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<tbody>
<tr>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>20</td>
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<td>20</td>
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<td>40</td>
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<tr>
<td>30</td>
<td>50</td>
</tr>
<tr>
<td>35</td>
<td>60</td>
</tr>
<tr>
<td>40</td>
<td>70</td>
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Terminal Pin No. Assignment

<table>
<thead>
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<th>Assignment</th>
<th>Pin No.</th>
<th>Assignment</th>
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<tbody>
<tr>
<td>1,2</td>
<td>INPUT</td>
<td>4,5</td>
<td>DC OUTPUT -V</td>
</tr>
<tr>
<td>3</td>
<td>FG</td>
<td>6,7</td>
<td>DC OUTPUT +V</td>
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<tr>
<td>1</td>
<td>DC INPUT V+</td>
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</tr>
<tr>
<td>2</td>
<td>DC INPUT V-</td>
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Block Diagram

EMI FILTER
RECTIFIERS & FILTER
POWER SWITCHING
RECTIFIERS & FILTER
PWM CONTROL
DETECTION CIRCUIT
O.L.P.
O.V.P.

Derating Curve

Static Characteristics (SD-100D-24V)