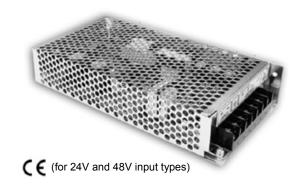


# **FEATURES**

- 105°C Output Capacitor
- Low Cost, High Reliability
- Compact Size, Light Weight
- 100% Full Load Burn-In Tested
- Built-In EMI Filter, Low Ripple Noise
- High Efficiency, Low Working Temperature
- Short Circuit, Overload, and Over Voltage Protected



| All specifications are bas            | ed on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.   |  |  |
|---------------------------------------|---|--|--|
|                                       | erve the right to change specifications based on technological advances.  |  |  |
| INPUT SPECIFICATIONS                  |   |  |  |
| Input Voltage                         | DCSD-100 <b>B</b> : 19 ~ 36VDC<br>DCSD-100 <b>C</b> : 36 ~ 72VDC<br>DCSD-100 <b>D</b> : 72 ~ 144VDC or 85~132VAC                    |  |  |
| AC Current                            | 5V outputs: 6A at 24VDC<br>12V outputs: 3A at 48VDC<br>24V outputs: 1.5A at 96VDC   |  |  |
| Inrush Current                        | DCSD-100 <b>D</b> : 20A at 96VDC  |  |  |
| Leakage Current                       | DCSD-100 <b>D</b> : < 0.75mA at 120VAC  |  |  |
| OUTPUT SPECIFICATIONS                 |   |  |  |
| Output Voltage                        | See Table   |  |  |
| Output Voltage Tolerance (See Note 3) | 5V outputs: ±2% 12V & 24V outputs: ±1%  |  |  |
| Voltage Adjustability                 | See Table   |  |  |
| Output Current                        | See Table   |  |  |
| Line Regulation                       | 5V outputs: ±0.5% 12V outputs: ±0.3% 24V outputs: ±0.2%   |  |  |
| Load Regulation                       | 5V outputs: ±0.5% 12V outputs: ±0.3% 24V outputs: ±0.2%   |  |  |
| Ripple & Noise                        | See Table   |  |  |
| Output Power                          | See Table   |  |  |
| Setup, Rise, Hold Up Time             | DCSD-100 <b>D</b> (only): 2s, 50ms, 20ms  |  |  |
| PROTECTION                            |   |  |  |
| Over Voltage Protection               | 5V outputs: 5.75 ~ 6.75V / 10% Load<br>12V outputs: 16.8 ~ 20V / 10% Load<br>24V outputs: 31.5 ~ 37.5V / 10% Load                   |  |  |
| Over Load Protection                  | 105%~135% Type: Foldback Current Limiting Reset: Auto recovery.   |  |  |
| GENERAL SPECIFICATIONS                |   |  |  |
| Efficiency                            | See Table   |  |  |
| Withstand Voltage                     | 1.5KVAC (input to output), 1.5KVAC (input to FG), 0.5KVAC (output to FG)  |  |  |
| Isolation Resistance                  | 500VDC / 100MΩ (input to output, input to FG, output to FG)   |  |  |
| <b>ENVIRONMENTAL SPECIFICATIONS</b>   |   |  |  |
| Working Temperature                   | -10°C to +60°C (refer to output derating curve)   |  |  |
| Storage Temperature                   | -20°C to +85°C  |  |  |
| Working Humidity                      | 20% to 90% RH   |  |  |
| Storage Humidity                      | 10% to 95% RH   |  |  |
| Vibration                             | 10~500Hz, 2G 10min./1cycle, Period for 60min. each axes   |  |  |
| Temperature Coefficient               | ±0.03%/°C (0°C~50°C)  |  |  |
| PHYSICAL SPECIFICATIONS               |   |  |  |
| Weight                                | 600 grams   |  |  |
| Dimensions                            | 199(L) x 98(W) x 38(H) mm   |  |  |
| SAFETY & EMC                          |   |  |  |
| EMC Standards                         | EN55022 CLASS B (Radiation), EN61000-4-2,3,4,6,8 ENV50204 Verification for DCSD-100B/6 Series only, not including DCSD-100D series. |  |  |

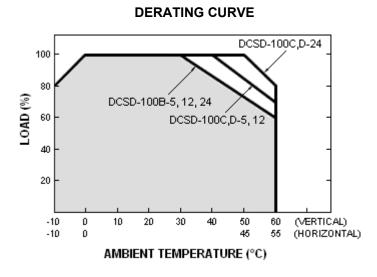


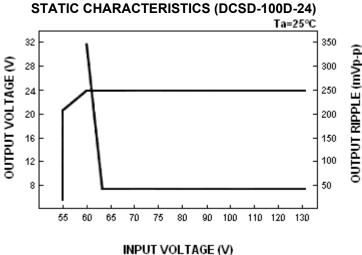
#### **OUTPUT VOLTAGE / CURRENT RATING CHART**

| Model        | Input Voltage            | Output<br>Voltage | Voltage<br>Adjustability | Rated Output<br>Current | Output<br>Ripple & Noise | Output<br>Power | Efficiency |
|--------------|--------------------------|-------------------|--------------------------|-------------------------|--------------------------|-----------------|------------|
| DCSD-100B-5  | 24 VDC<br>(19 ~ 36 VDC)  | 5 VDC             | 4.5 ~ 5.5VDC             | 20A                     | 100mVp-p                 | 100W            | 74%        |
| DCSD-100B-12 |                          | 12 VDC            | 11 ~ 16VDC               | 8.5A                    | 120mVp-p                 | 102W            | 75%        |
| DCSD-100B-24 |                          | 24 VDC            | 23 ~ 30VDC               | 4.2A                    | 150mVp-p                 | 100.8W          | 76%        |
| DCSD-100C-5  | 48 VDC<br>(36 ~ 72 VDC)  | 5 VDC             | 4.5 ~ 5.5VDC             | 20A                     | 100mVp-p                 | 100W            | 75%        |
| DCSD-100C-12 |                          | 12 VDC            | 11 ~ 16VDC               | 8.5A                    | 120mVp-p                 | 102W            | 77%        |
| DCSD-100C-24 | (30 * 72 VDC)            | 24 VDC            | 23 ~ 30VDC               | 4.2A                    | 150mVp-p                 | 100.8W          | 80%        |
| DCSD-100D-5  | 96 VDC<br>(72 ~ 144 VDC) | 5 VDC             | 4.5 ~ 5.5VDC             | 20A                     | 100mVp-p                 | 100W            | 78%        |
| DCSD-100D-12 |                          | 12 VDC            | 11 ~ 16VDC               | 8.5A                    | 120mVp-p                 | 102W            | 81%        |
| DCSD-100D-24 | (12 144 VDO)             | 24 VDC            | 23 ~ 30VDC               | 4.2A                    | 150mVp-p                 | 100.8W          | 83%        |

### **NOTES**

- 1. The DCSD-100 Series is designated as DCSD-100x-y where x can be **B** (19 ~ 36 VDC input voltage), **C** (36 ~ 72 VDC input voltage), or **D** (72 ~ 144 VDC input voltage) and y can be 5, 12, or 24 for output voltage.
- 2. All parameters are specified at rated input, rated load and 25°C 70% RH. ambient.
- 3. Tolerance includes setup tolerance, line regulation, and load regulation.
- 4. Ripple & noise are measured at 20MHz using a 12" twisted pair terminated with a 0.1uF & 47uF capacitor.
- 5. Line regulation is measured from low line to high line at rated load.
- 6. Load regulation is measured from 0% to 100% rated load.

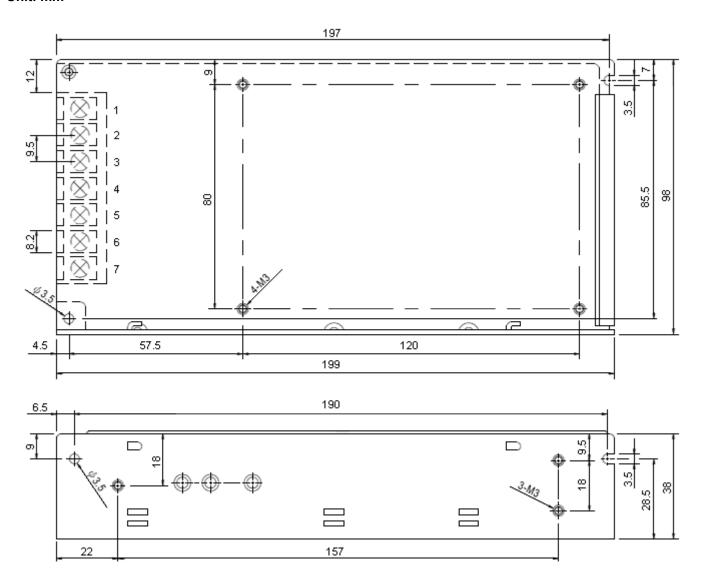






# **MECHANICAL DRAWING**

### Unit: mm



| Terminal Pin No. Assignment |                                 |     |                |  |  |
|-----------------------------|---------------------------------|-----|----------------|--|--|
| Pin No.                     | Assignment   Pin. No   Assignme |     | Assignment     |  |  |
| 1,2                         | INPUT                           | 4,5 | DC OUTPUT (-V) |  |  |
| 3                           | FG                              | 6,7 | DC OUTPUT (+V) |  |  |

| DCSD-100B,C |               |  |
|-------------|---------------|--|
| Pin No.     | Assignment    |  |
| 1           | DC INPUT (V+) |  |
| 2           | DC INPUT (V-) |  |

| DCSD-100D |             |  |
|-----------|-------------|--|
| Pin No.   | Assignment  |  |
| 1,2       | AC/DC INPUT |  |