

**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



CE

**SPECIFICATIONS: DCSD-50 Series**

All specifications are based on 25°C, Nominal Input Voltage, and Maximum Output Current unless otherwise noted.  
We reserve the right to change specifications based on technological advances.

**INPUT SPECIFICATIONS**

Input Voltage	DCSD-50A: 9.2 ~ 18VDC DCSD-50B: 19 ~ 36VDC DCSD-50C: 36 ~ 72VDC
DC Current	DCSD-50A: 7A at 12VDC DCSD-50B: 3A at 24VDC DCSD-50C: 1.5A at 48VDC

**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	5V outputs: 100mVp-p 12V outputs: 120mVp-p 24V outputs: 150mVp-p
Output Power	See Table
Setup, Rise Time	2.5s, 50ms

**PROTECTION**

Over Voltage Protection	5V outputs: 5.75 ~ 6.75V / 10% Load 12V outputs: 16.8 ~ 20V / 10% Load 24V outputs: 31.5 ~ 37.5V / 10% Load
Over Load Protection	105%~150% 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)

**ENVIRONMENTAL SPECIFICATIONS**

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	500 grams
Dimensions	159(L) x 97(W) x 38(H) mm

**SAFETY & EMC**

EMC Standards	EN55022 CLASS B (Radiation), EN61000-4-2,3,4,6,8 ENV50204 Verification
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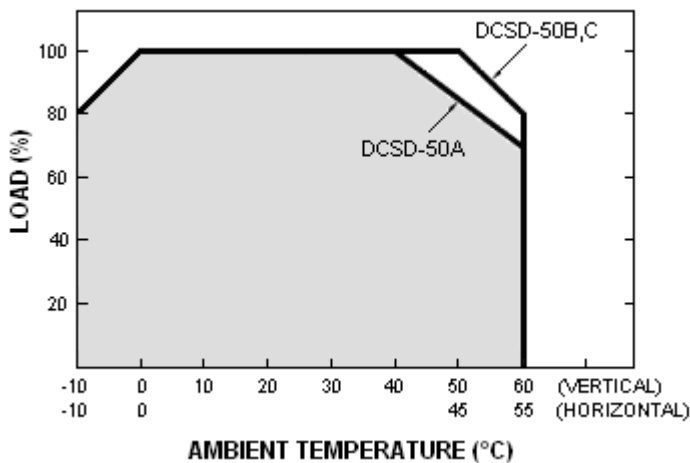
**OUTPUT VOLTAGE / CURRENT RATING CHART**

Model	Input Voltage	Output Voltage	Voltage Adjustability	Rated Output Current	Output Ripple & Noise	Output Power	Efficiency
DCSD-50A-5	12 VDC (9.2 ~ 18 VDC)	5 VDC	4.5 ~ 5.5VDC	10A	100mVp-p	50W	70%
DCSD-50A-12		12 VDC	11 ~ 16VDC	4.2A	120mVp-p	50.4W	73%
DCSD-50A-24		24 VDC	23 ~ 30VDC	2.1A	150mVp-p	50.4W	76%
DCSD-50B-5	24 VDC (19 ~ 36 VDC)	5 VDC	4.5 ~ 5.5VDC	10A	100mVp-p	50W	72%
DCSD-50B-12		12 VDC	11 ~ 16VDC	4.2A	120mVp-p	50.4W	75%
DCSD-50B-24		24 VDC	23 ~ 30VDC	2.1A	150mVp-p	50.4W	78%
DCSD-50C-5	48 VDC (36 ~ 72 VDC)	5 VDC	4.5 ~ 5.5VDC	10A	100mVp-p	50W	74%
DCSD-50C-12		12 VDC	11 ~ 16VDC	4.2A	120mVp-p	50.4W	80%
DCSD-50C-24		24 VDC	23 ~ 30VDC	2.1A	150mVp-p	50.4W	83%

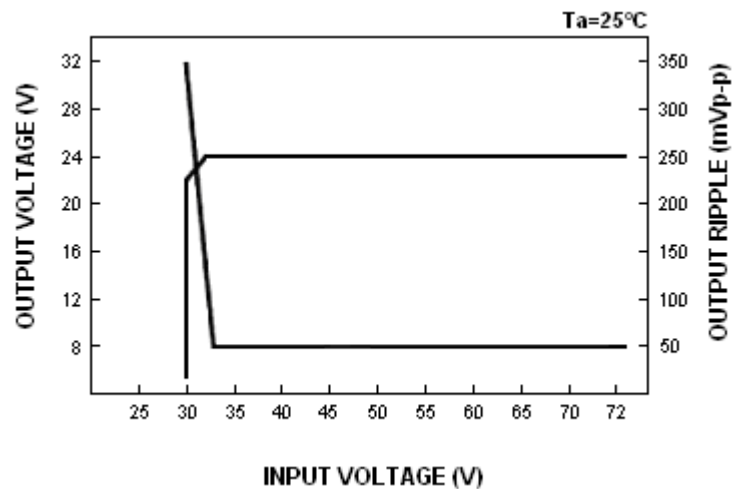
**NOTES**

1. The DCSD-50 Series is designated as DCSD-50x-y where x can be **A** (9.2 ~ 18 VDC input voltage), **B** (19 ~ 36 VDC input voltage), or **C** (36 ~ 72 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.

**DERATING CURVE**

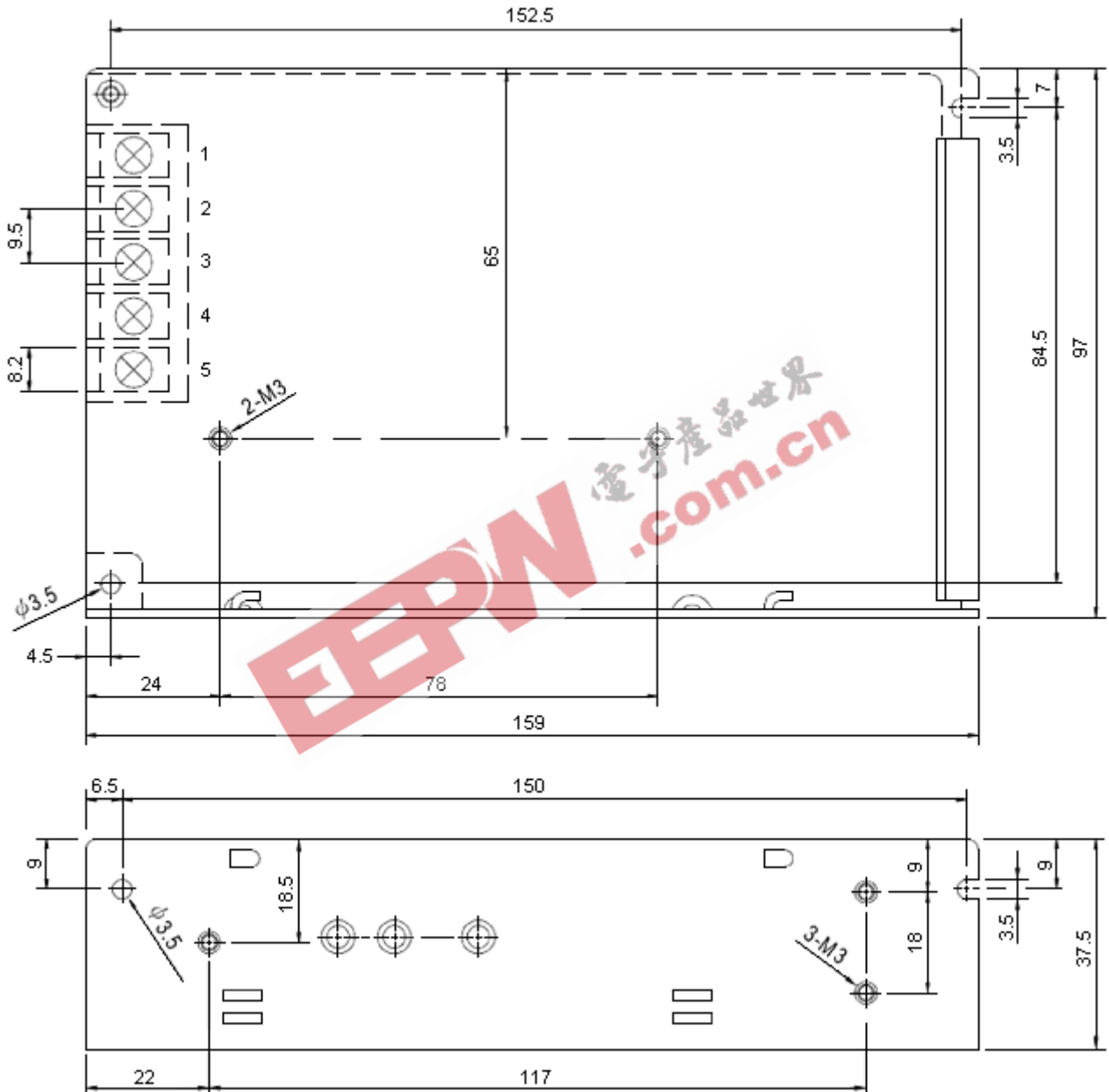


**STATIC CHARACTERISTICS (DCSD-50C-24)**



**MECHANICAL DRAWING**

Unit: mm



Terminal Pin No. Assignment	
Pin No.	Assignment
1	DC INPUT (V+)
2	DC INPUT (V-)
3	FG
4	DC OUTPUT (-V)
5	DC OUTPUT (+V)