FEATURES：

- Wide input range
- Continuous short-circuit protection,self recover
- I/O isolation voltage 3000V
- Case working temperature：-40℃～+105℃
- No additional components required
- Stable performance and high reliability (MTBF≥500K hours)
- Industry standard 1/4 brick pin-out

Selection Guide

Part No.	INPUT		CTRL	OUTPUT				CapacitiveLoad(μF)
	Norminal (Vdc)	Range (Vdc)		Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)	
LD100G-300S05	300	200-400	Negative logic	5	20000			
LD100G-300S12			Negative logic	12	8333			
LD100G-300S24			Negative logic	24	4167			
LD100G-300S28			Negative logic	28	3571			
LD100G-300S48			Negative logic	48	2083			

customized accepted,pls contact sales for details

Input Specifications

Item	Min	Typ	Max	Test Conditions
CTRL	CTRL connect -Vin or low level(0-1.2VDC)			Turn on
	CTRL left open or TTL high level(3.5-12VDC)			Turn off
	-	5mA	10mA	Turn off input current
Hot Plug	Unavailable			

Output Specifications

Item	Min	Typ	Max	Test Conditions
Voltage Accuracy		±1%	±3%	Full load, input voltage from low voltage to high voltage
Line Regulation		±0.1%	±0.5%	
Load Regulation		±0.5%	±1%	5%-100% Load
Over Current Protect	110%Vo	135%Vo	180%%Vo	
Over Voltage Protect	110%Io	120%Io	130%Io	
Over Temperature Protect	-	+110℃	-	
Short Circuit Protect	Hiccup Style,Continuous, self-recovery			

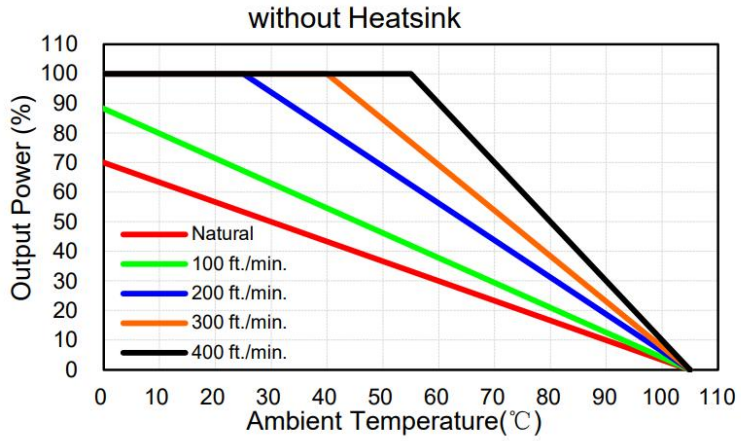
Gerneral Specifications

Insulation Resistance	100MΩ	Input-Output,Insulation Voltage 500VDC
Isolation Voltage	3000VAC	Input-Output
	1500VAC	Input-Case
	1500VAC	Output-Case
Isolation Capacitance	600pF(typ)	
Switching Frequency	250KHz	PWM
MTBF	500K Hrs	Mil HDBK 217F Tc=25℃

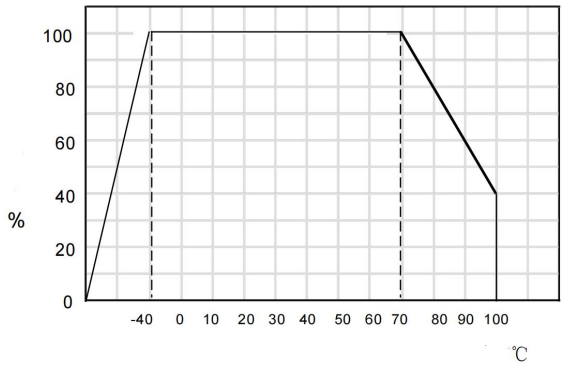
TRIM	80%Vo(Min),110%Vo(Max)	
Sense	105%Vo(Max)	
Case Temperature	-40~+105℃	
Storage Temperature	-55~+125℃	
Relative Humidity	10%-90%	
Pin Solder Temperature	300℃	Soldering spot is 1.5mm away from case for 10 seconds
Hand Soldering Time	10s	Iron Temperature 260 ℃
Weight	85g（Typ）	

**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25℃ room temperature environment.

Power Derating Curve

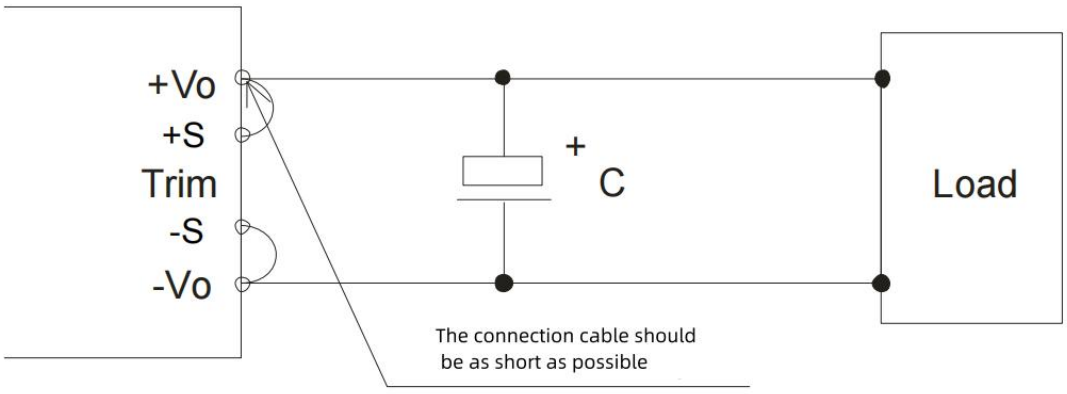


Temperature Derating Curve



TRIM Pin

（1）When remote compensation is not used:

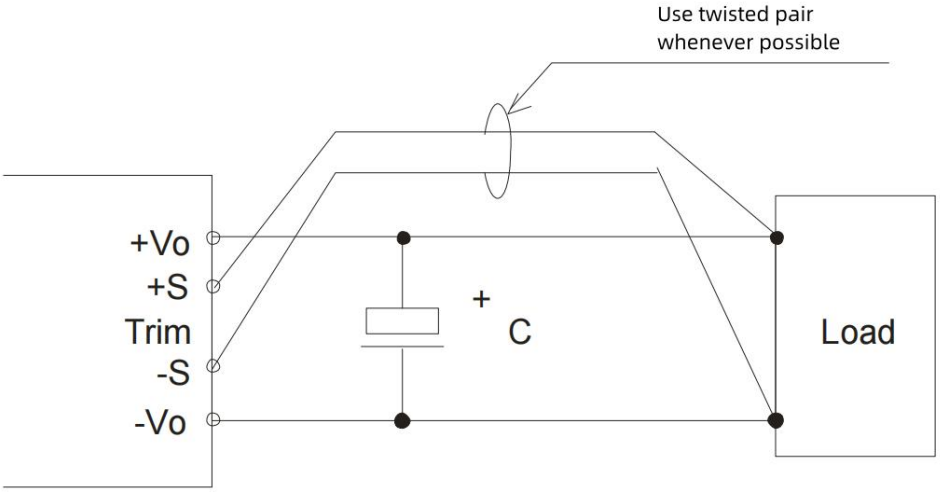


Note:

1) When no remote compensation is used, ensure that +Vo and +S,-Vo and -S are short-circuited;

2) The connection between +Vo and +S,-Vo and -S should be as short as possible and close to the terminal to avoid forming a large loop area. When noise enters this loop, it may cause instability of the module

（2）When using remote compensation:



Note:

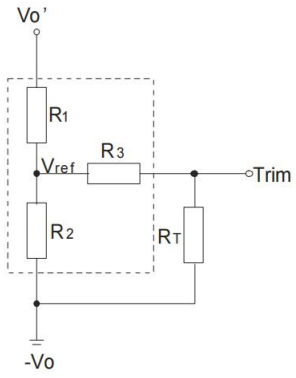
1. If the remote compensation lead is too long, the output voltage may be unstable. If you must use a long remote compensation lead, please contact us.

2. If remote compensation is used, use twisted pair or shielded cable and make the lead as short as possible.

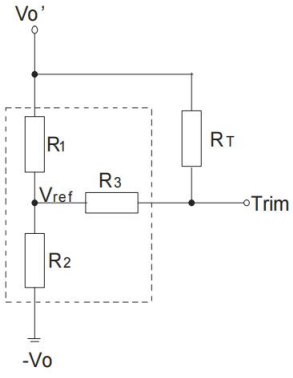
3. Use wide PCB leads or thick wires between the power module and the load, and keep the line voltage drop below 0.3V to ensure that the output voltage of the power module is kept within the specified range.

4. The impedance of the lead may cause output voltage oscillation or large ripple, please make adequate evaluation before use.

TRIM and resistance calculation



Trim up



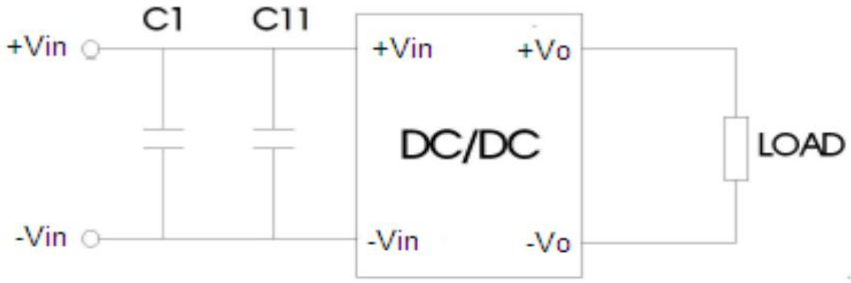
Trim down

$$up: R_T = \frac{aR_2}{R_2 - a} - R_3 \qquad a = \frac{Vref}{Vo' - Vref} \cdot R_1$$

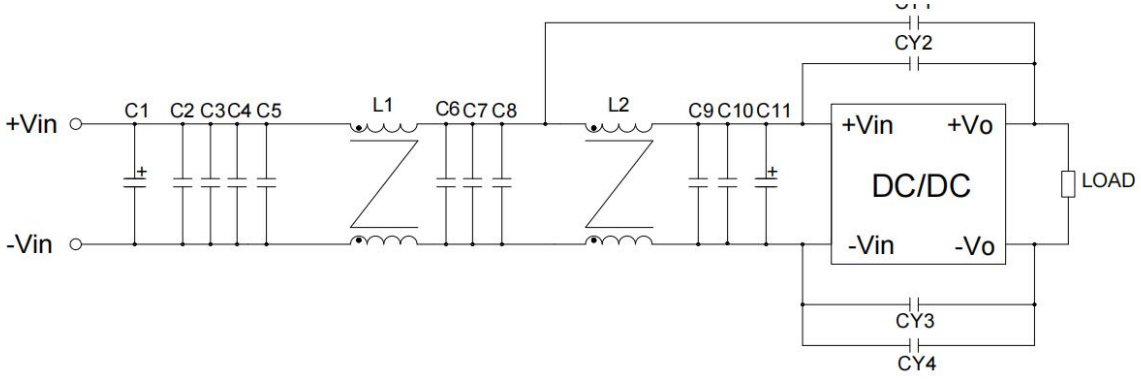
$$down: R_T = \frac{aR_1}{R_1 - a} - R_3 \qquad a = \frac{Vo' - Vref}{Vref} \cdot R_2$$

Vout(VDC)	R1(KΩ)	R2(KΩ)	R3(KΩ)	Vref(V)
5	3.036	3	10	2.5
12	11.00	2.87	15	2.5
15	14.03	2.8	15	2.5
24	24.872	2.87	15	2.5
28	29.201	2.851	15	2.5
48	53.017	2.894	15	2.5

EMC Recommmend Circuit

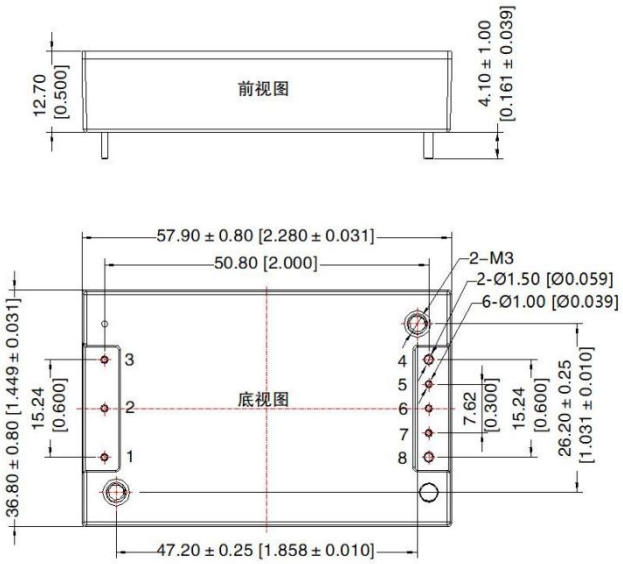


C1	C11
150μF electrolytic capacitor	47μF electrolytic capacitor



C1	C11	C2,C3,C4,C5,C6,C7,C8,C9, C10	L1,L2	CY1,CY2	CY3,CY4
150uF Electrolytic capacitance	47μF Electrolytic capacitance	10μF Ceramic capacitor	1.6mH Common-mode inductance	2.2nFY1 Safety capacitance	1nFY1 Safety capacitance

Dimensions and Recommended Layout



Unit: mm(inch)

Pins

Pin-Out	Mark		
1	+Vin	5	-S
2	CTRL	6	TRIM
3	-Vin	7	+S
4	0V	8	+Vo

Noted

1. Input current: Ensure that the output current of the power supply meets the instantaneous starting current of the power module (that is, twice the average input current of the power module).
2. Output load requirements: Avoid no-load use. When the actual power consumption of the load is less than 10% of the rated output power of the module or no load occurs, connect an external resistance to the output end (the sum of the external resistance and the load power is greater than or equal to 10% of the rated load) or select a module with a smaller rated power.
3. The external capacitance of the output end should not be too large; otherwise, the module may be overcurrent or poorly started. For details, see the external capacitance recommendation table.
4. External LC filter circuit can be connected for occasions with high ripple noise requirements.