FEATURES：

- Wide input range
- Short-circuit protection,input under voltage protect,over current protect,over voltage protect,over temperature protect
- I/O isolation voltage 2250V
- Working temperature：-40℃～+100℃
- No additional components required
- Stable performance and high reliability (MTBF≥500K hours)
- Industry standard 1/4 brick pin-out

Selection Guide

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)
	Norminal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (A)	Voltage (V2dc)	current (A)	
LD400G-24S05	24	18-36	5	60			6000
LD400G-24S12			12	33.3			2000
LD400G-24S15			15	26.7			2000
LD400G-24S24			24	16.67			1000
LD400G-24S28			28	14.28			1000
LD400G-24S36			36	11.11			470
LD400G-24S48			48	8.33			470
LD400G-48S05	48	36-72	5	60			6000
LD400G-48S12			12	33.3			2000
LD400G-48S15			15	26.7			2000
LD400G-48S24			24	16.67			1000
LD400G-48S28			28	14.28			1000
LD400G-48S36			36	11.11			470
LD400G-48S48			48	8.33			470

customized accepted,pls contact sales for details

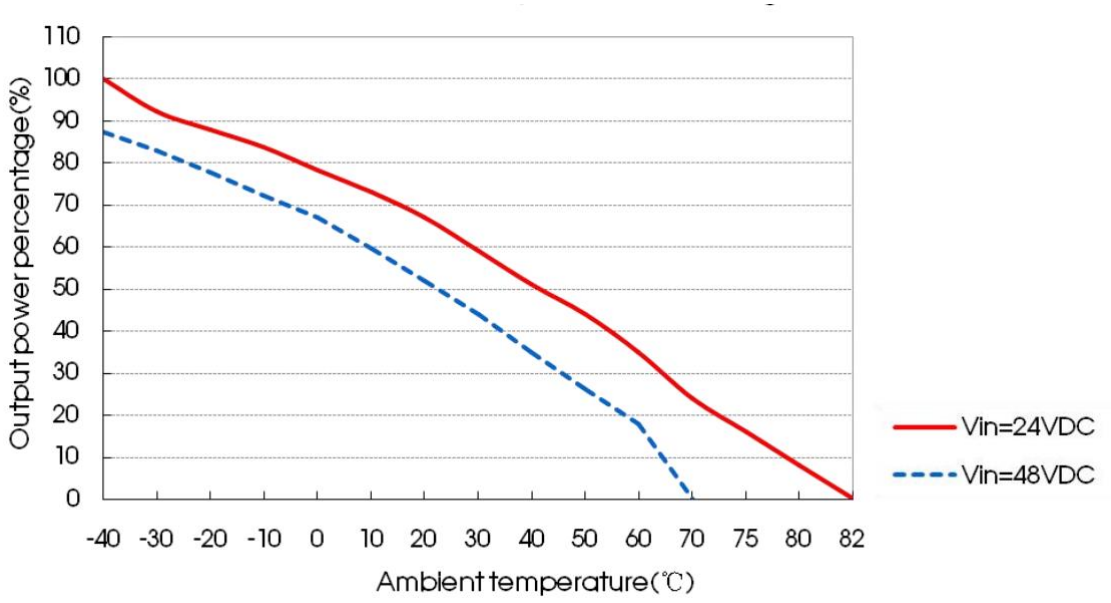
Input Specifications

Item	Min	Typ	Max	Test Conditions
Reflected Ripple Current	-	30mA	-	
Impulse Voltage(1sec.max.)	0.7VDC	-	50VDC	
Start Voltage	-	-	9VDC	
CTRL	CTRL left open or TTL high level(3.5-12VDC)			Turn on
	CTRL connect -Vin or low level(0-1.2VDC)			Turn off
	-	2mA	10mA	Turn off input current
Hot Plug	Unavailable			

Output Specifications

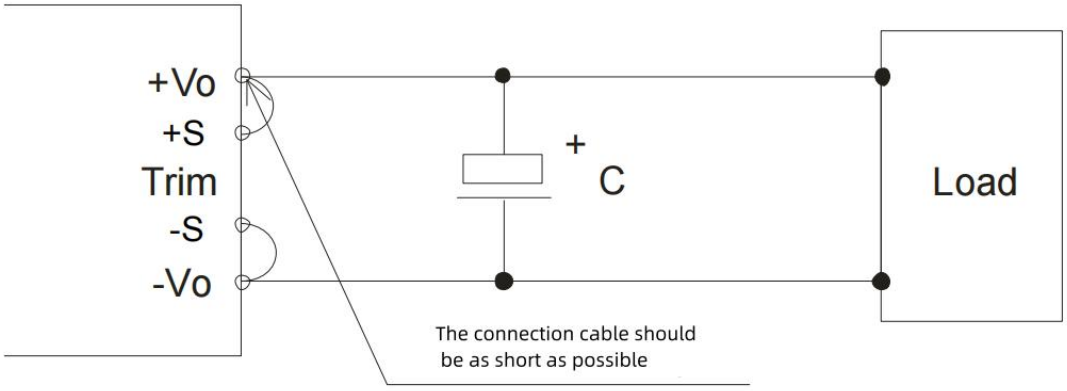
Item	Min	Typ	Max	Test Conditions
Voltage Accuracy		±1%	±3%	Full load, input voltage from low voltage to high voltage
Line Regulation		±0.2%	±0.5%	

Load Regulation			±0.5%	±0.75%	5%-100% Load
Transient Recovery Time		-	200μs	500μs	25% load variation
Transient Response Deviation	5V	-	±3%	±7.5%	25% load variation
	others	-	±3%	±5%	
Temperature Drift Coefficient		-	-	±0.03%/℃	Full Load
Ripple&Noisy	12V,15V	-	100mVp-p	200mVp-p	
	others	-	130mVp-p	250mVp-p	
Over Current Protect		110%Vo	125%Vo	160%%Vo	
Over Voltage Protect		110%Io	125%Io	190%Io	
Over Temperature Protect		-	+115℃	+120℃	
Short Circuit Protect		Hiccup Style,Continuous, self-recovery			
Gerneral Specifications					
Insulation Resistance		100MΩ		Input-Output,Insulation Voltage 500VDC	
Isolation Voltage		2250VDC		Input-Output	
		1500VDC		Input-Case	
		500VDC		Output-Case	
Isolation Capacitance		2200pF			
Switching Frequency		250KHz		PWM	
MTBF		500K Hrs		Mil HDBK 217F Tc=25℃	
TRIM		95%Vo(Min),110%Vo(Max)			
Sense		105%Vo(Max)			
Case Temperature		-40~+100℃			
Storage Temperature		-55~+125℃			
Relative Humidity		10%-90%			
Pin Solder Temperature		250℃		Soldering spot is 1.5mm away from case for 10 seconds	
Hand Soldering Time		10s		Iron Temperature 260 ℃	
Weight		60g（Typ）			
**Unless specified, otherwise all other parameters are tested under the following conditions: nominal input voltage, pure resistive load, 25℃ room temperature environment.					
Temperature Derating Curve					



TRIM Pin

（1）When remote compensation is not used:

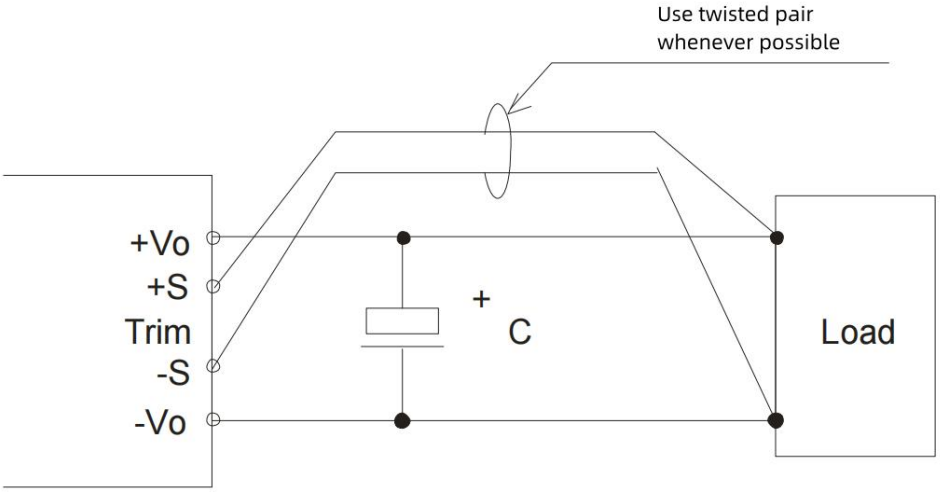


Note:

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

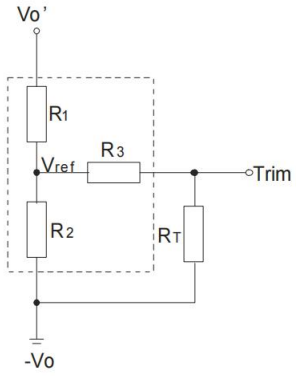
（2）When using remote compensation:



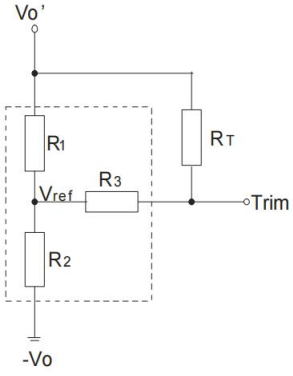
Note:

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



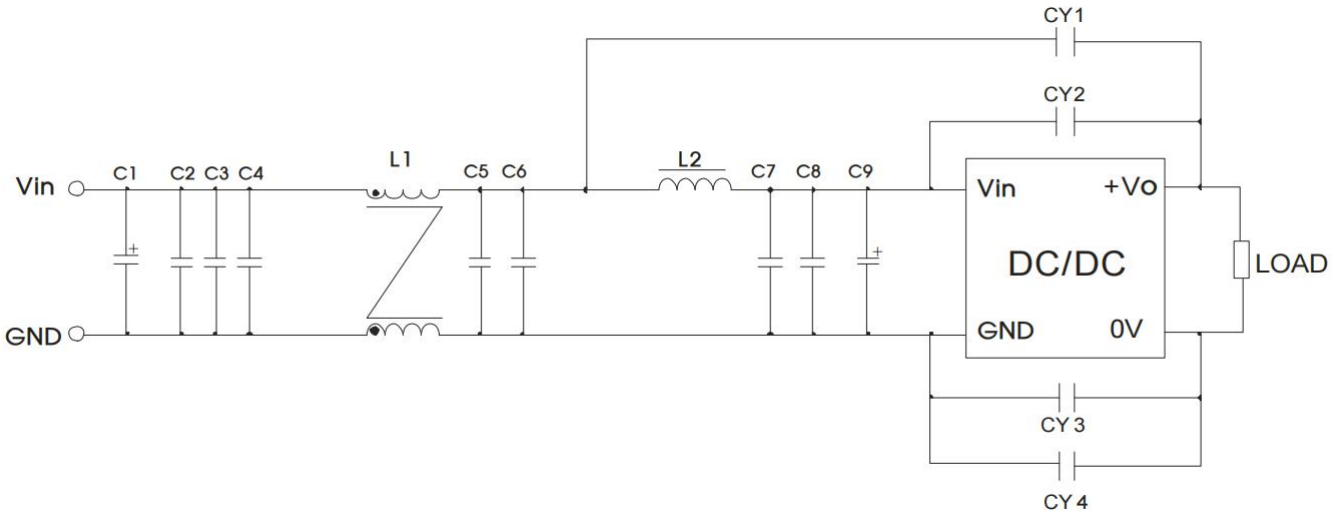
Trim down

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

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

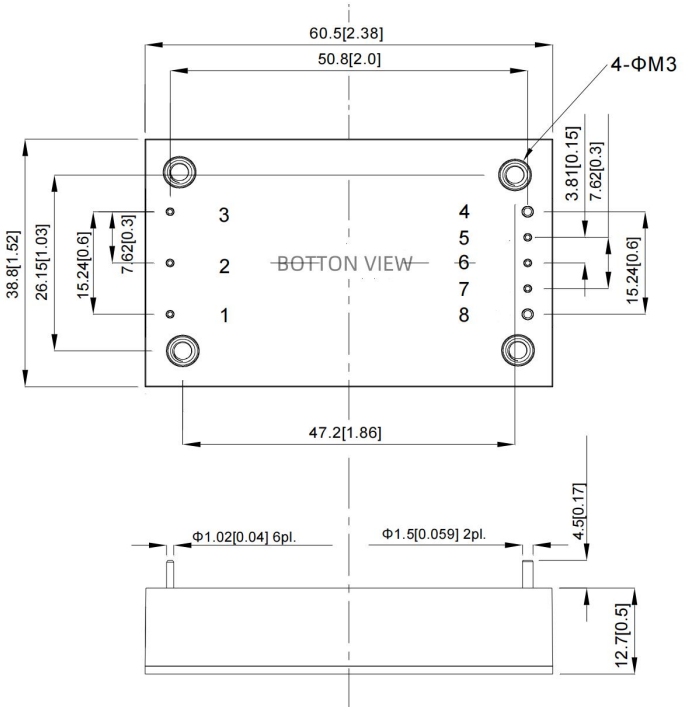
Vout(VDC)	R1(KΩ)	R2(KΩ)	R3(KΩ)	Vref(V)
12	11.00	2.87	15	2.5
24	24.872	2.87	15	2.5
48	53.017	2.913	15	2.5

EMC Recommmend Circuit



device number	Device parameter	Device function
C1	150μF electrolytic caoacitor	Meet puise group and surge
C9	47μF electrolytic caoacitor	
C1	150μF electrolytic caoacitor	Meet conducted emission and radiated emission
C9	47μF electrolytic caoacitor	
C2、C3、C4、C5、C6、C7、C8	2.2μF ceramic caoacitor	
L1	1.0mH common mode inductor	
L2	1.5μH inductance	
CY1、CY2、CY3、CY4	1nF Y1safety caoacitor	

Dimensions and Recommended Layout



Unit:mm(Inches)

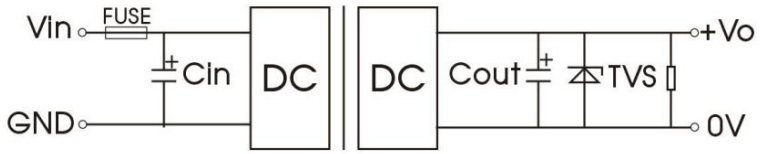
Pin Tolerances:±0.02(±0.01)

General Tolerances:±0.5(±0.02)

Pins

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

Recommended Circuit



Vout(VDC)	Fuse	Cin	Cout
12	20A, slow blow	220μF	220μF
24			100μF
48			100μF

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.