

FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 3000VAC
- Working temperature: $-40^{\circ}\text{C} \sim +100^{\circ}\text{C}$
- No additional components required
- Stable performance and high reliability (MTBF \geq 500K hours)
- Industry standard 1/4 brick pin-out



Selection Guide

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)
	Normal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)	
LD50G-72S05	72	14-160	5	10			
LD50G-72S12			12	4167			
LD50G-72S15			15	3333			
LD50G-72S24			24	2083			
LD50G-72S28			28	1786			
LD50G-72S48			48	1042			
LD50G-72S54			54	930			

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	-	90VDC	
Start Voltage	-	-	18VDC	
Input Undervoltage Protection	16VDC	16.5VDC		5V, 15V
	15VDC	15.4VDC		Others part number
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			

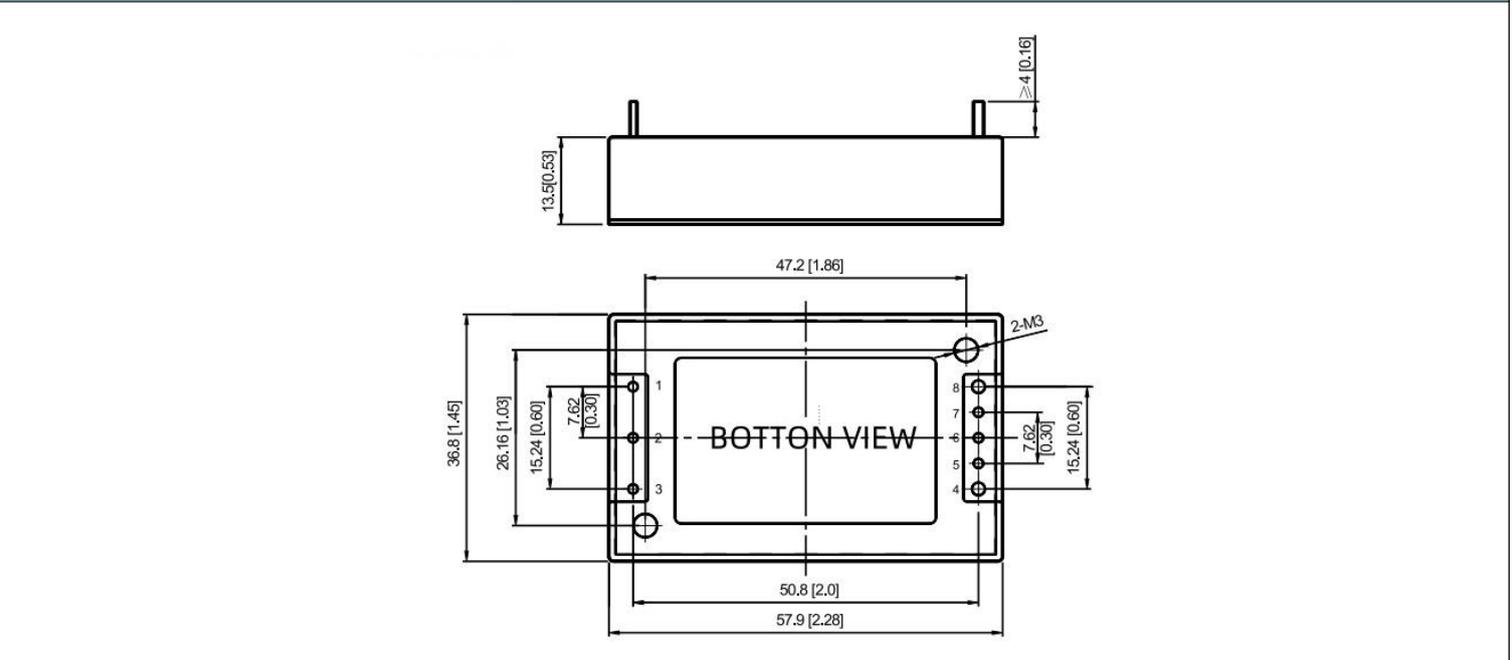
Output Specifications

Item	Min	Typ	Max	Test Conditions
Voltage Accuracy		$\pm 1\%$	$\pm 3\%$	Full load, input voltage from low voltage to high voltage
Line Regulation		$\pm 0.2\%$	$\pm 0.5\%$	
Load Regulation		$\pm 0.5\%$	$\pm 0.75\%$	5%-100% Load
Transient Recovery Time	-	200 μs	500 μs	25% load variation
Transient Response Deviation	5V	-	$\pm 3\%$	25% load variation
	others	-	$\pm 3\%$	
Temperature Drift Coefficient	-	-	$\pm 0.03\%/^{\circ}\text{C}$	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				
General Specifications					
Insulation Resistance	100MΩ		Input-Output,Insulation Voltage 500VDC		
Isolation Voltage	3000VAC		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.

Dimensions and Recommended Layout



Note:
Unit: mm[inch]
Pin diameter tolerances: $\pm 0.10[\pm 0.004]$
General tolerances: $\pm 0.50[\pm 0.020]$

Pins

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

Recommended Circuit



Vout(VDC)	Fuse	Cin	Cout	TVS
5	10A.	220 μ F	470 μ F	SMDJ6.0A
12			220 μ F	SMDJ14A
15				SMDJ17A
24			100 μ F	SMDJ28A
48				SMDJ54A

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.