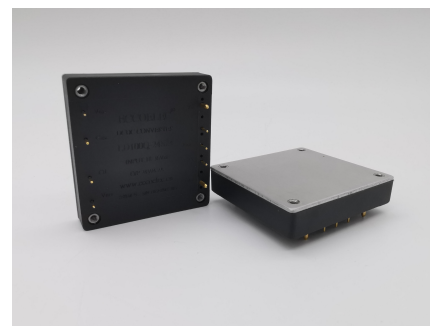


FEATURES:

- Wide input range
- Continuous short-circuit protection, self recover
- I/O isolation voltage 2250V
- Working temperature: $-40^{\circ}\text{C} \sim +105^{\circ}\text{C}$
- No additional components required
- Stable performance and high reliability (MTBF $\geq$ 500K hours)
- Industry standard pin-out
- Industry standard 1/2 brick package



Selection Guide

Part No.	INPUT		OUTPUT				CapacitiveLoad(μF)
	Normal (Vdc)	Range (Vdc)	Voltage (V1dc)	current (mA)	Voltage (V2dc)	current (mA)	
LD50Q-12S3V3	12	9-18	3.3	15152			
LD50Q-12S05			5	10000			
LD50Q-12S09			9	5556			
LD50Q-12S12			12	4167			
LD50Q-12S15			15	3333			
LD50Q-12S18			18	2778			
LD50Q-12S24			24	2083			
LD50Q-12S28			28	1786			
LD50Q-12S36			36	1389			
LD50Q-12S48			48	1042			
LD50Q-18S3V3	18	9-36	3.3	15152			
LD50Q-18S05			5	10000			
LD50Q-18S12			12	4167			
LD50Q-18S15			15	3333			
LD50Q-18S24			24	2083			
LD50Q-18S28			28	1786			
LD50Q-18S48			48	1042			
LD50Q-24S3V3	24	18-36	3.3	15152			
LD50Q-24S05			5	10000			
LD50Q-24S09			9	5556			
LD50Q-24S12			12	4167			
LD50Q-24S15			15	3333			
LD50Q-24S18			18	2778			
LD50Q-24S18X5			18.5				
LD50Q-24S19			19				
LD50Q-24S24			24	2083			
LD50Q-24S28			28	1786			
LD50Q-24S36			36	1389			
LD50Q-24S48			48	1042			

LD50Q-48S3V3	48	36-72	3.3	15152			
LD50Q-48S05			5	10000			
LD50Q-48S12			12	4167			
LD50Q-48S15			15	3333			
LD50Q-48S18			18	2778			
LD50Q-48S24			24	2083			
LD50Q-48S28	36	18-72	28	1786			
LD50Q-48S36			36	1389			
LD50Q-48S48			48	1042			
LD50Q-36S05			5	10000			
LD50Q-36S12			12	4167			
LD50Q-36S15			15	3333			
LD50Q-36S24			24	2083			
LD50Q-36S28			28	1786			
LD50Q-36S48			48	1042			
LD50Q-110S3V3	110	72-144	3.3	15152			
LD50Q-110S05			5	10000			
LD50Q-110S12			9	5556			
LD50Q-110S15			12	4167			
LD50Q-110S18			15	3333			
LD50Q-110S24			24	2083			
LD50Q-110S28			28	1786			
LD50Q-110S36			36	1389			
LD50Q-110S48			48	1042			

customized accepted,pls contact sales for details

Input Specifications

Input Voltage Range	Input Voltage Range (Vdc)	Nom(Vdc)	Max (Vdc)
	9-18	12	18
	9-36	40	20
	18-36	24	36
	36-72	48	72
	18-72	36	72
	72-144	110	144
Input Filter	Capacitive Filter		
Ctrl	NONE		
	NONE		
Hot Plug	Unavailable		

Output Specifications

Item	Min	Typ	Max	Test Conditions
Voltage Accuracy		±1%	±3%	
Line Regulation		±0.2%	±1%	
Load Regulation		±0.5%	±1%	

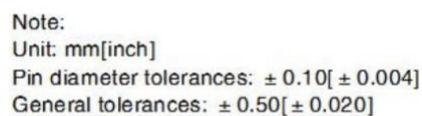
TRIM Range			±10%	
Temperature Regulation		±0.02%/℃		
Over Current Protect	110%		160%	
Over Voltage Protect	110%		140%	
Over Temperature Protect	110%	115%	125%	
Short Circuit Protect	Continuous, self-recovery			
Dynamic Response	4%Vo Pk deviation 100μS settling time		50~75% load 50~25% load	

General Specifications

Isolation Resistor	20MΩ	Input-Output
Isolation Voltage	2250VDC	Input-Output
	1000VDC	Input-Case
	500VDC	Output-Case
Switching Frequency	300KHz	Mil HDBK 217F Tc=25℃
MTBF	1×106Hrs	
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	5s	Iron Temperature 425℃
Vibration		Sine, 10Hz-55Hz, amplitude 0.35mm, X, Y, Z three directions 30min each
Shock		Half-sine, peak acceleration is 300m/s², standard pulse duration is 6ms, X, Y, Z three 6 consecutive shocks in each direction;
Weight	100g (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



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

The diagram illustrates a power supply system. It starts with an input section with terminals $+V_{in}$ and $-V_{in}$. A FUSE is connected in series with the $+V_{in}$ line. Following the fuse, a capacitor C_{in} is connected in parallel between the $+V_{in}$ and $-V_{in}$ lines. The output of this first stage is connected to the input of a first DC block. The output of the first DC block is connected to the input of a second DC block. The output of the second DC block is connected to a parallel combination of a capacitor C_{out} , a TVS diode, and a resistor. The output terminals are labeled $+V_o$ and $-V_o$.

Vo(VDC)	FUSE	Cin	Cout	TVS
5	20A	220uF	470uF	SMDJ7.0A
12			220uF	SMDJ15A
15			220uF	SMDJ18A
24			100uF	SMDJ30A
28			100uF	SMDJ36A
48			100uF	SMDJ64A

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.