FEATURES

- High efficiency, low output ripple and noise
- Super wide voltage input 4:1
- No external element required
- Continuous short circuit protection and self-recovery
- Operating temperature range: -40℃ ~ +85℃
- Isolation Voltage:1500VDC
- Metal shield package
- High Reliability （MTTF≥100 ten thousand hours）
- International standard pin mode
- 100% full load aging



RoHS

Isolate/Stabilivolt

Super wide voltage input

PRODUCT MODEL LIST

Order Code	Norminal Input Voltage (V)			Norminal Output Voltage			Efficiency (%)		Capacitive Load [Max] (uF)
	Norminal	Range	Max	Voltage (V)	Current (mA)				
					Min	Max	Min	Typ	
J10W24D03B	24	9~36	40	±3.3	0	±1515	78	80	3300
J10W24D05B				±5	0	±1000	81	83	2200
J10W24D09B				±9	0	±556	83	85	1000
J10W24D12B				±12	0	±417	84	86	680
J10W24D15B				±15	0	±333	85	87	470
J10W24D24B				±24	0	±208	85	87	220
J10W24S03B				3.3	0	3030	77	79	4700
J10W24S05B				5	0	2000	81	83	3300
J10W24S09B				9	0	1111	83	85	2200
J10W24S12B				12	0	833	84	86	1000
J10W24S15B				15	0	667	85	87	680
J10W24S24B				24	0	417	85	87	470
J10W48D03B	48	18~72	75	±3.3	0	±1515	78	80	3300
J10W48D05B				±5	0	±1000	81	83	2200
J10W48D09B				±9	0	±556	83	85	1000
J10W48D12B				±12	0	±417	85	87	680
J10W48D15B				±15	0	±333	85	87	470
J10W48D24B				±24	0	±208	85	87	220
J10W48S03B				3.3	0	3030	79	81	4700
J10W48S05B				5	0	2000	82	84	3300
J10W48S09B				9	0	1111	83	85	2200
J10W48S12B				12	0	833	85	87	1000
J10W48S15B				15	0	667	84	86	680
J10W48S24B				24	0	417	85	87	470

Ps：*The positive and negative output capacitive loads are the same.

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Output Power		0		10	W
Output Positive Voltage Accuracy			±1	±2	%
Output Negative Voltage Accuracy			±2	±3	
Line Voltage Regulation	Full load, input voltage change from low to high		±0.2	±0.5	

OUTPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Load Regulation	Load varies from 5% to 100% at nominal input		±0.5	±1	%
Temps Drift Coefficient	Rated load			±0.03	%/°C
Ripple & Noise	At 20MHz bandwidth		50	100	mVp-p
Switching Frequency	Rated input voltage		320	350	KHz
Output Short Circuit Protection	Sustainable and automatic restoration				
Input Filter	π-type filtering				
Hot Plug	Nonsupport				

INPUT CHARACTERISTICS

Parameter	Conditions	Min.	Typ.	Max.	Units
Input Undervoltage Protection	Input 24VDC	6.6	7.3		VDC
	Input 48VDC	13.5	14.8		
Starting Voltage	Input 24VDC		8.2	9	
	Input 48VDC		16.2	18	
Impulse Voltage (1sec. max)	Input 24VDC	-0.7		50	
	Input 48VDC			100	
No-load Current	Input 24VDC		5	10	mA
	Input 48VDC		3	5	

EMC CHARACTERISTICS

EMI	CE	CISPR32/EN55032 CLASS B（see EMI recommended circuit）	
	RE	CISPR32/EN55032 CLASS B（see EMI recommended circuit）	
EMS	ESD	IEC/EN61000-4-2 CONTACT ±4KV	perf. Criteria B
	RS	IEC/EN61000-4-3 10V/M	perf. Criteria A
	EFT	IEC/EN61000-4-4 ±2KV（see EMS recommended circuit）	perf. Criteria B
	Surge	IEC/EN61000-4-5 LINE TO LINE ±2KV（see EMS recommended circuit）	perf. Criteria B
	CS	IEC/EN61000-4-6 3 VR.M.S	perf. Criteria A
	Voltage sag, drop and short-time interrupt immunity	IEC/EN61000-4-29 0%，70%	perf. Criteria B

Insulation Characteristic

Parameter	Conditions	Min.	Typ.	Max.	Units
Insulation Resistance	Input- output, 500VDC	1000			MΩ
Insulation Voltage	Input- output, test time 1 minute, leakage current less than 1 mA	1500			VDC
	Input、output-shell,test time 1 minute, leakage current less than 1 mA	1000			

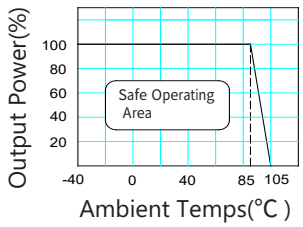
General Characteristic

Parameter	Conditions	Min.	Typ.	Max.	Units
Storage Humidity		5		95	%
Operating Temps		-40		85	°C
Storage Temps		-55		125	
Operating Case Temps			20	30	
Pin Welding Temps	Welding joint 1.5mm from case,10 seconds operation			300	
MTTF	MIL-HDBK-217@25°C	100			10000 hours
Weight			12		g

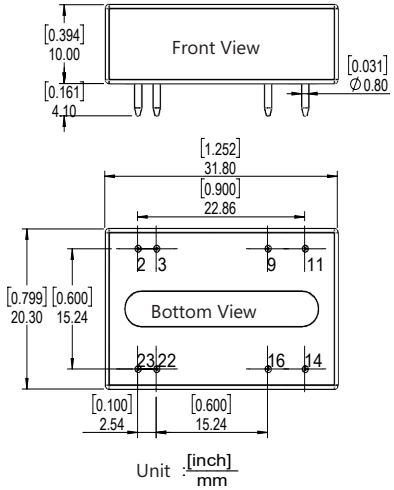
General Characteristic

Parameter	Conditions	Min.	Typ.	Max.	Units
Cooling	Free air convection				
Case Material	White metal shell				

Temps Curve



Shape & Pin Dimensions

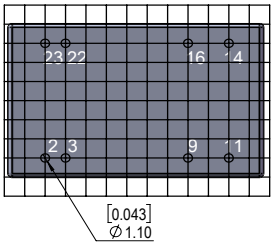


Pin	Single	Double
2,3	GND	GND
9	NC	0V
11	NC	-Vo
14	+Vo	+Vo
16	0V	0V
22,23	Vin	Vin

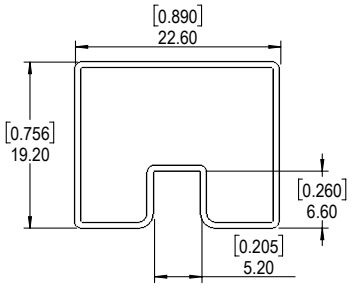
ps:
NC: can't connect to any external circuit
Terminal Spec.: Φ0.6
Unit: MM
Terminal section tolerance: ±0.10 [±0.004]
Unmarked tolerance: ±0.50 [±0.020]

PCB

[0.1inch]2.54mm suqare grid

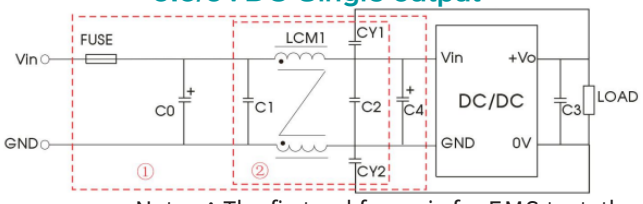


Package Dimensions

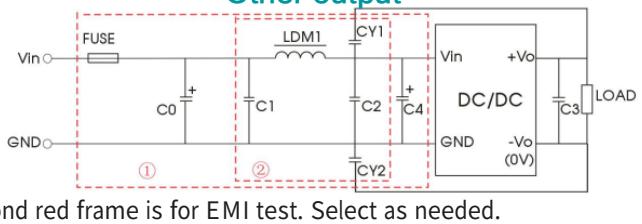


EMC 推荐电路

3.3/5VDC Single output



Other output

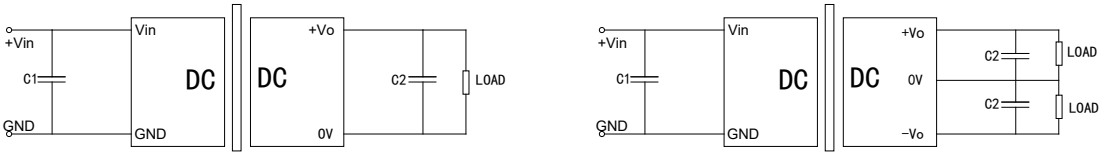


Notes：The first red frame is for EMS test, the second red frame is for EMI test. Select as needed.

INPUT	FUSE	C0/C4	C1/C2	C3	LDM1	LCM1	CY1/CY2
24VDC	See remarks	330uF/50V	1uF/50V	See remarks	10uH	1.4~1.7mH	1nF/2kV
48VDC		330uF/100V	1uF/100V				

Notes：
FUSE: selection is according to customer's actual input current
C3: refer to the output parameters in the application circuit.

Basic Application Circuit



Options of C1、C2:

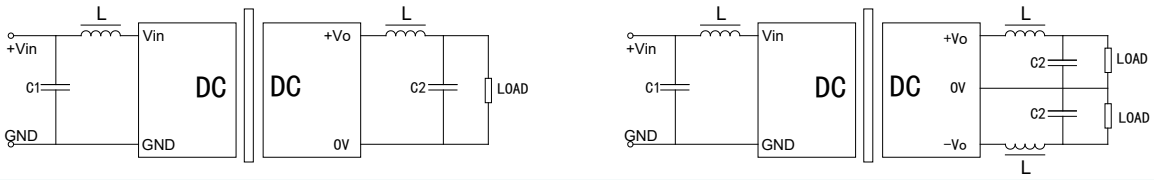
Input Voltage	External Capacitance C1	Single Output Voltage	External Capacitance C2	Double Output Voltage	External Capacitance C2
24VDC	47uF/50V	5VDC	10uF/16V	±5VDC	10uF/16V
48VDC	100uF/100V	9VDC	10uF/16V	±9VDC	10uF/16V
- -	- -	12/15VDC	10uF/25V	±12/±15VDC	10uF/25V
- -	- -	24VDC	10uF/50V	±24VDC	10uF/50V

Note

Avoid Excessive Output External Capacitance: The capacity value of the output external capacitor C2 should not be too large, otherwise it is easy to cause overcurrent or bad startup when the module is started. The specific value should be selected according to the external capacitor table.

The input of this series does not support parallel use of hot plug and output.

For situations requiring high ripple noise, external LC filter circuit should be connected, and the resonant frequency of LC filter should be far less than the switching frequency of DC/DC module to prevent mutual interference, resulting in output ripple increase or module damage, as shown in the figure:



Naming Logic Of Constant Voltage Products

