DC/DC CONVERTER

Features

- Efficiency up to 84%
- 1500VDC Isolation
- Singl/Double output
- Continous short circuit protection
- Over load protection
- Wide input voltage range
- Low ripple and noise
- Wide temperature -40 to 85

Model Selection Guide

Order Code	Vin(V) Nominal	Vin(V) Range	Output Vo(V)	Output Io(mA)	Recommend capacitive(uF)	Efficiency(%) (Typ)
DD15-12S05	12	9-18	5	3000	470	81
DD15-12S12			12	1250	470	83
DD15-12S15			15	1000	330	84
DD15-12S24			24	625	330	85
DD15-12D05			±5	±1500	220	80
DD15-12D12			±12	±625	220	83
DD15-12D15			±15	±500	150	84
DD(F)15-24S05	24	18-36 (F)9-36	5	3000	470	81
DD(F)15-24S12			12	1250	470	84
DD(F)15-24S15			15	1000	330	84
DD(F)15-24S24			24	625	330	85
DD(F)15-24D05			±5	±1500	220	80
DD(F)15-24D12			±12	±625	220	85
DD(F)15-24D15			±15	±500	150	85
DD(F)15-48S05	48	36-72 (F)18-72	5	3000	470	81
DD(F)15-48S12			12	1250	470	83
DD(F)15-48S15			15	1000	330	85
DD(F)15-48S24			24	625	330	86
DD(F)15-48D05			±5	±1500	220	80
DD(F)15-48D12			±12	±625	220	83
DD(F)15-48D15			±15	±500	150	85
DD15-110S05	110	70-160	5	3000	470	80
DD15-110S12			12	1250	470	82
DD15-110S15			15	1000	330	85
DD15-110S24			24	625	330	87
DD15-110D05			±5	±1500	220	82
DD15-110D12			±12	±625	220	84

Input Characteristics

Parameter	Condition	Min	Typ	Max	Units
Input Surge Voltage (1 sec. Max.)	12V Input Models	-0.7	––	25	VDC
	24V Input Models	-0.7	––	50	
	48V Input Models	-0.7	––	90	
	110V Input Models	-0.7	––	190	
Input Filter Type	All Models	Internal Capacitor			

Output Characteristics

Parameter	Condition	Min	Typ	Max	Units
Output Voltage Accuracy	+Vo	––	1%	––	%
	-Vo	––	2%	3%	%
Load regulation	10% 100% load	––	±0.5	±1	%
Line regulation	Vin(Min~Max)	±0.1	––	±0.5	%
Ripple and noise	BW=DC to 20MHz	––	50	100	mVp-p
Switching frequency	Full load,nominal input	––	300	400	KHz
Transient Recovery Time	25% Load Step Change	––	––	500	uS
Short circuit Protection		Continuous,Automatic Recovery			

General Characteristics

| Parameter	Condition	Min	Typ	Max	Units
Operating Temperature	All output types	-40	––	+85	
Storage		-55	––	+125	
Storage humidity		––	––	+95	%
Cooling	Free air convection	––	––	––	
Isolation voltage	2mA 1minute	1000	––	––	VDC
Isolation resistance	500VDC	1000	––	––	M
MTBF	2× 10⁵				K hours
Case material		Metal			

Temperature Derating Graph Curve
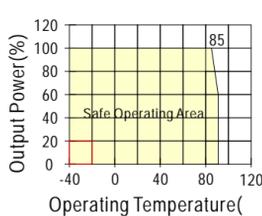
Design & Feature Considerations

1. Input/Output Ripple Reduction

Reduce output ripple, it is recommended to use capacitors at the input/output.

It is recommended to use 10uF~100uF capacitors at the input: 47~220uF capacitors at the output.
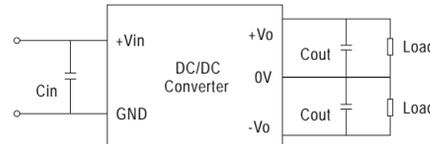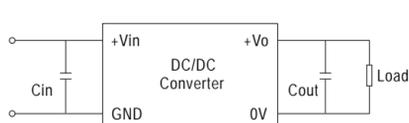
2. Overload Protection

Tthe products provide protection against overload, the unit is equipped with internal current limiting circuitry .

3.Remote On/Off

To turn the power module off
Connect REM and -Vin,0V < Vrem < 1 v, Irem < 1mA;
To turn the power module on
1)Connect REM and +Vin,30V > Vrem > 5V;
2) REM pin is no connected.

Note

1.All the specifications typical at Ta=+25 resistive load, nominal input voltage and rated output current unless otherwise noted.
2.Operation under no-load conditions will not damage these modules; however they may not meet all specifications listed.
3.Ripple & Noise measurement bandwidth is 0-20MHz.
4.Other input and output voltage may be available, please
5.All DC/DC converters should be externally fused at the front end for protection.
5.Specifications subject to change without notice

Mechanical Dimension & Pin Connections
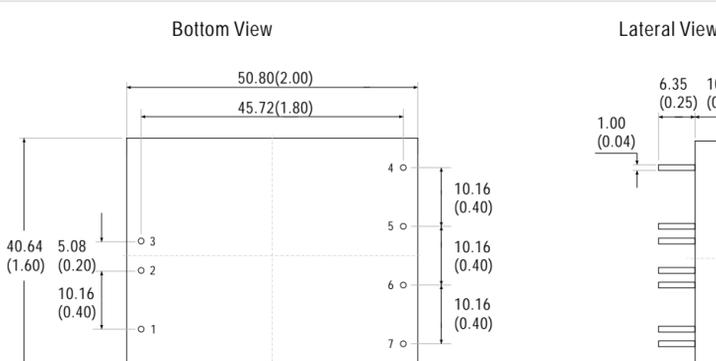
Pin	1	2	3	4	5	6	7
Single	REM	-Vin	+Vin	NP	+Vo	-Vo	TRIM
Double	REM	-Vin	+Vin	+Vo	COM	-Vo	TRIM

Note:
Unit:mm(inch)