

**Features**

- Efficiency up to 85%
- 1500VDC Isolation
- Singl/Double output
- Continuous short circuit protection
- Over load protection
- Wide input voltage range ( 2:1 )
- Low ripple and noise
- Wide temperature -40 to 85



**Model Selection Guide**

Order Code	Vin(V)		Output		Recommend capacitive(uF)	Efficiency(%) (Typ)
	Nominal	Range	Vo(V)	Io(mA)		
DD50-12S05	12	9-18	5	10000	2200	83
DD50-12S12			12	4167	1000	85
DD50-12S15			15	3333	1000	85
DD50-12S24			24	2083	680	85
DD50-12D05			±5	5000	1000	82
DD50-12D12			±12	±2083	1000	85
DD50-12D15			±15	±1667	680	85
DD50-24S05	24	18-36	5	10000	2200	83
DD50-24S12			12	4167	1000	85
DD50-24S15			15	3333	1000	86
DD50-24S24			24	2083	680	86
DD50-24D05			±5	5000	1000	83
DD50-24D12			±12	±2083	1000	86
DD50-24D15			±15	±1667	680	86
DD50-48S05	48	36-72	5	10000	2200	82
DD50-48S12			12	4167	1000	84
DD50-48S15			15	3333	1000	85
DD50-48S24			24	2083	680	86
DD50-48D05			±5	5000	1000	82
DD50-48D12			±12	±2083	1000	84
DD50-48D15			±15	±1667	680	84
DD50-110S05	110	70-160	5	10000	2200	82
DD50-110S12			12	4167	1000	84
DD50-110S15			15	3333	1000	85
DD50-110S24			24	2083	680	87
DD50-110D05			±5	5000	1000	83
DD50-110D12			±12	±2083	1000	86

**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			

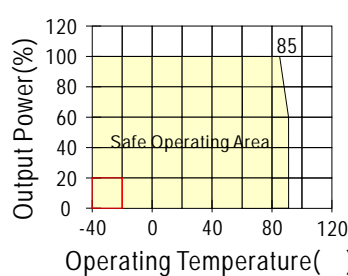
**Output Characteristics**

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 × 10 <sup>5</sup>				K hours
Case material		Metal			

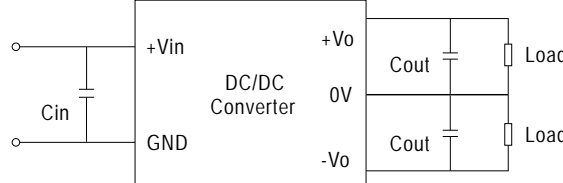
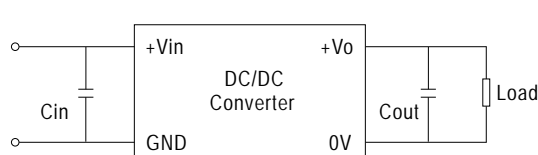
**Temperature Derating Graph Curve**



**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**

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

**3. Remote On/Off**

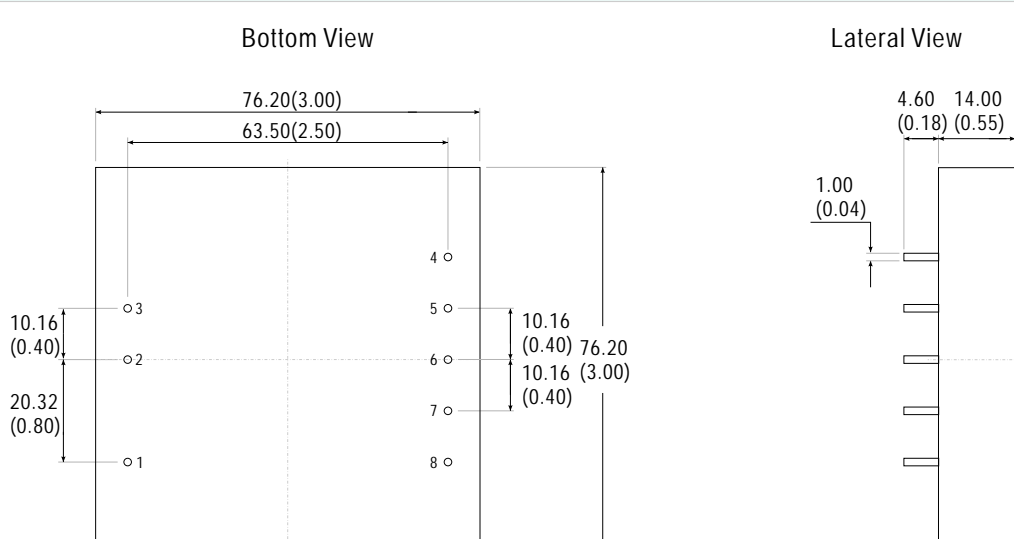
To turn the power module off  
Connect REM and -Vin, 0V < Vrem < 1 v, Irem < 1mA;

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.
- 3.Other input and output voltage may be available, please
- 4.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	NC	NC	-Vo	+Vo	TRIM
Double	REM	+Vin	-Vin	NC	-Vo	COM	+Vo	TRIM

Note:  
Unit:mm(inch)