

Features

- Efficiency up to 82%
- 1500VDC Isolation
- Singl/Double output
- Continuous short circuit protection
- Over load protection
- Wide input voltage range
- Wide temperature -40 to 85
- Low ripple and noise



Model Selection Guide

Order Code	Vin(V)		Output		Recommend capacitive(uF)	Efficiency(%) (Typ)
	Nominal	Range	Vo(V)	Io(mA)		
DD6-05S05	5	4.5-9.0	5	1200	220	76
DD6-05S12			12	500	150	77
DD6-12S3V3	12	9-18	3.3	1818	220	75
DD6-12S05			5	1200	220	78
DD6-12S09			9	667	220	78
DD6-12S12			12	500	100	82
DD6-12S15			15	400	100	82
DD6-12S24			24	250	100	82
DD6-12D05			±5	±600	150	78
DD6-12D12			±12	±250	100	80
DD6-12D15			±15	±200	100	82
DDF6-24S3V3			24	18-36 (F)9-36	3.3	1818
DDF6-24S05	5	1200			220	80
DDF6-24S09	9	667			220	80
DDF6-24S12	12	500			100	82
DDF6-24S15	15	400			100	82
DDF6-24S24	24	250			100	83
DDF6-24D05	±5	±600			150	78
DDF6-24D12	±12	±250			100	80
DDF6-24D15	±15	±200			100	81
DDF6-48S3V3	48	36-72 (F)18-72			3.3	1818
DDF6-48S05			5	1200	220	80
DDF6-48S09			9	667	220	81
DDF6-48S12			12	500	100	81
DDF6-48S15			15	400	100	82
DDF6-48S24			24	250	100	83
DDF6-48D05			±5	±600	150	80
DDF6-48D12			±12	±250	100	81
DDF6-48D15			±15	±200	100	82
DD6-110S05			110	60-160	5	1200
DD6-110S12	12	500			150	82
DD6-110S24	24	250			100	83
DD6-110D05	±5	±600			180	82
DD6-110D12	±12	±250			150	83

Input Characteristics

Parameter	Condition	Min	Typ	Max	Units
Input Surge Voltage (1 sec. Max.)	5V Input Models	-0.7	--	15	VDC
	12V Input Models	-0.7	--	25	
	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			

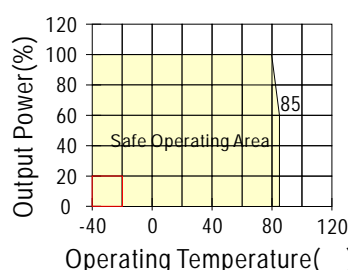
Output Characteristics

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	1500	--	--	VDC
Isolation resistance	500VDC	1000	--	--	M
MTBF	2 × 10 ⁵				K hours
Case material		Metal			

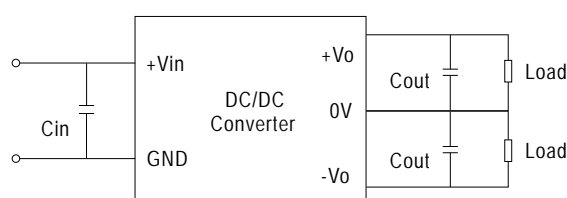
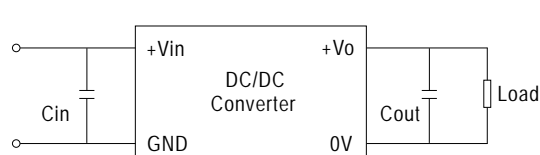
Temperature Derating Graph Curve



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.



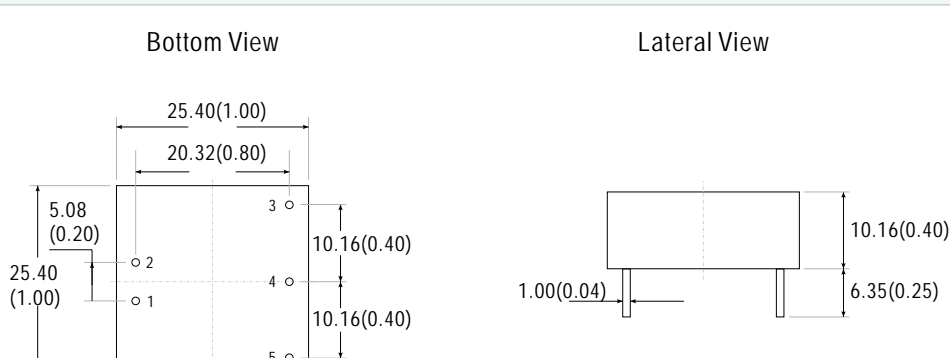
2. Overload Protection

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

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.To order the converter with 4:1 input voltage range, add letter " F " (e.g:DDF6-24S05) in the order code.
- 5.All DC/DC converters should be externally fused at the front end for protection.
- 6.Specifications subject to change without notice

Mechanical Dimension & Pin Connections



Note:
Unit:mm(inch)

Pin	1	2	3	4	5
Single	-Vin	+Vin	+Vo	NP	-Vo
Double	-Vin	+Vin	+Vo	COM	-Vo