Features

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

Model Selection Guide

Order Code	Vin(V)		Output		Recommend capacitive(uF)	Efficiency(%) (Typ)
	Nominal	Range	Vo(V)	Io(mA)		
DD5-05S05	5	4.5-9.0	5	1000	220	76
DD5-05S12			12	417	150	76
DD5-12S3V3	12	9-18	3.3	1500	330	76
DD5-12S05			5	1000	220	79
DD5-12S09			9	556	220	80
DD5-12S12			12	417	150	81
DD5-12S15			15	333	150	81
DD5-12S24			24	208	100	82
DD5-12D05			±5	±500	180	78
DD5-12D12			±12	±208	150	80
DD5-12D15			±15	±167	100	80
DD(F)5-24S3V3	24	18-36 (F)9-36	3.3	1500	330	76
DD(F)5-24S05			5	1000	220	78
DD(F)5-24S09			9	556	220	79
DD(F)5-24S12			12	417	150	80
DD(F)5-24S15			15	333	150	81
DD(F)5-24S24			24	208	100	82
DD(F)5-24D05			±5	±500	180	78
DD(F)5-24D12			±12	±208	150	80
DD(F)5-24D15			±15	±167	100	81
DD(F)5-48S3V3	48	36-72 (F)18-72	3.3	1500	330	76
DD(F)5-48S05			5	1000	220	80
DD(F)5-48S09			9	556	220	80
DD(F)5-48S12			12	417	150	80
DD(F)5-48S15			15	333	150	82
DD(F)5-48S24			24	208	100	82
DD(F)5-48D05			±5	±500	180	80
DD(F)5-48D12			±12	±208	150	81
DD5-110S05	110	60-160	5	1000	220	80
DD5-110S12			12	417	150	82
DD5-110S24			24	208	100	83
DD5-110D05			±5	±500	180	82
DD5-110D12			±12	±208	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			

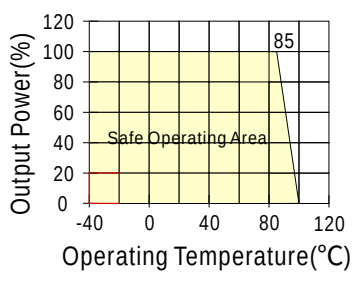
Output Characteristics

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	°C
Storage		-55	--	+125	°C
Storage humidity		--	--	+95	%
Cooling	Free air convection	--	--	--	
Isolation voltage	2mA≤1minute	1500	--	--	VDC
Isolation resistance	500VDC	1000	--	--	MΩ
MTBF	2×10^5				K hours
Case material		Metal			

Temperature Derating Graph Curve

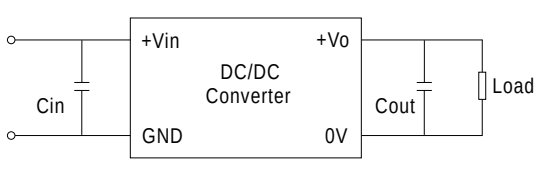


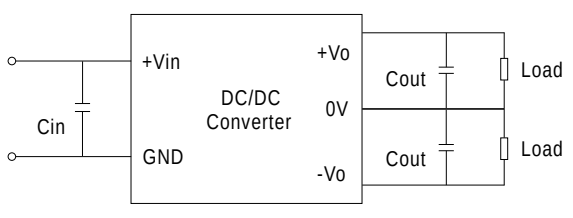
Design & Feature Considerations

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

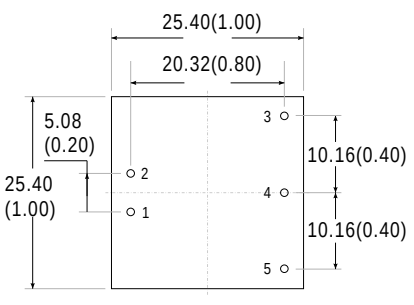
Tthe products provide protection against overload, the unit is equipped with internal current limiting circuitry .

Note

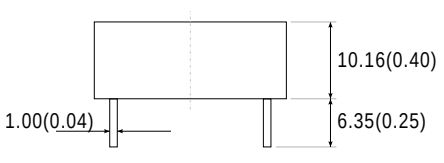
1.All the specifications typical at Ta=+25°C resistive load, nominal input voltage and rated output current unless otherwise noted.
2.Operation under no-load conditions will not damage these modules; however they may not meet all specifications listed.
3.Ripple & Noise measurement bandwidth is 0-20MHz.
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:DDF5-24S05) 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

Bottom View



Lateral View



Note:
Unit:mm(inch)

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