Features

- Efficiency up to 91%
- 1500VDC Isolation
- Singl output
- Continous short circuit protection
- Over load protection
- Wide temperature -40 to 85
- Low ripple and noise
- Remote (ON/OFF)
- Wide input voltage rang 4:1
- Metal case

Model Selection Guide

Order Code	Vin(V)		Output		Recommend capacitive(uF)	Efficiency(%) (Typ)
	Nominal	Range	Vo(V)	Io(mA)		
DDNF20-24S3V3	24	9-36	3.3	5000	680	86
DDNF20-24S05			5	4000	680	91
DDNF20-24S09			9	2222	680	89
DDNF20-24S12			12	1667	470	91
DDNF20-24S15			15	1333	470	91
DDNF20-24S24			24	833	330	92
DDNF20-48S3V3	48	18-72	3.3	5000	680	86
DDNF20-48S05			5	4000	680	90
DDNF20-48S09			9	2222	680	91
DDNF20-48S12			12	1667	470	91
DDNF20-48S15			15	1333	470	92
DDNF20-48S24			24	833	330	92

Input Characteristics

Parameter	Condition	Min	Typ	Max	Units
Input Surge Voltage (1 sec. Max.)	24V Input Models	-0.7	––	50	VDC
	48V Input Models	-0.7	––	90	
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^{5}				K hours
Case material	Metal				

Temperature Derating Graph Curve
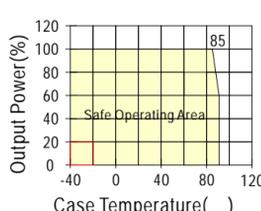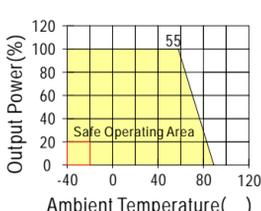
Design & Feature Considerations

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.
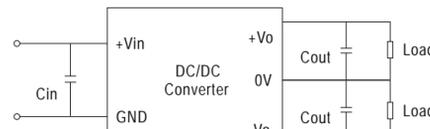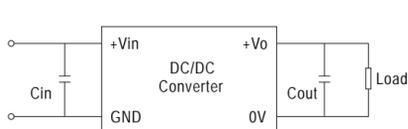
2. Overload Protection

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

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.
6. Specifications subject to change without notice

Mechanical Dimension & Pin Connections

Bottom View

Lateral View
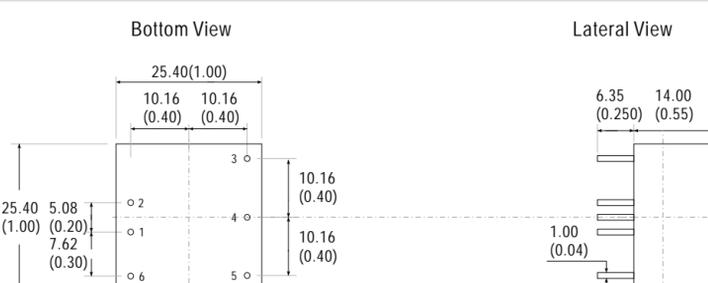
Note:
Unit:mm(inch)

Pin	1	2	3	4	5	6
Single	-Vin	+Vin	+Vo	TRIM	-Vo	REM