

**FEATURES :**

- 30 Watt DIL Package
- 4:1Wide Input Voltage
- 100% Burned In
- High Efficiency To 83%
- Customized Solutions Available
- UL94V-0 Package Material
- Operating Temperature:-40°C TO +87°C
- 3 Years Warranty

YUAN DEAN SCIENTIFIC



DC-DC Converter

96DW SERIES

30Watt 3KV Isolated

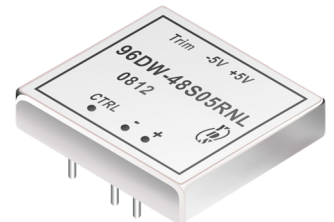
4 : 1 Input Voltage Range

Single & Dual Output

2" x 2"

Specifications typical at TA=25°C, nominal input voltage and rated output current unless otherwise specified

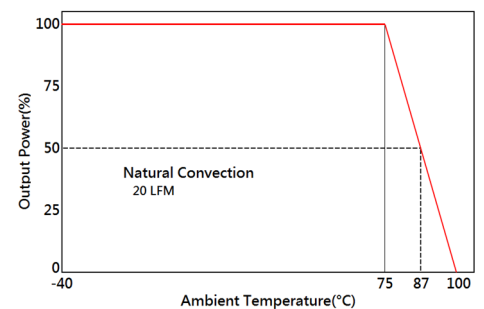
Part Number	Input Voltage	Input Current		Output Voltage	Output Current	Efficiency
	Vdc	No Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	%TYP
96DW-24S03RNL	9-36	25	1103	3.3	6500	81
96DW-24S05RNL	9-36	25	1524	5	6000	82
96DW-24S12RNL	9-36	25	1524	12	2500	82
96DW-24S15RNL	9-36	25	1524	15	2000	82
96DW-48S03RNL	18-72	20	545	3.3	6500	82
96DW-48S05RNL	18-72	20	753	5	6000	83
96DW-48S12RNL	18-72	20	753	12	2500	83
96DW-48S15RNL	18-72	20	753	15	2000	83
96DW-24D05RNL	9-36	25	1524	±5	±3000	82
96DW-24D12RNL	9-36	25	1524	±12	±1250	82
96DW-24D15RNL	9-36	25	1524	±15	±1000	82
96DW-48D05RNL	18-72	20	753	±5	±3000	83
96DW-48D12RNL	18-72	20	753	±12	±1250	83
96DW-48D15RNL	18-72	20	753	±15	±1000	83



**Input Specifications**

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				4:1	
Filter	Pi Network				
Protection	Fuse Recommended				

**Temperature Derating Graph**



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Rev:0 2018/10/31

Output Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Full load@Vin(nom.)			±2	%
Short Circuit / Restart Protection	Hiccup, automatic recovery				
Over Load Protection			150		%
Line Regulation	Single & Dual (H/L to L/L)			±0.5	%
Load Regulation	Single & Dual, Balance Load (F.L-50%F.L)			±0.5	%
Cross Regulation	Dual (25% to 100% load)			±5	%
Ripple & Noise	BW=DC To 20MHz (with 1uF Cap.)			100	mVp-p
Transient response setting time	25% load step change			350	us
External Trim Adj. Range	±10% of Output Voltage				

General Specifications

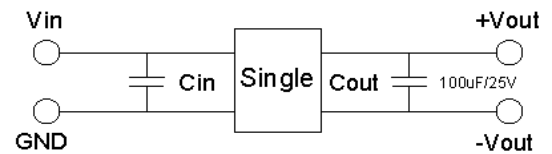
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			270		KHz
Operating Temperature		-40		87	°C
Humidity	Non Condensing			95	%
Cooling	Natural Convection (20LFM)				
Case material	Nickel Coated with Non-Conductive Base				
Weight			65		g
Dimensions			51.0X51.0X10.3		mm
Potting Material	Epoxy (UL94V-0 rated)				
Radiated Emissions	EN55022		CLASS A		
Conducted Emissions	EN55022		CLASS A		
Isolation Voltage	For 10 seconds			3000	VDC
MTBF	MIL-HDBK-217F @25°C , Ground Benign	400000			Hours
Storage Temperature		-55		+125	°C
Case Temperature				+105	°C
Isolation Capacitance				2500	pF

Part Number

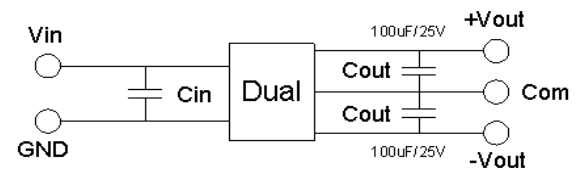
96DW - 24 S 05 R NL  
 A B C D E F

A: Series  
 B: Input Voltage  
 C: Single Output (S),Dual (D)  
 D: Output Voltage  
 E: Regulated(R)  
 F: RoHs Version

Recommended Test Circuit

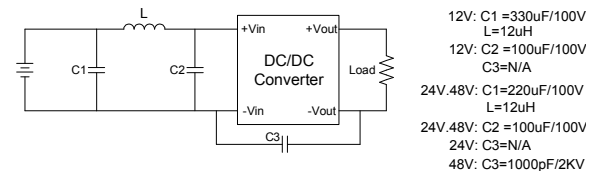


24V&48V: Cin 10uF,100V



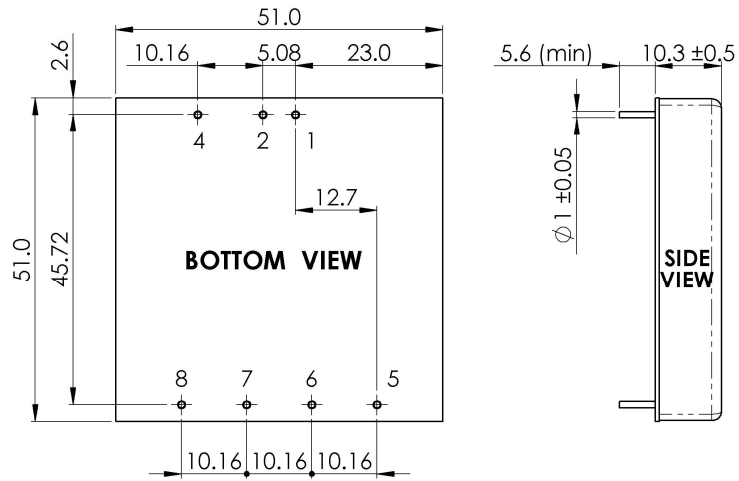
24V & 48V : Cin 10uF,100V

Suggest adding input external filter(C1,C2,L) to meet conducted emissions (EN55022 class A) requirement for the module . These components should be mounted as close as possible to the module; and all leads should be minimized to decrease radiated noise.



12V: C1 =330uF/100V  
 L=12uH  
 12V: C2 =100uF/100V  
 C3=N/A  
 24V,48V: C1=220uF/100V  
 L=12uH  
 24V,48V: C2 =100uF/100V  
 24V: C3=N/A  
 48V: C3=1000pF/2KV

Dimensions



Unit : mm  
Tolerance : XX.X ± 0.5 , XX.XX ± 0.25

PIN Connection

Pin	1	2	3	4	5	6	7	8
Single	+Vin	-Vin	No Pin	Remote On/Off	No Pin	+Vout	-Vout	Trim
Dual	+Vin	-Vin	No Pin	Remote On/Off	+Vout	Com	-Vout	Trim