



Wide Input Voltage Range 30 Watt Dc-Dc Converter



FEATURES:

- 30W DIL PACKAGE
- 4:1 WIDE INPUT RANGE
- 100% BURNED IN
- HIGH EFFICIENCY
- UL 94V-0 PACKAGE MATERIAL
- CUSTOM SOLUTIONS AVAILABLE
- RoHS COMPLIANT
- 3 YEARS WARRANTY



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

Part Number	Input Voltage Vdc	Output Voltage Vdc	Output Current mA	Input current		Efficiency %TYP
				NO LOAD mA	FULL LOAD mA	
96DW-24S03RNL	9-36	3.3	6500	25	1100	81
96DW-24S05RNL	9-36	5	6000	25	1540	82
96DW-24S12RNL	9-36	12	2500	25	1520	82
96DW-24S15RNL	9-36	15	2000	25	1510	82
96DW-48S03RNL	18-72	3.3	6500	20	540	82
96DW-48S05RNL	18-72	5	6000	20	770	83
96DW-48S12RNL	18-72	12	2500	20	760	83
96DW-48S15RNL	18-72	15	2000	20	740	83
96DW-24D05RNL	9-36	±5	±3000	25	1540	82
96DW-24D12RNL	9-36	±12	±1250	25	1520	82
96DW-24D15RNL	9-36	±15	±1000	25	1510	82
96DW-48D05RNL	18-72	±5	±3000	20	770	83
96DW-48D12RNL	18-72	±12	±1250	20	760	83
96DW-48D15RNL	18-72	±15	±1000	20	740	83

Output Specifications

Voltage Setpoint Accuracy	Single/Dual	±2% max
Capacitive load		4800uF max
Temperature Coefficient		±0.05%/°C
Ripple & Noise (20MHZ BW (1))		150mVp-p max
Line Regulation (2)	Single/Dual	±0.5% max
Load Regulation (3)	Single/Dual	±0.5% max
Minimum Load		10% of Full Load
Short Circuit Protection		Continuous
Short Circuit Restart		Automatic
Over Voltage Protection		Built-in
Over Load Protection		150% Typ.
External Trim Adj. Range		±10.0%
Transient Response (4)		500uS max

ALL SPECIFICATIONS TYPICAL AT NOMINAL LINE, FULL LOAD, AND 25°C UNLESS OTHERWISE NOTED.

- (1) Measured with 1uF ceramic capacitor connect to the output pins.
- (2) High Line to Low Line.
- (3) Load Regulation is for output load current change from 50% to 100%
- (4) 50% Step Load Change

Input Specifications

Input Voltage Range	4:1 Input Range
Input Filter	Pi Network
Protection	Fuse Recommended

General Specifications

Efficiency	79%min
Isolation Voltage (1)*	3000VDC
Isolation Resistance	10 ⁹ Ω min
Isolation Capacitance	2500pF max
Switching Frequency	270KHZ TYP.
MTBF (2)*	>400,000 Hours
Weight	65g Typ.
Case Material	Six-Side Shielded Case
Case Size	50.8mm*50.8mm*11mm
Potting Material	Epoxy (UL94-V0)
Conducted Emissions	EN55022 Class A
Radiated Emissions	EN55022 Class A

ENVIRONMENTAL

Operating Temperature	-40°C to +71°C
Storage Temperature	-50°C to +100°C
Case Temperature	+95°C max
Humidity	95% max
Cooling	Free-Air Convection

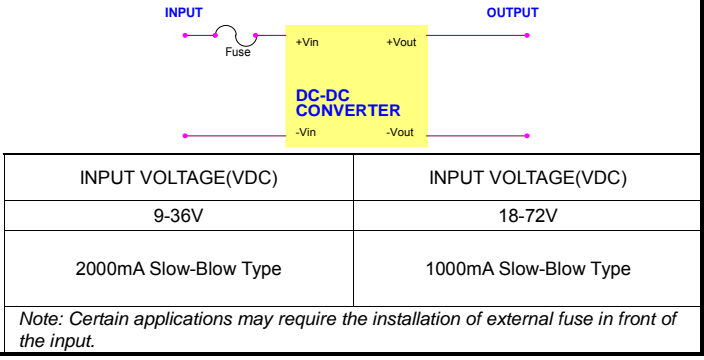
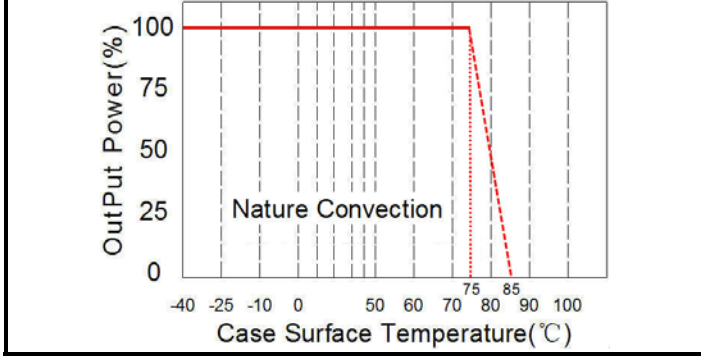
(1) * For 10 seconds.

(2) * MIL-HDBK-217F @25°C , Ground Benign.



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Temperature Derating Graph Input Fuse Selection Guide

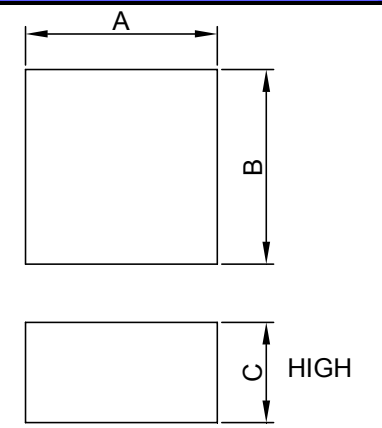
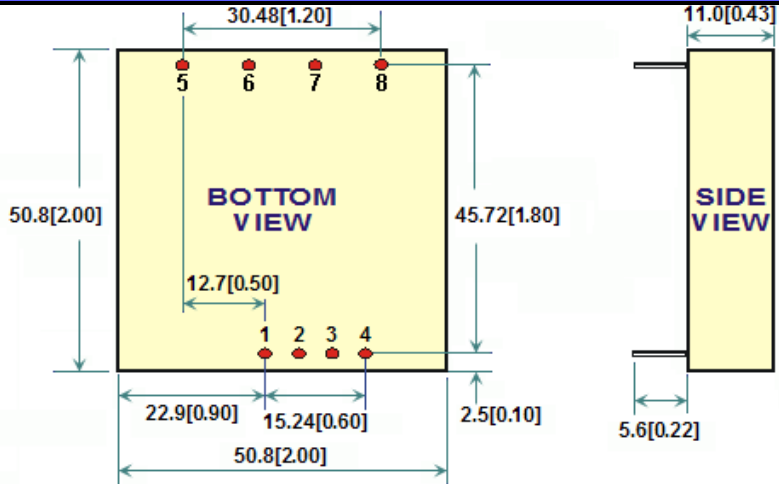


EXTERNAL CAPACITANCE REQUIREMENTS Part Number

No external capacitance is required for operation of the 96D series.
 To meet the reflected ripple requirements of the converter, an input impedance of less than 0.5 ohm from DC to 220KHz is required.
 External output capacitance is not required for operation, however it is recommended that 10uF tantalum and 0.1uF ceramic capacitance be selected for reduced system noise.
 Additional output capacitance may be added for increased filtering, but should not exceed 4800uF.
 We Can Offer EMC-Filter According To EN55011/22 Class B.
 Negative Outputs:
 A negative output voltage may be obtained by connecting the +OUT to circuit ground and connecting -OUT as the negative output.

96DW- 12 S 05 R NL					
A	B	C	D	E	F
A:Series					
B:Input Voltage					
C:Single(S)Dual(D)					
D:Output Voltage					
E:Regulated(R)					
F:RoHS Version					

Markings and dimensions Packaging



All dimensions are in millimeters[inches]
 Unless otherwise specified, all tolerances are $\pm 0.25 [0.01]$

SIZE(mm)		
A	B	C
51.50	52.30	27.00

PIN Connection

PIN	1	2	3	4	5	6	7	8
SINGLE	+Vin	-Vin	NC	Ctrl	NO PIN	+Vout	-Vout	Trim
DUAL	+Vin	-Vin	NC	Ctrl	+Vout	Common	-Vout	Trim

NOTE:Pin Size is Tolerance 1.0Φ ±0.05mm