

FEATURES :

- 40 Watt 2"X1" DIL Package
- 2:1Wide Input Voltage
- 100% Burned In
- High Efficiency To 91%
- Customized Solutions Available
- Remote Control:On/Off
- UL94V-0 Package Material
- Operating Temperature:-40°C TO +77°C
- 3 Years Warranty

YUAN DEAN SCIENTIFIC



DC-DC Converter

99D-R3 SERIES

40Watt 1.5KV Isolated

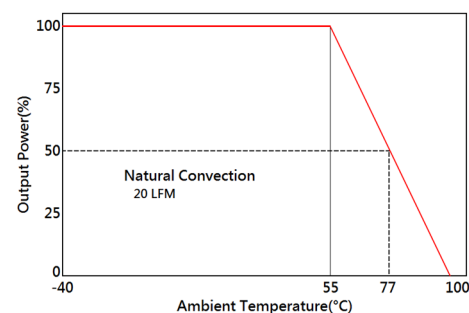
2 : 1 Input Voltage Range

Single & Dual Output

2" x 1"



Temperature Derating Graph



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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	Capacitor Load	Efficiency
	Vdc	No-Load (mA TYP)	Full Load (mA TYP)	Vdc	Full Load (mA)	uF	%TYP
99D-12S03R3NL	9-18	160	2472	3.3	8000	16000	89
99D-12S05R3NL	9-18	160	3745	5	8000	10000	89
99D-12S12R3NL	9-18	60	3753	12	3340	1800	89
99D-12S15R3NL	9-18	60	3708	15	2670	1200	90
99D-12D12R3NL	9-18	60	3795	±12	±1670	±680	88
99D-12D15R3NL	9-18	60	3807	±15	±1340	±560	88
99D-24S03R3NL	18-36	90	1236	3.3	8000	16000	89
99D-24S05R3NL	18-36	90	1873	5	8000	10000	89
99D-24S12R3NL	18-36	60	1876	12	3340	1800	89
99D-24S15R3NL	18-36	60	1854	15	2670	1200	90
99D-24D12R3NL	18-36	50	1898	±12	±1670	±680	88
99D-24D15R3NL	18-36	50	1882	±15	±1340	±560	89
99D-48S03R3NL	36-75	70	617	3.3	8000	16000	89
99D-48S05R3NL	36-75	70	926	5	8000	10000	90
99D-48S12R3NL	36-75	40	927	12	3340	1800	90
99D-48S15R3NL	36-75	40	917	15	2670	1200	91
99D-48D12R3NL	36-75	40	938	±12	±1670	±680	89
99D-48D15R3NL	36-75	40	941	±15	±1340	±560	89

Input Specifications

Parameters	Conditions	Min	Typ	Max	Units
Voltage Types				2:1	
Filter	Pi Network				
Protection	Fuse Recommended				



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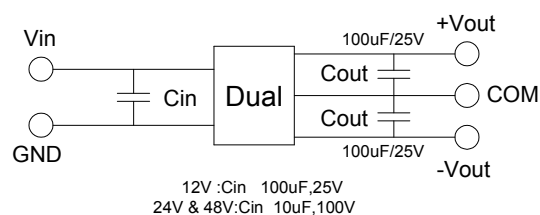
Rev:0 2018/10/31

Part Number

$\frac{99D}{A}$	$-\frac{24}{B}$	$\frac{S}{C}$	$\frac{05}{D}$	$\frac{R}{E}$	$\frac{3}{F}$	$\frac{NL}{G}$
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A: Series
B: Input Voltage
C: Single Output(S),Dual(D)
D: Output Voltage
E: Regulated(R)
F: Package
G: RoHs Version

12V : Cin 100uF, 25V
24V & 48V : Cin 10uF, 100V



Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			350		KHz
Operating Temperature	Refer to temperature derating graph (with derating)	-40		77	°C
Humidity	Non Condensing	5		95	%
Cooling	Natural Convection (20LFM)				
Case material	Nickel Coated with Non-Conductive Base				
Weight			40		g
Dimensions			50.8X25.4X11.6		mm
Potting Material	Epoxy (UL94V-0 rated)				
Remote ON/OFF	ON		Open		
	OFF		Short to -Vin		
Isolation Voltage				1500	VDC
MTBF	MIL-HDBK-217F @25°C , Ground Benign	328000			Hours
Storage Temperature		-55		+125	°C
Case Temperature				+105	°C
Isolation Capacitance				1500	pF

Pin	1	2	3	4	5	6
Single	+Vin	-Vin	Remote On/Off	+Vout	-Vout	Trim
Dual	+Vin	-Vin	Remote On/Off	+Vout	Com	-Vout

Technical drawing of a rectangular plate with dimensions and a bottom view.

Top View Dimensions:

- Overall width: 11.6 ± 0.5
- Overall height: 5.6 (min)
- Radius of the top corners: $R1$
- Dimension of the bottom flange: $\phi 1 \pm 0.05$

Bottom View Dimensions:

- Overall width: 50.8
- Overall height: 25.4
- Distance from the left edge to the center of the first hole (1): 2.5
- Distance from the left edge to the center of the second hole (2): 5.1
- Distance from the left edge to the center of the third hole (3): 5.08
- Distance from the left edge to the center of the fourth hole (4): 10.16
- Distance from the left edge to the center of the fifth hole (5): 10.16
- Distance from the left edge to the center of the sixth hole (6): 10.16
- Distance from the right edge to the center of the seventh hole (7): 2.54
- Distance from the right edge to the center of the eighth hole (8): 10.16
- Distance from the right edge to the center of the ninth hole (9): 10.16
- Distance from the right edge to the center of the tenth hole (10): 10.16

Bottom View: A rectangular plate with 10 holes arranged in a grid. The holes are numbered 1 through 10. The dimensions are as follows:

- Overall width: 50.8
- Overall height: 25.4
- Distance from the left edge to the center of the first hole (1): 2.5
- Distance from the left edge to the center of the second hole (2): 5.1
- Distance from the left edge to the center of the third hole (3): 5.08
- Distance from the left edge to the center of the fourth hole (4): 10.16
- Distance from the left edge to the center of the fifth hole (5): 10.16
- Distance from the left edge to the center of the sixth hole (6): 10.16
- Distance from the left edge to the center of the seventh hole (7): 10.16
- Distance from the left edge to the center of the eighth hole (8): 10.16
- Distance from the left edge to the center of the ninth hole (9): 10.16
- Distance from the left edge to the center of the tenth hole (10): 10.16
- Distance from the right edge to the center of the seventh hole (7): 2.54
- Distance from the right edge to the center of the eighth hole (8): 10.16
- Distance from the right edge to the center of the ninth hole (9): 10.16
- Distance from the right edge to the center of the tenth hole (10): 10.16

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