

# Yuan Dean Scientific CO., LTD 99DW-R3 SERIES

## Wide Input Voltage Range 40 Watt Dc-Dc Converter



### FEATURES:

- 2"X1" DIL Package
- 4:1 Wide Input Range
- 100% Burned In
- High Efficiency Up To 90%
- Customized Solutions Available
- Shielded Metal Case with insulated baseplate
- Remote Control ON/OFF
- UL94V-0 Package Material



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 Max	%TYP
99DW-24S03R3NL	9-36	90	1235	3.3	8000	16000	89
99DW-24S05R3NL	9-36	90	1851	5	8000	10000	90
99DW-24S12R3NL	9-36	50	1876	12	3340	1800	89
99DW-24S15R3NL	9-36	50	1875	15	2670	1200	89
99DW-24D12R3NL	9-36	50	1897	± 12	± 1670	± 1000	88
99DW-24D15R3NL	9-36	50	1903	± 15	± 1340	± 680	88
99DW-48S03R3NL	18-75	60	617	3.3	8000	16000	89
99DW-48S05R3NL	18-75	60	925	5	8000	10000	90
99DW-48S12R3NL	18-75	40	927	12	3340	1800	90
99DW-48S15R3NL	18-75	40	927	15	2670	1200	90
99DW-48D12R3NL	18-75	40	948	± 12	± 1670	± 1000	88
99DW-48D15R3NL	18-75	40	951	± 15	± 1340	± 680	88

### Input Specifications

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

### Output Specifications

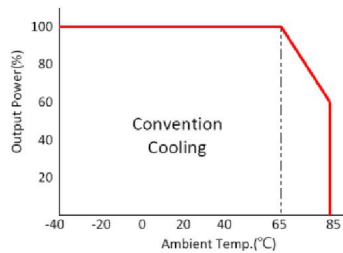
Parameters	Conditions	Min	Typ	Max	Units
Voltage Tolerance	Full load@Vin(nom.)			±2	%
Short Circuit Protection	Hiccup, automatic Recovery				
Line Regulation				±0.5	%
Load Regulation	Single Dual(Balance Load)			±0.5 ±2	%
Cross Regulation	Dual(25% To 100% Load)			±5	%
Ripple & Noise	Output:3-15V TYPES BW=DC To 20MHz			100	mVp-p
Ripple & Noise	Output > 15V TYPES BW=DC To 20MHz			1% of Vout	mVp-p
Transient response setting time	25% load step change		300		us
External Trim Adj. Range				±10	%

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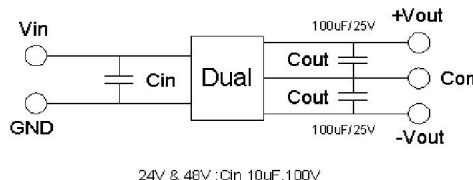
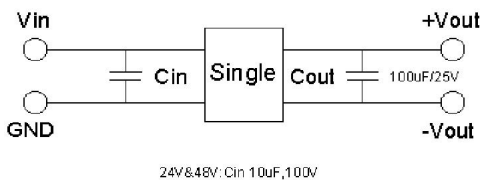
General Specifications					
Parameters	Conditions	Min	Typ	Max	Units
Isolation Resistance	500Vdc	1000			MΩ
Switching Frequency			350		KHz
Operating Temperature	Refer to temperature derating graph (with derating)	-40		85	°C
Humidity	Non Condensing	5		95	%
Cooling	Free air Convection				
Case material		Nickel Coated with Non-Conductive Base			
Weight		30g			
Dimensions		50.8X25.4X10.6			
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

### Temperature Derating Graph



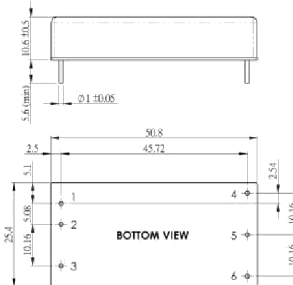
### Recommended Test Circuit

### Part Number



99DW - 24 S 05 R 3 NL  
 A B C D E F G  
 A : Series  
 B : Input Voltage  
 C : Single Output(S), DUAL(D)  
 D : Output Voltage  
 E : Regulated(R)  
 F : Package  
 G : RoHS Version

### Markings and dimensions



### PIN Assignment

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