7.5 Watts
WR Series

- 2:1 Input Range
- DIP-24 Metal Package
- -25 °C to +100 °C Operating Temperature
- 1500 VDC Isolation
- Efficiency to 83%
- Input Pi Filter
- Continuous Short Circuit Protection

Specification

Input

Input Voltage Range	• 12 V (9-18 VDC) 24 V (18-36 VDC) 48 V (36-72 VDC)
Input Current (no load)	• See table
Input Filter	• Pi network
Undervoltage Lockout	• Turn On >70% nominal input Turn Off <65% nominal input

Output

Output Voltage	• See table
Start Up Delay	• 900 ms max
Initial Set Accuracy	• ±2.0% max
Line Regulation	• ±0.2% max
Load Regulation	• ±0.5% max single output models, ±1.0% max dual output models, for 75% load change
Cross Regulation	• ±1.5% on dual output models
Transient Response	• <1% max deviation, recovery to within 1% in 200 µs for a 50% load change
Ripple & Noise	• 100 mV max pk-pk, 20 MHz BW
Overload Characteristics	• 110-130% constant current
Short Circuit Protection	• Continuous with auto recovery
Temperature Coefficient	• 0.05%/˚C max

General

Efficiency	• See table
Isolation Voltage	• 1500 VDC min Input to Output (1000 MΩ)
Switching Frequency	• 300 kHz typical
MTBF	• 900 kHrs to MIL-HDBK-217F

Environmental

Operating Temperature	• -25 ˚C to +100 ˚C (see derating curve)
Case Temperature	• +100 ˚C max
Storage Temperature	• -40 ˚C to +100 ˚C

EMC

Emissions	• EN55022, level A conducted EN55022, level A radiated
ESD Immunity	• EN61000-4-2, level 2 Perf Criteria A
Radiated Immunity	• EN61000-4-3 3 V/m Perf Criteria A
Conducted Immunity	• EN61000-4-6 3 V rms Perf Criteria A

Models and Ratings

Input Voltage[1]	Output Voltage	Output Current	Input Current[2]		Efficiency	Model Number
			No Load	Full Load		
9-18 VDC	3.3 VDC	1500 mA	25 mA	557 mA	74%	WR200
	5.0 VDC	1500 mA	25 mA	801 mA	78%	WR201
	12.0 VDC	625 mA	25 mA	762 mA	82%	WR202
	15.0 VDC	500 mA	25 mA	762 mA	82%	WR203
	±5.0 VDC	±750 mA	30 mA	791 mA	79%	WR204
	±12.0 VDC	±310 mA	30 mA	753 mA	83%	WR205
	±15.0 VDC	±250 mA	30 mA	753 mA	83%	WR206
18-36 VDC	3.3 VDC	1500 mA	20 mA	271 mA	76%	WR300
	5.0 VDC	1500 mA	20 mA	396 mA	79%	WR301
	12.0 VDC	625 mA	20 mA	381 mA	82%	WR302
	15.0 VDC	500 mA	20 mA	381 mA	82%	WR303
	±5.0 VDC	±750 mA	25 mA	386 mA	81%	WR304
	±12.0 VDC	±310 mA	25 mA	377 mA	83%	WR305
	±15.0 VDC	±250 mA	25 mA	377 mA	83%	WR306
36-72 VDC	3.3 VDC	1500 mA	10 mA	136 mA	76%	WR400
	5.0 VDC	1500 mA	10 mA	195 mA	80%	WR401
	12.0 VDC	625 mA	10 mA	190 mA	82%	WR402
	15.0 VDC	500 mA	10 mA	190 mA	82%	WR403
	±5.0 VDC	±750 mA	15 mA	193 mA	81%	WR404
	±12.0 VDC	±310 mA	15 mA	188 mA	83%	WR405
	±15.0 VDC	±250 mA	15 mA	188 mA	83%	WR406

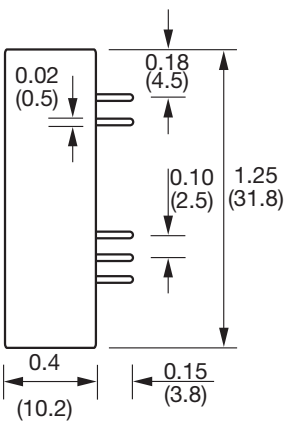
Notes

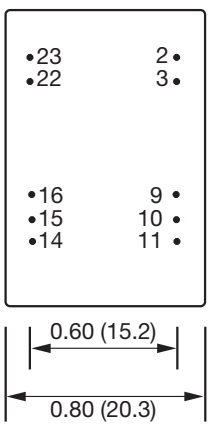
1. Nominal input voltage is 12 VDC for WR2xx models, 24 VDC for WR3xx models and 48 VDC for WR4xx models.
2. Input current is at nominal input voltage.

Mechanical Details

All dimensions are in inches (mm)

Weight: 0.08 lbs (35 g) approx.





PIN CONNECTIONS		
Pin	Single Output	Dual Output
2	-V input	-V input
3	-V input	-V input
9	N/C	Common
10	N/C	N/C
11	N/C	-V output
14	+V output	+V output
15	N/C	N/C
16	-V output	Common
22	+V input	+V input
23	+V input	+V input

Derating Curve