

1500UR Series

Distributed By:
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KEY FEATURES

- 4:1 Ultra-Wide Input Voltage Range
- Miniature 2 x 2 x 0.375 Inch Case
- Wide -25°C to +75°C Operating Temperature Range
- Efficiency to 83%
- 1400 VDC Input/Output Isolation
- Six-Sided Shielded Case
- 10.0W/In³ Power Density

General Description

The 1500UR series is a family of miniature 15W DC/DC converters specifically designed for board mount power distribution applications where space is critical, but performance and power cannot be sacrificed. Standard features include an ultra-wide 4:1 input voltage range, efficiency as high as 83% and continuous short circuit protection by input current limiting.

Fourteen models operate from ultra-wide (4:1) input voltage ranges of 10 VDC to 40 VDC or 18 VDC to 72 VDC and provide tightly regulated outputs of 3.3, 5, 12, 15, ± 5 , ± 12 or ± 15 VDC. Features include an input LC filter, output voltage accuracy of $\pm 1\%$, 1400 VDC minimum input/output isolation voltage, and a 135 kHz switching frequency.

Long field life is insured by extensive reliability screening at CDI. As part of the normal production processing, each unit is subjected to burn-in as well as input power cycling and output load switching (see application note 1).

All models are packaged in a compact, low profile 2.0 x 2.0 x 0.375 inch metal case. This miniature size yields a power density as high as 10 W/In³. Six-sided continuous shielding virtually eliminates radiated emissions. Operation is specified over wide operating temperature range of -25°C to +75°C with no derating required. Cooling is by free-air convection.

Model Selection Guide

Model Number	Input					Output ⁽¹⁾			Efficiency @FL (%)	Fuse ⁽²⁾ (A)
	Voltage (VDC)		Current (mA)		Reflected Ripple (mA P-P)	Voltage (VDC)	Current (mA)	OVP (VDC)		
	Nominal	Range	No-Load	Full-Load						
1503S20UR	20	10 - 40	40	900	80	3.3	4500	5.8	82	3.0
1505S20UR	20	10 - 40	40	900	80	5.0	3000	6.8	83	3.0
1512S20UR	20	10 - 40	40	960	80	12.0	1250	16.0	78	3.0
1515S20UR	20	10 - 40	40	950	80	15.0	1000	18.0	79	3.0
1505D20UR	20	10 - 40	40	920	80	± 5.0	± 1500	± 6.8	81	3.0
1512D20UR	20	10 - 40	40	960	80	± 12.0	± 625	± 16.0	78	3.0
1515D20UR	20	10 - 40	40	1000	50	± 15.0	± 500	± 18.0	75	3.0
1503S36UR	36	18 - 72	40	500	40	3.3	4500	5.8	82	2.0
1505S36UR	36	18 - 72	40	500	40	5.0	3000	6.8	83	2.0
1512S36UR	36	18 - 72	40	510	40	12.0	1250	16.0	81	2.0
1515S36UR	36	18 - 72	40	500	40	15.0	1000	18.0	83	2.0
1505D36UR	36	18 - 72	40	510	40	± 5.0	± 1500	± 6.8	81	2.0
1512D36UR	36	18 - 72	40	520	40	± 12.0	± 625	± 16.0	80	2.0
1515D36UR	36	18 - 72	40	520	40	± 15.0	± 500	± 18.0	80	2.0

