

W15 & W25 SERIES DC/DC MODULES

Applications

- Servers, Switches and Data Storage
- Wireless Communications
- Distributed Power Architecture
- Semiconductor Test Equipment
- Networking Gear
- Data Communications
- Telecommunications
- Industrial / Medical

The W15 and W25 Families of high efficiency DC/DC converters offer power levels of up to 15 & 25 Watt, respectively, which exceeds that of other bricks with the same Industry-Standard Pinouts, while providing much smaller footprints. With a wide input voltage range and single and multi-outputs, ranging from 1.5 to 12 Volts, these converters provide versatility without sacrificing the board space. All models feature an input filter, input undervoltage lockout, output current limiting and short circuit protection. The fully enclosed, encapsulated construction aluminum heat spreader design achieves very efficient heat transfer with no hot spots. The use of patented design concepts facilitates maximum power delivered with the highest efficiency of up to 90%. All converters combine creative design practices with highly derated power devices to achieve very high reliability, high performance and low cost solution to systems designers.

Specifications & Features Summary

- No minimum load required
- On/Off pin control
- -40°C to +85 °C ambient operation
- Output adjustment +/-10% range
- 1500V, 10MΩ input-to-output isolation
- Output overcurrent protection
- Input Under voltage protection
- Synchronous rectification topology
- No airflow or heatsink required
- MTBF of up to 5,000,000 hours @ 50°C (Bellcore)
- Over Temperature & Over Voltage protection (W25 Series)
- Enclosed construction with heat spreader for low temperature rise
- Enclosed six-sided metal shield construction for low EMI/RFI
- Meets Basic Insulation requirements of EN60950
- UL 60950 recognized, TUV EN60950 and CSA C22.2 No. 60950-00 Certified
- Meets conducted limits of FCC Class B and CEI IEC61204-3 Class B with external filter
- Delivers up to 15W in 1"x1.6" format and up to 25W in 1.2" x 2" package with Industry-Standard Pinouts



UL **US** **SP**
 Approval Pending

Model	Input Voltage Range (Vin)	In No Load	I in Full Load	Output Voltage (Vo)	Output Current (Io) A	Eff (Typ) %	Case	Pinout	Regulation Line/Load (%)	Ripple / Noise Typ (mVp-p)	Output Current at 40°C (Amps)			Output Current at 60°C (Amps)			Output Current at 80°C (Amps)		
											Free Air	200 LFM	300 LFM	Free Air	200 LFM	300 LFM	Free Air	200 LFM	300 LFM
W15-48S1.5	36 - 75	0.030	0.250	1.5	6	86	W15	W15S	±0.3 / ±0.5	50	6	6	6	6	6	6	3.7	4.8	5.7
W25-48S1.5	36 - 75	0.030	0.300	1.5	8	86	W25	W25S	±0.3 / ±0.5	50	8	8	8	8	8	8	4.7	6.2	7.8
W15-48S1.8	36 - 75	0.030	0.260	1.8	6	87	W15	W15S	±0.3 / ±0.5	50	6	6	6	6	6	6	2.5	4.2	5.2
W25-48S1.8	36 - 75	0.030	0.350	1.8	8	87	W25	W25S	±0.3 / ±0.5	50	8	8	8	7.8	8	8	4.2	5.8	6.4
W15-48S2.5	36 - 75	0.027	0.290	2.5	5	87	W15	W15S	±0.3 / ±0.5	50	4.5	4.5	4.5	4.5	4.5	4.5	1.7	2.8	4.1
W25-48S2.5	36 - 75	0.027	0.420	2.5	7	87	W25	W25S	±0.3 / ±0.5	50	7	7	7	6.5	7	7	3.8	4.9	5.8
W15-48S3.3	36 - 75	0.027	0.360	3.3	4.5	88	W15	W15S	±0.3 / ±0.5	50	4.5	4.5	4.5	4.5	4.5	4.5	1.8	2.9	4.1
W25-48S3.3	36 - 75	0.027	0.550	3.3	7	88	W25	W25S	±0.3 / ±0.5	50	7	7	7	5.8	7	7	3.1	4.1	5.5
W15-48S5	36 - 75	0.025	0.350	5	3	90	W15	W15S	±0.3 / ±0.5	50	3	3	3	3	3	3	0.5	0.5	1.7
W25-48S5	36 - 75	0.025	0.580	5	5	90	W25	W25S	±0.3 / ±0.5	50	5	5	5	4.6	5	5	0.3	1.8	3.8
W15-48S12	36 - 75	0.025	0.350	12	1.25	90	W15	W15S	±0.3 / ±0.5	50	1.3	1.3	1.3	1.3	1.3	1.3	0.5	0.5	0.7
W15-48D12	36 - 75	0.025	0.350	±12	±0.625	90	W15	W15D	±0.3 / ±0.5	50	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.4

Typical at Ta= +25 °C under nominal line voltage and 75% load conditions, unless noted. Thermal derating for vertical orientation, Vin=54V. The information and specifications contained in this brief are believed to be accurate and reliable at the time of publication. Specifications are subject to change without notice. Refer to product specification sheet for performance characteristics and application guidelines.

Consult factory for hundreds of other available input/output voltage configurations.

