

1400 PROVINDENCE HIGHWAY • BUILDING 2 SUITE 2400 NORWOOD, MASSACHUSETTS 02062-5015 USA

www.intronicspower.com

W3 SERIES DC/DC MODULES

Applications

· Servers, Switches and Data Storage · Networking Gear Data Communications

SPECIFICATIONS

- · Wireless Communications
- · Distributed Power Architecture
- · Industrial / Medical
- Telecommunications

24V-----18-36V 48V-----36-72V

Pi Type

+/-2.0% max.

+/-1.0% / max. +/-0.05% / °C

· Semiconductor Test Equipment

The W5 Family of high efficiency DC/DC converters offer power levels of up to 3 Watt, which exceeds that of other sub-bricks with the same package, while also providing Surface Mount Processable construction. With a wide input voltage range and single and multi-outputs, these converters provide versatility without sacrificing the board space. All models feature an input filter, continuous short circuit protection and regulated outputs. The fully enclosed, encapsulated construction facilitates maximum power delivered with the highest efficiency of up to 83%. 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

- Regulated Outputs
- -25°C to +71°C ambient operation
- up to 3KV, 10M Ω input-to-output isolation No airflow or heatsink required
- Pi Input Filter 2:1 Input Range
- · Continuous Short-circuit protection
- · Voltage Accuracy ± 2%

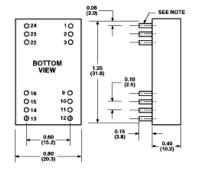
· 5-sided metal shield · 100KHz Switching Frequency

- - Delivers up to 5W in 1"x1.25"x0.45" package with Industry-Standard SMD Pinouts
- THROUGH-HOLE PACKAGES AVAILABLE (add suffix "T" to the part number)

c	7	N [®]	US	(P
			al Pe del S		

Modernann	•	• Out	·Out	-IVO EOdd	•I dii Lodd		0400	
W3-12S5	9-18 VDC	5.0 VDC	600.0 mA	7.5 mA	545.0 mA	76%	T	Input Specifications
W3-12S12	9-18 VDC	12.0 VDC	250.0 mA	7.5 mA	585.0 mA	80%	Т	Input Voltage Range
W3-12S15	9-18 VDC	15.0 VDC	200.0 mA	7.5 mA	625.0 mA	80%	T	
W3-12D12	9-18 VDC	±12.0 VDC	±125.0 mA	12.0 mA	575.0 mA	80%	Т	
W3-12D15	9-18 VDC	±15.0 VDC	±100.0 mA	12.0 mA	590.0 mA	80%	T	Input Filter
W3-12D5	9-18 VDC	±5.0 VDC	±300.0 mA	12.0 mA	545.0 mA	76%	Т	Output Specifications
W3-12S3.3	9-18 VDC	3.3 VDC	600.0 mA	7.5 mA	393.0 mA	70%	T	Voltage Accuracy
W3-24S5	18-36 VDC	5.0 VDC	600.0 mA	5.0 mA	265.0 mA	78%	Т	Voltage Balance(Dual)
W3-24S12	18-36 VDC	12.0 VDC	250.0 mA	5.0 mA	285.0 mA	82%	T	Temperature Coefficien
W3-24S15	18-36 VDC	15.0 VDC	200.0 mA	5.0 mA	305.0 mA	82%	Т	
W3-24D12	18-36 VDC	±12.0 VDC	±125.0 mA	7.5 mA	285.0 mA	81%	T	
W3-24D15	18-36 VDC	±15.0 VDC	±100.0 mA	7.5 mA	295.0 mA	81%	T	Short Circuit Protection
W3-24D5	18-36 VDC	±5.0 VDC	±300.0 mA	7.5 mA	265.0 mA	78%	T	Line Regulation, Single/
W3-24S3.3	18-36 VDC	3.3 VDC	600.0 mA	5.0 mA	197.0 mA	70%	T	Load Regulation, Single
W3-48S5	36-72 VDC	5.0 VDC	600.0 mA	2.0 mA	133.0 mA	78%	T	Dual ³
W3-48S12	36-72 VDC	12.0 VDC	250.0 mA	2.0 mA	145.0 mA	81%	T	
W3-48S15	36-72 VDC	15.0 VDC	200.0 mA	2.0 mA	154.0 mA	81%	T	Efficiency
W3-48D12	36-72 VDC	±12.0 VDC	±125.0 mA	3.0 mA	142.0 mA	81%	T	Isolation Resistance
W3-48D15	36-72 VDC	±15.0 VDC	±100.0 mA	3.0 mA	147.0 mA	81%	T	Switching Frequency
W3-48D5	36-72 VDC	±5.0 VDC	±300.0 mA	3.0 mA	133.0 mA	78%	Т	Operating Temperature
W3-48S3.3	36-72 VDC	3.3 VDC	600.0 mA	2.0 mA	98.0 mA	70%	Т	Case Temperature(Plas

NOTE: Pin Size is 0.02" Inch (0.5m/m) DIA or .020 x .014 Inch All Dimensions In Inches (mm)



		PIN CON	INECT	TION	
	500 VD	C		(1.5K & 3K) V	DC
Pin	Single Output	Dua Output	Pin	Single Output	Dual Output
1	+V Input	+V Input	1	NP	NP
2	NC	-V Output	2	-V Input	-V Input
3	NC	Common	3	-V Input	-V Input
9	NP	NP	9	NC	Common
10	-V Output	Common	10	NC	NC
11	+V Output	+V Output	11	NC	-V Output
12	-V Input	-V Input	12	NP	NP
13	-V Input	-V Input	13	NP	NP
14	+V Output	+V Output	14	+V Output	+V Output
15	-V Output	Common	15	NC	NC
16	NP	NP	16	-V Output	Common
22	NC	Common	22	+V Input	+V Input
23	NC	-V Output	23	+V Input	+V Input
24	+V Input	+V Input	24	NP	NP

TP-TEST POINT *NC-NO CONNECTION WITH PIN *GO-GROUND

3.3V / 5V-----100mV p-p max. 12V / 15V----------1% p-p max. Short Circuit Protection Continuous ine Regulation, Single/Dual +/-0.5% oad Regulation, Single² +/-0.5% Dual³ +/-1.0% Efficiency solation Resistance 109 ohms Switching Frequency 100KHz, min Operating Temperature Range -25°C to +71°C 95°C max. Case Temperature(Plastic case) (Copper case) 100°C max. Cooling Free-Air Convection Storage Temperature Range -40°C to +100°C **Dimensions** 1.25X0.8X0.4 Inches (31.8X20.3X10.2mm) Isolation Voltage 500VDC min Standard Models 3K VDC min4 Suffix"H" Models Case Material Standard Models Non-Conductive Black Plastic Suffix"M" Models5 Black Coated Copper with Non-Conductive Base Notes Measured From High Line to Low 1. 2. Measured From Full Load to 10% Load 3. Measured From Full Load to 1/4 Non-Conductive Black Plastic Only 5. Suffix"HM" 1.5K VDC Instead of 3K **VDC** Isolation

Typical at Ta= +25 °C under nominal input voltages of 12V, 24V and 48VDC, unless noted. 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.