

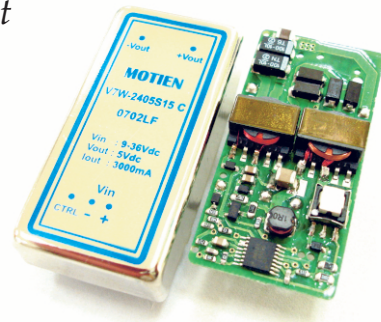
V7W-15 Series

15W 4:1 Regulated Single & Dual output



Features

- Wide 4:1 Input Range
- Full SMD Technology
- 1500 VDC Isolation
- Continuous Short Circuit Protection
- Efficiency up to 86%
- -40 ~ 85°C Operation Temperature Range



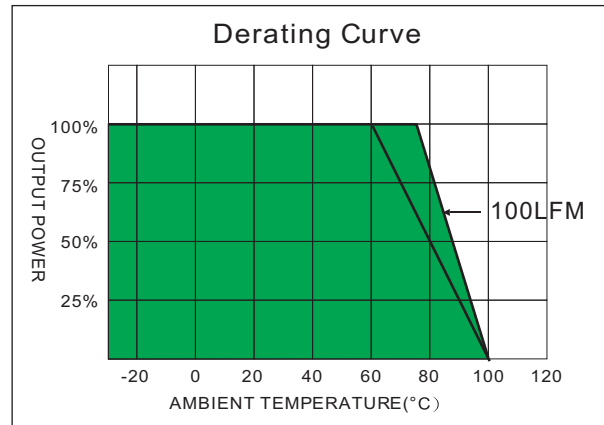
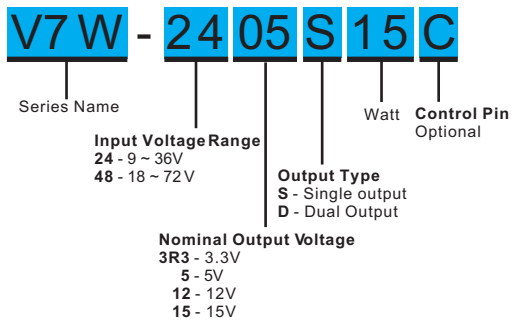
The V7W series is a family of cost effective 10~15W single & dual output DC-DC converters. These converters combine nickel-coated copper package in a 2"x1" compatible case with high performance features such as 1500 VDC input/output isolation voltage, continuous short circuit protection with automatic restart and tight line / load regulation. Wide range devices operate over 4:1 input voltage range providing stable output voltage. Devices are encapsulated using flame retardant resin. Input voltages of 24 and 48 with output voltage of 3.3, 5, 12, ± 5 , ± 12 , ± 15 Vdc. High performance features include high efficiency operation up to 86% and output voltage accuracy of $\pm 1\%$ maximum. Standard features include an input range of $\pm 10\%$ tolerance and low output noise and ripple.

All specifications typical at $T_a = 25^\circ\text{C}$, nominal input voltage and full load unless otherwise specified

OUTPUT SPECIFICATIONS		GENERAL SPECIFICATIONS	
Voltage Accuracy	$\pm 1\%$	Efficiency	See table
Line Regulation	$\pm 0.5\%$	I/O Isolation Voltage	
Load Regulation (10% to 100% Loading)	$\pm 0.5\%$	I/O 1 min(flash tested for 1 sec)	1500Vdc
Ripple & Noise (20 Mhz bandwidth)	75mV pk-pk	Case/Input&Output	1000Vdc
Current Limiting	140% of max. Iout	I/O Isolation Capacity	1200 pF Typ.
Short Circuit Protection	Indefinite(Automatic Recovery)	I/O Isolation Resistance	1000M Ohm
Temperature Coefficient	$\pm 0.02\%/^\circ\text{C}$	Switching Frequency	Fixed 300KHz
Capacitor Load	See table	Humidity	95% rel H
		Reliability Calculated MTBF	>1.121 Mhrs
		Safety Standard : meet	IEC 60950-1:2001
		Safety Approvals	
		Remote On/Off	ON: 2.5 ... 5.5VDC or open circuit OFF: 0.7 ... 0.8VDC or Short circuit pin 2 and pin 6 OFF idle current: 2.5mA Typ.
INPUT SPECIFICATIONS		ENVIRONMENT SPECIFICATIONS	
Voltage Range	See table	Operating Temperature	-40°C~85°C
Max. Input Current	See table	Case Temperature	100°C
No-Load Input Current	See table	Storage Temperature	-40°C~125°C
Input Filter	PI Type	Cooling	Nature Convection
Input Reflected Ripple rms thru 12uH inductor, 5Hz to 20MHz	35mA p-p		
PHYSICAL SPECIFICATIONS		ABSOLUTE MAXIMUM RATINGS	
Case Material	Nickel-coated Copper	Input Voltage	
Base Material	Epoxy encapsulated(UL94V-0 rated)	24 Modes	-0.7~40 Vdc
Pin Material	1.0mm Brass Solder-coated	48 Modes	-0.7~75 Vdc
Potting Material	Epoxy (UL94V-0 rated)	Operating Amb. Temperature	-40°C~85°C
Weight	30.0g	Case Temperature	100°C
Dimensions	2.00"x1.00"x0.40"	Storage Temperature	-40°C~125°C
		Lead Soldering Temperature	260°C 1.5mm from case 10sec.
EMI SPECIFICATIONS			
Radiated Emissions	EN55022 CLASS A CE MARK		

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PARTNUMBER STRUCTURE

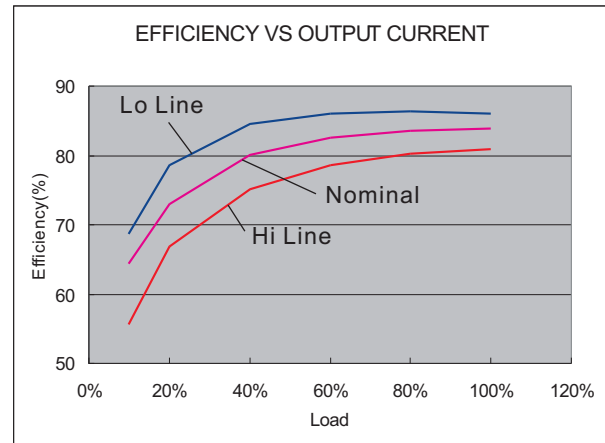
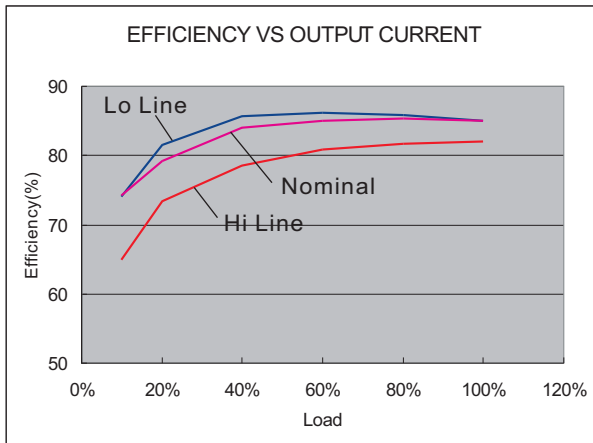


MODEL SELECTION GUIDE

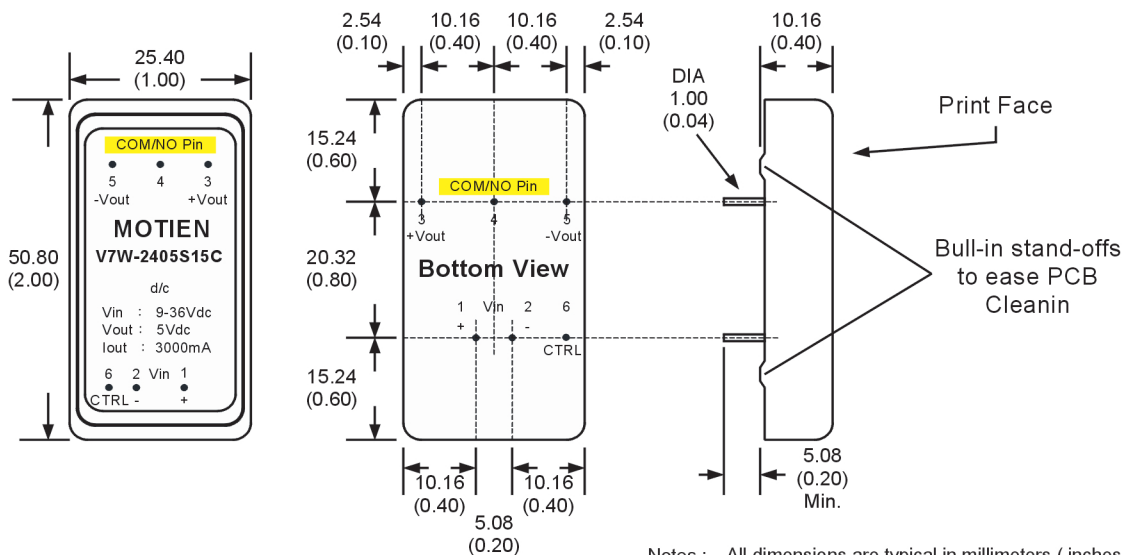
MODEL NUMBER	INPUT			OUTPUT		EFFICIENCY @FL(%)	Capacitor Load(μF)
	Voltage Range (Vdc)	No-Load Current	Full Load Current	Voltage(Vdc)	Current(mA)		
V7W-243R3S15	9-36	25	515	3.3	3000	80	3300
V7W-2405S15	9-36	25	753	5.0	3000	83	3300
V7W-247R2S15	9-36	25	744	7.2	2083	84	1000
V7W-2409S15	9-36	25	744	9.0	1666	84	680
V7W-2412S15	9-36	25	735	12.0	1250	85	680
V7W-2415S15	9-36	25	726	15.0	1000	86	470
V7W-2405D15	9-36	25	753	±5.0	±1500	83	±2200
V7W-247R2D15	9-36	25	744	±7.2	±1041	84	±470
V7W-2409D15	9-36	25	744	±9.0	±833	84	±470
V7W-2412D15	9-36	25	735	±12.0	±625	85	±470
V7W-2415D15	9-36	25	726	±15.0	±500	86	±330
V7W-483R3S15	18-72	20	257	3.3	3000	80	3300
V7W-4805S15	18-72	20	376	5.0	3000	83	3300
V7W-487R2S15	18-72	20	372	7.2	2083	84	1000
V7W-4809S15	18-72	20	372	9.0	1666	84	1000
V7W-4812S15	18-72	20	367	12.0	1250	85	680
V7W-4815S15	18-72	20	363	15.0	1000	86	470
V7W-4805D15	18-72	20	376	±5.0	±1500	83	±2200
V7W-487R2D15	18-72	20	372	±7.2	±1041	84	±330
V7W-4809D15	18-72	20	372	±9.0	±833	84	±300
V7W-4812D15	18-72	20	367	±12.0	±625	85	±470
V7W-4815D15	18-72	20	363	±15.0	±500	86	±330

NOTE

1. Maximum value at nominal input voltage and full load.
2. Typical value at nominal input voltage and full load.
3. Test by normal input voltage and constant resistor load.
4. Ripple/Noise measured over a 20MHz bandwidth.
5. Operation under no-load conditions will not damage these devices, however they may not meet all listed specifications.



MECHANICAL SPECIFICATIONS



Notes : All dimensions are typical in millimeters (inches).

1. Tolerance x.xx = ± 0.5 (± 0.02)

2. Pin Tolerance ± 0.35 (± 0.014)



MOTIEN



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