

# V7W-10 Series

10W 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 90%
- -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 12 and 24 with output voltage of 3.3,5,12,±3.3,±5,±12, ±15 Vdc. High performance features include high efficiency operation up to 87% and output voltage accuracy of ±1% maximum. Standard features include an input range of ±10% tolerance and low output noise and ripple.

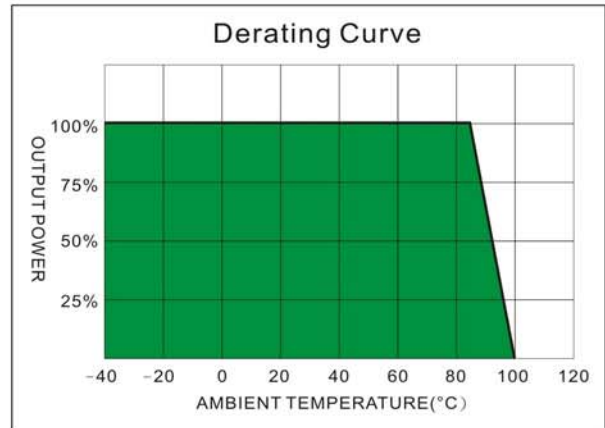
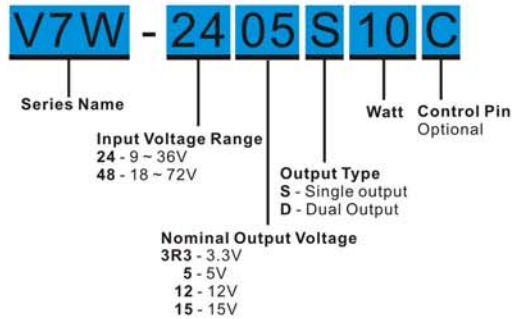
All specifications typical at Ta=25°C, nominal input voltage and full load unless otherwise specified

OUTPUT SPECIFICATIONS		GENERAL SPECIFICATIONS	
Voltage Accuracy	±1%	Efficiency	See table
Line Regulation	±0.5%	I/O Isolation Voltage	1500Vdc
Load Regulation	(10% to 100% Loading)±0.5%	I/O 1 min(flash tested for 1 sec)	1500Vdc
Ripple & Noise	75mV pk-pk	Case/Input&Output	1000Vdc
(20 Mhz bandwidth)		I/O Isolation Capacity	1200 pF Typ.
Current Limiting	140% of max. Iout	I/O Isolation Resistance	1000M Ohm
Short Circuit Protection	Indefinite(Automatic Recovery)	Switching Frequency	Fixed 200KHz
Temperature Coefficient	±0.02%/°C	Humidity	95% rel H
Capacitor Load	See table	Reliability Calculated MTBF	>1.121 Mhrs
		Safety Standard	IEC 60950-1:2001
		Safety Approvals	
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	Capacitors	Cooling	Nature Convection
Input Reflected Ripple	35mA rms		
rms thru 12uH inductor,5Hz to20MHz			
PHYSICAL SPECIFICATIONS		ABSOLUTE MAXIMUM RATINGS	
Case Material	Nickel-coated Copper	Input Voltage	
Base Material	Epoxy encapsulayed(UL94V-0 rated)	24 Modes	-0.7~40 Vdc
Pin Material	Φ0.5mm 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 10 sec.	
EMI SPECIFICATIONS			
Radiated Emissions			

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## V7W - 10W 4:1 Regulated Single & Dual output

### PART NUMBER STRUCTURE



### MODEL SELECTION GUIDE

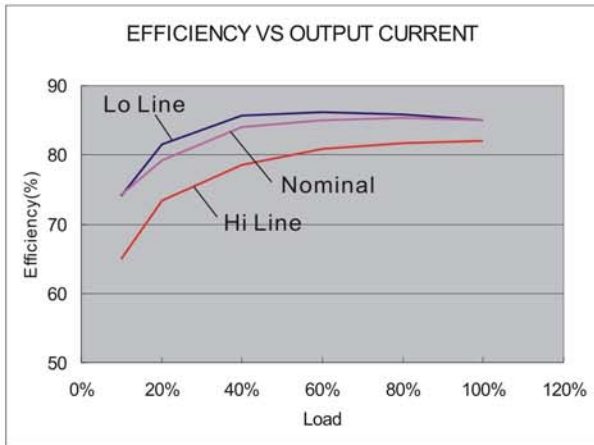
MODEL NUMBER	INPUT			OUTPUT		EFFICIENCY @FL(%)	Capacitor Load(μF)
	Voltage Range (Vdc)	No-Load Current	Full Load Current	Voltage(Vdc)	Current(mA)		
V7W-243R3S10	9-36	25	348	3.3	2000	79	3300
V7W-2405S10	9-36	25	508	5.0	2000	82	3300
V7W-2412S10	9-36	25	490	12.0	833	85	680
V7W-2415S10	9-36	25	490	15.0	666	85	470
V7W-2405D10	9-36	25	508	±5.0	±1000	82	±2200
V7W-2412D10	9-36	25	490	±12.0	±416	85	±470
V7W-2415D10	9-36	25	490	±15.0	±333	85	±330
V7W-483R3S10	18-72	20	174	3.3	2000	79	3300
V7W-4805S10	18-72	20	254	5.0	2000	82	3300
V7W-4812S10	18-72	20	245	12.0	833	85	680
V7W-4815S10	18-72	20	245	15.0	666	85	470
V7W-4805D10	18-72	20	254	±5.0	±1000	82	±2200
V7W-4812D10	18-72	20	245	±12.0	±416	85	±470
V7W-4815D10	18-72	20	245	±15.0	±333	85	±330

### NOTE

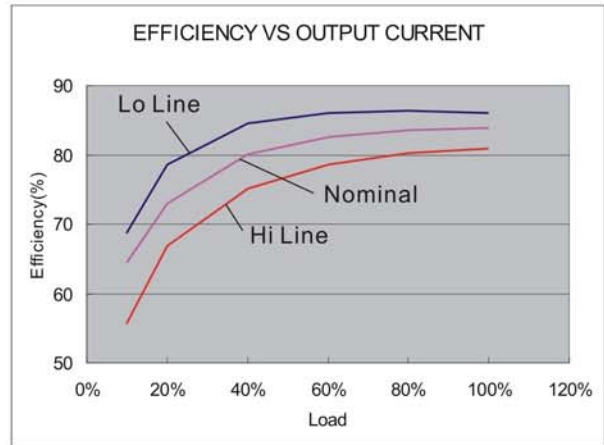
1. Maximum value at nominal input voltage and full load.
2. Typical value at nominal input voltage and full load.
3. Test by normal input voltage and constant resistor load.
4. Ripple/Noise measured over a 20MHz bandwidth.
5. Operation under no-load conditions will not damage these devices, however they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

The models listed above is just for standard type. If you need the special specification product, please contact our service member by telephone presented in shortform cover or e-mail

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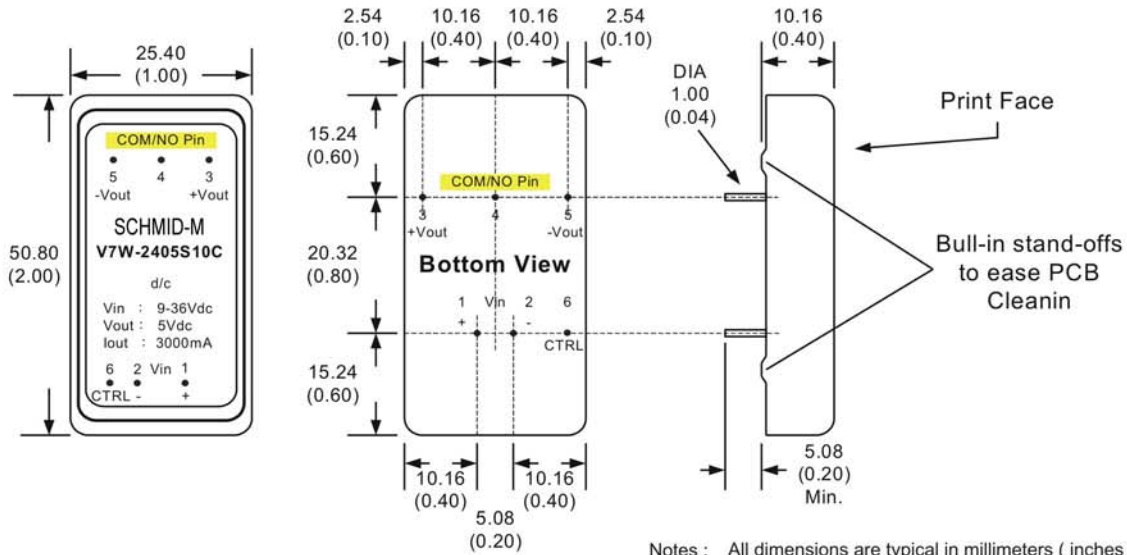


24 Models



48 Models

## MECHANICAL SPECIFICATIONS



Notes : All dimensions are typical in millimeters ( inches ).  
Tolerance x.xx = ±0.25 ( ±0.01 )

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