

V7W-12 Series

12W 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 87%
- -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, ±15Vdc. 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.

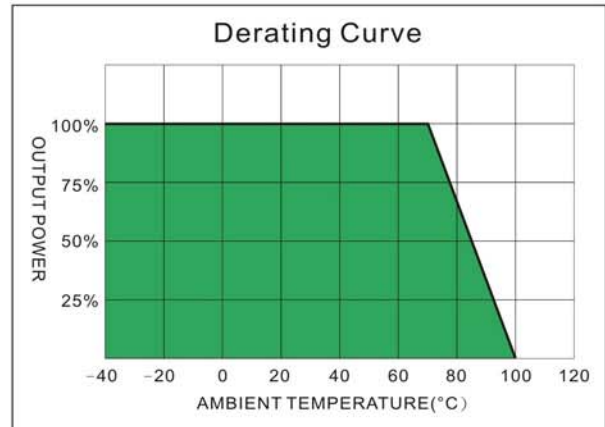
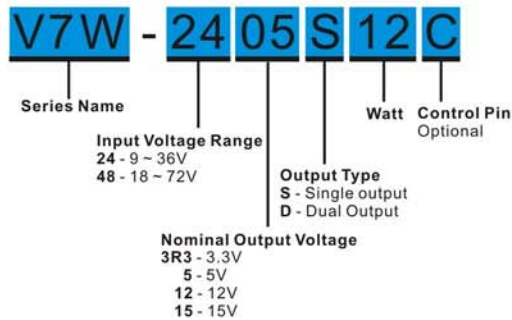
All specifications typical at Ta=25°C, nominal input voltage and full load unless otherwise specified

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 (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	±0.02%/°C	Switching Frequency	Fixed 300KHz
Capacitor Load	See table	Humidity	95% rel H
		Reliability Calculated MTBF	>1.121 Mhrs
		Safety Standard	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 to20MHz	35mA rms		
PHYSICAL SPECIFICATIONS		ABSOLUTE MAXIMUM RATINGS	
Case Material	Nickel-coated Copper	Input Voltage	24 Modes -0.7~40 Vdc 48 Modes -0.7~75 Vdc
Base Material	Epoxy encapsulayed(UL94V-0 rated)	Operating Amb. Temperature	-40°C~85°C
Pin Material	Φ0.5mm Brass Solder-coated	Case Temperature	100°C
Potting Material	Epoxy (UL94V-0 rated)	Storage Temperature	-40°C~125°C
Weight	30.0g	Lead Soldering Temperature	260°C 1.5mm from case 10 sec.
Dimensions	2.00"x1.00"x0.40"		
EMI SPECIFICATIONS			
Radiated Emissions			

The information and specifications contained in this data sheet are believed to be correct at time of publication. However, SCHMID-MULTITECH GmbH accepts no responsibility for consequences arising from printing errors or inaccuracies. Specifications are subject to change without notice. No rights under any patent accompany the sale of any such product(s) or information contained herein.

V7W - 12W 4:1 Regulated Single & Dual output

PART NUMBER STRUCTURE



MODEL SELECTION GUIDE

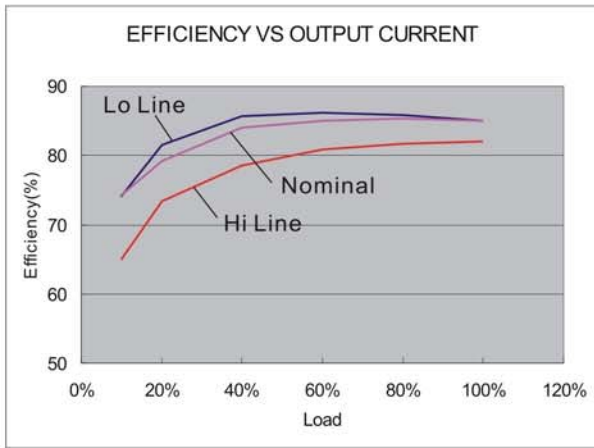
MODEL NUMBER	INPUT			OUTPUT		EFFICIENCY @FL(%)	Capacitor Load(μF)
	Voltage Range (Vdc)	No-Load Current	Full Load Current	Voltage(Vdc)	Current(mA)		
V7W-243R3S12	9-36	25	412	3.3	2400	80	3300
V7W-2405S12	9-36	25	609	5.0	2400	82	3300
V7W-2412S12	9-36	25	588	12.0	1000	85	680
V7W-2415S12	9-36	25	588	15.0	800	85	470
V7W-2405D12	9-36	25	609	±5.0	±1200	82	±2200
V7W-2412D12	9-36	25	588	±12.0	±500	85	±470
V7W-2415D12	9-36	25	588	±15.0	±400	85	±330
V7W-483R3S12	18-72	20	206	3.3	2400	80	3300
V7W-4805S12	18-72	20	304	5.0	2400	82	3300
V7W-4812S12	18-72	20	294	12.0	1000	85	680
V7W-4815S12	18-72	20	294	15.0	800	85	470
V7W-4805D12	18-72	20	304	±5.0	±1200	82	±2200
V7W-4812D12	18-72	20	294	±12.0	±500	85	±470
V7W-4815D12	18-72	20	294	±15.0	±400	85	±330

NOTE

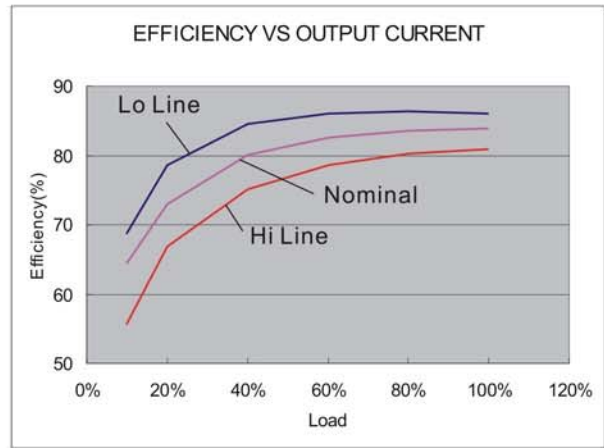
1. Maximum value at nominal input voltage and full load.
2. Typical value at nominal input voltage and full load.
3. Test by normal input voltage and constant resistor load.
4. Ripple/Noise measured over a 20MHz bandwidth.
5. Operation under no-load conditions will not damage these devices, however they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

V7W - 12W 4:1 Regulated Single & Dual output

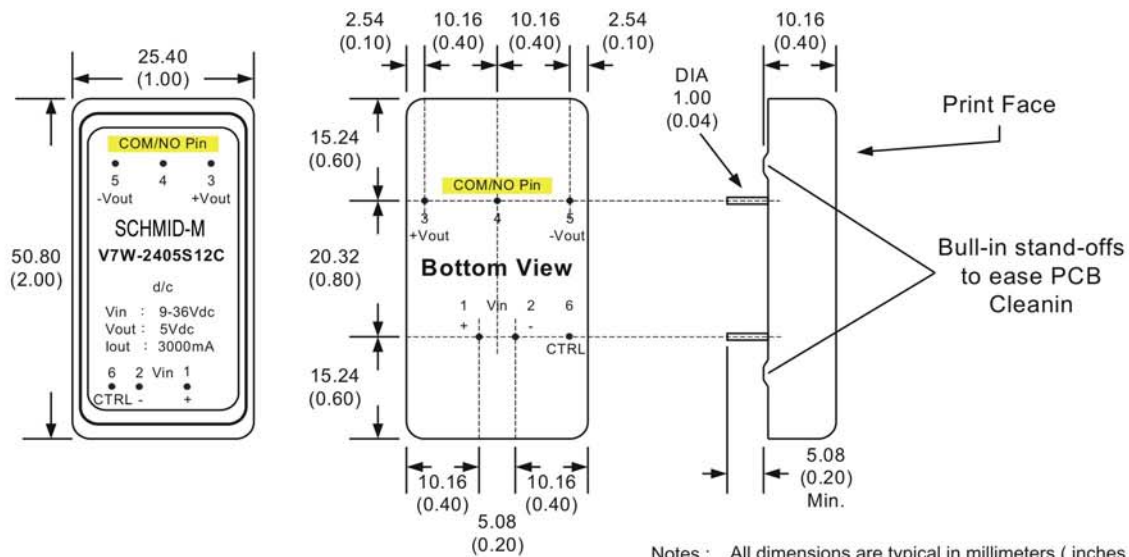


24 Models



48 Models

MECHANICAL SPECIFICATIONS



Last Update : Jan.15.2007