

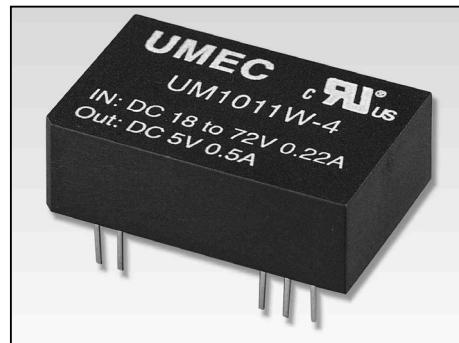
# UM1000W-4 SERIES

## 3 Watt DC/DC Converters



- ◆ Utilizes Surface Mount Technology
- ◆ 4:1 Input Range
- ◆ 7.5 Watts/Cubic Inch
- ◆ Efficiency to 80%
- ◆ 200KHz Switching Frequency
- ◆ Continuous Short Circuit Protection
- ◆ RoHS Compliant

CB c<sup>UR</sup>us



### SPECIFICATIONS

All specifications are typical at nominal line, full load and 25°C unless otherwise noted.

### OUTPUT SPECIFICATIONS

Voltage Accuracy, Single Output .....	± 2% max.
Dual +Output .....	± 2% max.
- Output .....	± 2% max.
Voltage Balance, Dual Output at Balance Load .....	±1.0% max.
Transient Response	
Single, 25% Step Load Change .....	<500u sec.
Dual, FL-1/2FL, ±1% Error Band .....	<500u sec.
Ripple and Noise, 20MHz BW	
Single .....	100mV p-p max.
Duals .....	100mV p-p max.
Temperature Coefficient .....	±0.02%/°C max.
Line Regulation <sup>1</sup> .....	±0.5% max.
Load Regulation <sup>2</sup> Single Output .....	±1.0% max.
Duals Output .....	±1.0% max.
Short Circuit Protection .....	Continuous

### GENERAL SPECIFICATIONS

Efficiency .....	see Table
Isolation Voltage .....	1500 VDC min.
Isolation Resistance .....	10 <sup>8</sup> Ohms min.
Isolation Capacitance .....	1000pF
Switching Frequency .....	200KHz typ.
Operating Temperature Range	
Ambient, None Derating .....	-40°C to +75°C
Case Temperature .....	100°C max.
Cooling .....	Free Air Convection
Storage Temperature Range .....	-40°C to +125°C
Dimensions Case A .....	1.25*0.80*0.40 inches (31.8*20.3*10.2 mm)
Case Material .....	Non-Conductive Black Plastic
Weight .....	15g

### INPUT SPECIFICATIONS

Input Voltage Range, 24V .....	9-36V
48V .....	18-72V
Input Filter .....	Pi Type

### NOTES

1. Measured from high line to low line.
2. Measured from full load to no load, dual outputs loaded equally.

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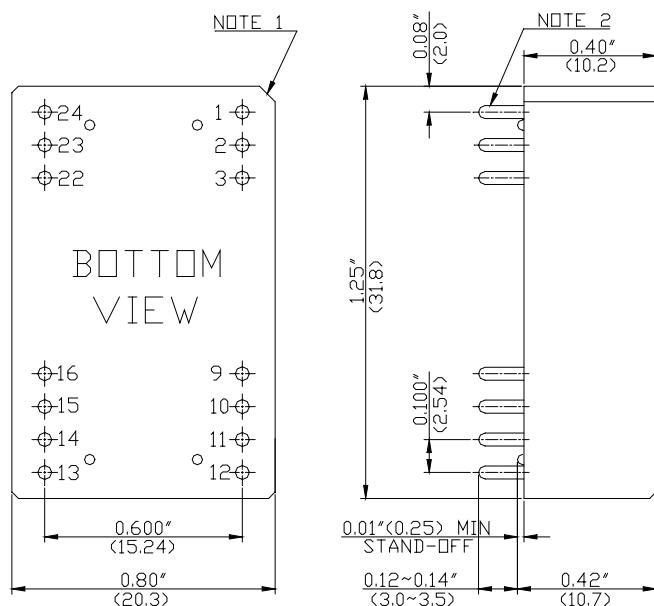


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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% TYP	REGULATION		CASE
				NO LOAD	FULL LOAD		LINE	LOAD	
UM1001W-4	24 VDC	5 VDC	500mA	15mA	130mA	80	0.5%	1.0%	A
UM1002W-4		12 VDC	250mA	15mA	157mA	80	0.5%	1.0%	
UM1003W-4		15 VDC	200mA	15mA	157mA	80	0.5%	1.0%	
UM1004W-4		$\pm 5$ VDC	$\pm 250$ mA	15mA	130mA	80	$\pm 0.5\%$	$\pm 1.0\%$	
UM1005W-4		$\pm 12$ VDC	$\pm 125$ mA	20mA	157mA	80	$\pm 0.5\%$	$\pm 1.0\%$	
UM1006W-4		$\pm 15$ VDC	$\pm 100$ mA	20mA	157mA	80	$\pm 0.5\%$	$\pm 1.0\%$	
UM1009W-4		3.3VDC	500mA	15mA	93mA	74	0.5%	1.0%	
UM1011W-4	48 VDC	5 VDC	500mA	10mA	65mA	80	0.5%	1.0%	A
UM1012W-4		12 VDC	250mA	10mA	78mA	80	0.5%	1.0%	
UM1013W-4		15 VDC	200mA	10mA	78mA	80	0.5%	1.0%	
UM1014W-4		$\pm 5$ VDC	$\pm 250$ mA	10mA	65mA	80	$\pm 0.5\%$	$\pm 1.0\%$	
UM1015W-4		$\pm 12$ VDC	$\pm 125$ mA	10mA	78mA	80	$\pm 0.5\%$	$\pm 1.0\%$	
UM1016W-4		$\pm 15$ VDC	$\pm 100$ mA	10mA	78mA	80	$\pm 0.5\%$	$\pm 1.0\%$	
UM1019W-4		3.3VDC	500mA	10mA	46mA	74	0.5%	1.0%	

MODEL NUMBER	UM 1001W -4	UM 1002W -4	UM 1003W -4	UM 1004W -4	UM 1005W -4	UM 1006W -4	UM 1009W -4	UM 1011W -4	UM 1012W -4	UM 1013W -4	UM 1014W -4	UM 1015W -4	UM 1016W -4	UM 1019W -4
MAXIMUM CAPACITIVE LOAD <sup>1</sup> (uF)	56	27	22	$\pm 27$	$\pm 15$	$\pm 10$	56	470	220	150	$\pm 220$	$\pm 100$	$\pm 68$	470

Note: 1. Maximum capacitive load Across the each output ports should not be over following indicated value.



PIN CONNECTIONS		
	Single Output	Dual Output
1	NP*	NP*
2	-V Input	-V Input
3	-V Input	-V Input
9	NC*	Common
10	NC*	NC*
11	NC*	-V Output
12	NP*	NP*
13	NP*	NP*
14	+V Output	+V Output
15	NC*	NC*
16	-V Output	Common
22	+V Input	+V Input
23	+V Input	+V Input
24	NP*	NP*

\*NC: No Connection.

\*NP: No Pin

All dimensions in inches (mm).

Note 1: Cut-corner marking for Pin No.1

Note 2: Pin size is  $0.020 \pm 0.005$  inches (0.5mm) dia.

or  $0.020 \times 0.012$  inch

Note 3: Tolerance .xx =  $\pm 0.04$ "

.xxx =  $\pm 0.010$ "



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