

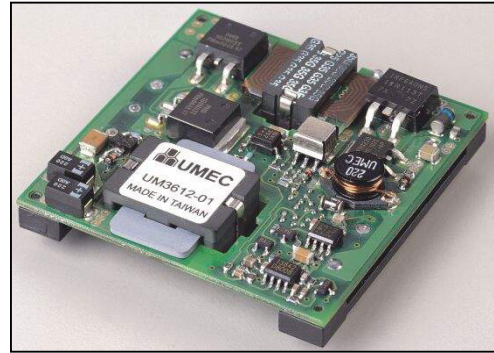
# UMEC International Corporation

## UM3600 SERIES

Green Product  
RoHS

### 20 – 50 Watt DC/DC Converters

- ◆ 2:1 Input Range
- ◆ 20-50 W Isolated Output
- ◆ High-Density
- ◆ Standard “Half-Brick” Package
- ◆ Open-Frame
- ◆ Remote on/off Control
- ◆ Safety Approvals
- ◆ RoHS Compliant



### SPECIFICATIONS

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

#### INPUT SPECIFICATIONS

Input Voltage Range, 24V .....	18-36V
48V .....	36-75V
Input Voltage peak/surge.....	100V/100ms max.
Input Filter .....	Pi Network

#### OUTPUT SPECIFICATIONS

Voltage Accuracy <sup>1</sup> .....	±1.5%max.
Transient Response <sup>2</sup>	
Single, 25% step Load Change .....	<500u sec.
External Trim Adj. Range .....	±10%
Short Circuit Protection .....	Continuous
Line Regulation <sup>3</sup> .....	±0.5% max.
Load Regulation <sup>4</sup> .....	±1% max.
Ripple and Noise, 20MHz BW <sup>5</sup> ,	
2V, 3.3V, 5V .....	100mV p-p max.
12V, 15V, 18V.....	200mV p-p max.
24V .....	250mV p-p max.
Overvoltage Protection	
2.0V .....	2.6V typ.
3.3V .....	4.3V typ.
5.0V .....	6.8V typ.
12V .....	15V typ.
15V .....	18V typ.
18V .....	24V typ.
24V .....	30V typ.

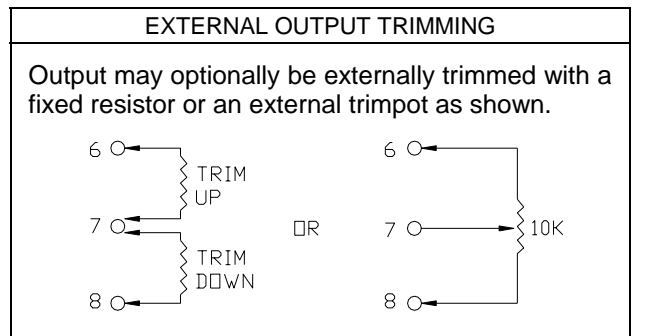
#### GENERAL SPECIFICATIONS

Efficiency .....	See Table
Isolation Voltage .....	1500VDCmin.
Switch Frequency .....	250KHz
Isolation Resistance <sup>6</sup> .....	10 <sup>8</sup> Ohms min.
Over temperature shutdown point <sup>7</sup> .....	125°C typ.
Operation Temperature <sup>8</sup> .....	-40°C to +120°C
Storage Temperature Range .....	-55°C to +125°C
EMI/RFI Conducted.....	EN55022 Level A
Dimensions .....	2.40*2.28*0.43 inches (60.96*57.91*10.90 mm)
Weight .....	50g

### NOTE

1. Defined at the static output regulation at 25°C, including initial setting accuracy, Line voltage within stated limits and load current within stated limits.
2. di/dt=100mA/1uS ,Tc=25°C; load change=0.5Io max. to 0.75 Io max. and 0.75 Io max. to 0.5 Io max.
3. Measured from high line to low line.
4. Measured from full load to 1/4 load.
5. Measured with 2.2uF ceramic Cap. Cross to output.
6. Measured with 500VDC
7. Non-latching shutdown protection
8. Defined as the highest temperature measured at any one of the specified temperature hotspot checkpoints.
9. Standard product is active high, active low remote on/off option is available, to order suffix a “N” to the model number e.g. UM3611N.

REMOTE ON/OFF CONTROL	
Logic Compatibility.....	CMOS or Open Collector TTL
Ec-ON .....	> +2.5 VDC or Open Circuit
Ec-OFF .....	< 0.8 VDC
Control Common .....	Referenced to Input Minus



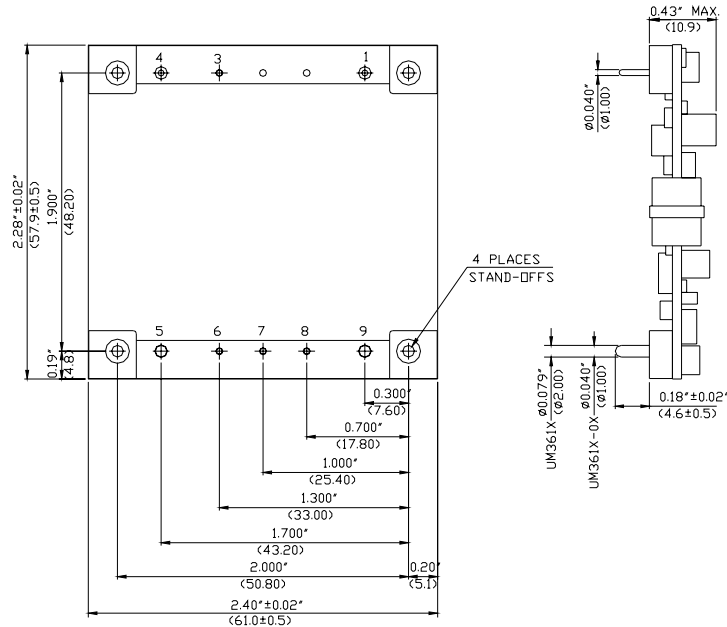
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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT FULL LOAD	TYPICAL EFFICIENCY
UM3602	24 VDC	3.3 VDC	10 A	1580 mA	87%
UM3603	24 VDC	5 VDC	10 A	2340 mA	89%
UM3604	24 VDC	12 VDC	4.2 A	2414 mA	87%
UM3605	24 VDC	15 VDC	3.4 A	2415 mA	88%
UM3606	24 VDC	18 VDC	2.8 A	2386 mA	88%
UM3607	24 VDC	24 VDC	2.1 A	2386 mA	88%
UM3611	48 VDC	2.0 VDC	10 A	478 mA	87%
UM3611-01			8 A	383 mA	87%
UM3612	48 VDC	3.3 VDC	10 A	780 mA	88%
UM3612-01			8 A	618 mA	89%
UM3613	48 VDC	5 VDC	10 A	1144 mA	91%
UM3613-01			8 A	906 mA	92%
UM3614	48 VDC	12 VDC	4.2 A	1193 mA	88%
UM3615	48 VDC	15 VDC	3.4 A	1207 mA	88%
UM3616	48 VDC	18 VDC	2.8 A	1193 mA	88%
UM3617	48 VDC	24 VDC	2.1 A	1193 mA	88%

NOTE: Other output voltage can be supported upon request.



Pin Connections	
Pin	Function
1	-Vin
2	No Pin
3	Remote On/Off Control
4	+Vin
5	+Vout
6	+Vsense
7	Trim
8	-Vsense
9	-Vout

All dimensions in inches (mm)

Tolerance .xx = ±0.04"

.xxx = ±0.010"

NOTE:

If remote sensing not utilized, output sense pin must be jumpered to respective output power pins, for normal operation connect Pin NO.5 to Pin NO.6 and Pin NO.8 to Pin NO.9.



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