

UMEC International Corporation

UM3700 SERIES

Green Product
RoHS

37.5 to 75 Watt DC-DC Converters

- ◆ 2:1 Input Range
- ◆ Efficiency up to 90%
- ◆ 200 KHz Switching Frequency
- ◆ Short Circuit Protection
- ◆ Remote on/off Control
- ◆ Internal Soft Start
- ◆ 37.5 to 75W Isolation Output
- ◆ High-Density
- ◆ Under Voltage Lockout
- ◆ Standard "Quarter-Brick" Package
- ◆ RoHS Compliant



SPECIFICATIONS

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

INPUT SPECIFICATIONS

Input Voltage Range, 48V 36-75V
Input Filter Pi Network

OUTPUT SPECIFICATIONS

Voltage Accuracy ±1.5% max.
External Trim Adj. Range ±10%
Transient Response² Single,
25% Step Load Change, ±1% Error Band <500u sec.
Ripple & Noise, 20MHz BW³, 100mV p-p max.
40mV rms max.
Over-Voltage Protection Clamp Type
Short Circuit Protection Continuous
Line Regulation⁴ ±0.5% max.
Load Regulation⁵ ±0.5% max.

GENERAL SPECIFICATIONS

Efficiency See Table
Isolation Voltage (I/O) 1500Vdc min.
Isolation Resistance 10⁸ Ohms min.
Switching Frequency 200KHz typ.
Baseplate Operating Temperature Range
None Derating -25°C to +85°C
Derating Linearly to Half Power at 100°C
Storage Temperature Range -40°C to +125°C
Thermal Protection 110°C typ.
Dimensions 1.45*2.28*0.5 inches
(36.8*57.9*12.7 mm)

NOTE

1. Determine the correct fuse size by calculating the maximum DC current drain at low line input, maximum load and then adding 20% to 25% to get the desired fuse size.
2. di/dt= 0.1A/1uS, Vin= Nominal Line, Tc= 25°C; load change= 0.5 Io max. to 0.75 Io max. and 0.75 Io max. to 0.5 Io max.
3. Measured with 10uF Low ESR tantalum capacitor and 0.1uF ceramic capacitor across output.
4. Measured from high line to low line.
5. Measured from full load to 1/4 load.
6. Maximum capacitive load across the output ports should not over following indicated values.
7. This converter required a minimum 10% loading on the output to maintain specified regulation. Operation under no-load condition will not damage these devices, However they may not meet all listed specification.
8. Standard product is active low, active high remote on/off option is available, to order suffix a "H" to the model number e.g. UM3711H.

STANDARD REMOTE ON/OFF CONTROL

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

EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed with a fixed resistor or an external trimpot as shown.



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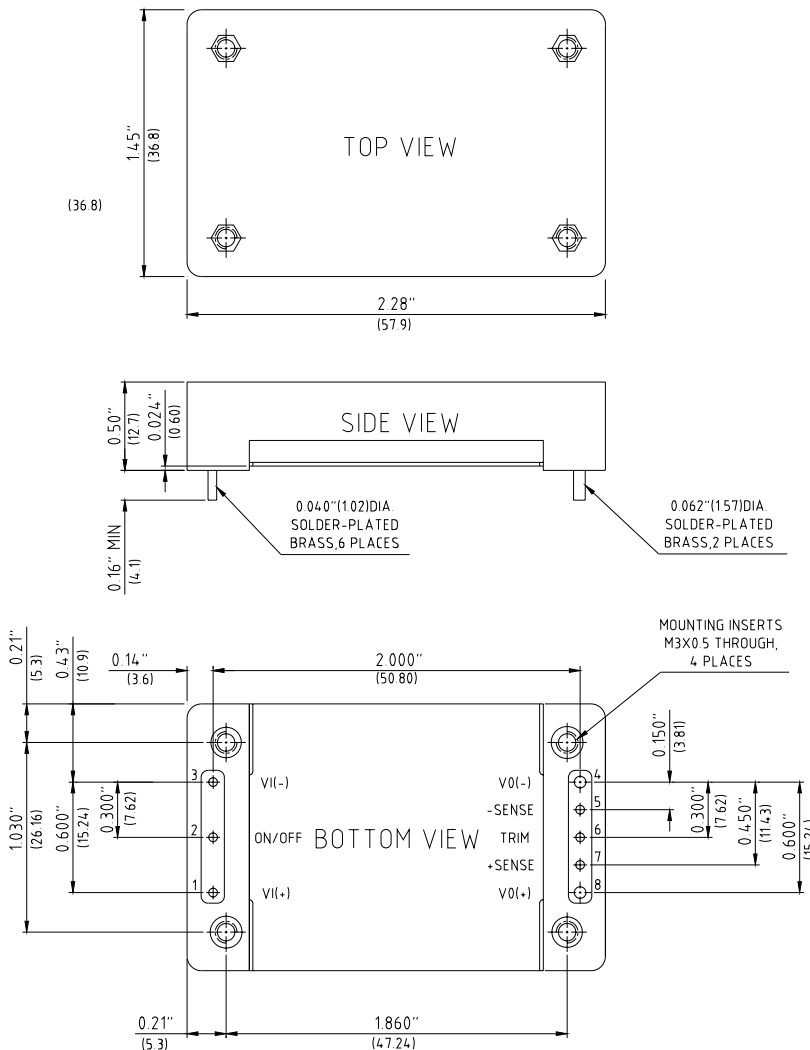
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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	% EFF
UM3711	48 VDC	5 VDC	15 A	90
UM3718	48 VDC	2.5 VDC	15 A	87
UM3719	48 VDC	3.3 VDC	15 A	89

NOTE: Other output voltage can be supported upon request.

MODEL NUMBER	UM3711	UM3718	UM3719
MAXIMUM ⁶ CAPACITIVE LOAD (uF)	2200	2200	2200



Pin Connections*	
Pin	Function
1	+Vin
2	On/Off
3	-Vin
4	-Vout
5	-Sense
6	Trim
7	+Sense
8	+Vout

NOTE:

* : If remote sensing not utilized, output sense pin must be jumpered to respective output power pins, for normal operation connect Pin NO.4 to Pin NO.5 and Pin NO.7 to Pin NO.8.

All dimensions in inches (mm)
 Tolerance .xx = ±0.04"
 .xxx = ±0.010"



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