

# UM3200 SERIES

## 200 Watt DC/DC Converters

- ◆ 2:1 Input Range
- ◆ Efficiency to 80%
- ◆ 350 KHz Switching Frequency
- ◆ Short Circuit Protection
- ◆ Remote on/off Control
- ◆ Internal Soft Start
- ◆ 200W Isolation Output
- ◆ High-Density



### 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% max.  
External Trim Adj. Range ..... ±10%  
Transient Response<sup>1</sup>, ±1% Error Band ..... <500u sec.  
Ripple , 20MHz BW<sup>2</sup>  
    Vout: 5V ..... 160mV p-p max.  
                       60mV rms max.  
Short Circuit Protection ..... Continuous  
Line Regulation<sup>3</sup> ..... ±0.2% max.  
Load Regulation<sup>4</sup> ..... ±0.5% max.

### GENERAL SPECIFICATIONS

Efficiency ..... See Table  
Isolation Voltage ..... 500Vdc  
Isolation Resistance ..... 10<sup>8</sup> ohms min.  
Switching Frequency ..... 350KHz typ.  
Baseplate Operating Temperature Range  
    None Derating ..... -25°C to +85°C  
    Cooling ..... Free Air Convection  
Storage Temperature Range ..... -40°C to +105°C  
Dimensions ..... 2.4\*4.6\*0.5 inches  
                       (61.0\*116.84\*12.7 mm)

### NOTE

1. di/dt= 0.1A/1uS, Vin=48V, Tc=25°C; load change =0.5 Io max. to 0.75 Io max. and 0.75 Io max. to 0.5 Io max.
2. Measured with 10uF tantalum capacitor and 0.1uF & 1uF ceramic capacitor across output.
3. Measured from high line to low line.
4. Measured from full load to 1/4 load.
5. Maximum capacitive load across the output ports should not over following indicated values.
6. 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.
7. Standard product is active low, active high remote on/off option is available, to order suffix a "H" to the model number e.g. UM3211H

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 (±10%) with a fixed resistor or an external trimpot as shown.	
TRIM UP	OR

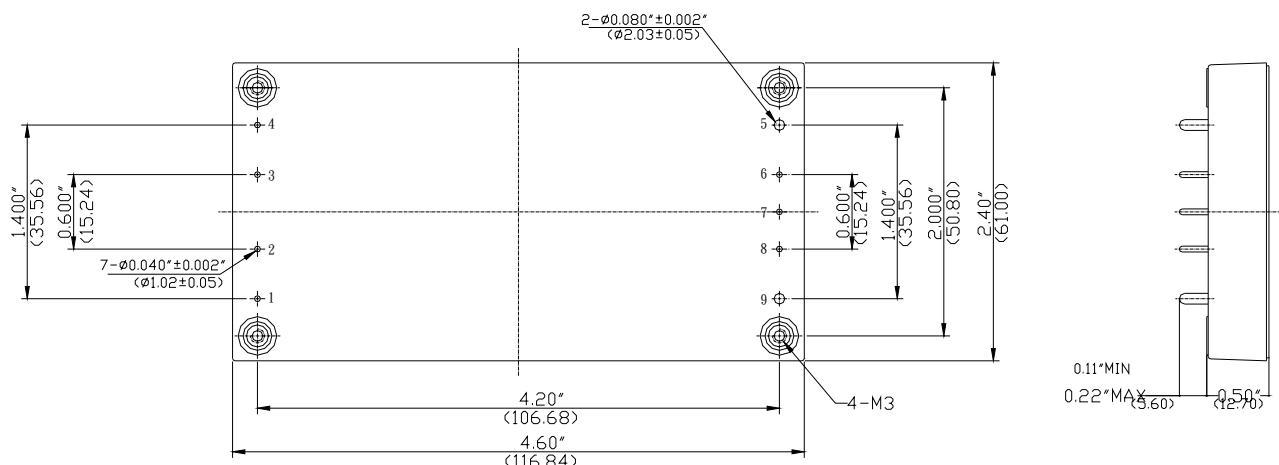


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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	% EFF
UM3211	48 VDC	5 VDC	40 A	80

NOTE: Other output voltage can be supported upon request.

MODEL NUMBER	UM3211
MAXIMUM <sup>5</sup> CAPACITIVE LOAD (uF)	2200



All dimensions in inches(mm)

Tolerance .xx =±0.04  
.xxx =±0.010

Pin Connections <sup>1</sup>	
Pin	Function
1	+Vin
2	On/Off
3	N/A
4	-Vin
5	-Vout
6	-Sense
7	Trim
8	+Sense
9	+Vout

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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UM3200

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REV.1