

UMEC International Corporation

UM5300 SERIES

60 Watt DC-DC Dual Output Converters

- ◆ 2:1 Input Range
- ◆ 350 KHz Switching Frequency
- ◆ Short Circuit Protection
- ◆ Under Voltage Lockout
- ◆ Over voltage Protection
- ◆ Industry Standard Footprint
- ◆ Standard "Quarter Brick" Package
- ◆ Safety Approvals Pending (EN60950 and UL/cUL)
- ◆ 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
Input Under Voltage Lockout	33V typ.
Input Over Voltage Protection	80V typ.

OUTPUT SPECIFICATIONS

Voltage Accuracy ¹	±2% max.
External Trim Adj. Range ²	±10%
Transient Response ³ , ±1% Error Band	<500u sec.
Ripple & Noise, 20MHz BW ⁴	100mV p-p max.
Over-Voltage Protection	Clamp Type
Short Circuit Protection	Continuous
Total Regulation ⁵	See Table
Output Power	60W max.

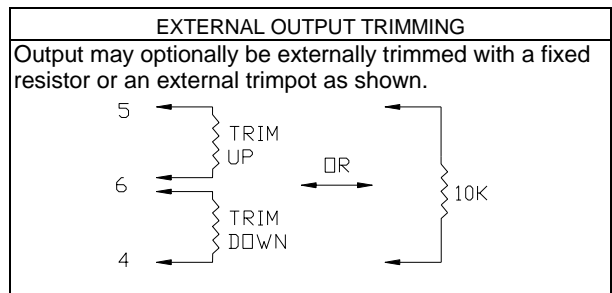
GENERAL SPECIFICATIONS

Efficiency ⁶	See Table
Isolation Voltage (I/O)	1500VDC min.
Isolation Resistance	10 ⁸ Ohms min.
Isolation Capacitance	1000 pF
Switching Frequency	350KHz typ.
Baseplate Operating Temperature Range	
None Derating	-25°C to +85°C
Derating	Linearly to Half Power at 100°C
Cooling	Free Air Convection
Storage Temperature Range	-40°C to +120°C
Temperature Coefficient	0.03%/°C
Thermal Protection	110°C typ.
Dimensions	2.3*1.5*0.5 inches (58.42*38.1*12.7 mm)

NOTE

1. I_{o1}= 6A, I_{o2}= 9A.
2. A trim adjustment will cause an equal percentage of change in both outputs.
3. di/dt= 0.1A/1uS, Vin= Nominal Line, Tc= 25°C; load change = 0.5 I_o max. to 0.75 I_o max. and 0.75 I_o max. to 0.5 I_o max.
4. Measured with 10uF Low ESR tantalum capacitor and 0.1uF & 1uF ceramic capacitor across output.
5. Measured from high line to low line.
Measured from full load to 1/10 load.
6. 5V at full load condition.
7. Maximum capacitive load across the output ports should not over following indicated values.
8. Standard product is active high, active low remote on/off option is available, to order suffix a "N" to the model number e.g. UM5311N.

STANDARD 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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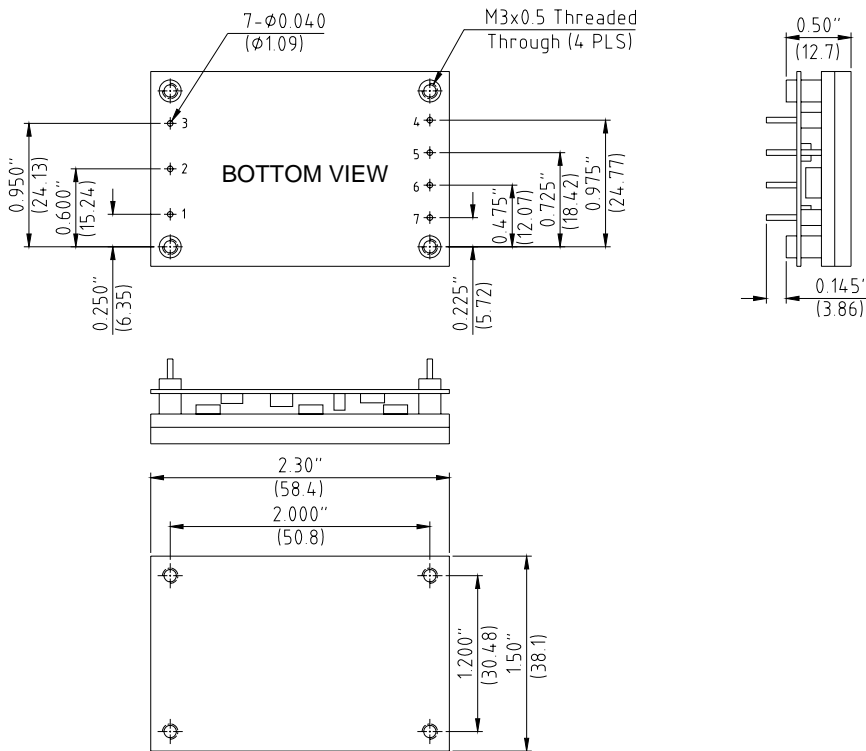
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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE & RATED CURRENT		EFFICIENCY (% typ.)	TOTAL REGULATION	
		Vo1	Vo2		Vo1	Vo2
UM5311	48 VDC	5V/12A	3.3V/15A	88	4.75V~5.25V	3.20V~3.43V

NOTE: Other output voltage can be supported upon request.

MODEL NUMBER	UM5311	
	Vo1	Vo2
MAXIMUM ⁷ CAPACITIVE LOAD (uF)	2200	2200

OUTLINE DIMENSIONS



Pin Connections	
Pin	Function
1	+Vin
2	Remote On/Off
3	- Vin
4	Vo2
5	Output Return
6	Trim
7	Vo1

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



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