UM500 SERIES

10 to 12 Watt DC-DC Converters

- **High Performance.**
- **60% Efficiency.**
- **Regulated Outputs.**
- **Pi Input Filter.**
- **Six-Sided Shield**

SPECIFICATIONS

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

INPUT SPECIFICATIONS

Input Voltage Range ..... See Table
Input Filter ..... Pi Network

OUTPUT SPECIFICATIONS

Voltage Accuracy ..... ±1.0% max.
Voltage Balance, Dual Output ..... ±0.5% max.
Temperature Coefficient
  Single Output ..... ±0.02%/°C
  Dual Output ..... ±0.01%/°C
Ripple and Noise, 20MHz BW[1]
  Single Output ..... 50mV P-P max.
  Dual Output ..... 35mV P-P max.
Short Circuit Protection ..... Current Limit
Line Regulation 0.02%
Load Regulation 0.05%

GENERAL SPECIFICATIONS

Efficiency 60%
Isolation Voltage ..... 500 VDC min.
Isolation Capacitance 100pF
Isolation Resistance ..... 10^8 ohms min.
Switching Frequency ..... 20KHz min.
Operating Temperature Range
  Ambient, None Derating ..... -25°C to +71°C
  Cooling ..... Free Air Convection
Storage Temperature Range ..... -40°C to +100°C
EMI/RFI ..... Six-Sided Continuous Shield[1]
Dimensions ..... 3.5*2.5*0.88 inches (88.9*63.5*22.4mm)
Case Material ..... Black-Coated Copper with Non-Conductive Base
Weight 200g

Input Voltage	60% FL	80% FL	100% FL
5V	4.4-6.5V	4.5-6.0V	4.65-5.5V
12V	10.56-15.6V	10.8-14.4V	11.16-13.2V
24V	21.12-31.2V	21.6-28.8V	22.32-26.4V
28V	24.64-36.4V	25.2-33.6V	26.04-30.8V
48V	42.24-62.4V	43.2-57.6V	44.64-52.8V

NOTES:

1. Measured with 0.1uF ceramic cap. Connected to the output pins.

UNIVERSAL MICROELECTRONICS

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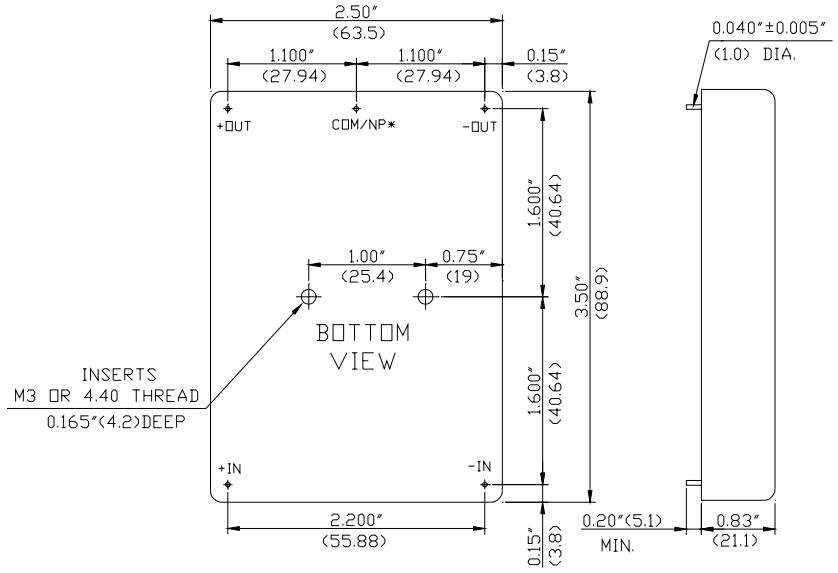
MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		CASE
				NO LOAD	FULL LOAD	
UM501	5 VDC	5 VDC	2000 mA	70 mA	3300 mA	D
UM502		12 VDC	940 mA	90 mA	3500 mA	
UM503		15 VDC	800 mA	100 mA	3670 mA	
UM504		± 12 VDC	± 525 mA	130 mA	3840 mA	
UM505		± 15 VDC	± 412 mA	180 mA	3780 mA	
UM506	12 VDC	5 VDC	2000 mA	30 mA	1350 mA	D
UM507		12 VDC	940 mA	40 mA	1450 mA	
UM508		15 VDC	800 mA	50 mA	1540 mA	
UM509		± 12 VDC	± 525 mA	80 mA	1600 mA	
UM510		± 15 VDC	± 412 mA	90 mA	1570 mA	
UM511	24 VDC	5 VDC	2000 mA	20 mA	690 mA	D
UM512		12 VDC	940 mA	25 mA	700 mA	
UM513		15 VDC	800 mA	25 mA	730 mA	
UM514		± 12 VDC	± 525 mA	50 mA	780 mA	
UM515		± 15 VDC	± 412 mA	50 mA	760 mA	
UM516	28 VDC	5 VDC	2000 mA	20 mA	590 mA	D
UM517		12 VDC	940 mA	25 mA	590 mA	
UM518		15 VDC	800 mA	30 mA	620 mA	
UM519		± 12 VDC	± 525 mA	50 mA	650 mA	
UM520		± 15 VDC	± 412 mA	50 mA	650 mA	
UM521	48 VDC	5 VDC	2000 mA	20 mA	350 mA	D
UM522		12 VDC	940 mA	25 mA	350 mA	
UM523		15 VDC	800 mA	25 mA	360 mA	
UM524		± 12 VDC	± 525 mA	30 mA	390 mA	
UM525		± 15 VDC	± 412 mA	40 mA	380 mA	

CASE D



*NP(NO PIN)ON SINGLE OUTPUT MODELS
All dimensions in inches(mm).
Tolerance .xx=±0.04
.xxx=±0.010

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