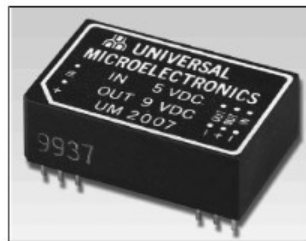


UM2000 SERIES

2 Watt DC-DC Converters

- ♦ 24-Pin Dip Package
- ♦ High Efficiency (up to 80%)
- ♦ Regulated Outputs
- ♦ Pi Input Filter
- ♦ 500 VDC Isolation
- ♦ Continuous Short Circuit Protection



SPECIFICATIONS

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

INPUT SPECIFICATIONS

Input Voltage Range	5V 4.5-5.5V
	12V 9-18V
	24V 18-36V
	48V 36-72V
Input Filter	PI Network

OUTPUT SPECIFICATIONS

Voltage Accuracy	±2.0% max.
Voltage Balance (Dual) ¹	±2.0% max.
Ripple and Noise, 20MHz BW	60mV P-P max.
Temperature Coefficient	±0.05%/°C
Short Circuit Protection	Continuous
Line Regulation ²	±0.5%
Load Regulation ³	±0.5%

GENERAL SPECIFICATIONS

Efficiency	See Table
Isolation Voltage	500 VDC min.
Isolation Resistance	10 ⁹ ohms min.
Switching Frequency	150KHz-850KHz (Depending on Loading)
Operating Temperature Range	
Ambient, None Derating	-25°C to +71°C
Cooling	Free Air Convection
Storage Temperature Range	-40°C to +100°C
Humidity	95% R.H. max.
Dimensions CASE A	1.25 x 0.8 x 0.4 inches (31.8 x 20.3 x 10.2 mm)
Case Material	
Standard Models	Non-Conductive Black Plastic UL94V-0

NOTES:

1. For common output models.
2. Measured from high line to low line.
3. Measured from full load to 10% load.



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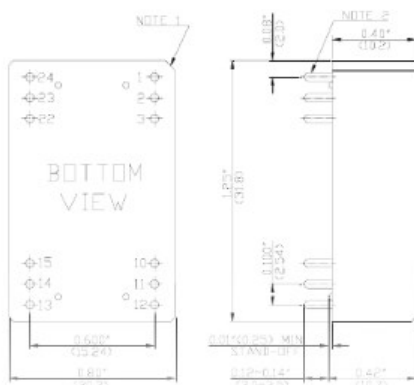
UM2000

1 of 2

REV.2

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		CASE	EFFICIENCY
				NO LOAD	FULL LOAD		
UM2001 UM2002 UM2003 UM2004A UM2005 UM2006 UM2007	5 VDC	5 VDC 12 VDC 15 VDC ±5 VDC ±12 VDC ±15 VDC 9 VDC	400 mA 160 mA 130 mA ±150 mA ±80 mA ±65 mA 250 mA	110 mA 100 mA 110 mA 110 mA 130 mA 140 mA 105 mA	620 mA 550 mA 550 mA 600 mA 640 mA 640 mA 680 mA	A	65% 70% 70% 50% 60% 60% 66%
UM2011 UM2012 UM2013 UM2014 UM2015 UM2016 UM2017	12 VDC	5 VDC 12 VDC 15 VDC ±5 VDC ±12 VDC ±15 VDC 9 VDC	400 mA 160 mA 130 mA ±200 mA ±80 mA ±65 mA 250 mA	50 mA 50 mA 50 mA 50 mA 70 mA 80 mA 50 mA	230 mA 215 mA 215 mA 290 mA 245 mA 240 mA 250 mA	A	73% 75% 75% 57% 65% 67% 75%
UM2021 UM2022 UM2023 UM2024 UM2025 UM2026 UM2027	24 VDC	5 VDC 12 VDC 15 VDC ±5 VDC ±12 VDC ±15 VDC 9 VDC	400 mA 160 mA 130 mA ±200 mA ±80 mA ±65 mA 250 mA	30 mA 30 mA 30 mA 35 mA 35 mA 35 mA 30 mA	115 mA 105 mA 105 mA 135 mA 115 mA 115 mA 120 mA	A	75% 78% 78% 62% 70% 70% 78%
UM2031 UM2032 UM2033 UM2034 UM2035 UM2036 UM2037	48 VDC	5 VDC 12 VDC 15 VDC ±5 VDC ±12 VDC ±15 VDC 9 VDC	400 mA 160 mA 130 mA ±200 mA ±80 mA ±65 mA 250 mA	5 mA 10 mA 10 mA 10 mA 15 mA 15 mA 10 mA	55 mA 50 mA 50 mA 70 mA 57 mA 56 mA 59 mA	A	75% 80% 80% 60% 70% 72% 80%

CASE A



PIN CONNECTIONS			
Pin	Single Output	Dual Output	
		Separated ¹	Common ²
1	+V Input	+V Input	+V Input
2	NC*	-V2 Output	-V Output
3	NC*	+V2 Output	Common
10	-V Output	-V1 Output	Common
11	+V Output	+V1 Output	+V Output
12	-V Input	-V Input	-V Input
13	-V Input	-V Input	-V Input
14	+V Output	+V1 Output	+V Output
15	-V Output	-V1 Output	Common
22	NC*	+V2 Output	Common
23	NC*	-V2 Output	-V Output
24	+V Input	+V Input	+V Input

*NC(no connection)

NOTES:1.dual output models with separated output

2 Dual output models suffix a"c" to the mode number with common output