

UM800 SERIES

15 Watt DC-DC Converters

- 4:1 Input Range.
- 15W Isolated Output.
- Efficiency to 80%.
- Remote On/Off Control.
- 100 KHz Switching Frequency.
- Six-Sided Shield.

SPECIFICATIONS

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

INPUT SPECIFICATIONS

Input Voltage Range, 24V 9-36V
48V 18-72V
Input Filter Pi Network
Reverse Voltage Protection¹ Internal Shunt Diode
Use External Fuse

OUTPUT SPECIFICATIONS

Voltage Accuracy, Single Output $\pm 1\%$ max.
Dual + Output $\pm 1\%$ max.
- Output $\pm 3\%$ max.
Triple, 5V $\pm 2\%$ max.
12V/15V $\pm 3\%$ max.
Voltage Balance, Dual Output at Full Load $\pm 1.0\%$ max.
Transient Response
Single, 25% Step Load Change $< 500 \mu$ sec.
Dual, FL-1/2L, $\pm 1\%$ Error Band $< 500 \mu$ sec.
External Trim Adj, Range $\pm 10\%$
Ripple and Noise, 20MHz BW 10mV RMS max.
75mV P-P max.
Temperature Coefficient $\pm 0.02\%$ °C max.
Short Circuit Protection Continuous
Overvoltage Protection, 5V 6.8V
12V 15V
15V 18V
Line Regulation², Single/Dual Output $\pm 0.2\%$ max.
Triple Output $\pm 1\%$ max.
Load Regulation³, Single/Dual Output $\pm 1\%$ max.
Triple Output $\pm 5\%$ max.

GENERAL SPECIFICATIONS

Efficiency See Table
Isolation Voltage 500 VDC min.
Isolation Resistance 10^8 ohms min.
Switching Frequency 100KHz
Case Grounding Capacity Coupled to Input
Operating Temperature Range
Ambient, None Derating -25°C to +71°C
Cooling Free Air Convection
Storage Temperature Range -55°C to +105°C
EMI/RFI Six-Sided Continuous Shield
Dimensions 2.56 * 3.0 * 0.83 inches
(65 * 76.2 * 21.1mm)
Case Material Black-Coated Copper with
Non-Conductive Base
Weight 180g

NOTES

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. Measured from high line to low line.
3. Measured from full load to 1/4 full load.

REMOTE ON/OFF CONTROL

Logic Compatibility.....	CMOS or Open Collector TTL
Ec-ON,.....	$> +5.5$ VDC or Open Circuit
Ec-OFF,.....	< 1.8 VDC
Shutdown Idle Current.....	10mA
Control Common.....	Referenced to Input Minus

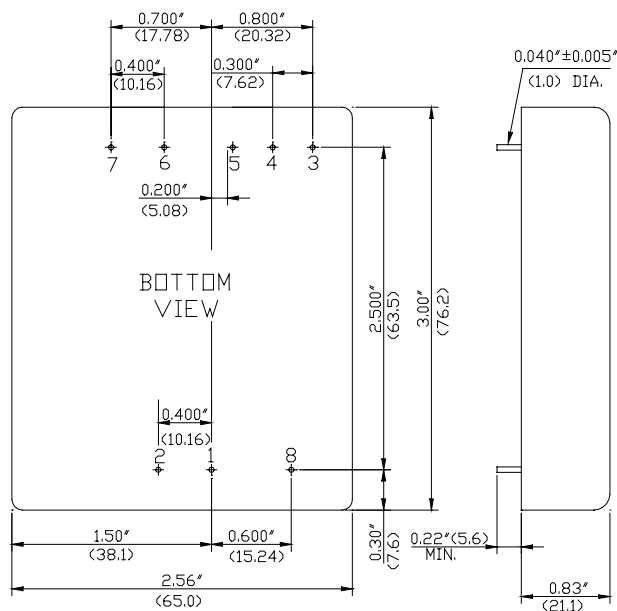


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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE
				NO LOAD	FULL LOAD		
UM801	24 VDC	5 VDC	3000 mA	20 mA	810 mA	77	E
UM802		12 VDC	1250 mA	20 mA	780 mA	80	
UM803		15 VDC	1000 mA	20 mA	780 mA	80	
UM804		±12 VDC	±625 mA	30 mA	780 mA	80	
UM805		±15 VDC	±500 mA	30 mA	780 mA	80	
UM806		5/±12 VDC	1500/±310 mA	30 mA	800 mA	78	
UM807		5/±15 VDC	1500/±250 mA	30 mA	800 mA	78	
UM811	48 VDC	5 VDC	3000 mA	20 mA	410 mA	76	E
UM812		12 VDC	1250 mA	20 mA	390 mA	80	
UM813		15 VDC	1000 mA	20 mA	390 mA	80	
UM814		±12 VDC	±625 mA	25 mA	390 mA	80	
UM815		±15 VDC	±500 mA	25 mA	390 mA	80	
UM816		5/±12 VDC	1500/±310 mA	25 mA	400 mA	78	
UM817		5/±15 VDC	1500/±250 mA	25 mA	400 mA	78	

CASE E



All dimensions in inches(mm).

Tolerance .xx = ±0.04

.xxx = ±0.010

PIN CONNECTIONS			
Pin	Single	Dual	Triple
1	+Input	+Input	+Input
2	-Input	-Input	-Input
3	No Pin	+Output	+Output
4	Output Trim	Common	Common
5	No Pin	-Output	-Output
6	+Output	No Pin	+5V Output
7	-Output	No Pin	No Pin
8	Remote On/Off Control		

EXTERNAL OUTPUT TRIMMING	
Output may optionally be externally trimmed (±10%) with a fixed resistor or an external trimpot as shown.	

TRIPLE OUTPUT LOADING TABLE ¹				
		Amperes		
		Min ²	Nom.	Max.
1	+5	.250	1.5	2.0
2 & 3	+12 or -12	.100	.310	.500
2 & 3	+15 or -15	.100	.250	.500

NOTES:

- Maximum total power from all outputs is limited to 15 watts but no output should be allowed to exceed its maximum current.
- Minimum current on each output is required to maintain specified regulation.



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