

UM1300 SERIES

25 to 30 Watt DC-DC Converters

- ◆ 4:1 Input Range
- ◆ 30W Isolated Output
- ◆ Efficiency to 83%
- ◆ 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 ±1% max.
 Dual +Output ±1% max.
 -Output ±3% max.
 Voltage Balance, Dual Output at Full Load
 ±1.0% max.
 Transient Response
 Single, 25% Step Load Change <500µsec.
 Dual, FL-1/2FL, ±1% Error Band <500µsec.
 External Trim Adj, Range ±10%
 Ripple and Noise, 20MHz BW 10mV RMS max.
 75mV P-P max.
 Overvoltage Protection, Trip Point (Zener Clamp Type)
 See Table.
 Short Circuit Protection Continuous.
 Temperature Coefficient ±0.02%/°C
 Line Regulation² ±0.5% max.
 Load Regulation³ ±1% max.

GENERAL SPECIFICATIONS

Efficiency See Table
 Isolation Voltage 500 VDC min.
 Isolation Resistance 10⁸ 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 x 4.56 x 0.83 inches
 (65 x 115.8 x 21.1 mm)
 Case Material Black-Coated Copper With
 Non-Conductive Base.
 Weight 260g

NOTES:

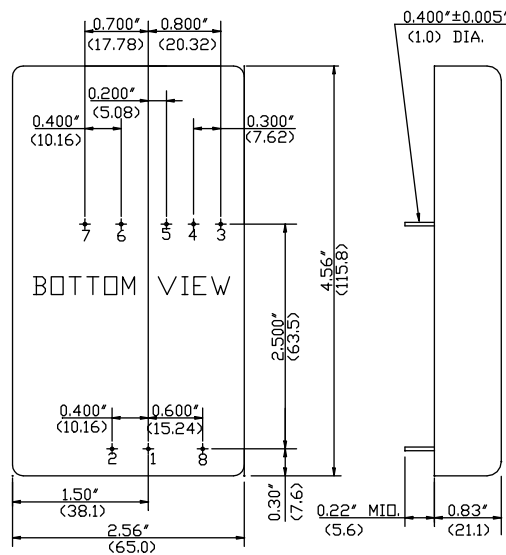
1. Determine the correct fuse size by calculating the maximum DC current drain at low line input, maximum load and then adding 20% to 25% to get the desired fuse size.
2. Measured from high line to low line.
3. Measured from full load to 1/4 full load.

O.V.P	
Output Voltage	O.V.P.
5 VDC	6.8V
6 VDC	8.2V
12 VDC	15V
15 VDC	18V

REMOTE ON/OFF CONTROL	
Logic Compatibility CMOS or Open Collector TTL
Ec-ON, >+5.5 VDC or Open Circuit
Ec-OFF, <1.8VDC
Control Common Referenced to Input Minus

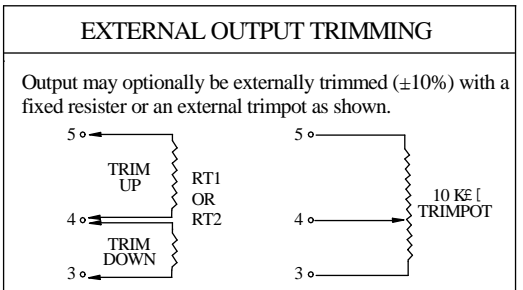
MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE
				NO LOAD	FULL LOAD		
UM1301	24VDC	5 VDC	5000 mA	25 mA	1360 mA	76	F
UM1302		6 VDC	4500 mA	30 mA	1480 mA	77	
UM1303		12 VDC	2500 mA	30 mA	1600 mA	78	
UM1304		15 VDC	2000 mA	30 mA	1580 mA	79	
UM1305		± 12 VDC	± 1250 mA	30 mA	1560 mA	80	
UM1306		± 15 VDC	± 1000 mA	30 mA	1560 mA	80	
UM1311	48VDC	5 VDC	5000 mA	20 mA	680 mA	77	F
UM1312		6 VDC	4500 mA	20 mA	720 mA	78	
UM1313		12 VDC	2500 mA	20 mA	780 mA	80	
UM1314		15 VDC	2000 mA	25 mA	780 mA	80	
UM1315		± 12 VDC	± 1250 mA	25 mA	760 mA	82	
UM1316		± 15 VDC	± 1000 mA	25 mA	760 mA	82	

CASE F



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

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



NOTE:

1. If remote sensing is not utilized, output sense pins must be jumpered to respective output power pins, for normal operation connect Pin NO.3 to Pin NO.6 and Pin NO.5 to Pin NO.7