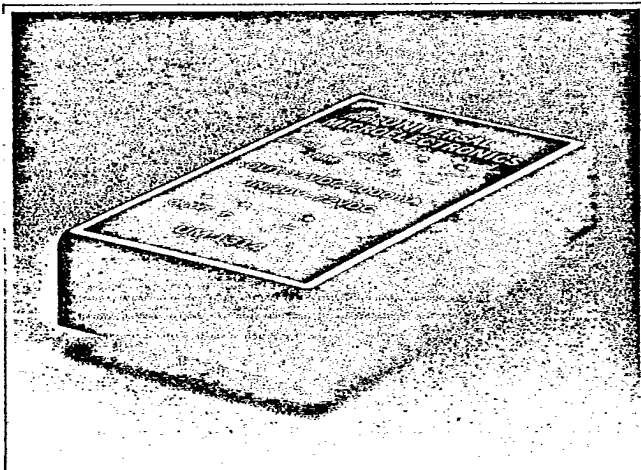


25 to 30 Watt DC-DC Converters

UM 1300 SERIES



- 4:1 Input Range
- 30W Isolated Output
- Efficiency to 86%
- Remote On/Off Control
- 100 kHz Switching Frequency
- Six-Sided Shield

SPECIFICATIONS

All Specifications Typical at Nominal Line, Full Load, and 25°C Unless Otherwise Noted.

INPUT SPECIFICATIONS

Input Voltage Range, 24V9-36V
 48V18-72V
 Input Filter.....Pi Type
 Reverse Voltage Protection.....Internal Shunt Diode
 Use External Fuse

OUTPUT SPECIFICATIONS

Voltage Accuracy, Single Output $\pm 1\%$, max.
 Dual + Output $\pm 1\%$, max.
 - Output $\pm 3\%$, 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.
 Overvoltage Protection, Clamp See Table
 Short Circuit Protection, Indefinite
 Temperature Coefficient $\pm 0.02\%/^{\circ}\text{C}$
 Line Regulation¹ $\pm 0.5\%$, max.
 Load Regulation² $\pm 1\%$, max.

GENERAL SPECIFICATIONS

Efficiency..... See Table
 Isolation Voltage..... 500 VDC, min.
 Isolation Resistance..... 10^9 ohms, min.
 Switching Frequency..... 100kHz
 Operating Temperature Range..... -25°C to +71°C
 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 21.1mm)
 Case Material Black Coated Copper with
 Non-Conductive Base

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.
E _c -ON	+ 5.5 VDC or Open Circuit.
E _c -OFF	1.8 VDC
Control Common	Referenced to Input Minus.

NOTE:

1. Measured from High Line to Low Line
2. Measured from Full Load to 1/4 Full Load
3. 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.



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NOTE: 1. Nominal input 24, 48 VDC.

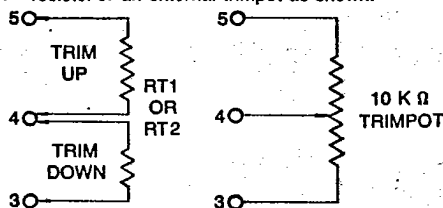
Technical drawing showing the bottom view of a mechanical part. The drawing includes dimensions in inches and millimeters (mm).

Dimensions and features:

- Top dimensions (from left to right):
 - 0.70 (17.8)
 - 0.300 (7.6)
 - 0.200 (5.1)
 - 0.400 (10.2)
 - 0.800 (20.3)
- Left side features:
 - 0.040 DIA. (1.0)
 - 4.56 (115.8)
 - 2.50 (63.5)
 - 0.30 (7.6)
 - 0.22 MIN. (5.6)
 - 0.83 (21.1)
- Right side features:
 - 0.600 (15.2)
 - 2.56 (65.0)
- Internal dimensions and features:
 - 1.50 (38.1)
 - 0.400 (10.2)
 - Bottom view label: BOTTOM VIEW
 - Feature numbers: 7, 6, 5, 4, 3, 2, 1, 8

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

Output may optionally be externally trimmed ($\pm 10\%$) with a fixed resistor or an external trimpot as shown.



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.