

UM600 SERIES

15 Watt DC-DC Converters

- ♦ 2:1 Input Range
- ♦ 15W Isolated Output
- ♦ Efficiency to 84%
- ♦ 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, 12V.....	9-18V
24V.....	18-36V
48V.....	36-72V
Input Filter.....	Pi Network
Reverse Voltage Protection ¹	Internal Shunt Diode Use External Fuse

OUTPUT SPECIFICATIONS

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

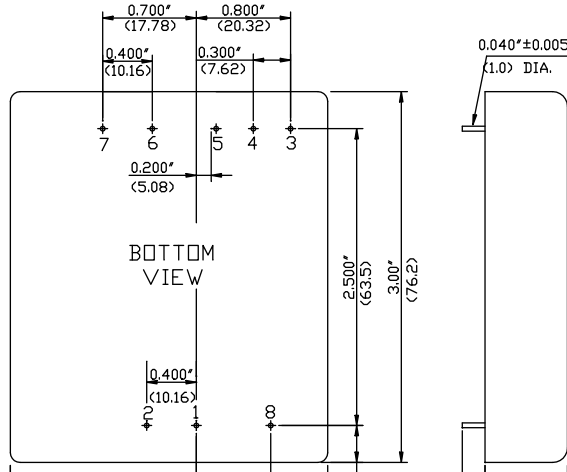
1. Determine the correct fuse size by calculating the maximum DC current drain at low line input, maximum load and then adding 20% to 25% to get the desired fuse size.
2. Measured from high line to low line.
3. Measured from full load to 1/4 full load.

REMOTE ON/OFF CONTROL

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

MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF	CASE
				NO LOAD	FULL LOAD		
UM601	12 VDC	5 VDC	3000 mA	30 mA	1700 mA	75	E
UM602		12 VDC	1250 mA	30 mA	1600 mA	78	
UM603		15 VDC	1000 mA	30 mA	1600 mA	78	
UM604		± 12 VDC	± 625 mA	35 mA	1520 mA	82	
UM605		± 15 VDC	± 500 mA	35 mA	1520 mA	82	
UM606		5/±12 VDC	1500/±310 mA	40 mA	1600 mA	78	
UM607		5/±15 VDC	1500/±250 mA	40 mA	1600 mA	78	
UM608		+5/±12/-5 VDC	1500/+310/500 mA	40 mA	1470 mA	78	
UM611	24 VDC	5 VDC	3000 mA	20 mA	810 mA	77	E
UM612		12 VDC	1250 mA	20 mA	780 mA	80	
UM613		15 VDC	1000 mA	20 mA	780 mA	80	
UM614		± 12 VDC	± 625 mA	30 mA	750 mA	84	
UM615		± 15 VDC	± 500 mA	30 mA	750 mA	84	
UM616		5/±12 VDC	1500/±310 mA	30 mA	780 mA	80	
UM617		5/±15 VDC	1500/±250 mA	30 mA	780 mA	80	
UM618		+5/±12/-5 VDC	1500/+310/500 mA	30 mA	815 mA	80	
UM621	48 VDC	5 VDC	3000 mA	20 mA	410 mA	77	E
UM622		12 VDC	1250 mA	20 mA	390 mA	80	
UM623		15 VDC	1000 mA	20 mA	390 mA	80	
UM624		± 12 VDC	± 625 mA	25 mA	375 mA	84	
UM625		± 15 VDC	± 500 mA	25 mA	375 mA	84	
UM626		5/±12 VDC	1500/±310 mA	20 mA	380 mA	82	
UM627		5/±15 VDC	1500/±250 mA	20 mA	380 mA	82	
UM628		+5/±12/-5 VDC	1500/+310/500 mA	20 mA	350 mA	82	

CASE E



All dimensions in inches(mm).

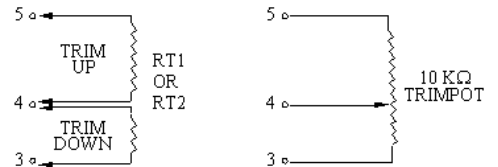
Tolerance .xx = ± 0.04

.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				
Output	Voltage	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
2 & 3	+12 or -5	.100/.100	.310/.500	.500/.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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