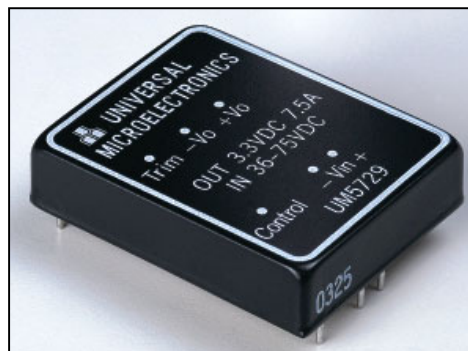


UMEC International Corporation

UM5700 SERIES

10.8 to 30 Watt DC-DC Converter

- ◆ Wide Input Range
- ◆ High Efficiency
- ◆ Remote On/Off Control
- ◆ Six-Sided Shield
- ◆ Short Circuit Protection
- ◆ Over Voltage Protection
- ◆ Safety Approvals Pending (EN60950 and UL/cUL)



SPECIFICATIONS

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

INPUT SPECIFICATIONS

Input Voltage Range, 12V ¹	9-18VDC
24V	18-36VDC
48V	36-75VDC
	18-75VDC
Input Filter	Pi Network
Input Overvoltage Shutdown ²	20 VDC typ.
	40 VDC typ.
	80 VDC typ.
Input Undervoltage Shutdown ³	8 VDC typ.
	16 VDC typ.
	31 VDC typ.

OUTPUT SPECIFICATIONS

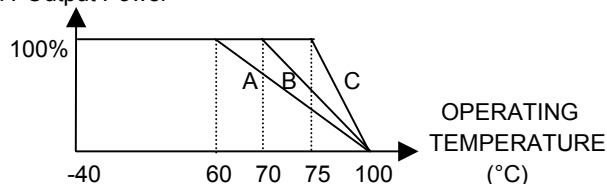
Voltage Accuracy	±2% max.
External Trim Adj. Range	+10%
Transient Response,	
25% Step Load Change(1% error band)	<500 μS
Line Regulation ⁴ , Single Output	±0.2% max.
Dual Output	±0.5% max.
Load Regulation ⁵ , Single Output	±0.5% max.
Dual Output	±1.0% max.
Ripple and Noise, 20MHz BW ⁶	
1.8V, 2.5V, 3.3V, 5V	50 mV p-p max.
12V, 15V	75 mV p-p max.
±5V, ±12V, ±15V	100 mV p-p max.
Temperature Coefficient	±0.02%/°C max.
Short Circuit Protection	Continuous
	Automatic Recovery
Overvoltage Protection Trip Point (Clamp Type)	
1.8V	3.9V typ
2.5V	3.9V typ
3.3V	4.3V typ
5V	6.2V typ
12V	15V typ
15V	18V typ

GENERAL SPECIFICATIONS

Efficiency	See Table
Isolation Voltage, I/O	1600 VDC
Isolation Resistance	10 ⁹ ohms
Case Grounding	Capacity Coupled to Input
Switch Frequency	400 KHz
Operating Temperature Range,	-40°C to 100°C
Case Temperature	105°C max.
Cooling	Free Air Convection
Storage Temperature	-40°C to +105°C
Dimensions	2.0*1.6*0.46 inches
	(50.8*40.6*11.7 mm)
Case Material	Black Coated Copper with Non-Conductive Base

NOTES

1. Start-up threshold 8.5-10VDC(9V typ.)
2. 20VDC is for 12 Vin models, 40VDC is for 24 Vin models, 80VDC is for 48 Vin models.
3. 8VDC is for 12 Vin models, 16VDC is for 24 Vin models, 31VDC is for 48 Vin models.
4. Measure from high line to low line.
5. Measure from full load to 1/10 load.
6. Measured with 1uF ceramic capacitor connect to the output pins.
7. Output Power



- A: UM57X1, UM57X2, UM57X3, UM57X4, UM57X5, UM57X6
 B: UM57X8, UM57X9
 C: UM57X7

REMOTE ON/OFF CONTROL	
Logic Compatibility	CMOS or Open Collector TTL
Converter ON	>+2.5 VDC or Open Circuit
Converter OFF	<+0.8 VDC max or Short Circuit
Control Common	Referenced to Input Minus

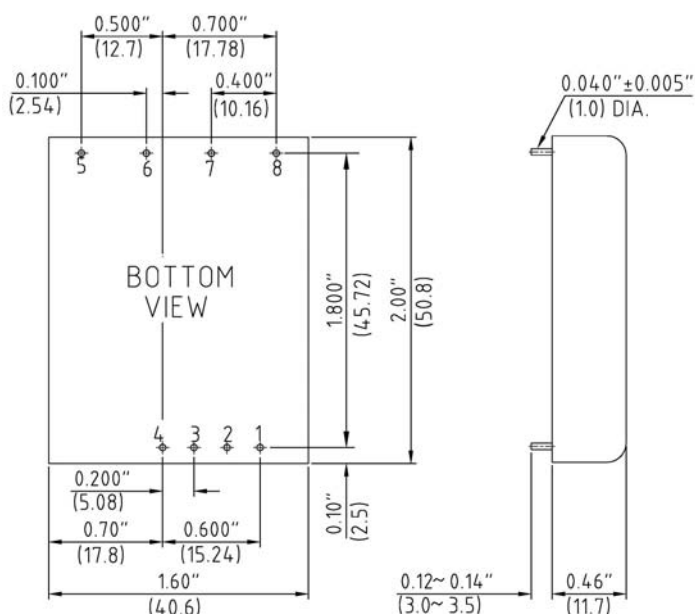
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MODEL NUMBER	INPUT VOLTAGE	OUTPUT VOLTAGE	OUTPUT CURRENT	INPUT CURRENT		% EFF (typ)	MAXIMUM CAPACITIVE LOAD (uF)	CASE
				NO LOAD	FULL LOAD			
UM5701	9-18 VDC	5 VDC	6000 mA	120 mA	2942 mA	85	1000	J
UM5702		12 VDC	2500 mA	140 mA	2840 mA	88	2200	
UM5703		15 VDC	2000 mA	140 mA	2840 mA	88	1000	
UM5704		±5 VDC	3000 mA	120 mA	2942 mA	85	2200	
UM5705		±12 VDC	1250 mA	140 mA	2840 mA	88	1000	
UM5706		±15 VDC	1000 mA	140 mA	2840 mA	88	1000	
UM5707		1.8 VDC	6000 mA	120 mA	1125 mA	80	3300	
UM5708		2.5 VDC	6000 mA	120 mA	1543 mA	81	3300	
UM5709		3.3 VDC	7500 mA	120 mA	2485 mA	83	3300	
UM5711	18-36 VDC	5 VDC	6000 mA	60 mA	1437 mA	87	3300	J
UM5712		12 VDC	2500 mA	60 mA	1405 mA	89	2200	
UM5713		15 VDC	2000 mA	60 mA	1405 mA	89	1000	
UM5714		±5 VDC	3000 mA	60 mA	1437 mA	87	2200	
UM5715		±12 VDC	1250 mA	60 mA	1405 mA	89	1000	
UM5716		±15 VDC	1000 mA	60 mA	1405 mA	89	1000	
UM5717		1.8 VDC	6000 mA	60 mA	555 mA	81	3300	
UM5718		2.5 VDC	6000 mA	60 mA	753 mA	83	3300	
UM5719		3.3 VDC	7500 mA	60 mA	1200 mA	86	3300	
UM5721	36-75 VDC	5 VDC	6000 Ma	40 mA	710 mA	88	3300	J
UM5722		12 VDC	2500 mA	40 mA	702 mA	89	2200	
UM5723		15 VDC	2000 mA	40 mA	702 mA	89	1000	
UM5724		±5 VDC	3000 mA	40 mA	710 mA	88	2200	
UM5725		±12 VDC	1250 mA	40 mA	702 mA	89	1000	
UM5726		±15 VDC	1000 mA	40 mA	702 mA	89	1000	
UM5727		1.8 VDC	6000 mA	40 mA	271 mA	83	3300	
UM5728		2.5 VDC	6000 mA	40 mA	367 mA	85	3300	
UM5729		3.3 VDC	7500 mA	40 mA	586 mA	88	3300	
UM5731	18-75 VDC	5 VDC	6000 Ma	60 mA	720 mA	87	3300	J
UM5732		12 VDC	2500 mA	60 mA	710 mA	88	2200	
UM5733		15 VDC	2000 mA	60 mA	710 mA	88	1000	
UM5734		±5 VDC	3000 mA	60 mA	720 mA	87	2200	
UM5735		±12 VDC	1250 mA	60 mA	710 mA	88	1000	
UM5736		±15 VDC	1000 mA	60 mA	710 mA	88	1000	
UM5737		1.8 VDC	6000 mA	60 mA	274 mA	82	3300	
UM5738		2.5 VDC	6000 mA	60 mA	372 mA	84	3300	
UM5739		3.3 VDC	7500 mA	60 mA	480 mA	86	3300	

NOTE: Other output voltage can be supported upon request.

CASE DIMENSIONS AND PIN CONFIGURATION

CASE J



All Dimensions in Inches (mm).

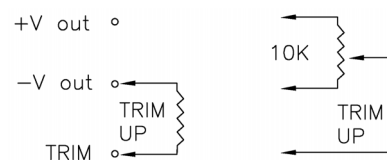
Tolerance .xx = ±0.04"

.xxx = ±0.010"

PIN CONNECTIONS	
Pin Number	Pin Function
1	Remote Control
2	No Pin
3	- Input
4	+ Input
5	No Pin
6	+ Output
7	- Output
8	Trim

EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed with a fixed resistor or an external trimpot as shown.



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