Wide Input DC-DC Converters

10/15 Watts
WU Series

THE XPERTS IN POWER

- 4:1 Input Range
- Isolated Outputs
- Efficiency to 84%
- Overvoltage Protection
- Input π Filter
- Short Circuit Protected
- Fully Regulated Outputs

Specification

Input

Input Voltage Range	•	*5 V (4.5-6.0 VDC)* *12 V (9-36 VDC)* *48 V (20-72 VDC)*
Input Filter	•	*π Network*

Output

Output Power	•	*15 Watts (10 W for 5 & 3,3 V versions)*
Output Voltage	•	*See Table*
Voltage Accuracy	•	*±1% max*
Voltage Trim	•	*±5% max on single output models*
Line Regulation	•	*±1% max*
Load Regulation	•	*±1% max single output models, ±2% for dual & triple output models, for 75% load change*
Ripple & Noise	•	*1% of Vout max (20 MHz bandwidth)*
Temperature Coefficient	•	*±0.02%/°C max*
Short Circuit Protection	•	*Continuous*
Remote On/Off	•	*Standard on triple output models, optional on single & dual output models*

General

Switching Frequency	•	*100 kHz typical*
Efficiency	•	*See Table*
Isolation	•	*500 V DC input to output (1000 MΩ/80 pF)*
Dimensions	•	*2.00" x 2.00" x 0.46"*
Weight	•	*80 g*

Environmental

Operating Temperature	•	*-25 °C to +71 °C*
Storage Temperature	•	*-55 °C to +125 °C*

OUTPUT VOLTAGE & CURRENT RATINGS — WU

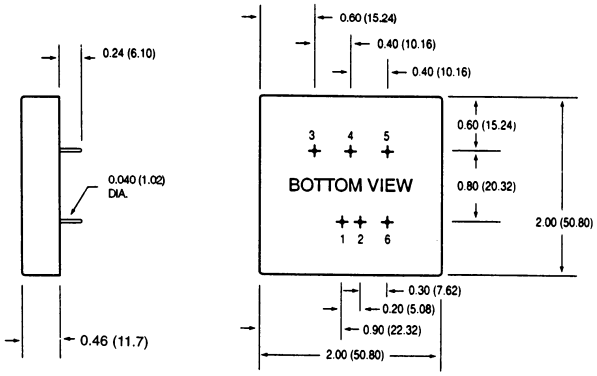
Input Voltage	Output Voltage	Output Current	Input Current[1] No Load	Input Current[1] Full Load	Efficiency	Model Number
4.5-6.0 VDC	3.3 VDC	3000 mA	10 mA	2470 mA	80%	WU100
	5.0 VDC	2000 mA	10 mA	2620 mA	76%	WU101
	12.0 VDC	800 mA	10 mA	2520 mA	76%	WU102
	15.0 VDC	667 mA	10 mA	2510 mA	80%	WU103
	±5.0 VDC	±1000 mA	10 mA	2620 mA	76%	WU104
	±12.0 VDC	±400 mA	10 mA	2520 mA	76%	WU105
	±15.0 VDC	±333 mA	10 mA	2510 mA	79%	WU106
9-18 VDC	3.3 VDC	3000 mA	10 mA	1030 mA	80%	WU200
9-36 VDC	5.0 VDC	3000 mA	30 mA	1560 mA	80%	**WU201**
	12.0 VDC	1250 mA	30 mA	1540 mA	81%	**WU202**
	15.0 VDC	1000 mA	30 mA	1525 mA	82%	WU203
	±5.0 VDC	±1500 mA	30 mA	1560 mA	80%	WU204
	±12.0 VDC	±625 mA	30 mA	1540 mA	81%	**WU205**
	±15.0 VDC	±500 mA	30 mA	1520 mA	82%	WU206
	5.0/±12.0 VDC	1500/±310 mA	20 mA	1576 mA	79%	**WU207**
	5.0/±15 VDC	1500/±250 mA	20 mA	1582 mA	79%	**WU208**
	5.0/+12.0/–5.0 VDC	1500/310/500 mA	20 mA	1447 mA	79%	WU209
18-36 VDC	3.3 VDC	3000 mA	10 mA	500 mA	83%	WU300
20-72 VDC	5.0 VDC	3000 mA	20 mA	760 mA	82%	WU301
	12.0 VDC	1250 mA	20 mA	750 mA	83%	WU302
	15.0 VDC	1000 mA	20 mA	745 mA	84%	WU303
	±5.0 VDC	±1500 mA	20 mA	760 mA	82%	WU304
	±12.0 VDC	±625 mA	20 mA	750 mA	83%	WU305
	±15.0 VDC	±500 mA	20 mA	745 mA	84%	WU306
	5.0/±12.0 VDC	1500/±310 mA	15 mA	778 mA	80%	**WU307**
	5.0/±15.0 VDC	1500/±250 mA	15 mA	781 mA	80%	**WU308**
	5.0/+12.0/–5.0 VDC	1500/310/500 mA	15 mA	715 mA	80%	WU309
36-72 VDC	3.3 VDC	3000 mA	10 mA	245 mA	84%	WU400

Notes

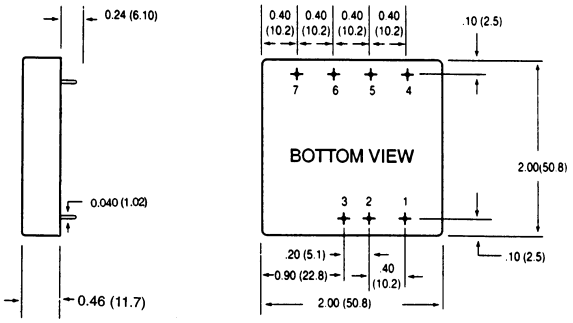
1. Input current is at nominal input voltage.

Mechanical Details

Single & Dual Output Models

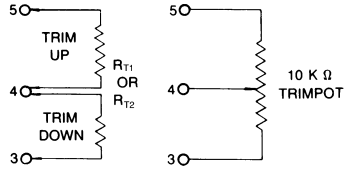


Triple Output Models



EXTERNAL OUTPUT TRIMMING

Output may optionally be externally trimmed (±5%) with a fixed resistor or an external trimpot as shown.



Dimensions in inches (mm)

NOTES:

1. Voltage accuracy on 3 VDC and triple outputs ±3% max. Single outputs can be trimmed ±5%.
2. Load regulation ±2% for dual and triple outputs.
3. Triple outputs require minimum of 10% load for rated performance.
4. Remote ON/OFF standard on triple output units, add suffix 'E' to model number for option on single and dual output units.
5. Pin 6 is only fitted on single and dual output models with 'E' suffix.

PIN CONNECTIONS			
Pin	Single Output	Dual Output	Triple Output
1	+ Input	+ Input	Remote ON/OFF
2	- Input	- Input	- Input
3	+ Output	+ Output	+ Input
4	Trim	Common	- Output
5	- Output	- Output	Common
6	Remote ON/OFF	Remote ON/OFF	5 VDC Output
7	-	-	+ Output

REMOTE ON/OFF CONTROL	
- ON	>5.5 VDC or Open Circuit
- OFF	<1.8 VDC
Shutdown Idle Current	10 mA
Input Resistance	(E_{in} 0 VDC to 9 VDC) 100 kΩ
Remote ON/OFF Common	Referenced to input Minus