

Wide Input DC-DC Converters

10/15 Watts WU Series



THE **XP**ERTS 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
 - $\pm 1\%$ max
- Voltage Trim
 - $\pm 5\%$ max on single output models
- Line Regulation
 - $\pm 1\%$ max
- Load Regulation
 - $\pm 1\%$ max single output models,
 - $\pm 2\%$ for dual & triple output models,
 - for 75% load change
- Ripple & Noise
 - 1% of Vout max (20 MHz bandwidth)
- Temperature Coefficient
 - $\pm 0.02\%/^{\circ}\text{C}$ 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 M Ω /80 pF)
- Dimensions
 - 2.00" x 2.00" x 0.46"
- Weight
 - 80 g

Environmental

- Operating Temperature
 - 25 $^{\circ}\text{C}$ to +71 $^{\circ}\text{C}$
- Storage Temperature
 - 55 $^{\circ}\text{C}$ to +125 $^{\circ}\text{C}$

OUTPUT VOLTAGE & CURRENT RATINGS

WU

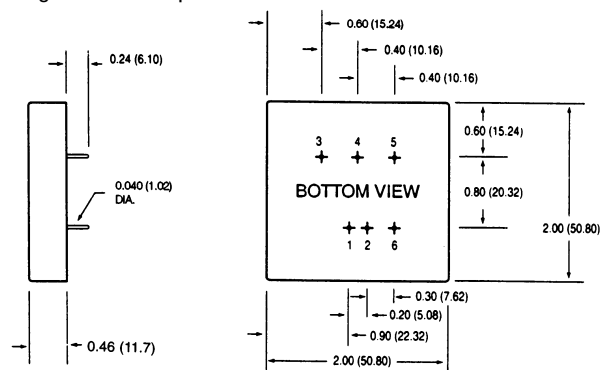
Input Voltage	Output Voltage	Output Current	Input Current ⁽¹⁾		Efficiency	Model Number
			No Load	Full Load		
4.5-6.0 VDC	3.3 VDC	3000 mA	10 mA	2470 mA	80%	WU100
	5.0 VDC	2000 mA	10 mA	2620 mA	76%	WU101
	12.0 VDC	800 mA	10 mA	2520 mA	76%	WU102
	15.0 VDC	667 mA	10 mA	2510 mA	80%	WU103
	±5.0 VDC	±1000 mA	10 mA	2620 mA	76%	WU104
	±12.0 VDC	±400 mA	10 mA	2520 mA	76%	WU105
9-18 VDC	±15.0 VDC	±333 mA	10 mA	2510 mA	79%	WU106
	3.3 VDC	3000 mA	10 mA	1030 mA	80%	WU200
	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
9-36 VDC	±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	10 mA	500 mA	83%	WU300
18-36 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
20-72 VDC	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	10 mA	245 mA	84%	WU400

Notes

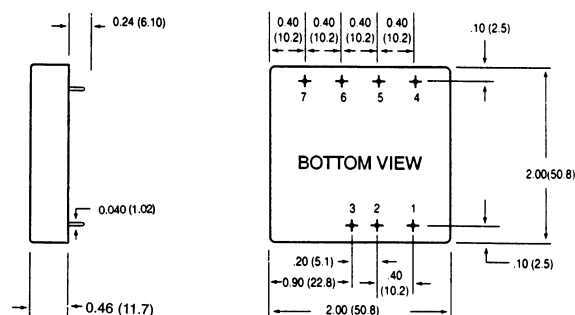
1. Input current is at nominal input voltage.

Mechanical Details

Single & Dual Output Models



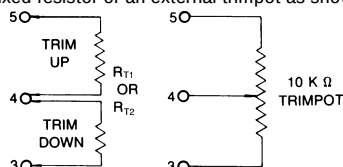
Triple Output Models



Dimensions in inches (mm)

EXTERNAL OUTPUT TRIMMING

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



NOTES:

1. Voltage accuracy on 3 VDC and triple outputs $\pm 3\%$ max. Single outputs can be trimmed $\pm 5\%$.
2. Load regulation $\pm 2\%$ 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 k Ω
Remote ON/OFF Common	Referenced to input Minus