

## WF Series



- 2:1 Input Range
- Efficiency to 85%
- Input Pi Filter
- Single, Dual & Triple Outputs
- Remote On/Off
- Six-sided Metal Case
- External Output Trim

## Specification

## Input

- |                      |   |
|----------------------|---|
| Input Voltage Range  | • See table   |
| Input Current        | • See Table   |
| Input Filter         | • Pi network  |
| Undervoltage Lockout | • Turn On >70% nominal input<br>Turn Off <65% nominal input |

## Output

- |                             |  |
|-----------------------------|--|
| Initial Set Accuracy        | • Single output models: $\pm 2\%$ max<br>Dual output models: $\pm 2\%$ max V1<br>$\pm 3\%$ max V2<br>Triple output models: $\pm 2\%$ max V1<br>$\pm 5\%$ max V2 & V3 |
| Output Voltage Adjustment   | • $\pm 10\%$ (except triple output models)   |
| Minimum Load                | • Triple output models only  |
| Voltage Balance Dual Output | • $\pm 1.0\%$ max at full load   |
| Line Regulation             | • $\pm 0.5\%$ max single & dual output models,<br>$\pm 1.0\%$ max triple output models   |
| Load Regulation             | • $\pm 1.0\%$ max single & dual output models,<br>$\pm 5.0\%$ max triple output models   |
| Transient Response          | • 5% max deviation, recovery to within<br>1% in 500 $\mu$ s for a 25% step load change   |
| Ripple & Noise              | • 10 mV RMS max<br>75 mV pk-pk max, 20 MHz BW  |
| Short Circuit Protection    | • Continuous, trip & restart (hiccup mode)<br>with auto recovery   |
| Temperature Coefficient     | • 0.02%/°C max   |
| Remote On/Off               | • On >5.5 VDC or open circuit<br>Off <1.8 VDC or short to Vin  |

## General

- |                      |  |
|----------------------|--|
| Efficiency           | • See table                              |
| Isolation Voltage    | • 500 VDC min (3000 VDC for 'U' version) |
| Isolation Resistance | • $10^9$ ohms min                        |
| Switching Frequency  | • 300 kHz typical                        |
| MTBF                 | • >800 kHrs to MIL-STD-217F              |

## Environmental

- |                       |  |
|-----------------------|--|
| Operating Temperature | • -25 °C to +100 °C (see derating curve) |
| Storage Temperature   | • -40 °C to +100 °C                      |
| EMI/RFI               | • Six-sided continuous shield            |

## EMC &amp; Safety

- |                    |   |
|--------------------|---|
| Emissions          | • EN55022, level A Conducted<br>EN55022, level A Radiated |
| ESD Immunity       | • EN61000-4-2, level 2<br>Perf Criteria A                 |
| Radiated Immunity  | • EN61000-4-3 3 V/m<br>Perf Criteria A                    |
| Conducted Immunity | • EN61000-4-6 3 V rms<br>Perf Criteria A                  |
| Safety Approvals   | • UL60950-1 for 'U' versions only                         |

**Models and Ratings**

Input Voltage	Output Voltage	Output Current	Input Current		Efficiency	Model Number <sup>(1)</sup>
			No Load	Full Load		
9-18 VDC	3.3 VDC	5.00 A	30 mA	1.86 A	74%	WF100
	5.0 VDC	5.00 A	30 mA	2.67 A	78%	WF101
	12.0 VDC	2.50 A	30 mA	3.05 A	82%	WF102
	15.0 VDC	2.00 A	30 mA	3.05 A	82%	WF103
	±5.0 VDC	±2.50 A	35 mA	2.67 A	78%	WF104
	±12.0 VDC	±1.25 A	35 mA	3.05 A	82%	WF105
	±15.0 VDC	±1.00 A	35 mA	3.05 A	82%	WF106
	5.0/±12.0 VDC	3.50/±0.31 A	35 mA	2.64 A	79%	WF107
5.0/±15.0 VDC	3.50/±0.25 A	35 mA	2.64 A	79%	WF108	
18-36 VDC	3.3 VDC	5.00 A	30 mA	0.92 A	75%	WF200
	5.0 VDC	5.00 A	30 mA	1.34 A	79%	WF201
	12.0 VDC	2.50 A	30 mA	1.52 A	82%	WF202
	15.0 VDC	2.00 A	30 mA	1.52 A	82%	WF203
	±5.0 VDC	±2.50 A	30 mA	1.34 A	79%	WF204
	±12.0 VDC	±1.25 A	30 mA	1.47 A	85%	WF205
	±15.0 VDC	±1.00 A	30 mA	1.47 A	85%	WF206
	5.0/±12.0 VDC	3.50/±0.31 A	30 mA	1.32 A	80%	WF207
5.0/±15.0 VDC	3.50/±0.25 A	30 mA	1.32 A	80%	WF208	
36-72 VDC	3.3 VDC	5.00 A	20 mA	0.46 A	75%	WF300
	5.0 VDC	5.00 A	20 mA	0.66 A	79%	WF301
	12.0 VDC	2.50 A	20 mA	0.76 A	82%	WF302
	15.0 VDC	2.00 A	20 mA	0.76 A	82%	WF303
	±5.0 VDC	±2.50 A	25 mA	0.66 A	79%	WF304
	±12.0 VDC	±1.25 A	25 mA	0.73 A	85%	WF305
	±15.0 VDC	±1.00 A	25 mA	0.73 A	85%	WF306
	5.0/±12.0 VDC	3.50/±0.31 A	25 mA	0.65 A	80%	WF307
5.0/±15.0 VDC	3.50/±0.25 A	25 mA	0.65 A	80%	WF308	

**Notes**

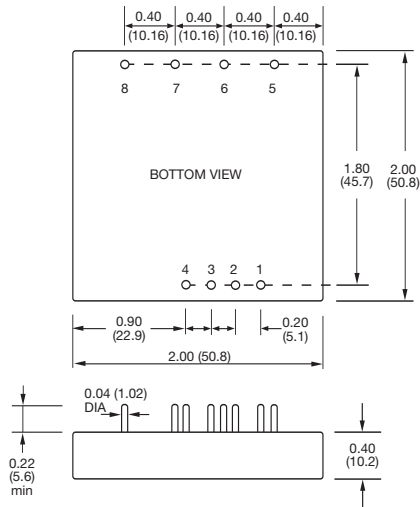
1. For optional UL60950-1 approved product, add suffix 'U' to model number.

**Mechanical Details**

All dimensions are in inches (mm)

Weight: 0.15 lbs (66 g) approx.

Case Material: Black coated copper with non-conductive base.



PIN CONNECTIONS			
Pin	Single Output	Dual Output	Triple Output
1	Remote On/Off	Remote On/Off	Remote On/Off
2	No pin	No pin	No pin
3	-V input	-V input	-V input
4	+V input	+V input	+V input
5	Output trim	Output trim	-Output
6	-Output	-Output	Common
7	+Output	Common	+5V Output
8	No pin	+Output	+Output

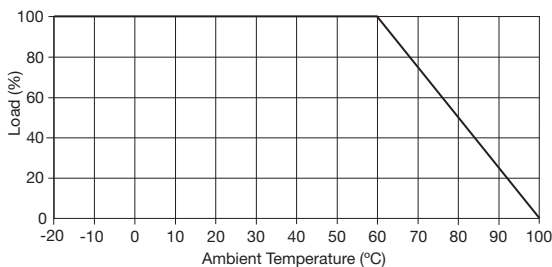
TRIPLE OUTPUT LOADING TABLE <sup>(1)</sup>			
Output Pin No.	Voltage	Current	
		Minimum <sup>(2)</sup>	Maximum
7	+5	0.50 A	3.50 A
8 & 5	+12 or -12	0.10 A	0.31 A
8 & 5	+15 or -15	0.10 A	0.25 A

**Notes**

- Maximum total power from all outputs is limited to 25 W but no output should be allowed to exceed its maximum current.
- Minimum current on each output is required to maintain specified regulation.

**Application Notes**

**Derating Curve**



**External Output Trimming**

