

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 Turn Off <65% nominal input

Output

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

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

Models and Ratings

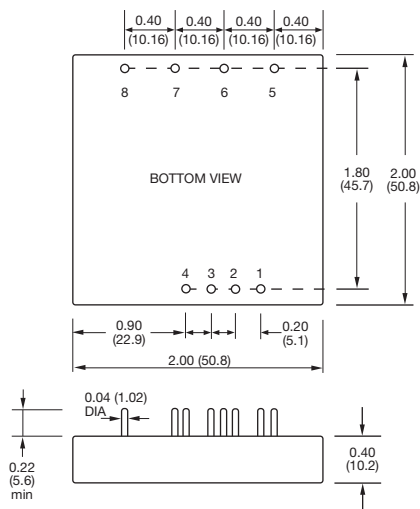
Input Voltage	Output Voltage	Output Current	Efficiency		Model Number ⁽¹⁾	
			No Load	Full Load		
9-18 VDC	3.3 VDC	5.00 A	30 mA	1.86 A	74%	WF100
	5.0 VDC	5.00 A	30 mA	2.67 A	78%	WF101
	12.0 VDC	2.50 A	30 mA	3.05 A	82%	WF102
	15.0 VDC	2.00 A	30 mA	3.05 A	82%	WF103
	±5.0 VDC	±2.50 A	35 mA	2.67 A	78%	WF104
	±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
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
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

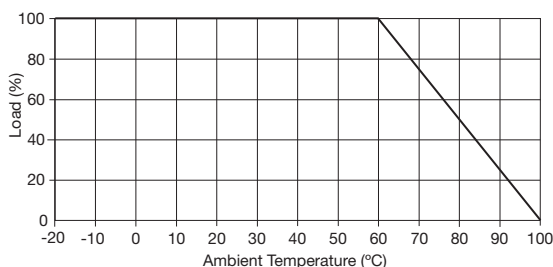
TRIPLE OUTPUT LOADING TABLE ⁽¹⁾			
Output Pin No.	Voltage	Current	
		Minimum ⁽²⁾	Maximum
7	+5	0.50 A	3.50 A
8 & 5	+12 or -12	0.10 A	0.31 A
8 & 5	+15 or -15	0.10 A	0.25 A

Notes

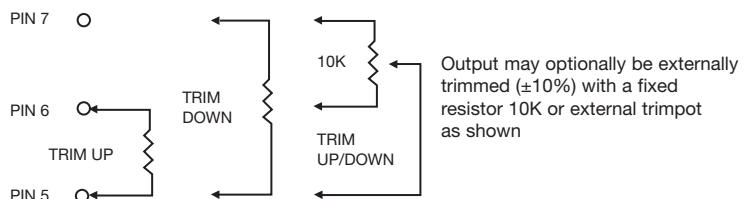
- Maximum total power from all outputs is limited to 25 W but no output should be allowed to exceed its maximum current.
- Minimum current on each output is required to maintain specified regulation.

Application Notes

Derating Curve



External Output Trimming



Output may optionally be externally trimmed (±10%) with a fixed resistor 10K or external trimpot as shown