

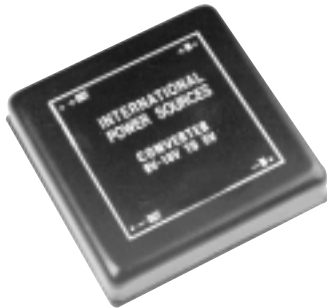
DC/DC Converters

XPiQ inc.

Intelligent Design Quality Product



25/30 Watts WF Series



- 2:1 Input Range
-
- Efficiency to 85%
-
- 300kHz Switching Frequency
-
- Overvoltage Protection
-
- Remote Disable
-
- Six-sided Shield
-
- External Output Trim

Specification

All specifications are typical at 25°C, nominal line & 75% load

Input

- Input Voltage Range • See Table
- Input Filter • π Type

Output

- Voltage Accuracy •
 - Single output, $\pm 2\%$ max.
 - Dual + output, $\pm 2\%$ max.
 - Dual - output, $\pm 3\%$ max.
 - Triple 5V, $\pm 2\%$ max.
 - 12V/15V, $\pm 5\%$ max.

Voltage Balance

- Dual Output at full load • $\pm 1\%$ max.

Transient Response

- Single, 25% Step Load Change • $< 500\mu$ sec
- Dual, $FL=1/2L \pm 1\%$ Error Band • $< 500\mu$ sec

External Trim

- Adj. Range • $\pm 10\%$
- Ripple & Noise (20MHz BW) • 10mV RMS, max
75mV p-p max.
- Temperature Coefficient • $\pm 0.02\%/^{\circ}\text{C}$ max.
- Short Circuit Protection • Indefinite

Line Regulation

- Single/Dual Output • $\pm 0.5\%$ max.
- Triple Output • $\pm 1.0\%$ max.

Load Regulation

- Single/Dual Output • $\pm 1.0\%$ max.
- Triple Output • $\pm 5.0\%$ max.

General

- Efficiency • See Table
- Isolation Voltage • 500 VDC min
- Isolation Resistance • 10^9 ohms min.
- Switching Frequency • 300 kHz
- Case Grounding • Capacity Coupled to Input
- Operating Temperature Range • -25°C to $+100^{\circ}\text{C}$
- Storage Temperature Range • -55°C to $+105^{\circ}\text{C}$

Environmental

- EMI/RFI • Six-sided Continuous Shield
- Case Temperature • 100°C max
- Case Material • Black Coated Copper with Non-Conductive Base
- Dimensions • 2 x 2 x 0.40 inches
(50.8 x 50.8 x 10.2 mm)
- Safety Approvals • UL1950 for U versions only



OUTPUT VOLTAGE & CURRENT RATINGS

WF

Model	Input Voltage	Output Voltage	Output Current	Input Current		% Efficiency
				No Load	Full Load	
WF100	9-18 VDC	3.3 VDC	5000 mA	30 mA	1860 mA	74
WF101	9-18 VDC	5.0 VDC	5000 mA	30 mA	2675 mA	78
WF102	9-18 VDC	12.0 VDC	2500 mA	30 mA	3050 mA	82
WF103	9-18 VDC	15.0 VDC	2000 mA	30 mA	3050 mA	82
WF104	9-18 VDC	±5.0 VDC	±2500 mA	35 mA	2675 mA	78
WF105	9-18 VDC	±12.0 VDC	±1250 mA	35 mA	3050 mA	82
WF106	9-18 VDC	±15.0 VDC	±1000 mA	35 mA	3050 mA	82
WF107	9-18 VDC	5.0/±12.0 VDC	3500/±310 mA	35 mA	2640 mA	79
WF108	9-18 VDC	5.0/±15.0 VDC	3500/±250 mA	35 mA	2640 mA	79
WF200	18-36 VDC	3.3 VDC	5000 mA	30 mA	920 mA	75
WF201	18-36 VDC	5.0 VDC	5000 mA	30 mA	1336 mA	79
WF202	18-36 VDC	12.0 VDC	2500 mA	30 mA	1525 mA	82
WF203	18-36 VDC	15.0 VDC	2000 mA	30 mA	1525 mA	82
WF204	18-36 VDC	±5.0 VDC	±2500 mA	30 mA	1336 mA	79
WF205	18-36 VDC	±12.0 VDC	±1250 mA	30 mA	1470 mA	85
WF206	18-36 VDC	±15.0 VDC	±1000 mA	30 mA	1470 mA	85
WF207	18-36 VDC	5.0/±12.0 VDC	3500/±310 mA	30 mA	1320 mA	80
WF208	18-36 VDC	5.0/±15.0 VDC	3500/±250 mA	30 mA	1320 mA	80
WF300	36-72 VDC	3.3 VDC	5000 mA	20 mA	460 mA	75
WF301	36-72 VDC	5.0 VDC	5000 mA	20 mA	660 mA	79
WF302	36-72 VDC	12.0 VDC	2500 mA	20 mA	765 mA	82
WF303	36-72 VDC	15.0 VDC	2000 mA	20 mA	765 mA	82
WF304	36-72 VDC	±5.0 VDC	±2500 mA	25 mA	660 mA	79
WF305	36-72 VDC	±12.0 VDC	±1250 mA	25 mA	735 mA	85
WF306	36-72 VDC	±15.0 VDC	±1000 mA	25 mA	735 mA	85
WF307	36-72 VDC	5.0/±12.0 VDC	3500/±310 mA	25 mA	655 mA	80
WF308	36-72 VDC	5.0/±15.0 VDC	3500/±250 mA	25 mA	655 mA	80

For optional UL1950 approved product, add suffix "U" to part number.

Mechanical Details

Dimensions in inches (mm)

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	-VIN	-VIN	-VIN
4	+VIN	+VIN	+VIN
5	OUTPUT TRIM	OUTPUT TRIM	-OUTPUT
6	-OUTPUT	-OUTPUT	COMMON
7	+OUTPUT	COMMON	+5V OUTPUT
8	NO PIN	+OUTPUT	+OUTPUT

OPERATING LIMITS AND OUTPUT POWER RANGE

Triple Output Loading Table ⁽¹⁾			
Output (Pin No.)	Voltage	Amperes	
		Min. ⁽²⁾	Nom.
7	+5	0.50	3.50
8 & 5	+12 or -12	0.10	0.31
8 & 5	+15 or -15	0.10	0.25

Notes:

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

EXTERNAL OUTPUT TRIMMING

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

