

DC/DC Converters

XPiQ inc.

Intelligent Design Quality Product

10/15 Watts WE10/15 Series



- Industry Standard Package
- Designed For Telecom Standards
- Low Voltage Outputs to 1.8 Volts
- Under Voltage Lockout
- Remote On/Off
- Output Voltage Adjustment
- Conducted EMI level B with External Filtering

Specification

Input

- | | |
|----------------------------------|--|
| Input Voltage | • 18-36 VDC
36-75 VDC |
| Input Current | • 0.17 A - 0.82 A typical for WE15
0.21 A - 0.52 A typical for WE10 |
| Start Up Time | • Less than 10 ms |
| Remote On/Off | • Negative Logic Standard
Positive Logic Available. |
| Input Reverse Voltage Protection | • External components required |
| Undervoltage Lockout Protection | • 24 Vin - 11 V min, 14 V typical
48 Vin - 20 V min, 27 V typical |

Output

- | | |
|---------------------------|---|
| Output Voltage | • 1.8 - 12 VDC |
| Output Voltage Adjustment | • $\pm 10\%$ |
| Minimum Load | • 0.4 Watts |
| Line Regulation | • $\pm 0.5\%$ maximum |
| Load Regulation | • $\pm 1.0\%$ maximum |
| Output Voltage Accuracy | • $\pm 4\%$ |
| Ripple and Noise | • 100 mV typical |
| Transient Response | • 5% deviation 0.8 ms recovery time for 25% load change |
| Temperature Coefficient | • $\pm 0.015\%/^{\circ}\text{C}$ |
| Overvoltage Protection | • Standard with auto restart
see chart |
| Overcurrent Protection | • continuous with auto restart |

Short Circuit Protection

- Protected to short circuit conditions

General

- | | |
|-------------------|-----------------------------------|
| Efficiency | • 80% typical for 5 V models |
| Isolation Voltage | • 1500 VDC Input to Output |
| MTBF | • 2.4 million hours per Bellcore |
| Package Style | • Potted module with plastic case |
| Weight | • 28.3 grams typical |

Environmental

- | | |
|-----------------------|--|
| Operating Temperature | • -40°C to 105°C Case Temperature |
| Cooling | • Full power with Convection cooling
WE10 - Full power to 80°C ambient
WE15 - Full power to 60°C ambient
See derating chart |
| Storage Temperature | • -55°C to $+125^{\circ}\text{C}$ |
| Shock | • 70G/6ms 1/2 sine 3 shocks x 6 sides |
| Vibration | • 2.5G RMS, 10-55Hz, sweep vibration
1 hour each axis |

Safety

- | | |
|------------------|---|
| Safety Approvals | • UL1950, EN60950, VDE 0805,
CSA 22.2 No. 950, CE marked for LVD |
| EMI/EMC | • EN55022 and FCC level B Part 15
with external filtering |
| Warranty | • 1 Year |

OUTPUT VOLTAGE & CURRENT RATINGS

WE 10/15

Output Voltage	Output Current	Output Power	OVP Clamp	Model 24 V Input	Model 48 V Input
Single Output					
1.80	3.00	5.40	2.6-4.0 V	WE15-218	WE15-318
2.00	3.00	6.00	2.6-4.0 V	WE15-220	WE15-320
2.50	3.00	7.50	3.25-4.0 V	WE15-225	WE15-325
3.30	2.42	8.00	3.7-5.70 V	WE10-200	WE10-300
3.30	3.00	10.00	3.7-5.70 V	WE15-200	WE15-300
5.00	2.00	10.00	5.6-7.0 V	WE10-201	WE10-301
5.00	3.00	15.00	5.6-7.0 V	WE15-201	WE15-301
12.0	0.83	10.00	13.2-16.0 V	WE10-202	WE10-302
12.0	1.25	15.00	13.2-16.0 V	WE15-202	WE10-302
Dual Output					
±12.0	0.42	10.00	13.2-18.0 V	WE10-205	WE10-305

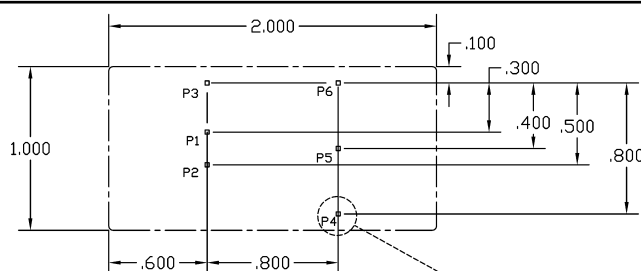
Notes

Negative logic is standard. For positive logic add "H" suffix to part number.

Mechanical Details

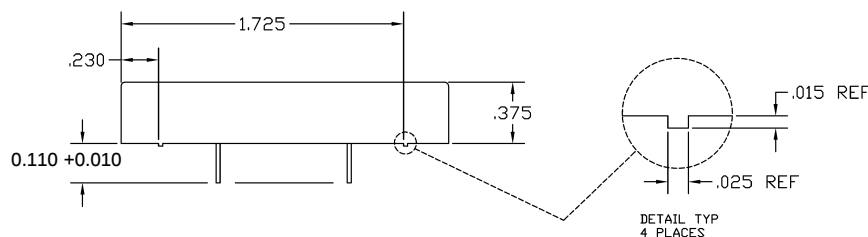
Single Output

Pin	Pin Designation
1	-VIN
2	+VIN
3	On/Off
4	+VOUT
5	TRIM
6	-Vout

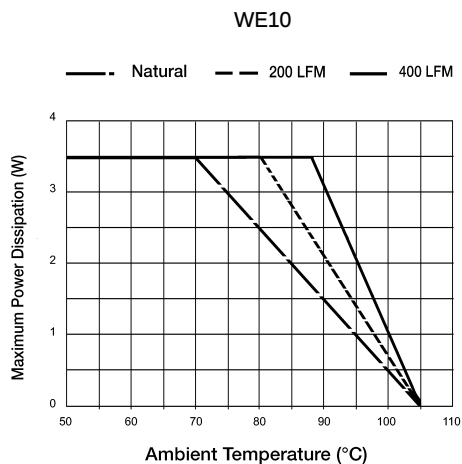


Dual Output

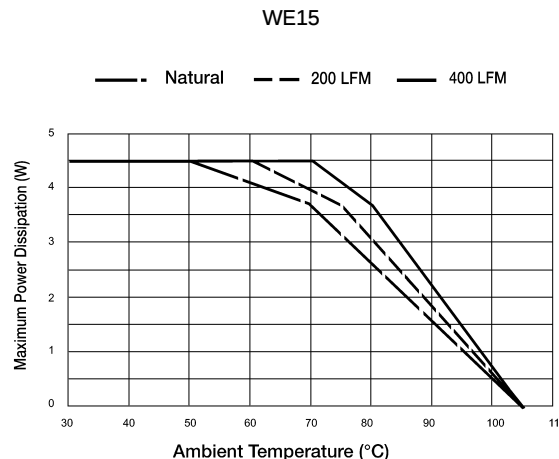
Pin	Pin Designation
1	-VIN
2	+VIN
3	On/Off
4	+VOUT
5	Common
6	-Vout



Derating Curve



WE10-2xx unit used as a standard curve



WE15-3xx unit used as a standard curve