

DC/DC Converters

XPiQ inc.

Intelligent Design Quality Product

**20 Watts
WE20 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
36-76 VDC
- Input Current** • 0.17 A - 0.97 A typical for 24Vin
0.36 A - 0.49 A typical for 48Vin
- 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 - 5.0 VDC
- Output Voltage Adjustment** • $\pm 10\%$
- Minimum Load** • 0 min load required
- Line Regulation** • $\pm 0.3\%$ maximum
- Load Regulation** • $\pm 1.0\%$ maximum
- Output Voltage Accuracy** • $\pm 4\%$
- Ripple and Noise** • 100 mV typical
- Transient Response** • 5.5% deviation 0.4 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
- Overtemperature Protection** • Standard with auto recovery

General

- Efficiency** • 86% 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
Full power to 50°C then derate to 0 Watts at 105°C , see derating chart
- Cooling** • Full Power with convection or forced air,
200 LFM
Full power to 60°C ambient
- 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

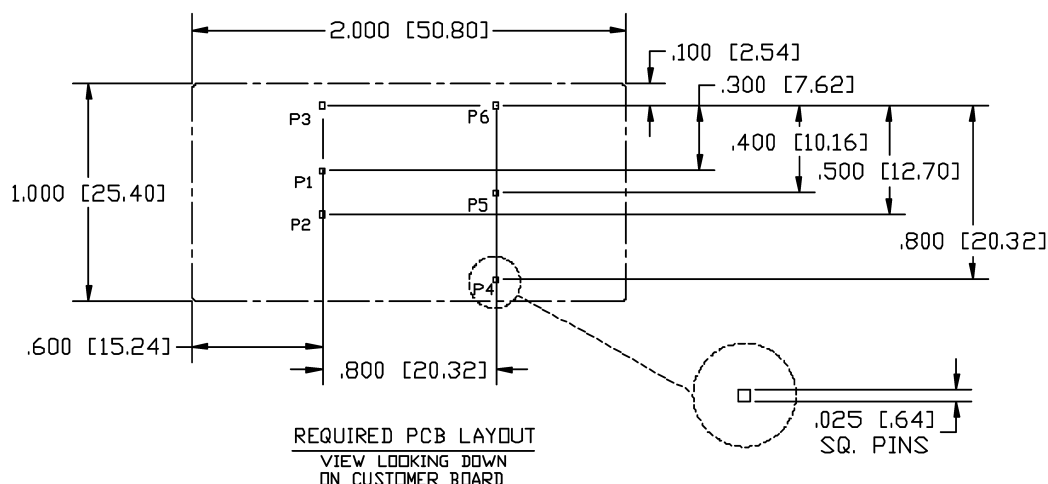
- Safety Approvals** • UL1950 3rd ed., EN60950,
CSA 22.2 No. 950-95, CE marked for LVD
- EMI/EMC** • EN55022 and FCC level B
ANS163.12 - 1987 with external filtering
- Warranty** • 1 Year

OUTPUT VOLTAGE & CURRENT RATINGS

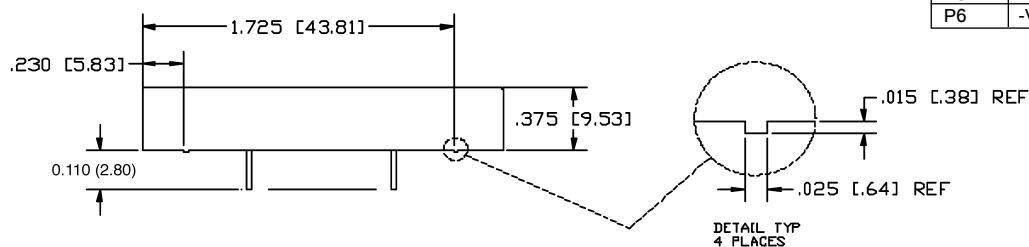
WE 20

Output Voltage	Output Current	Output Power (W)	Efficiency	OVP Clamp (V)	Model 24V Input	Model 48V Input
1.8V	7.0A	12.6W	74%	2.3-4.0	WE20-218	WE20-318
2.5V	6.0A	15.0W	74%	3.1-4.0	WE20-225	WE20-325
3.3V	5.5A	18.0W	84%	3.7-5.7	WE20-200	WE20-300
5.0V	4.0A	20.0W	86%	5.6-7.0	WE20-201	WE20-301

Mechanical Details

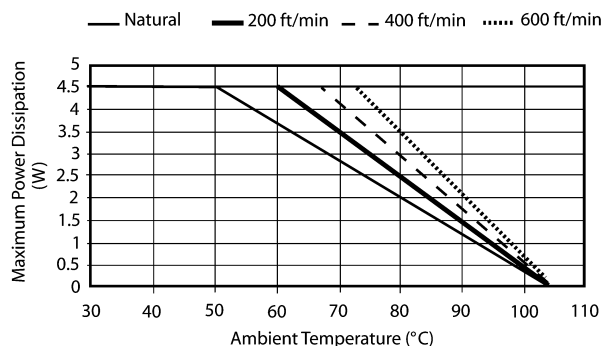


Pin	Function
P1	-Vin
P2	+Vin
P3	On/Off
P4	+Vout
P5	TRIM
P6	-Vout



Dimensions are in inches and mm.
Tolerance: xx ±0.01 (.25mm), .xxx ±.005 (.13mm)

Derating Curve



WE20-2xx unit used as a standard curve