

# 20 Watts

## WE Series



- High Power Density
- Fully Regulated Outputs
- Efficiency to 86%
- Low Voltage Outputs
- Remote On/Off
- 2:1 Input Range
- 2.5, 3.3 & 5 V Versions

### Specification

#### Input

Input Voltage Range	<ul style="list-style-type: none"> <li>• 24 V (18-36 VDC)</li> <li>• 48 V (36-72 VDC)</li> </ul>
Input Current	<ul style="list-style-type: none"> <li>• See table</li> </ul>
Input Filter	<ul style="list-style-type: none"> <li>• Pi network</li> </ul>
Undervoltage Lockout	<ul style="list-style-type: none"> <li>• Turn On &gt; 62% nominal input</li> <li>• Turn Off &lt; 61% nominal input</li> </ul>

#### Output

Output Voltage	<ul style="list-style-type: none"> <li>• 2.5, 3.3, 5 V single</li> </ul>
Output Voltage Adjustment	<ul style="list-style-type: none"> <li>• <math>\pm 10\%</math></li> </ul>
Minimum Load	<ul style="list-style-type: none"> <li>• 10%</li> </ul>
Line Regulation	<ul style="list-style-type: none"> <li>• <math>\pm 0.2\%</math> max</li> </ul>
Load Regulation	<ul style="list-style-type: none"> <li>• <math>\pm 1.0\%</math> max for 25% to 100% load change</li> </ul>
Transient Response	<ul style="list-style-type: none"> <li>• &lt;500 <math>\mu</math>s for a 25% step load change</li> </ul>
Ripple & Noise	<ul style="list-style-type: none"> <li>• 75mV pk-pk max, 20MHz BW</li> </ul>
Overcurrent Protection	<ul style="list-style-type: none"> <li>• 110-140% of nominal</li> </ul>
Short Circuit Protection	<ul style="list-style-type: none"> <li>• Continuous</li> </ul>
Temperature Coefficient	<ul style="list-style-type: none"> <li>• <math>\pm 0.02</math> /<math>^{\circ}</math>C max</li> </ul>
Remote On/Off	<ul style="list-style-type: none"> <li>• On &gt; 5.5 VDC or open circuit</li> <li>• Off &lt; 1.8 VDC, control common referenced to -Vin</li> </ul>

#### General

Efficiency	<ul style="list-style-type: none"> <li>• See table</li> </ul>
Isolation	<ul style="list-style-type: none"> <li>• 500 VDC Input to Output</li> </ul>
Switching Frequency	<ul style="list-style-type: none"> <li>• 500 kHz typical</li> </ul>
MTBF	<ul style="list-style-type: none"> <li>• 1,500 kWhrs to MIL-HDBK-217F</li> </ul>

#### Environmental

Operating Temperature	<ul style="list-style-type: none"> <li>• <math>-40</math> <math>^{\circ}</math>C to <math>+70</math> <math>^{\circ}</math>C</li> </ul>
Case Temperature	<ul style="list-style-type: none"> <li>• <math>+100</math> <math>^{\circ}</math>C max</li> </ul>
Storage Temperature	<ul style="list-style-type: none"> <li>• <math>-40</math> <math>^{\circ}</math>C to <math>+100</math> <math>^{\circ}</math>C</li> </ul>
EMI/RFI	<ul style="list-style-type: none"> <li>• Six-sided continuous shield</li> </ul>

#### EMC & Safety

Emissions	<ul style="list-style-type: none"> <li>• EN55022, level A Conducted</li> <li>• EN55022, level A Radiated</li> </ul>
ESD Immunity	<ul style="list-style-type: none"> <li>• EN61000-4-2, level 2</li> <li>• Perf Criteria A</li> </ul>
Radiated Immunity	<ul style="list-style-type: none"> <li>• EN61000-4-3 3 V/m</li> <li>• Perf Criteria A</li> </ul>
Conducted Immunity	<ul style="list-style-type: none"> <li>• EN61000-4-6 3 V rms</li> <li>• Perf Criteria A</li> </ul>

**Models and Ratings**

Input Voltage <sup>(1)</sup>	Output Voltage	Output Current	Input Current <sup>(2)</sup>		Efficiency	Model Number
			No Load	Full Load		
18-36 VDC	2.5 VDC	5000 mA	35 mA	645 mA	81%	WE320
	3.3 VDC	5000 mA	45 mA	828 mA	83%	WE300
	5.0 VDC	4000 mA	45 mA	981 mA	84%	WE301
36-72 VDC	2.5 VDC	5000 mA	25 mA	318 mA	82%	WE420
	3.3 VDC	5000 mA	35 mA	410 mA	84%	WE400
	5.0 VDC	4000 mA	35 mA	485 mA	86%	WE401

**Notes**

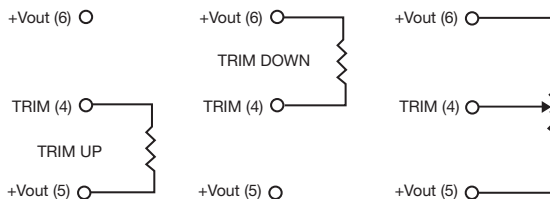
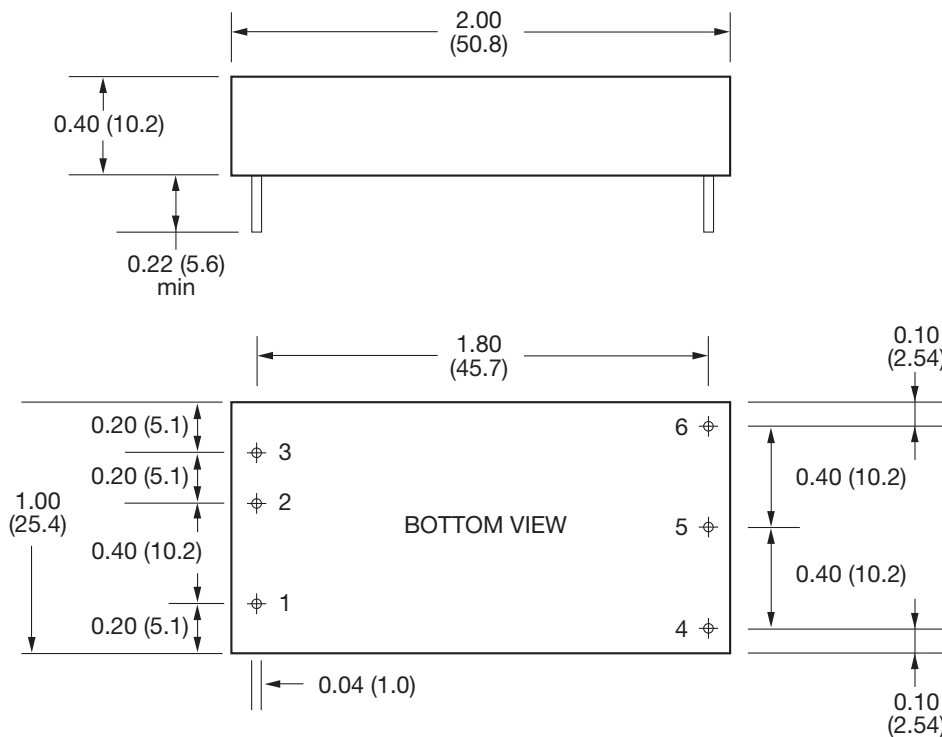
- Nominal input voltage is 24 VDC for WE3xx model numbers and 48 VDC for WE4xx model numbers.
- Input current is at nominal input voltage.

**Mechanical Details**

All dimensions are in inches (mm)

Weight: 0.08 lbs (35 g) approx.

Case Material: Copper with non-conductive base



Typical resistor values  
 To Trim Up  
 6k8 = +10%  
 100k = +1%

To Trim Down  
 6k8 = -10%  
 100k = -1%

PIN CONNECTIONS	
Pin	Function
1	Remote On/Off
2	-V input
3	+V input
4	Trim
5	-V output
6	+V output

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