

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

Output

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

General

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

Environmental

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

EMC & Safety

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

Models and Ratings

Input Voltage ⁽¹⁾	Output Voltage	Output Current	Input Current ⁽²⁾		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

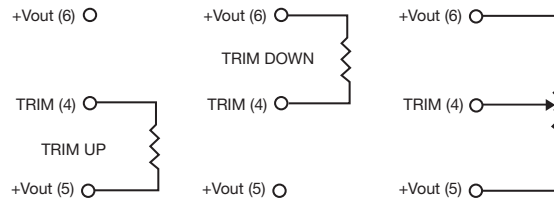
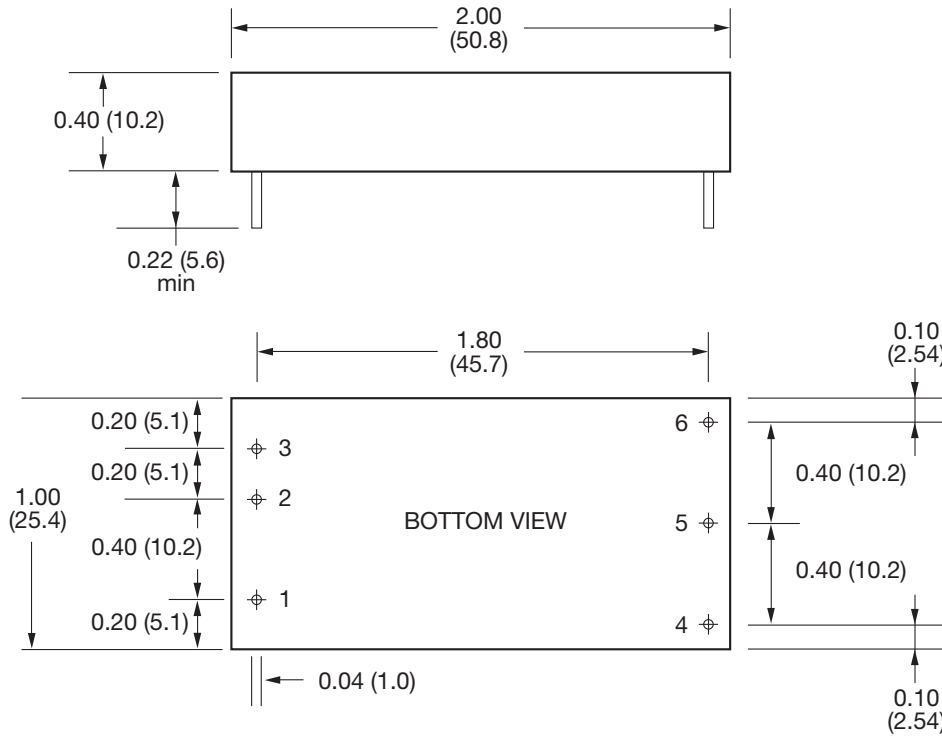
Notes

1. Nominal input voltage is 24 VDC for WE3xx model numbers and 48 VDC for WE4xx model numbers.
2. 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