

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

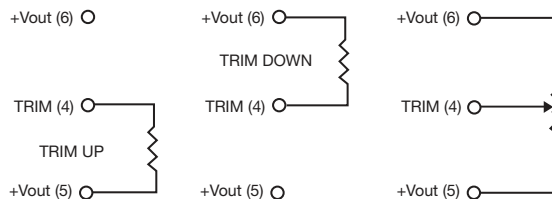
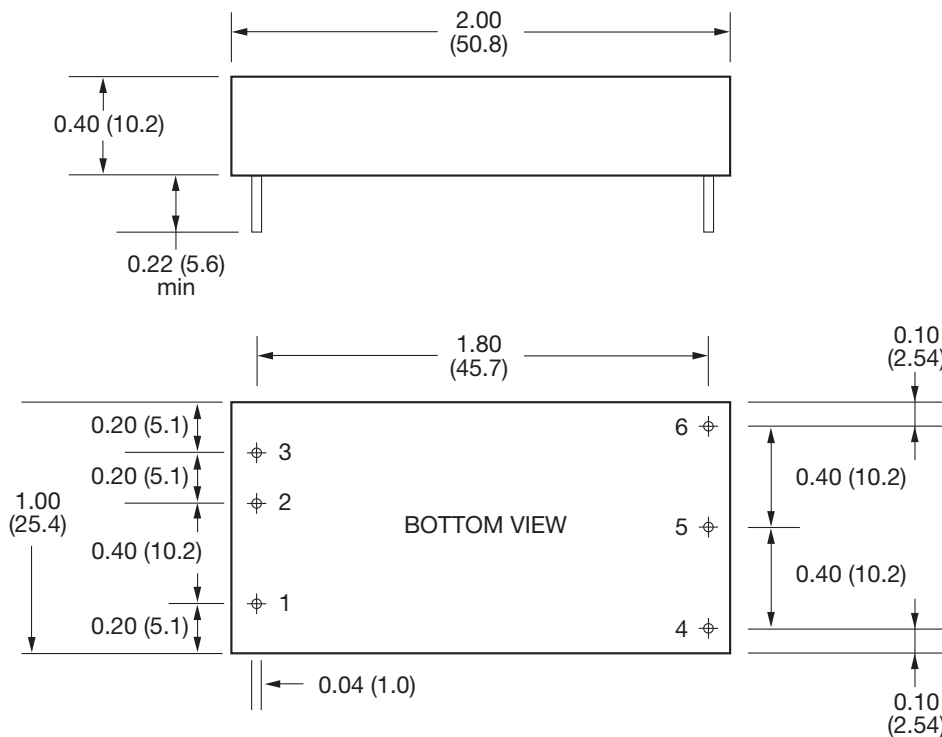
- Nominal input voltage is 24 VDC for WE3xx model numbers and 48 VDC for WE4xx model numbers.
- Input current is at nominal input voltage.

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