



T-VER-E50B2 Sensor

E50B2 Power & Energy Meter Sensor

Build better energy efficiency and power management with the E50B2 Power & Energy Meter. This cost-effective sensor is simple to deploy and can either be installed on standard DIN rail or be surface mounted. The E50B2 integrates with HOBO UX, U30, ZW, H22, and H21 data loggers.

Supported Measurements:

AC Voltage, Amp Hour (Ah), Amps (A), Kilowatt Hours (kWh), Kilowatts (kW), Power Factor (PF), Volt-Amp Reactive, Volt-Amp Reactive hour, Volt-Amps (VA), Volts (V), Watt Hours (Wh) and Watts (W)

Key Advantages:

- Measures Power Factor (PF), Reactive Power (VAR), Watt Hours (Wh) and more.
- Range: 90-600VAC – Wye or Delta configurations
- Accuracy: ANSI 12.20 0.5% accuracy, IEC 62053-22 Class 0.5S
- Compatible with CTs from 5 to 32000A (333mV output)
- Bright backlit LCD
- UL listed, CE, California CSI Solar, ANSI C12.20



T-VER-E50B2 Sensor Specifications

Measurement Accuracy:

Real Power and Energy:	IEC 62053-22 Class 0.5S, ANSI C12.20 0.5%
Reactive Power and Energy:	IEC 62053-23 Class 2, 2%
Current:	0.4% (+0.015% per °C deviation from 25°C) from 5% to 100% of range; 0.8% (+0.015% per °C deviation from 25°C) from 1% to 5% of range
Voltage:	0.4% (+0.015% per °C deviation from 25°C) from 90V (L-N) to 600VAC (LL)
Sample Rate:	2520 samples per second
Data Update Rate:	1 sec
Type of Measurements:	True RMS up to the 21st harmonic 60 Hz, One to three phase AC system

Input Voltage Characteristics:

Measured AC Voltage:	Minimum 90VL-N (156VL-L) for stated accuracy UL Maximums: 600VL-L (347VL-N) CE Maximums: 300VL-N (520V L-L)
Metering Over Range:	+20%
Impedance:	2.5 M (L-N)/5 M (L-L)
Frequency Range:	45 to 65 Hz

Input Current Characteristics:

CT Scaling:	Primary: Adjustable from 5 A to 32,000 A
Measurement Input Range:	0 to 0.333VAC or 0 to 1.0VAC (+20% over-range)
Impedance:	10.6k (1/3 V mode) or 32.1k (1 V mode)

Output:

Alarm Contacts:	N.C., static output (30VAC/DC, 100mA max. @ 25°C, derate 0.56mA per °C above 25°C)
Real/Reactive Energy Pulse Contacts:	N.O., static output (30VAC/DC, 100mA max. @ 25°C, derate 0.56mA per °C above 25°C)

Mechanical Characteristics:

Weight:	0.62 lb (0.28 kg)
IP Degree of Protection (IEC 60529):	IP40 front display; IP20 Meter
Display Characteristics:	Back-lit blue LCD
Terminal Block Screw Torque:	0.37 ft•lb (0.5 N•m) nominal/0.44 ft•lb (0.6 N•m) max
Terminal Block Wire Size:	26 to 14 AWG (0.13 to 2.08 mm ²)
Rail:	T35 (35mm) DIN Rail per EN50022

Environmental Conditions:

Operating Temperature:	Meter: -30° to 70°C; Display: 0° to 50°C
Storage Temperature:	Meter: -40° to 85°C; Display: -10° to 60°C
Humidity Range:	<95% RH (non-condensing)
Altitude of Operation:	3 km max.

Metering Category:

North America:	CAT III; for distribution systems up to 347 V L-N/600VAC L-L
CE:	CAT III; for distribution systems up to 300 V L-N
Dielectric Withstand:	Per UL 508, EN61010
Conducted and Radiated Emissions:	FCC part 15 Class B, EN55011/EN61000 Class B (residential and light industrial)
Conducted and Radiated Immunity:	EN61000 Class A (heavy industrial)

Safety:

North America (cULus):	UL508 (open type device)/CSA 22.2 No. 14-05
Europe (CE):	EN61010-1:2001

Contact Us

Sales (8am to 5pm ET, Monday through Friday)

- ▶ Email sales@onsetcomp.com
- ▶ Call 1-508-759-9500
- ▶ In U.S. toll free 1-800-564-4377
- ▶ Fax 1-508-759-9100

Technical Support (8am to 8pm ET, Monday through Friday)

- ▶ Contact Product Support www.onsetcomp.com/support/contact
- ▶ Call 1-508-759-9500
- ▶ In U.S. toll free 1-877-564-4377

Onset Computer Corporation
470 MacArthur Boulevard
Bourne, MA 02532