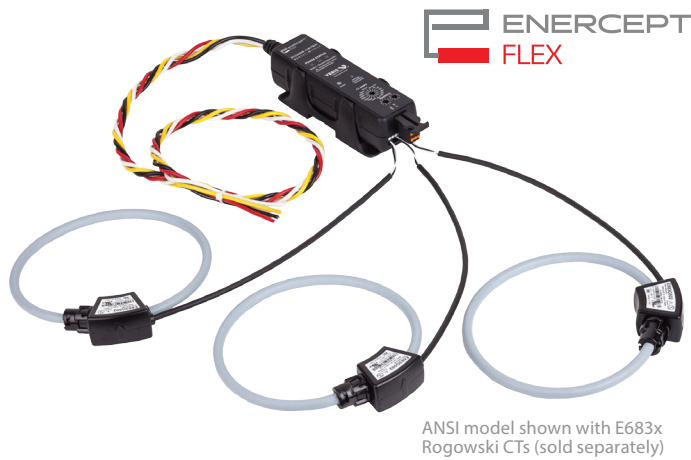


E2X FLEX SERIES

Uni-directional, Bi-directional, Modbus, & BACnet



Enercept FLEX E2x Series power and energy meters provide a unique solution for measuring energy data. Designed with the user in mind, the E2x Series offers maximum application flexibility for retrofit applications.

The Enercept FLEX E2x Series is compatible with split-core, solid-core and Veris E683x Series rope-style Rogowski current transducers (CTs) from 5 to 5000 A, often allowing installers to utilize existing CTs with the meter. Adding to its versatility, the Enercept FLEX E2x Series has a wide input range of 90 to 480 Vac, alleviating the need to keep multiple models in stock. The meter's small form factor enables installation in existing panels with limited space, and does not require external mounting or the expense of extra enclosures or conduit runs. Communicating models support auto detection of baud rate, parity, and protocol for Modbus® RTU and BACnet® MS/TP.

SPECIFICATIONS

MEASUREMENT ACCURACY

Real Power & Energy, 1/3 Volt Current Input Mode	IEC 62053-22 Class 0.2S, ANSI C12.20 0.2%
Real Power & Energy, Rogowski Current Input Mode	IEC 62053-22 Class 0.5S, ANSI C12.20 0.5%
Reactive Power & Energy	IEC 62053-23 Class 2, 2%

INPUT VOLTAGE CHARACTERISTICS

Measured AC Voltage	Min. 90 VL-N (156 VL-L) for stated accuracy; UL max.: 480 VL-L (277 VL-N); CE max.: 300 VL-N
Impedance	2.5 MΩ-L / 5 MΩ-L
Frequency Range	45 to 65 Hz

INPUT CURRENT CHARACTERISTICS

Measurement Input Range	0 to 0.333 Vac (+20% over-range)
Impedance	50 ms at 120 Vac

CONTROL POWER

AC	4 VA max.; 90 V min. UL max.: 480 VL-L (277 VL-N) CE max.: 300 VL-N
Ride-through Time	50 ms at 120 Vac

High reliability

ANSI C12.20 0.2% accuracy, IEC 62053-22 Class 0.2S

Wide range of service types

Compatible with CTs from 5 to 5000 A

Easy ordering & stocking

Modbus and BACnet protocols along with uni-directional and bi-directional feature sets in one unit

90 to 480 Vac

Application versatility with fewer models to stock

Easy installation

DIN rail or screw mount options (with included mounting bracket)

Protocol support

Native Modbus and BACnet MS/TP support (no gateway) with serial rates up to 115.2 kbaud

APPLICATIONS

- Energy monitoring (BAS)
- Renewable energy
- Energy management
- Commercial sub-metering
- Industrial monitoring
- Cost allocation

MECHANICAL CHARACTERISTICS

Ingress Protection (IEC 60529)	IP20
Plug Wire Size (I/O, Communications, CT)	24 to 16 AWG (0.2 to 1.5 mm ²)
Optional Bracket: Rail Mounted	T35 (35 mm) DIN rail per EN50022
Optional Bracket: Wall Mounted	Two #10 or M5 screws, 2.953" (75 mm) center-to-center

ENVIRONMENTAL CONDITIONS

Operating Temp.*	-30 to 70 °C (-22 to 158 °F)
Storage Temp.	-40 to 85 °C (-40 to 185 °F)
Humidity Range	<95% RH (non-condensing)
Altitude of Operation	3 km max.
Pollution Degree	2

METERING CATEGORY

UL	CAT III; for distribution systems up to 277 VL-N / 480 VaL-L
CE**	CAT III; for distribution systems up to 300 VL-N

SPECIFICATIONS (CONT.)

Dielectric Withstand	Per UL 61010-1, EN 61010-1
Conducted and Radiated Emissions	FCC part 15 Class A, EN 61000-6-4, EN 61326-1 Class A (industrial)
Conducted and Radiated Immunity	EN 61000-6-2, EN 61326-1 (industrial)

WARRANTY

Limited Warranty	5 years
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AGENCY APPROVALS

US and Canada	UL 61010-1
Europe (CE)	EN 61010-1

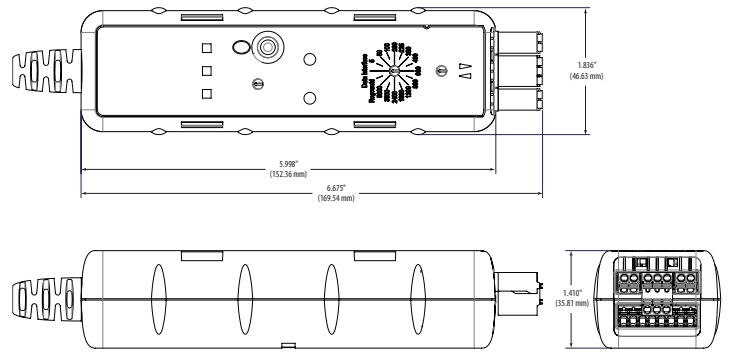


*The Enercept FLEX E2x is limited to an operating temperature of 55 °C (131 °F) when used with a E683x Series Rogowski rope-style CT.
 **The CE mark indicates RoHS2 compliance. Please refer to the CE Declaration of Conformity for additional details.

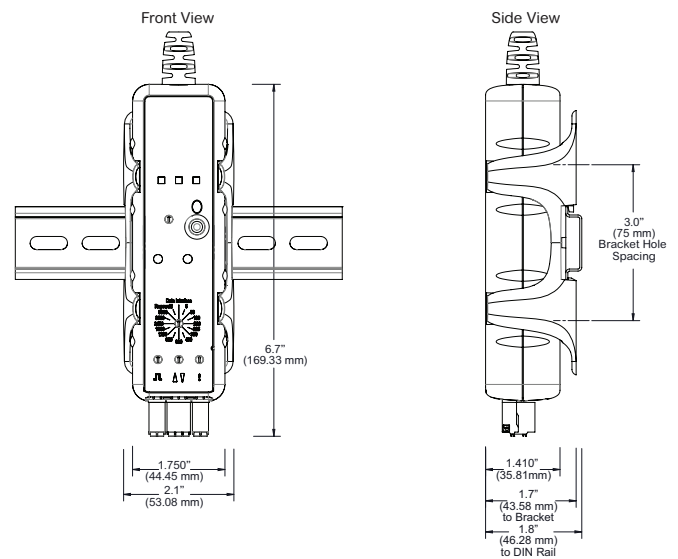
ORDERING INFORMATION

	E23Cx
MEASUREMENT CAPABILITY - FULL DATA SET	
Bi-directional Energy Measurements	•
Power (3-phase Total and Per Phase): Real (kW) Reactive (kVAR), and Apparent (kVA)	•
Power Factor: 3-phase Average and Per Phase	•
Present Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA)	•
Import and Export Totals of Present Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA)	•
Peak Power Demand: Real (kW), Reactive (kVAR), and Apparent (kVA)	•
Current (3-Phase Average and Per Phase)	•
Voltage: Line-Line and Line-Neutral (3-phase Average and Per Phase)	•
Frequency	•
ANSI C12.20 0.2% Accuracy, IEC 62053-22 Class 0.2S	•
Accumulated Net Energy: Real (kWh), Reactive (kVARh), and Apparent (kVAh)	•
Accumulated Real Energy by Phase (kWh)	•
Import and Export Accumulators of Real and Apparent Energy	•
Reactive Energy Accumulators by Quadrant (3-phase Total and Per Phase)	•
Demand Interval Configuration: Fixed or Rolling Block	•
Demand Interval Configuration: External Sync to Comms	•
OUTPUTS	
RS-485 Serial (Modbus RTU Protocol)	•
RS-485 Serial (BACnet MS/TP Protocol)	•

DIMENSIONAL DRAWING



DIMENSIONS, MOUNTED



ORDERING INFORMATION

<p>Data Set</p> <p>E</p> <p>23 = Uni/Bi Dir (FDS)</p>	<p>I/O</p> <p>C = RS-485 MB/BAC</p>	<p>System Types & Wires</p> <p>5 = 1, 2, or 3ph (A-B-C-N) IEC International 6 = 1, 2, or 3ph (A-B-C-N) ANSI North & South America</p>
<p>Example:</p> <p>E 23 C 6</p>		

