

E71 SERIES

Digital Energy Monitoring Solution



E71



E71E3PS

The E71 Series is a compact, DIN mounted meter that combines performance with affordability. The meter provides accurate three-phase electrical monitoring to meet 0.5S accuracy standards. Bi-directional monitoring supports both upstream and downstream power flow, critical for renewable energy applications. BACnet/IP, Modbus TCP/IP and SNMP come native on all models along with industry standard Modbus registers. Dual Ethernet ports allow Ethernet daisy chains, adding flexibility for simplified installations. Two digital inputs support status monitoring, pulse counting, multi tariff and partial resets, along with one relay output for alarm notification. Different models support Veris LVCTs and Rogowski coils.

The E71 supports IPv6 and network auto-detection. It comes with feature-rich embedded web pages that display real time meter data, usage peaks and alarm status. The web page supports communication protocol configuration and easy firmware upgrades. Designed with cybersecurity in mind, it also allows full configuration of all network services.

SPECIFICATIONS

E71 Series Meter

MECHANICAL CHARACTERISTICS	
IP Degree of Protection	Display: IP40 Meter body: IP20
Display Resolution	126 x 94 pixels
Display Dimensions	43 x 34.6 mm
Display Data Update Rate	1 s
Energy Pulsing LED	x flashes/kWh (user configurable)
CONTROL POWER	
DC	12 to 36 V
Burden	<5 W
VOLTAGE INPUT	
Range	90V _{LN} - 347 V _{LN} (600 V _{LI})
Frequency	50/60 Hz ±10%
Burden	0.2 VA
Impedance	5 MΩ
Measurement Category	III

Open communication

BACnet/IP, Modbus TCP/IP and SNMP support with two RJ45 ports for Ethernet daisy-chains

Easy integration

BACnet conformance and industry standard Modbus mapping

Enhanced cybersecurity

Adheres to IEC 62443 for defense against cybersecurity threats

Easy installation

DIN-mounted form factor compatible with LVCTs and Rogowski coils

Data logging

Logs data in 15-minute increments over 36-month period to meet ASHRAE 90.1 compliance

High accuracy

ANSI C12.20 0.5%, IEC 61557-12:2018 Class 0.5S

APPLICATIONS

- Energy monitoring in Building Automation Systems
- Renewable energy
- Commercial submetering
- Industrial monitoring
- Cost allocation
- Multi-tenant metering

CURRENT INPUT

LVCT	0.333 V or 1V (CTs must be rated for use with Class 1 voltage inputs)
Rogowski	Use Veris E683x Series Rogowski rope style CTs (CTs must be rated for use with Class 1 voltage inputs)

DIGITAL INPUT

Number	2
Type	Type 1 opto-coupler inputs (IEC 61131-2)
Max. Input Voltage	40 Vdc
Max. Input Current	4 mA
Voltage OFF	0 to 5 Vdc
Voltage ON	11 to 40 Vdc
Nominal Voltage	24 Vdc
Min. Pulse Width	20 ms

RELAY OUTPUT

Number	1
Type	SPST-NO
Max. Output Frequency	0.5 Hz (1 s ON / 1 s OFF)
Response Time	10 ms
Max. Load Current	5 A at 230 Vac 5 A at 30 Vdc

ACCURACY

Real Power and Energy	0.5%, ANSI C12.20, IEC 61557-12 Class 0.5S
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SPECIFICATIONS (CONT.)

E71 Series Meter

ENVIRONMENTAL CHARACTERISTICS	
Operating Temperature	-25 to 70 °C (-13 to 158 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Humidity Range	5 to 95% RH (non-condensing)
Pollution Degree	2
Altitude	≤ 3000 m (9842 ft.) above sea level
Electromagnetic Environmental Class	E2
Mechanical Environmental Class	M1
Mounting Location	Not suitable for wet locations. For indoor use only.

WARRANTY	
Limited Warranty	5 years

AGENCY APPROVALS	
CE	IEC 61557-12:2018 IEC 61326-1:2020 IEC 61010-1:2010 - Ed 3.1, 2017 + Cor1 2019 IEC 61010-2-30:2017
UL	UL 61010-1 and UL 61010-2-030
Safety	IEC 61010-1:2010 UL61010-1:2019 IEC/UL 61010-2-30 CSA C22.2 No. 61010-1-12 CSA C22.2 No. 61010-2-030



SPECIFICATIONS

E71E3PS Power Supply

INPUT VOLTAGE	
AC	90 to 600 Vac 600 V _{LL} /347V _{LN}
Frequency	600V _{LL} /347V _{LN}
AC Burden	< 20 VA
DC	125 to 300 V
DC Burden	< 8 W
Measurement Category	III

OUTPUT VOLTAGE	
DC	24 V
Max. Current	0.3 A
Measurement Category	III

ENVIRONMENTAL CHARACTERISTICS	
Operating Temperature	-25 to 70 °C (-13 to 158 °F)
Storage Temperature	-40 to 85 °C (-40 to 185 °F)
Humidity Range	5 to 95% RH (non-condensing)
IP Degree of Protection	Front panel: IP40, Casing: IP20
Pollution Degree	2
Installation Category	III
Altitude	≤ 2000 m (6561 ft.) above sea level
Electromagnetic Environmental Class	E2

Mechanical Environmental Class	M1
Mounting Location	Not suitable for wet locations. For indoor use only.

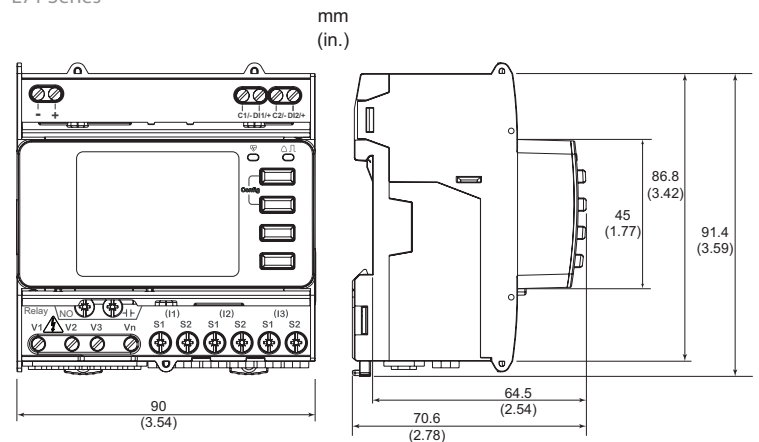
WARRANTY	
Limited Warranty	5 years

AGENCY APPROVALS	
CE	IEC 61326-1:2020 IEC 61010-1:2010 - Ed 3.1, 2017 + Cor1 2019 IEC
UL	UL 61010-1
Safety	IEC 61010-1:2010 UL61010-1:2019 IEC/UL 61010-2-30 CSA C22.2 No. 61010-1-12

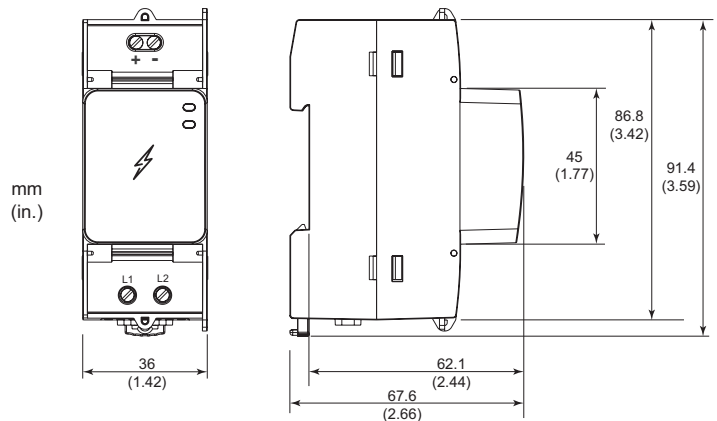


DIMENSIONAL DRAWINGS

E71 Series



E71E3PS Power Supply



ORDERING INFORMATION

MODEL	DESCRIPTION
E71E3	E71 meter bundle, LVCT input with power supply module
E71E3A	E71 meter bundle, Rogowski CT input with power supply module
E71E3X	E71 meter, LVCT input, LVDC only, no external power supply
E71E3AX	E71 meter, Rogowski CT input, LVDC only, no external power supply
E71E3PS	Power supply module
E71E3ENCL	NEMA 4X enclosure

