

MM-EE-EEM-EM157 - Measuring device



1744499

<https://www.phoenixcontact.com/gb/products/1744499>

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One-phase energy meter for active power measurement with direct measurement in networks of up to 276 V / 45 A, with RS-485 interface and 2 pulse outputs, operating temperature up to +70°C, certified in accordance with the MID directive

Commercial data

Item number	1744499
Packing unit	1 pc
Minimum order quantity	1 pc
Sales key	CMCC11
Product key	CMCC11
GTIN	4067923309296
Weight per piece (including packing)	99.4 g
Weight per piece (excluding packing)	80 g
Customs tariff number	90283019
Country of origin	CN

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Technical data

Product properties

Product type	Energy meter
Product family	ESSENTIAL edition

Insulation characteristics

Protection class	II
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Display

Display type	LCD with white backlighting
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Electrical properties

Electric strength	6 kV
	4 kV

Input data

Input voltage range	184 V AC ... 276 V
Input current range	45 A AC (Direct measurement)
Power consumption	10 VA (2 W)
Frequency range	50 Hz ... 60 Hz
Active energy (EN 50470-3)	Class B
Real energy (IEC 62053-21)	Class 1
Reactive power (IEC 62053-23)	Class 2

Output data

Pulse output

Output description	Passive opto-isolated
Maximum switching voltage	27 V DC
Max. switching current	27 mA

Connection data

Measurement connection

Designation	Measurement connection
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Conductor connection

Connection method	Screw connection
rigid	2.5 mm ² ... 10 mm ²
Stripping length	8 mm
Tightening torque	1.5 Nm

other connections

Designation	other connections
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Conductor connection

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Connection method	Screw connection
rigid	0.5 mm ² ... 1.5 mm ²
AWG	22 ... 14
Tightening torque	0.2 Nm

Interfaces

Communication:

Communication protocol	Modbus/RTU
Communication standard	RS-485
Transmission speed range	1200 bps ... 9600 bps
Parity	odd, even, none
Designation	Communication interface
Connection method	Screw connection
Parity	odd, even, none
Communication standard	RS-485
Transmission speed range	1200 bps ... 19200 bps

Dimensions

Item dimensions

Width	18 mm
Height	118 mm
Depth	64 mm
Horizontal pitch	1 Div.

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP51 (Front) IP20 (Connections)
Ambient temperature (operation)	-40 °C ... 70 °C
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Max. permissible relative humidity (operation)	90 %

Approvals

CE

Identification	CE-compliant
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MID

Identification	MID-compliant
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Standards and regulations

Standards/regulations	EN 50470-3:2022
Standards/specifications	EN 50470-3:2022

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Mounting

Mounting type

DIN rail mounting

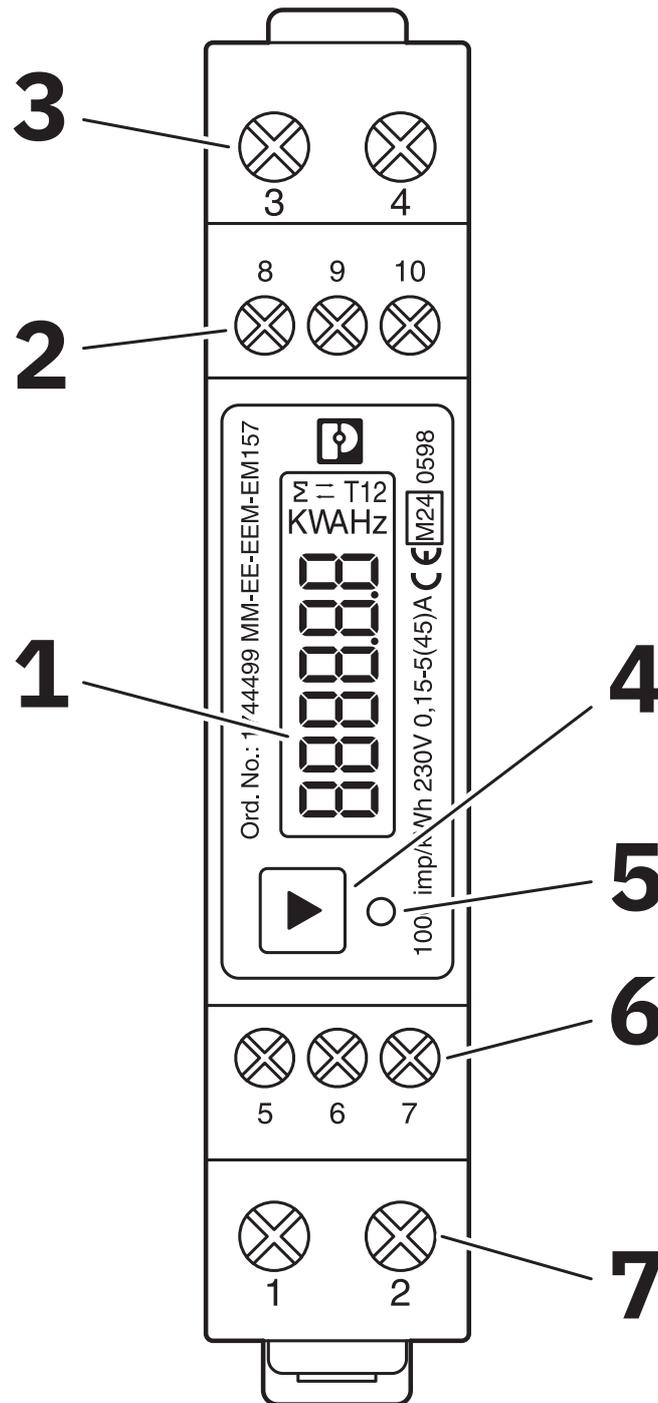
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Drawings

Connection diagram



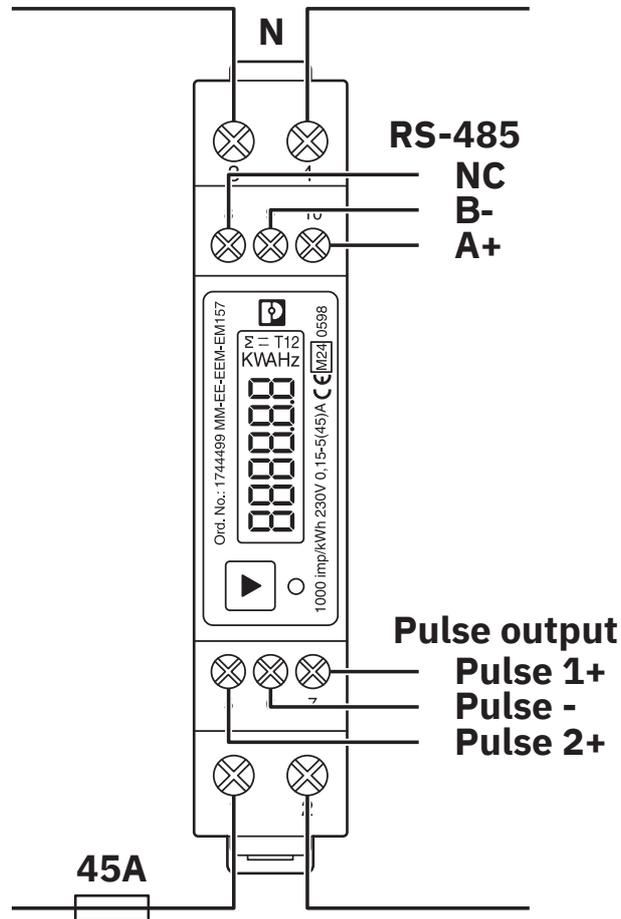
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Connection diagram



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Classifications

ECLASS

ECLASS-13.0	27142330
ECLASS-15.0	27142330

ETIM

ETIM 9.0	EC002301
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions
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China RoHS

Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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