



ECM140D

1Ph kWhmeter direct 40A 1M MBUS MID

Technische Merkmale

Architecture

Bus system	M-BUS
Number of poles	2 P
Type of pole	1P+N
Fixing mode	DIN rail type O (symmetrical)

Functions

Precision class	B
Tarif type	- / T1...T2 M-BUS
Display features	active energy : 5+2 (0.01....99999.99)
Backstop	yes
Suitable only for indoor installation	yes
Adjustable parity parameters (odd , even, none)	no
Adjustable stop bit (1 ; 2)	no

Configuration

calibrated mesure function	yes
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Compatibility

Suitable for	Purchase / supply
Four-quadrants measuring type	no
Compatible with IR communication interface	no

Main electrical features

Rated operational voltage Ue	92 / 276 V
Type of supply voltage	AC
Frequency	50 Hz

Voltage

Max operating voltage	300 V
Rated impulse withstand voltage	6 kV
Mesure voltage range P-N	92 / 276 V
Max permanent voltage Ph-N	276 V AC
Reference voltage P-N	230 V AC
Supply voltage P-N	92 / 276 V AC
Max permanent voltage Ph-N (1s)	300 V AC

Electric current

Minimum operating current	0,02 A
Operating current	0,02 / 40 A
Rated current	40 A
Reference current	5 A
Max. measurement circuit current	40 A
Max permanent current	40 A
Max temporary current	1200 A (10 ms)

Frequency

Measurement range of frequency	45 / 65 Hz
Reference frequency	50 Hz

Power

Power consumed	2 VA
Total power loss under IN	1 W
Network baud rate	300 / 9600 bit/s

Electrical specifications

Type of pulse generator	optical
Precision class active energy (accord. to EN 50470-3)	B
Precision class active power (accord. to IEC 62053-21 and IEC 61557-12)	1
Precision class reactive energy (accord. to IEC 62053-23)	2
Precision class reactive power (accord. to IEC 62053-21)	2

Resistance

Internal termination resistor Modbus (120 Ω)	no
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Measurement

Frequency measuring range	45 to 65 Hz
Type of measuring instrument	electronical
Principle of measurement	Direct measurement
Measurement range of the current (Min, Max)	0,25 / 40 A

Power supply

Supply voltage	230 V ± 20%
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Dimensions

Depth of installed product	60 mm
Height of installed product	92 mm
Width of installed product	18 mm
Cross section of bus network	0,5 / 2,5 mm²
Measured quantities	V, A, kWh, PF, Hz, kW

Installation, mounting

Tightening torque	1 Nm
Mounting type	din-Rail

Connection

Wire cross section of metering entrance wire	16 mm²
Wire cross section of metering outgoing wire	16 mm²

Settings

adjustable address communication interface	0...250
Transmission ratio selectable	no

Equipment

Type of display	LCD
Type of counter	single-phase counter
Optical metrological LED	5000 Imp/kWh
Four-quadrants measuring type	yes

Standards

Standard text	EN 50470-1 / 3, IEC 62053-21 / 23, IEC 61557-12
Certified product	MID (Measuring Instruments Directive)
European directive WEEE	concerned
Product categories described in the W3E directive 2012/19/EU	Category 5

Safety

Protection index IP	IP20
Protection class	isol.class II
Class of Insulation	TBTS

Use conditions

Operating temperature	-25...55 °C
Degree of pollution according to IEC 60664 / IEC 60947-2	2
Altitude	2000 m
Storage/transport temperature	-25...70 °C