



3Ph kWhmeter via CT 1-5A 4M MODBUS MID

ECR300C

Architecture

Bus system	MODBUS
Number of poles	4 P
Type of pole	3P+N
Fixing mode	DIN rail type O (symmetrical)

Functions

Precision class	B
Tarif type	T1...T2 (230V AC) / T1...T8 Modbus
Display features	active power : 2+2 (0.00....99.99) active energy : 7+2 (0.01.... 9999999.99)
Backstop	yes
Suitable only for indoor installation	yes
Adjustable parity parameters (odd , even, none)	yes
Adjustable stop bit (1 ; 2)	yes

Configuration

calibrated mesure function	yes
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Compatibility

Suitable for	Purchase / supply
Four-quadrants measuring type	yes
Compatible with IR communication interface	yes

Main electrical features

Rated operational voltage Ue	92/480 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
Mesure voltage range Ph-Ph	160/480 V
Max permanent voltage Ph-N	276 V AC
Permanent voltage Ph-Ph	480 V AC

Technical Properties

Reference voltage P-N	230 V AC
Reference voltage Ph-Ph	400 V AC
Supply voltage P-N	92/276 V AC
Supply voltage Ph-Ph	160/480 V AC
Max permanent voltage Ph-N (1s)	300 V AC
Max permanent voltage Ph-Ph (1s)	800 V AC

Electric current

Minimum operating current	0,001 A
Operating current	0,001/6 A
Rated current	5 A
Reference current	1 A
Max. measurement circuit current	6 A
Max permanent current	6 A
Max temporary current	120 A (0.5 ms)

Frequency

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

Power

Power consumed	2 VA
Total power loss under IN	0,6 W
Network baud rate	1200/38400 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 1 and IEC 61557-12)	
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?)	yes
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Measurement

Frequency measuring range	45 to 65 Hz
Type of measuring instrument	electronical
Principle of measurement	Measurement transformer
Measurement range of the current (Min, Max)	0,01/6 A

Power supply

Supply voltage	400 V ± 20%
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Dimensions

Depth of installed product	60 mm
Height of installed product	90 mm
Width of installed product	72 mm
Cross section of bus network	0,8/2,5 mm ²

Technical Properties

Measured quantities	V, A, kWh, kvarh, PF, Hz, kW, kvar
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Installation, mounting

Tightening torque	0.5Nm
Mounting type	din-Rail

Connection

Cross section of digital input	0,8/2,5 mm ²
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Settings

Transformer interpretation adjustable	1
adjustable address communication interface	1/247
Transmission ratio selectable	yes

Equipment

Type of display	retro illuminated display
Tariff model of kilowatt-hour meter	Externa
Type of counter	4 wires counter
Optical metrological LED	10000 Imp/kWh
Four-quadrants measuring type	yes

Use

Transformation Ratio	50;5
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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