



CEM-C31-485-DS

CEM-C31-485-DS, Indirect three-phase energy meter

Code: Q23531.

- > Protocol: Modbus/RTU
- > Módulos: 4
- > Tariff: 2
- > Certification: IEC
- > Communications: RS-485
- > Digital inputs: 1
- > System: Three-phase
- > Measure: Indirect
- > Measurement Range (V): 3 x 57/100...3 x 230/400
- > Measurement Range (A): .../ 5 (10) A
- > Max. Current (A): 10

Specifications

AC power supply

Installation category	CAT III 300 V
Consumption	< 2 W, 10 VA
Frequency	50/60 Hz
Nominal voltage	230 V ~ (± 20 %)

Mechanical characteristics

Size (mm) width x height x depth	70 x 90 x 64 (mm)
Envelope	PC
Fastening	Standardized rail mounting (IEC 60715) (DIN Rail EN-50022)
Weight (kg)	0,212

Environmental characteristics

Protection class	IP 51 (instaled) IP 40 (terminal area)
Relative humidity (without condensation)	5 ... 95 %
Storage temperature	-35 ... +80 °C
Working temperature	-25 ... +70 °C

Current measurement circuit

Consumption	0.3 VA ... 10 A
Reference current (Iref)	5 A
Maximum current	10 A
Minimum current measurement	0.050 A
Transition current	0.25 A

Voltage measurement circuit

Consumption	< 2W , < 10VA (In, Vref)
Nominal frequency	50 / 60 Hz
Nominal voltage	3 x 127/220 ... 3 x 230/400 V ~



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Electrical characteristics

Insulation voltage, circuit	4 kV RMS 50 Hz durante 1 min
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Communications

Protocol	ModBus
Type	RS-485
Speed	9600 - 19200 -38400

Digital inputs

Input impedance	800 Ω(max.)
Type	Self-powered at + 5 Vdc (Vmax = 5.1 V, Imax = 8.5 mA)
Minimum signal width	Ton ≥ 30 ms, Toff ≥ 30 ms

Standards

Electrical safety, Maximum height (m)	2000
Standards	EN 50470-1, EN 50470-3, IEC 62053-21, IEC 62053-23

User interface

LED	2 LED: kWh, 20000 imp/kW, kvarh, 20000 imp/kvarh
Keyboard	2 Keys
Display type	LCD
Maximum value	999999.9 kWh

Measurement accuracy

Reactive energy measurement (kvarh)	Class 2.0 (IEC 62053-23)
Active energy measurement (kWh)	Class B (EN 50470)

CEM-C

CODE	TYPE	Measurement Range (V)	Measurement Range (A)	Communications	Protocol	Transistor output	Digital inputs	Tariff	Certification
Direct three-phase									
Q22411.	CEM-C21-T1	3 x 127/220...3 x 230/400	5 (65) A	-	-	1	-	1	IEC
Q22421.	CEM-C21-485-T1	3 x 127/220...3 x 230/400	5 (65) A	RS-485	Modbus/RTU	1	-	1	IEC
Q22431.	CEM-C21-485-DS	3 x 127/220...3 x 230/400	5 (65) A	RS-485	Modbus/RTU	0	1	2	IEC
Q22412.	CEM-C21-T1-MID	3 x 127/220...3 x 230/400	5 (65) A	-	-	1	-	1	MID
Q22422.	CEM-C21-485-T1-MID	3 x 127/220...3 x 230/400	5 (65) A	RS-485	Modbus/RTU	1	-	1	MID
Q22432.	CEM-C21-485-DS-MID	3 x 127/220...3 x 230/400	5 (65) A	RS-485	Modbus/RTU	0	1	2	MID
Indirect three-phase									
Q23511.	CEM-C31-T1	3 x 57/100...3 x 230/400	.../ 5 (10) A	-	-	1	-	1	IEC
Q23521.	CEM-C31-485-T1	3 x 57/100...3 x 230/400	.../ 5 (10) A	RS-485	Modbus/RTU	1	-	1	IEC
Q23531.	CEM-C31-485-DS	3 x 57/100...3 x 230/400	.../ 5 (10) A	RS-485	Modbus/RTU	0	1	2	IEC



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Q23512.	CEM-C31-T1-MID	3 x 57/100...3 x 230/400	.../ 5 (10) A	-	-	1	-	1	MID
Q23522.	CEM-C31-485-T1-MID	3 x 57/100...3 x 230/400	.../ 5 (10) A	RS-485	Modbus/RTU	1	-	1	MID
Q23532.	CEM-C31-485-DS-MID	3 x 57/100...3 x 230/400	.../ 5 (10) A	RS-485	Modbus/RTU	0	1	2	MID



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Dimensions



Connections

