Product leaflet

Three phase electricity meters C13
EQ meters in Steel version from ABB

The compact and versatile EQ meter C13 is a three phase meter with outstanding performance. It can be used in most of the common applications for reliable and trustworthy metering of energy usage.

EQ meters C13 is mainly intended for stand-alone applications.

General features

C13 is a three phase direct connected meter up to 40 A. The C13 is measuring active energy with accuracy class B (Cl. 1). The low rated or base currents of this product ensures high dynamic performance with superior accuracy even at low currents. Navigation of the meter is easily done via the push-button below the display. The low power consumption of the meter, less than 1.5 VA, makes it economical in the long run - an important feature specially for large meter populations.

Instrumentation

The C13 meter supports reading of instrument values. A large number of electrical properties can be read.

- Active power - Total and per phase
- Voltage - Total and per phase
- Current - Total and per phase
- Power factor

Output

The C13 meter has one solid state relay output that can be used for S0 pulses or as alarm output. C13 can generate pulses proportionally to the measured energy and the pulses can be used for various applications such as automatic meter reading systems etc. When used as alarm the quantity and levels are easily configured on the meter with the push button. When used as alarm the output can control an external apparatus like a contactor (connected via an external relay) or an alarm indicator.

Approvals

The C13 meters are type approved according to IEC as well as type approved and optionally verified according to MID.
MID is the Measure Instruments Directive 2004/22/EC from European Commission. The type approval is according to standards that covers all relevant technical aspects of the meter. These include climate conditions, electromagnetic compatibility (EMC), electrical requirements, mechanical requirements and accuracy.

Ordering details

40 A direct connected, 3 DIN

Voltage V	Accuracy Class	Type	Order code	Weight 1 pc
Steel Active energy, pulse output				
3 x 230/400 V AC	Class B(Cl. 1)	C13 110 - 100 *)	2CMA100191R1000	0.17
	Class 1	C13 110 - 300	2CMA100192R1000	0.17

*) MID approval

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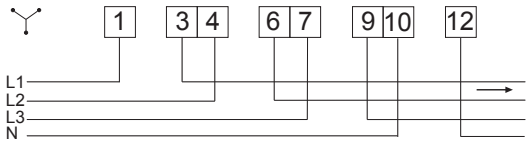
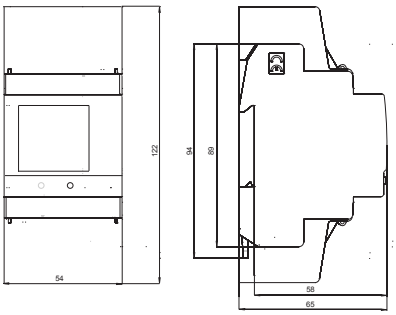
C13
Technical data

	C13
Voltage/current inputs	
Nominal voltage	3x230/400 V AC
Voltage range	3x220 - 240 V AC (-20% - +15%)
Power dissipation voltage circuits	1.5 VA (0.6 W) total
Power dissipation current circuits	0.04 VA (0.04 W) per phase at 230 V AC and I_b
Base current I_b	5 A
Reference current I_{ref}	5 A
Transitional current I_{tr}	0.5 A
Maximum current I_{max}	40 A
Minimum current I_{min}	0.25 A
Starting current I_{st}	< 20 mA
Terminal wire area	0.5 - 10 mm^2
Recommended tightening torque	0.8 Nm
Pulse indicator (LED)	
Pulse frequency	1000 imp/kWh
Pulse length	40 ms
General data	
Frequency	50 or 60 Hz ± 5%
Accuracy Class	B (Cl. 1)
Active energy	1%
Display of energy	6 digit LCD
Environmental	
Operating temperature	-25°C - +70°C
Storage temperature	-25°C - +85°C
Humidity	75% yearly average, 95% on 30 days/year
Resistance to fire and heat	Terminal 960 °C, cover 650°C (IEC 60695-2-1)
Resistance to water and dust	IP20 on terminal block without protective enclosure and IP51 in protective enclosure, according to IEC 60529.
Mechanical environment	Class M1 in accordance with the Measuring Instrument Directive (MID). (2004/22/EC).
Electromagnetic environment	Class E2 in accordance with the Measuring Instrument Directive (MID), (2004/22/EC).
Outputs	
Current	2 - 100 mA
Voltage	5 - 40 V DC.
Pulse output frequency	100 (imp/kWh)
Pulse length	200 ms
Terminal wire area	0.5 - 6 mm^2
Recommended tightening torque	0.8 Nm
EMC compatibility	
Impulse voltage test	6 kV 1.2/50µs (IEC 60060-1)
Surge voltage test	4 kV 1.2/50µs (IEC 61000-4-5)
Fast transient burst test	4kV (IEC 61000-4-4)
Immunity to electromagnetic HF-fields	80 MHz - 2 GHz at 10 V/m (IEC 61000-4-3)
Immunity to conducted disturbance	150 kHz - 80 MHz (IEC 61000-4-6)
Immunity to disturbance with harmonics	2 kHz - 150 kHz
Radio frequency emission	EN 55022, class B (CISPR22)
Electrostatic discharge	15 kV (IEC 61000-4-2)
Standards	IEC 62052-11, IEC 62053-21 class 1, GB/T 17215.211-2006, GB/T 17215.321-2008 class 1, GB 4208-2008, EN 50470-1, EN 50470-3 category B
Mechanical	
Material	Glass reinforced polycarbonate
Dimensions	
Width	54 mm
Height	122 mm
Depth	65 mm
DIN modules	3

Wiring diagram C13



Dimensions



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This QR-code is linked to our web site www.abb.com/lowvoltage.
You will have to download a QR-code reader app to your phone in order to use it.

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