

# C11 - Easy and compact EQ meters

The EQ meters C11 is a truly compact meter for single phase metering. The C11 is mounted on a DIN rail and is suitable for installation in distribution boards and small consumer units. The C11 is suitable for many applications.



## General features

The C11 is a very compact meter for single phase applications. The meter has an LCD with large digits on a vertical line and small digits on a horizontal line below. The meter has a wide temperature range which makes it possible to install the meter in many locations. Navigating the meter is easily done via the push-button below the display. The power consumption of the meter is very low, less than 0.8 VA (0.2 W).

## Communication

Data from the C11 meters can be collected via pulse output. The pulse output is a solid state relay that generates pulses proportionally to the measured energy.

## Instrumentation

The C11 meters support reading of instrument values. A number of electrical properties can be read:

- Power factor
- Active power
- Current
- Voltage

## Outputs

The C11 meter has an output that can be used as pulse output or alarm output. The alarm quantity and levels is easily configured on the meter with the push button. The output can be used for controlling external apparatus like a contactor or an alarm indicator (connected via an external relay).

## Approvals

The C11 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

40A, 1 DIN  
IEC approval

## Direct connected electricity meter with pulse output

| Voltage V                   | Accuracy Class | Type             | Order code      | Weight (1 pcs) kg |
|-----------------------------|----------------|------------------|-----------------|-------------------|
| <b>Steel</b>                |                |                  |                 |                   |
| Active energy, pulse output |                |                  |                 |                   |
| 1 x 230 V AC                | Class B (Cl.1) | C11 110 - 100 *) | 2CMA100014R1000 | 0.07              |
|                             | Class 1        | C11 110 - 300    | 2CMA170550R1000 | 0.07              |

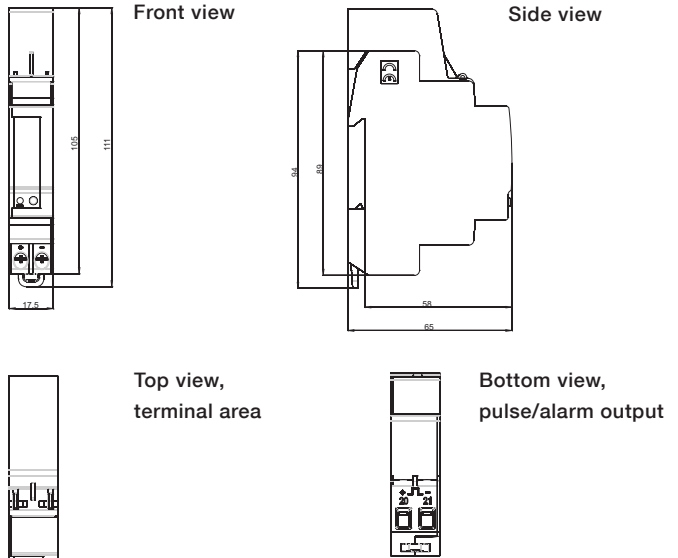
\*)MID approval

# C-series

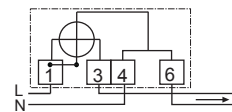
## Technical data

| Voltage/current inputs                |                                                                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Nominal voltage                       | 1 x 230 V AC                                                                                                                         |
| Voltage range                         | 230 V (-20% - +15%)                                                                                                                  |
| Power dissipation voltage circuits    | < 0.8 VA (0.2 W) total                                                                                                               |
| Power dissipation current circuits    | 0.02 W at 230 V AC and $I_b$                                                                                                         |
| Base current $I_b$                    | 5 A                                                                                                                                  |
| Reference current $I_{ref}$           | 5 A                                                                                                                                  |
| Transitional current $I_t$            | 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 <sup>2</sup>                                                                                                             |
| Recommended tightening torque         | 0.8 Nm                                                                                                                               |
| General data                          |                                                                                                                                      |
| Frequency                             | 50 or 60 Hz ± 5%                                                                                                                     |
| Accuracy Class                        | B (Cl.1)                                                                                                                             |
| Accuracy                              | 1%                                                                                                                                   |
| Display of energy                     | 6 digits LCD                                                                                                                         |
| Mechanical                            |                                                                                                                                      |
| Material                              | Polycarbonate in transparent front glass and terminal cover.<br>Glass reinforced polycarbonate in terminal block                     |
| 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.                        |
| 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 <sup>2</sup>                                                                                                              |
| Recommended tightening torque         | 0.8 Nm                                                                                                                               |
| Pulse indicator (LED)                 |                                                                                                                                      |
| Pulse frequency                       | 1000 imp/kWh                                                                                                                         |
| Pulse length                          | 40 ms                                                                                                                                |
| EMC compatibility                     |                                                                                                                                      |
| Impulse voltage test                  | 6 kV 1.2/50 μs (IEC 60060-1)                                                                                                         |
| Surge voltage test                    | 4 kV 1.2/50 μs (IEC 61000-4-5)                                                                                                       |
| Fast transient burst test             | 4 kV (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)                                                                                                    |
| 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, GBT 17215.321-2008 class 1, GB 4208-2008, EN 50470-1, EN 50470-3 category B |
| Dimensions                            |                                                                                                                                      |
| Width                                 | 17,5 mm                                                                                                                              |
| Height                                | 111 mm                                                                                                                               |
| Depth                                 | 65 mm                                                                                                                                |
| DIN modules                           | 1                                                                                                                                    |

### Dimension



### Wiring diagram



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