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
- Current
- Active power
- 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

<table>
<thead>
<tr>
<th>Voltage V</th>
<th>Accuracy Class</th>
<th>Type</th>
<th>Order code</th>
<th>Weight (1 pcs) kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steel</td>
<td>Active energy, pulse output</td>
<td>C11 110 - 100 *</td>
<td>2CMA100014R1000</td>
<td>0.07</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C11 110 - 300</td>
<td>2CMA170550R1000</td>
<td>0.07</td>
</tr>
</tbody>
</table>

* 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_{ref}
Base current I_{base} 5 A
Reference current I_{ref} 6 A
Transitional current I_τ 0.5 A
Maximum current I_{max} 40 A
Minimum current I_{min} 0.25 A
Starting current I_{start} < 20 mA
Terminal wire area 0.5 - 10 mm²
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

Material
Polycarbonate in transparent front glass and terminal cover. 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 900°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
Material Polycarbonate in transparent front glass and terminal cover. Glass reinforced polycarbonate in terminal block

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 mm²
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 - 30 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, GB/T 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

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