Precisely identify electricity theft

- Precisely identify electricity theft
- Voltage
- Current
- Power
- Power factor
- Phase detection
- Simple integral power consumption
- Harmonics

CM3286-01 only

*Harmonic can be displayed with the GENNECT Cross dedicated application software at a future update.
Accurately detect electricity theft

- The CM3286 is ideal for verifying electricity theft since it can measure both AC power and current.
- The instrument’s electricity theft detection-and-report function can be used to quickly and easily make measurements and generate reports (CM3286-01 only).

**Meter tampering**

Proper operation of electric meters can be confirmed by comparing meter readings and actual values.

**Detect by comparing electric meter readings and measurements**

Proper operation

- Energy (Measured value)
- Energy (Theoretical value)

Faulty operation

- Energy ratio (Measured value / theoretical value)
- Energy difference (Measured value – theoretical value)

**Direct theft**

Stealing electricity by directly tapping power lines.

**Detect by measuring current**

Electricity theft can be detected by measuring current on the power supply side of the illegal connection.

- Measure currents as low as 60 mA simply by clamping the instrument to two lines at once, ensuring you’ll detect any theft.

Use the Bluetooth-equipped CM3286-01 for even more convenient measurement.

Quick and easy data recording

Hold measured values to send them to a smartphone.

- When you freeze the measured value, it is automatically transferred to a smartphone or tablet, eliminating the need to jot down readings by hand. You can also create a simple PDF report right there in the field, and save data in CSV format for later editing in Excel.

Use for Android and iOS devices.

Electricity theft detection-and-report function

- Simply follow the measurement procedure to take measurements and photographs at four locations and the instrument will automatically generate a report, complete with photos.
- Since the report is generated automatically in the field based on captured measurement data, it’s impossible for others to alter the data.
Delivering a broad range of measurements at sites from manufacturing plants to households

- Accurately measure power from 5 W at a current as low as 60 mA to 360 kW at a maximum of 600 A (single-phase power measurement).
- In addition to current, voltage, and power, measure simple integral power consumption and phase sequence.
- Obtain accurate readings with true RMS measurement.

Simple wiring guide

The CM3286 provides a simple on-screen guide indicating how to connect it to a 3-phase circuit.

Example: 3-phase AC measurement (3P3W, balanced)

Quickly check for unbalance

The CM3286 can measure unbalanced power in a 3-phase/3-wire circuit by measuring the single-phase power twice and then automatically adding the results. (The instrument can also measure 3-phase/4-wire circuits in three separate measurements.)

AUTO HOLD

The clamp meters beep when the measured value stabilizes and then automatically hold the display value. This is useful when using the instrument in locations where it is difficult to see the display or press the hold button.

Easily check power supply fluctuations

Since it can display maximum (MAX), minimum (MIN), and average (AVG) values, the CM3286 is useful when you need to ascertain the magnitude of fluctuations. And since it can also measure crest (PEAK) values, you can use it to check fluctuations at the crest value level.

CAT IV 600 V

The CM3286 can safely measure service wires with a wire-to-ground voltage of up to 600 V as well as wires found in distribution panels. The clamp meters also feature a safe design that can withstand a transient overvoltage of 8 kV in case of a lightning strike.

GENNECT Cross (freeware) is required to use instruments with a smartphone or tablet. GENNECT Cross available from the Google Play or Apple Store.

General measurement

Tap “Save measured value” in the app or press the HOLD key on the measuring instrument to save the data. Measured values from multiple channels can be saved.

Simple logging function

Convenient for observing fluctuations over a short period of time when it’s not practical to set up large-scale recording equipment.

Harmonic measurement function

The CM3286-01 can measure the harmonic level, content percentage, and total harmonic distortion of voltage or current for the 1st through 30th orders. Android support scheduled for fall 2017. iOS support scheduled for 2018. Prototype screen shown.

Instantly create reports
Specifications

Accuracy guaranteed for 1 year, Post-adjustment accuracy guaranteed for 1 year

<table>
<thead>
<tr>
<th>Measurement line</th>
<th>Single-phase, Three-phase (should be balanced with no distortion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurement items</td>
<td>Voltage, Current, Voltage/current peak, Active/ reactive/ apparent power, Power factor, Phase angle*1, Frequency, Simple Active Energy Consumption (Single-phase)</td>
</tr>
<tr>
<td>[CM3286-01 only]*2 Voltage/current harmonic levels</td>
<td></td>
</tr>
<tr>
<td>AC voltage</td>
<td>[Measurement range] 80.0 V to 600.0 V, Single range, Basic accuracy 45 Hz - 66 Hz: ±0.7% rdg. ±3 dgt. (Frequency characteristics: 45 Hz to 1 kHz, True RMS)</td>
</tr>
<tr>
<td>AC current</td>
<td>[Measurement range] 0.00 A to 600.0 A, 3 range, Basic accuracy 45 Hz - 66 Hz: ±1.3% rdg. ±3 dgt. (Frequency characteristics: 45 Hz to 1 kHz, True RMS)</td>
</tr>
<tr>
<td>Power</td>
<td>[Single phase] 0.005 kW to 360.0 kW</td>
</tr>
<tr>
<td>Harmonic (CM3286-01 only)*2</td>
<td>Voltage/current harmonic levels up to 30th, Content factor, Total harmonic distortion ratio</td>
</tr>
<tr>
<td>Other functions</td>
<td>[Phase angle] &quot;1 lead -180.0° to lag 179.9°, [Power factor] 1.000 to 1.000 [Frequency] 45.0 Hz to 9999.9 Hz, PEAK, phase detection, max/min/avg value display, auto hold, electric meter comparison, unbalanced 3-phase power estimate display, etc.</td>
</tr>
<tr>
<td>Maximum rated voltage to earth</td>
<td>600 V AC (Measurement category IV)</td>
</tr>
<tr>
<td>Maximum rated voltage to terminal</td>
<td>1000 V AC (Measurement category III)</td>
</tr>
<tr>
<td>Crest factor</td>
<td>6 A/ 60 A range 3 or less, 600 A/ 600 V range 1.6 or less</td>
</tr>
<tr>
<td>Operating and storage temperature and humidity ranges</td>
<td>25°C to 65°C or less (-3.0°F to 149.0°F), 30% RH or less (no condensation, less than 40°C)</td>
</tr>
<tr>
<td>Dustproof and waterproof**</td>
<td>Grip: IP54 (EN60529), Jaw: IP50 (EN60529)</td>
</tr>
</tbody>
</table>

Standards | Safety: EN61010, EMC: EN61326 |
| Power supply | LR03 Alkaline battery x2 |
| Continuous operating time | Approx. 25 hours (Backlight OFF, Bluetooth® OFF) Approx. 18 hours (Backlight OFF, Bluetooth® ON) |
| Core jaw diameter | ø 46 mm (1.81 in) |
| Dimensions and Mass | 82 mm (3.23in) W x 241 mm (9.49in) H x 37 mm (1.46in) D, 450 g (15.9 oz) |

Software specifications (CM3286-01 only)

| Interface | Bluetooth® 4.0 LE |
| Name | GENNECT Cross (freeware) |
| Supported devices | iOS (iPhone 6s, 3rd generation iPad, iPad mini™, iPad Pro™, 5th generation iPad Touch™ or later) |
| Supported OS | Android™ 4.3 or later, iOS 8 or later |

Order code/ Options

**AC CLAMP POWER METER CM3286**

Model No. (Order Code) (Note)

CM3286
CM3286-01 Built-in Bluetooth® wireless technology

**Options (Test leads)**

<table>
<thead>
<tr>
<th>Options</th>
<th>TEST PIN SET L4930</th>
<th>ALLIGATOR CLIP SET L4935</th>
<th>BUS BAR CLIP SET L4936</th>
<th>MAGNETIC ADAPTER SET L4937</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tip options</td>
<td>(Red/Black: 1 each)</td>
<td>Attaches to the tip of the banana plug cable.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Options (Test leads)**

<table>
<thead>
<tr>
<th>Options</th>
<th>TEST LEAD L9007-10</th>
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**Options (Clamp adapter)**

<table>
<thead>
<tr>
<th>Options</th>
<th>CLAMP ON ADAPTER 9290-10</th>
</tr>
</thead>
</table>

**Accessories:**

- CONNECTION CORD L9257 x1
- CARRYING CASE C0203 x1
- LR03 Alkaline battery x2
- Instruction manual x1

[CM3286-01 only]

**Precautions Concerning Use of Equipment That Emits Radio Waves**

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All information correct as of May 19, 2017. All specifications are subject to change without notice.