Analyze the quality of power with the PQM-707 Power Quality Analyzer

Product features

- 7” touchscreen - ergonomic and intuitive graphical user interface
- over 10 years of recording
- CAT IV 600 V measurement category - high safety
- all parameters according to class S - high accuracy of measurements
- Li-ion rechargeable battery - higher mobility
- powering from measured network - reliability of measurements
- removable memory card - recording data with no restrictions
- quick setup and reporting - ease of use
- cooperation with desktop Sonel Analysis software - extended data analysis

Measured parameters

- inrush current
- voltages L1, L2, L3, N-PE (five measurement inputs) – MAX, MIN, AVG up to 760 V, direct or via transducers
- currents L1, L2, L3, N (four measurement inputs) - MAX, MIN, AVG up to 3 kA (range dependent on the clamp type)
- crest factors for current CFI and voltage CFU
- frequency within the range of 40…70 Hz
- active P, reactive Q, distortion D and apparent S power with the type of reactive power (capacitive and inductive)
- active E_p, reactive E_q and apparent E_s energy
- power factor PF, cosφ, tgφ
- harmonics up to the 50th order of voltage and current
- event logging for current and voltage along with oscillograms and half-period RMS charts
- ...and many more
- all parameters are recorded in compliance with class S according to IEC 61000-4-30 standard
**Wide range of mains to analyze**

- DC and AC with rated frequency 50/60 Hz
- with direct current
- single-phase
- two-phase with neutral conductor
- three-phase - Wye-Star configuration with and without neutral conductor
- three-phase - delta configuration

**Application**

The analyzer is directed to a very wide range of users, with particular reference to the maintenance staff. Due to its mobility and autonomy, any problems occurring in the supply networks can be diagnosed on the spot. The analyzer can be used in virtually all kinds of networks with rated voltage from 54 V to 760 V directly, or indirectly via transformers. PQM-707 can be used in the field of professional power engineering, maintenance services in industrial plants, as well as among those providing services focused on network analysis.

**Device capabilities**

The analyzer is an autonomous meter allowing versatile measurement, analysis, and registration of energy network (DC and 50/60 Hz) parameters. All parameters are measured I/A/W class S of the IEC 61000-4-30 standard guaranteeing high accuracy of measurements. The largest in this class of analyzers 7-inch colour touchscreen enables intuitive and ergonomic operation. Thanks to the built-in lithium-ion battery, the analyzer allows for efficient work during the measurement without the necessity of connecting an external AC adapter.

**Easy readout**

The PQM-707 power quality analyzer is equipped with a readable colour touchscreen that, due to its 800x480 pixel resolution, providing both high comfort of interacting with the interface and high readability of the measurement results.

**Durable and practical casing**

The casing of PQM-707 has been designed to allow easy access to the touchscreen and all measurement and communication sockets. Ingress protection class IP51 ensures shielding against dust and splashed water for comfortable use in indoor and controlled outdoor conditions. Folding lid on the casing allows quick access to the meter and screen protection while not in use.
<table>
<thead>
<tr>
<th>Parameter</th>
<th>Measurement range</th>
<th>Maximum resolution</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>alternating voltage (TRMS)</td>
<td>0.0...760.0 V</td>
<td>0.01% $U_{nom}$</td>
<td>±0.5% $U_{nom}$</td>
</tr>
<tr>
<td>crest factor</td>
<td>voltage</td>
<td>1.00...10.00 (±1.65 for 690 V)</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>current</td>
<td>1.00...10.00 (±3.6 $I_{nom}$)</td>
<td>0.01</td>
</tr>
<tr>
<td>alternating current (TRMS)</td>
<td>–</td>
<td>depending on the clamp *</td>
<td>0.01% $I_{nom}$</td>
</tr>
<tr>
<td>frequency</td>
<td>–</td>
<td>40.00...70.00 Hz</td>
<td>0.01 Hz</td>
</tr>
<tr>
<td>active, reactive, apparent and distortion power</td>
<td>–</td>
<td>depending on configuration (instrument transformers, clamp)</td>
<td>up to four places after the decimal point</td>
</tr>
<tr>
<td>active, reactive, apparent energy</td>
<td>–</td>
<td>depending on configuration (instrument transformers, clamp)</td>
<td>up to four places after the decimal point</td>
</tr>
<tr>
<td>cosφ and power factor (PF)</td>
<td>–</td>
<td>0.00...1.00</td>
<td>0.01</td>
</tr>
<tr>
<td>$tgφ$</td>
<td>–</td>
<td>0.00...1.00</td>
<td>0.01</td>
</tr>
<tr>
<td>harmonics</td>
<td>voltage</td>
<td>as for alternating voltage True RMS</td>
<td>as for alternating voltage True RMS</td>
</tr>
<tr>
<td></td>
<td>current</td>
<td>as for alternating current True RMS</td>
<td>as for alternating current True RMS</td>
</tr>
<tr>
<td>THD</td>
<td>voltage</td>
<td>0.0...100.0% (relative to the RMS value)</td>
<td>0.1%</td>
</tr>
<tr>
<td></td>
<td>current</td>
<td></td>
<td></td>
</tr>
<tr>
<td>flicker index</td>
<td>–</td>
<td>0.40...10.00</td>
<td>0.01</td>
</tr>
<tr>
<td>assymetry factor</td>
<td>voltage and current</td>
<td>0.0...10.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>inrush current</td>
<td>current</td>
<td>depending on clamp *</td>
<td>0.01% $I_{nom}$</td>
</tr>
</tbody>
</table>

* Available clamps:

**F-1A flexible clamp** (Ø 360 mm)
0...3 kA AC
(10 kA<sub>pp</sub>)
WACEGF1AOKR

**F-2A flexible clamp** (Ø 235 mm)
0...3 kA AC
(10 kA<sub>pp</sub>)
WACEGF2AOKR

**F-3A flexible clamp** (Ø 120 mm)
0...3 kA AC
(10 kA<sub>pp</sub>)
WACEGF3AOKR

**C-4A clamp**
0...1 kA AC
(3.6 kA<sub>pp</sub>)
WACEGC4AOKR

**C-5A clamp**
0...1 kA AC/DC
(3.6 kA<sub>pp</sub>)
WACEGC5AOKR

**C-6A clamp**
0...10 A AC
(36 A<sub>pp</sub>)
WACEGC6AOKR

**C-7A clamp**
0...100 A AC
(360 A<sub>pp</sub>)
WACEGC7AOKR

Abbreviation „m.v.” used in the specification of measurement means a measured value.
### Standard accessories

<table>
<thead>
<tr>
<th>Description</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>3x black “crocodile” clip 1 kV 20 A</td>
<td>WAKR0BL20K01</td>
</tr>
<tr>
<td>2x red “crocodile” clip 1 kV 20 A</td>
<td>WAKR0RE20K02</td>
</tr>
<tr>
<td>“crocodile” clip 1 kV 20 A blue/yellow-green</td>
<td>WAKR0BLU20K02, WAKR0RE20K02</td>
</tr>
<tr>
<td>3x test lead with banana plugs; 1 kV; 2.2 m; black</td>
<td>WAPR2X2BLBB</td>
</tr>
<tr>
<td>4x F-3A flexible clamp (Ø 120mm)</td>
<td>WACEGF3AOKR</td>
</tr>
<tr>
<td>Li-Ion rechargeable battery 11.1 V 3.4 Ah</td>
<td>WAAKU15</td>
</tr>
<tr>
<td>3x test lead with banana plugs; 1 kV; 2.2 m; blue/yellow</td>
<td>WAPR2X2BUBB, WAPR2X2YEBB</td>
</tr>
<tr>
<td>magnetic adapter (set of 4 pcs.)</td>
<td>WAADAUMAGKPL</td>
</tr>
<tr>
<td>2x red “crocodile” clip 1 kV 20 A</td>
<td>WAKR0RE20K02</td>
</tr>
<tr>
<td>3x black “crocodile” clip 1 kV 20 A</td>
<td>WAKR0BL20K01</td>
</tr>
<tr>
<td>3x test lead with banana plugs; 1 kV; 2.2 m; black</td>
<td>WAPR2X2BLBB</td>
</tr>
<tr>
<td>AC-16 phase splitter adapter</td>
<td>WAADAAC16</td>
</tr>
<tr>
<td>Storage &amp; carrying</td>
<td></td>
</tr>
<tr>
<td>L-4 carrying case</td>
<td>WAFUTL4</td>
</tr>
<tr>
<td>Meter strap (type L-2)</td>
<td>WAP0ZSZEKPL,</td>
</tr>
<tr>
<td>Power supply</td>
<td></td>
</tr>
<tr>
<td>2-7 power supply</td>
<td>WAZASZ7</td>
</tr>
<tr>
<td>AZ-2 power adapter (IEC C7 plug / banana plugs)</td>
<td>WAAAZA2Z</td>
</tr>
<tr>
<td>230 V power cord (IEC C7 plug)</td>
<td>WAPRZLAD230</td>
</tr>
<tr>
<td>Battery charging cable for 12 V car sockets</td>
<td>WAPRZLAD12SAM</td>
</tr>
<tr>
<td>Data transmission &amp; analysis</td>
<td></td>
</tr>
<tr>
<td>USB data transmission cable</td>
<td>WAPRZUSB</td>
</tr>
<tr>
<td>Sonel Analysis 4 Software for PQM series</td>
<td>WAPROANALIZA4</td>
</tr>
<tr>
<td>L-4 carrying case</td>
<td>WAFUTL4</td>
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Additional accessories

**AGT-16P three-phase socket adapter 16 A**
WAADAAGT16P

**AGT-16C three-phase socket adapter 16 A (PEN)**
WAADAAGT16C

**AGT-32P three-phase socket adapter 32 A**
WAADAAGT32P

**AGT-32T industrial socket adapter 32 A**
WAADAAGT32T

**AGT-63P three-phase socket adapter 63 A**
WAADAAGT63P

**AGT-16T industrial socket adapter 16 A**
WAADAAGT16T

**AGT-32C three-phase socket adapter 32 A (PEN)**
WAADAAGT32C

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