

Power Quality Analyser

**UMG 103-CBM** 

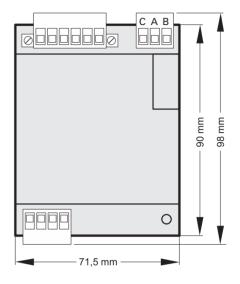
(Firmware 2.0)

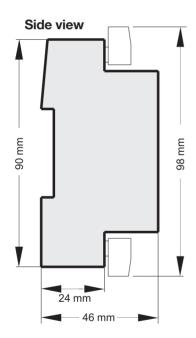
Data sheet

## **DEVICE VIEWS**

## Front view







## TECHNICAL DATA

| General                               |   |
|---------------------------------------|---|
| Net weight (with attached connectors) | approx. 200 g (0.44 lb)   |
| Device dimensions                     | h = 98 mm, w = 71.5 mm d= 46 mm,<br>(h = 3.86 in, w = 2.82 in, d = 1.18 in) |

| Transport and storage The following information applies for devices that are transported or stored in their original packaging. |                                    |
|---|------------------------------------|
| Free fall   | 1 m (39.37 in)                     |
| Temperature   | -20 °C to +70 °C (-4 °F to 158 °F) |

| Ambient conditions during operation  |  |
|--|--|
| The device  • weatherproof and use stationary!  • fulfills the conditions in accordance w  • has protection class II according to IE part 1) and does not require a protecti | C 60536 (VDE 0106,   |
| Working temperature range  | -25 °C +60 °C (-13° Fto 140° F)                                |
| Relative humidity  | 5 to 95 % (at 25 °C/77 °F) without condensation                |
| Operational altitude   | 0 2000 m (1,24 mi) above sea level                             |
| Degree of pollution  | 2  |
| Housing flammability class   | UL94V-0  |
| Installation position  | any  |
| Fixing/mounting  | 35 mm top hat rail (according to IEC/EN 60999-1, DIN EN 50022) |
| Stress by impact   | 2 joules, IK07 according to IEC / EN61010-1: 2010              |
| Ventilation  | Forced ventilation is not required.                            |
| Protection against ingress of solid foreign bodies and water   | IP20 according to EN60529<br>September 2000, IEC60529:1989     |

| Measurement data recording                 |                              |
|--|------------------------------|
| Memory (Flash)                             | 4 MB                         |
| Battery (soldered) Typical life expectancy | BR 1632, 3 V<br>8 - 10 years |

| Supply voltage   |                               |
|--|-------------------------------|
| The device gets the supply voltage from the measuring voltage! |                               |
| Supply from single phase                                       | 115 - 277 V (+-10%), 50/60 Hz |
| Supply from three phases                                       | 80 - 277 V (+-10%), 50/60 Hz  |
| Power consumption  | max. 1.5 VA                   |

| Voltage measurement   |   |
|---|---|
| 3-phase, 4-conductor systems with rated voltages (L-N/L-L)        | max. 277 V/480 V  |
| Networks  | Measurement in TT and TN networks                           |
| Rated surge voltage   | 4 kV  |
| Protection of voltage measurement                                 | 1 - 10 A Trip characteristic B,<br>(With IEC / UL approval) |
| Overvoltage category  | 300 V CAT III   |
| Resolution  | 0.01 V  |
| Crest factor  | 2 (related to 240 Vrms)                                     |
| Sampling rate   | 5.4 kHz   |
| Frequency range of<br>the fundamental oscillation -<br>resolution | 45 Hz 65 Hz<br>0.01 Hz                                      |
| Fourier analysis  | 140. Harmonic   |

| Current measurement  |                            |
|----------------------|----------------------------|
| Nominal current      | 5 A                        |
| Rated current        | 6 A                        |
| Crest factor         | 2 (related to 6 Arms)      |
| Resolution           | 0.1 mA                     |
| Measuring range      | 0.005 6 Arms               |
| Overvoltage category | 300 V CAT II               |
| Rated surge voltage  | 2 kV                       |
| Power consumption    | approx. 0.2 VA (Ri=5 mOhm) |
| Overload for 1 sec.  | 60 A (sinusoidal)          |
| Sampling rate        | 5.4 kHz                    |

| Terminal connection capacity           |   |
|--|---|
| Conductors to be connected. Only one c | onductor can be connected per terminal! |
| Single core, multi-core, fine-stranded | 0.08 - 2.5 mm², AWG 28-12               |
| Tightening torque                      | max. 0.5 Nm (0.74 ft lb)                |
| Stripping length                       | min. 8 mm (0.32 in)                     |

| RS485 interface      |  |
|----------------------|--|
| Protocol, modbus RTU | Modbus RTU/Slave                           |
| Transfer rate        | 9.6 kbps, 19.2 kbps, 38.4 kbps, 57.6 kbps, |
|                      | 15.2 kbps                                  |

## Subject to technical changes.

The content of our documentation has been compiled with the utmost care and is based on the latest information available to us. Nevertheless, we would like to point out that the updating of this document cannot always be performed simultaneously with the further technical development of our products. Information and specifications can be changed at any time.

Please consult www.janitza.com for information on the current version.

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