



Power Quality Analyser

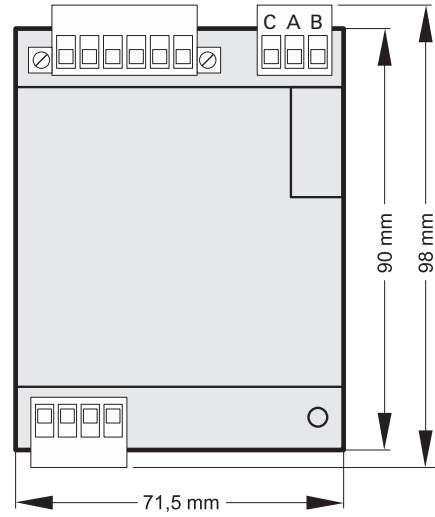
## UMG 103-CBM

(Firmware 2.0)

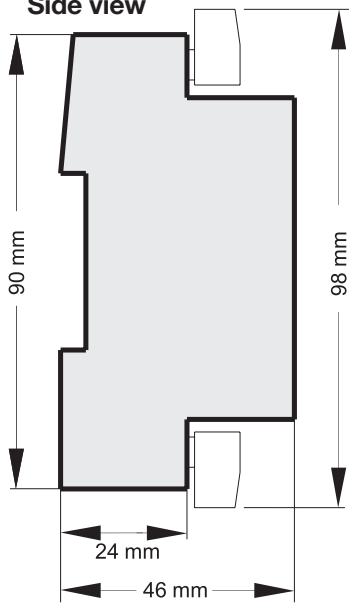
Data sheet

# DEVICE VIEWS

Front view



Side view



# TECHNICAL DATA

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

<b>Transport and storage</b>	
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)

<b>Ambient conditions during operation</b>	
The device <ul style="list-style-type: none"> <li>• weatherproof and use stationary!</li> <li>• fulfills the conditions in accordance with DIN IEC 60721-3-3</li> <li>• has protection class II according to IEC 60536 (VDE 0106, part 1) and does not require a protective earth connection.</li> </ul>	
Working temperature range	-25 °C .. +60 °C (-13° F.to 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 September 2000, IEC60529:1989

<b>Measurement data recording</b>	
Memory (Flash)	4 MB (1024 Sectors a 4 kB)
Record storage (all profiles activated)	approx. 16000 records
Battery (soldered)	BR 1632, 3 V
Typical life expectancy	8 - 10 years

<b>Supply voltage</b>	
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

<b>Voltage measurement</b>	
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, (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 the fundamental oscillation - resolution	45 Hz .. 65 Hz 0.01 Hz
Fourier analysis	1.-40. Harmonic

<b>Current measurement</b>	
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

<b>Terminal connection capacity</b>	
Conductors to be connected. Only one conductor can be connected per terminal!	
Single core, multi-core, fine-stranded	0.08 - 2.5 mm <sup>2</sup> , AWG 28-12
Tightening torque	max. 0.5 Nm (0.74 ft lb)
Stripping length	min. 8 mm (0.32 in)

<b>RS485 interface</b>	
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](http://www.janitza.com) for information on the current version.

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