Certificate of Conformity

Number CoC-1902605-01
Project number 1902605

Issued by	:	NMi Certin B.V. Hugo de Grootplein 1 314 EG Dordrecht The Netherlands
Applicant	:	Janitza electronics GmbH Vor dem Polstück 6 35633 Lahnau Germany
Submitted	:	**A meter embedding IEC 61000-4-30 class A Power Quality functions** Manufacturer : Janitza Type : UMG 512-PRO
Characteristics	:	See page 2 and further
In accordance with	:	**IEC 61000-4-30 Ed. 3 (2015)** "Electromagnetic Compatibility (EMC) – Part 4-30: Testing and measurement techniques – Power quality measurement methods" **IEC 62586-2 Ed. 2 (2017)** "Power quality measurement in power supply systems - Part 2: Functional tests and uncertainty requirements"
Measurement class	:	IEC 61000-4-30 class A

The undersigned declares that the described product is tested according to the above mentioned standard and meet their requirements, based on a non-recurrent examination. The appertaining test data is presented in type evaluation report number NMi-1902605-01, granted by NMi Certin B.V.

NMi Certin B.V.
25 April 2019

C. Oosterman
Head Certification Board

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INSPECTION
RvA I 122

IEC 61000-4-30 Power Quality functions tested
The following IEC 61000-4-30 measurement methods have been tested

Table 1 IEC 61000-4-30 Power Quality functions tested

IEC 62586-2 Clause	Parameter	IEC 61000-4-30 class	Comments
6.1 / 7.1	Power frequency	**A**	50 Hz and 60 Hz
6.2 / 7.2	Magnitude of supply voltage	**A**	230 V and 57,7 V
6.3 / 7.3	Flicker	**A**	Class F3: 230 V, 60 Hz 120 V, 50 Hz
6.4 / 7.4	Supply voltage interruptions, dips and swells	**A**	50 and 60 Hz
6.5 / 7.5	Supply voltage unbalance	**A**	
6.6 / 7.6	Voltage harmonics	**A**	
6.7 / 7.7	Voltage interharmonics	**A**	
6.8 / 7.8	Mains signalling voltages on the voltage supply	**A**	Method 2
6.9 / 7.9	Measurement of underdeviation and overdeviation parameters	**A**	
6.10 / 7.10	Flagging	**A**	
6.11 / 7.11	Clock uncertainty testing	**A**	
6.12 / 7.12	Variation of external influence quantities	**A**	Temperature: -10°C ... +55°C
6.13 / 7.13	Rapid Voltage Changes (RVC)	**A**	
6.14 / 7.14	Magnitude of current	**A**	
6.15 / 7.15	Harmonic current	**A**	
6.16 / 7.16	Interharmonic currents	**A**	
6.17 / 7.17	Current unbalance	**A**	
8	Calculation of measurement uncertainty and operating uncertainty	**A**	

A : compliance with class A
S : compliance with class S
--- : Not implemented

The tests are performed in accordance with IEC 62586-2 edition 2 (2017).

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Characteristics of the measuring instrument
In Table 2 the general characteristics of the measuring instrument are presented.

Table 2 General characteristics

Model	UMG 512-PRO
U_{din}	230 V_{LN} or 57,7 V_{LN}
I_{nom}	3 A
f_{nom}	50 Hz and 60 Hz
Temperature	Rated range of operation: -10°C to +55°C
Power supply range	95 … 240 VAC 50/60 Hz 48 … 110 VDC (52.17.011) 48 … 110 VAC 50/60 Hz 24 … 150 VDC (52.17.003)
Software version	V 5.011
Hardware version	100
Environmental application	Fixed (F), Indoor (I)