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Submitted : **A meter embedding IEC 61000-4-30 class A Power Quality functions**

Manufacturer : SOCOMEC SAS
Type : DIRIS Q800

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"

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-15200632-01 and NMI-2380227-02, granted by NMI Certin B.V.

NMI Certin B.V.
24 October 2019


C. Oosterman
Head Certification Board

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	Power frequency	A	50 and 60 Hz
6.2	Magnitude of supply voltage	A	
6.3	Flicker	A	Class F3: 230V, 50 Hz
6.4	Supply voltage interruptions, dips and swells	A	
6.5	Supply voltage unbalance	A	
6.6	Voltage harmonics	A	
6.7	Voltage interharmonics	A	
6.8	Mains signalling voltages on the voltage supply	A	Method 1 + 2 (dynamic)
6.9	Measurement of underdeviation and overdeviation parameters	A	
6.10	Flagging	A	
6.11	Clock uncertainty testing	A	
6.12	Variation of external influence quantities	A	Temperature range: -25°C .. +55°C AUX Supply type 1: 85 – 265 VAC 65 – 250 VDC AUX Supply type 2: 19 – 60 VDC
6.13	Rapid Voltage Changes (RVC)	A	
6.14	Magnitude of current	A	
6.15	Harmonic current	A	
6.16	Interharmonic currents	A	
6.17	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).
The current tests only apply to the direct current inputs of the PQM3000 and PQM4000.

Characteristics of the measuring instrument

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

Table 2 General characteristics

U_{din}	230 V _{LN}
U_{max}	345 V _{LN}
I_{nom}	1 A or 5 A
f_{nom}	50 Hz and 60 Hz
Temperature	Rated range of operation: -25°C to +55°C
AUX. Power supply range	Type 1: 85 – 265 VAC 50/60 Hz 65 – 250 VDC Type 2: 19-60 VDC
Software version	v.1.15.1.18
Hardware version	PQM4000 configuration 3.3 PQM3000 configuration 3.3
Environmental application	Fixed (F), Indoor (I)