

- Issued by : NMI Certin B.V.
Hugo de Grootplein 1
314 EG Dordrecht
The Netherlands
- Applicant : Schneider Electric dba Power Measurement Ltd.
2195 Keating Cross Road
Saanichton, BC V8M 2A5
Canada
- Submitted : **A meter embedding IEC 61000-4-30 class A Power Quality functions**
Manufacturer : Schneider Electric
Type : PowerLogic ION8650
- 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 and S

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-1901767-01, NMI-1901767-02 and NMI-1901767-03, granted by NMI Certin B.V.

NMI Certin B.V.
14 June 2018



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 / 7.1	Power frequency	A + S	50 and 60 Hz
6.2 / 7.2	Magnitude of supply voltage	A + S	
6.3 / 7.3	Flicker	A + S	Class F1 230V, 50 Hz / 60 Hz 120V, 50 Hz / 60 Hz
6.4 / 7.4	Supply voltage interruptions, dips and swells	A + S	50 and 60 Hz
6.5 / 7.5	Supply voltage unbalance	A + S	
6.6 / 7.6	Voltage harmonics	A + S	
6.7 / 7.7	Voltage interharmonics	A + S	
6.8 / 7.8	Mains signalling voltages on the voltage supply	A + S	Method 2
6.9 / 7.9	Measurement of underdeviation and overdeviation parameters	A	Not applicable for class S
6.10 / 7.10	Flagging	A + S	
6.11 / 7.11	Clock uncertainty testing	A + S	
6.12 / 7.12	Variation of external influence quantities	A + S	Temperature: -25°C .. +70°C Power supply: 160 – 277 VAC 200 – 300 VDC
6.13 / 7.13	Rapid Voltage Changes (RVC)	A + S	
6.14 / 7.14	Magnitude of current	A + S	
6.15 / 7.15	Harmonic current	A + S	
6.16 / 7.16	Interharmonic currents	A + S	
6.17 / 7.17	Current unbalance	A + S	
8	Calculation of measurement uncertainty and operating uncertainty	A + S	

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).

Characteristics of the measuring instrument

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

Table 2 General characteristics

Model	ION8650A – Class A ION8650B – Class S
U_{din}	230 V _{LN}
I_{nom}	1 A, 2 A or 5 A
f_{nom}	50 Hz and 60 Hz
Temperature	Rated range of operation: -25°C to +70°C
Power supply range	Type J 160 – 277 VAC (+/- 20%), 47-63 Hz 200 – 300 VDC (+/- 20%) Type H 65-120 VAC (+/- 15%), 47-63 Hz 80-160 VDC (+/- 20%)
Software version	004.030.xxx (v4.30)
Hardware version	02
Environmental application	Fixed (F), Indoor (I)