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

Manufacturer : Schneider Electric
Type : PowerLogic PM83xx
PowerLogic ION74xxA

Characteristics : See page 3

In accordance with : **IEC 61000-4-30:2015 Ed. 3**
"Electromagnetic Compatibility (EMC) – Part 4-30: Testing and measurement techniques – Power quality measurement methods"
IEC 62586-2:2017
"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 standards and meets their requirements, based on a non-recurrent examination. The appertaining test data is presented in the type evaluation report NMI-2274923-01, NMI-2308270-01, and NMI-3658930-01 granted by NMI.

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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 Hz and 60 Hz |
| 6.2/7.2 | Magnitude of supply voltage** | A + S | 230 V |
| 6.3/7.3 | Flicker* | A + S | Class F1: 230 V, 50 Hz/60 Hz 120 V, 50 Hz/60 Hz |
| 6.4/7.4 | Supply voltage interruptions, dips and swells* | A + S | Based on $U_{rms(1/2)}$, 50 Hz/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 + 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 Aux. Power supply: 90 – 415 VAC 110 – 415 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 tested

** The PowerLogic PM8000 meter is tested according to IEC 62586-2 edition 2, as presented in type evaluation report number NMI-2308270-01 and NMI-3658930-01 for Class A.

* The PowerLogic PM8000 meter is tested according to IEC 62586-2 edition 2, as presented in type evaluation report number NMI-2274923-01 for Class S.

Characteristics of the measuring instrument

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

Table 2 General characteristics

| | |
|------------------------------|---|
| Model* | PowerLogic PM83xx PowerLogic ION74xxA |
| U_{din} | 230 V _{LN} |
| I_{nom} | 5 A |
| f_{nom} | 50 Hz and 60 Hz |
| Temperature | Rated range of operation: -25°C to +70°C |
| Auxiliary power supply range | 90 – 415 VAC (+/- 10%), 50/60 Hz 110 – 415 VDC (+/- 10%) |
| Software version | 004.005.xxx |
| Hardware version | 03 |
| Environmental application | Fixed (F), Indoor (I) |

*xx- represents different hardware order options available.