Certificate of Conformity

Number CoC-2373281-01
Project number 2373281

Issued by	:	NMi Certin B.V. Thijsseweg 11 2629 JA Delft The Netherlands
Applicant	:	Dranetz Technologies, Inc 1000 New Durham Road Edison New Jersey United States of America
Submitted	:	**A meter embedding IEC 61000-4-30 class A Power Quality functions**
	Manufacturer	: DRANETZ
	Type	: HDPQ-DN-MVS; HDPQ-DN-MVB; HDPQ-DN-MVSTR and HDPQ-DN-MZP
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	:	See table 1

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-2373281-01 and NMi-2373281-02, granted by NMi Certin B.V.

NMi Certin B.V.
17 September 2019

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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	Power frequency	**A**	50 Hz
6.2	Magnitude of supply voltage	**A**	230 V
6.3	Flicker	**A**	Class F3 120 V + 230V, 50 Hz
6.4	Supply voltage interruptions, dips and swells	**A**	50 Hz
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
6.9	Measurement of underdeviation and overdeviation parameters	------	Not implemented
6.10	Flagging	**A**	
6.11	Clock uncertainty testing	**A**	
6.12	Variation of external influence quantities	**A**	Temperature: -25 °C ... +55 °C Power supply: 90 – 250 VAC 100 – 300 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).

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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	HDPQ-DN-MVS HDPQ-DN-MVB HDPQ-DN-MVSTR HDPQ-DN-MZP		
U_{din}	230 V_{LN}		
I_{nom}	5 A	:	HDPQ-DN-MVS
	1,5 V_{rms} (current transducer input)	:	HDPQ-DN-MVB HDPQ-DN-MVSTR HDPQ-DN-MZP
f_{nom}	50 Hz		
Temperature	Rated range of operation	:	-25°C to +55°C
Power supply range	90 – 250 VAC, 50Hz 100 – 300 VDC		
Software version	V 2.4.26		
Hardware version	E	:	HDPQ-DN-MVS
	D	:	HDPQ-DN-MVB HDPQ-DN-MVSTR HDPQ-DN-MZP
Environmental application	Fixed (F), Indoor (I)		