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Applicant : Dranetz Technologies, Inc
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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


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 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).

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)