

# Certificate of Conformity

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| Issued by          | : NMi Certin B.V.,<br>Thijsseweg 11<br>2629 JA Delft<br>The Netherlands  |  |
|--------------------|--|--|
| Applicant          | : ISKRA, d.o.o.<br>Stegne 21<br>SI-1000 Ljubljana<br>Slovenia  |  |
| Submitted          | A meter embedding IEC 61000-4-30 Power Quality functionsManufacturer: ISKRA, d.o.o.Type: MC784 / iMC784 / iMC784A  |  |
| Characteristics    | : See page 2 and further   |  |
| In accordance with | <ul> <li>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"</li> </ul> |  |
| 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-16200171-01b, granted by NMi Certin B.V.

NMi Certin B.V. 8 September 2021

**Certification Board** 



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### IEC 61000-4-30 Power Quality functions tested

The following IEC 61000-4-30 measurement methods have been tested

| IEC<br>62586-2<br>Clause | IEC 61000-4-30 parameter (clause)                                    | IEC<br>61000-4-30<br>class | Comments   |
|--------------------------|--|----------------------------|--|
| 6.1                      | Power frequency (5.1)  | Α                          | 50 Hz and 60 Hz  |
| 6.2                      | Magnitude of the supply voltage (5.2)                                | Α                          |  |
| 6.3                      | Flicker (5.3)  | Α                          | IEC 61000-4-15 Class F1  |
| 6.4                      | Supply voltage interruptions, dips and swells (5.4 / 5.5)            | Α                          | 50 Hz and 60 Hz  |
| 6.5                      | Supply voltage unbalance (5.7)                                       | Α                          |  |
| 6.6                      | Voltage harmonics (5.8)  | Α                          |  |
| 6.7                      | Voltage inter-harmonics (5.9)  | Α                          |  |
| 6.8                      | Mains signalling voltages on the voltage supply (5.10)               | Α                          | Method 1 + Method 2  |
| 6.9                      | Measurement of underdeviation and overdeviation parameters (Annex D) | Α                          |  |
| 6.10                     | Flagging (4.7)   | Α                          |  |
| 6.11                     | Clock uncertainty (4.6)  | Α                          |  |
| 6.12                     | Variation of external influence<br>quantities                        | Α                          | Temperature: -10°C +55°C<br>Power supply: 80 – 276 VAC<br>70 – 300 VDC |
| 6.13                     | Rapid Voltage Changes (RVC) (5.11)                                   | Α                          |  |
| 6.14                     | Current Magnitude (5.13.2)   | Α                          |  |
| 6.15                     | Current Harmonics (5.13.4)   | Α                          |  |
| 6.16                     | Current Interharmonics (5.13.5)                                      | Α                          |  |
| 6.17                     | Current unbalance (5.13.6)   | Α                          |  |
| 8                        | Measurement uncertainty and operating uncertainty                    | Α                          |  |
| A : complia              | nce with class A   |                            |  |

### Table 1 IEC 61000-4-30 Power Quality functions tested

S : compliance with class S ---- : Not implemented S

The tests are performed in accordance with IEC 62586-2 edition 2 (2017).



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### Characteristics of the measuring instrument

The general characteristics of the measuring instrument are presented in the following table.

#### **General characteristics**

| U <sub>din</sub>          | 230 V  |  |  |  |
|---------------------------|--|--|--|--|
| I <sub>nom</sub>          | 5 A (Nominal current used for testing)   |  |  |  |
| $f_{\sf nom}$             | 50 Hz and 60 Hz  |  |  |  |
| Temperature               | Rated range of operation: -10°C to +55°C   |  |  |  |
| Power supply range        | 80 276 VAC<br>70 300 VDC   |  |  |  |
|                           | FW: 1.08 (measuring software)R00TFT: 1.08 (display software)OS: 1.07 (system software - Linux)             |  |  |  |
| Software version          | FW : 1.11 (measuring software)<br>R01 TFT : 1.09 (display software)<br>OS : 1.08 (system software – Linux) |  |  |  |
| Hardware version          | A  |  |  |  |
| Environmental application | Fixed (F), Indoor (I)  |  |  |  |

### **Certificate history**

This revision replaces the previous version.

| Revision | Date            | Description of the modification                            |  |
|----------|-----------------|--|--|
| 00       | 6 November 2018 | Initial issue  |  |
| 01       | 20 August 2021  | <ul><li>Add type iMC784A</li><li>Firmware update</li></ul> |  |