# Certificate of Conformity No 213-02573

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|---|---|
| *Object* | **Power quality instrument**<br>**SONEL PQM-750**<br>Product classification: PQI-A-FI1 |
| *Applicant* | **SONEL S.A.**<br>ul. Stanisława Wokulskiego 11<br>58-100 Świdnica<br>Poland |
| *Requirements* | Certification IEC 61000-4-30:2015+AMD1:2021, Class A<br>Testing according to IEC 62586-2:2017+AMD1:2021 (functional tests) and IEC 61180:2016 + IEC 61000-4-4:2012 (EMC immunity tests) |
| *Confirmation* | See page 2 |
| *Date of Examination* | 19 February to 21 May 2024 |

3003 Bern-Wabern, 5 June 2024

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|---|---|
| *For the Examination* | Christian Santschi |
| *Approved by* | Dr Cédric Blaser, Head of Laboratory<br>Laboratory Electrical Energy and Power |

Signature numérique de Cédric Blaser
Date : 2024.06.06 12:39:46 +02'00'



**METAS**
Lindenweg 50, 3003 Bern-Wabern, Switzerland, phone +41 58 387 01 11, www.metas.ch

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### Type description

Type ..... SONEL PQM-750
Classification ..... PQI-A-FI1 as per IEC 62586-1:2017
Class A
Fixed Installed
Indoor application
EMC environment G
Number of phases ..... 3
Connection to power lines..... 3P+N (4 wires)
Declared input voltage ($U_{din}$) ..... 230 V (50 Hz), 120 V (60 Hz)
Nominal value of current input ($I_n$)..... 5 A
Fundamental frequency ($f_n$)..... 50 Hz, 60 Hz
Hardware version..... HWa
Firmware version ..... 0.19 C3
Evaluation software ..... SONEL ANALYSIS, Version 4.6.9, Build 12

### Conformity assessment against IEC 62586-2:2017+AMD1:2021

| Power quality parameter | Sub-clause | Compliance 230 V / 5 A ; 50 Hz | Compliance 120 V / 5 A ; 60 Hz |
|---|---|---|---|
| Power frequency | 6.1 | Yes | Yes |
| Magnitude of supply voltage | 6.2 | Yes | Yes |
| Flicker, class F1 | 6.3 | Yes | Yes |
| Supply voltage interruptions, dips and swells | 6.4 | Yes | Yes |
| Supply voltage unbalance | 6.5 | Yes | Yes |
| Voltage harmonics | 6.6 | Yes | Yes |
| Voltage interharmonics | 6.7 | Yes | Yes |
| Mains signalling voltages on the supply voltage | 6.8 | Yes | Yes |
| Measurement of under-deviation and over-deviation parameters | 6.9 | N.A. | N.A. |
| Flagging | 6.10 | Yes | Yes |
| Clock uncertainty testing | 6.11 | Yes | Yes |
| Variations due to external influence quantities | 6.12 | Yes | Yes |
| Rapid voltage changes (RVC) | 6.13 | Yes | Yes |
| Magnitude of current | 6.14 | Yes | Yes |
| Harmonic current | 6.15 | Yes | Yes |
| Interharmonic currents | 6.16 | Yes | Yes |
| Current unbalance | 6.17 | Yes | Yes |
| Calculation of measurement uncertainty and operating uncertainty | 8 | Yes | Yes |

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### EMC immunity test according to IEC 61000-4-30:2015+AMD1:2021

| Test requirement | Normative reference | Compliance 230 V / 5 A ; 50 Hz | Compliance 120 V / 5 A ; 60 Hz |
|---|---|---|---|
| Transient voltages | IEC 61180:2016 | Yes | Yes |
| Electrical fast transient (burst) | IEC 61000-4-4:2012 | Yes | Yes |

### Test reports

| Topic | Issuing Laboratory | Report number | Report date |
|---|---|---|---|
| Power quality parameter | METAS | 213-02568 | 2024-05-31 |
| EMC immunity | METAS | 218-03525 | 2024-06-04 |

### Full name and addresses of issuing laboratories

- Federal Institute of Metrology METAS, Lindenweg 50, 3003 Bern-Wabern, Switzerland

## Note

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Its tasks and activities arise from the Federal Law on the Institute of Metrology and the Federal Law on Metrology and its implementation provisions. METAS's principal tasks include making available the internationally recognised units of measurement in compliance with the International System of Units (SI), comparing them with other national metrology institutes and disseminating them.

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