EU Declaration of Conformity

Number ADV/1/6/2023 for the PV Supernode device

PV Supernode is a universal controller dedicated to photovoltaic farms. The device performs the following three functions:

1. Reactive power compensation using inverters, according to their technical capabilities
2. Active limitation of the export of active energy to the grid - 'zero export' function or other set threshold of the value of energy consumed or transferred to the power grid
3. "Sitelogger" - implementation of operations related to monitoring the operation of inverters and controlling their operation in terms of generated active and reactive power

The above-mentioned subject matter of this declaration is in compliance with the relevant requirements of Union harmonization legislation:

1. Restriction of hazardous substances (RoHS) - Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment
2. Radio equipment (RED) - Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the harmonization of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC

The following standards and harmonized standards were used to assess compliance with the requirements and with reference to which compliance is declared:

1. **ETSI EN 300 328 V2.2.2: 201**9 - Broadband transmission systems - Data transmission equipment operating in the 2.4 GHz band - Harmonized standard for access to the radio spectrum.
2. **ETSI EN 301 893 V2.1.1: 2017** - RLANs operating in the 5 GHz band - Harmonized standard ensuring compliance with the essential requirements in accordance with Article 3.2 of Directive 2014/53/EU.
3. **ETSI EN 301 489-1 V2.2.3: 2019** - Electromagnetic compatibility (EMC) standard for radio equipment and systems - Part 1: Common technical requirements - Harmonized standard for electromagnetic compatibility.
4. **ETSI EN 301 489-17 V3.1.1: 2017** - Electromagnetic compatibility (EMC) standard for radio equipment and systems - Part 17: Particular requirements for broadband data transmission systems - Harmonized standard covering the essential requirements of Article 3.1((b) Directive 2014/53/EU.
5. **IEC EN 62368-1: 2018** - Audio/video, information technology and telecommunications equipment - Part 1: Safety requirements.
6. **BS EN 62311: 2008** - Assessment of electronic and electrical equipment with respect to limits on public exposure to electromagnetic fields (0 Hz-300 GHz).
7. **IECEN 63000: 2018** - Technical documentation for the assessment of electrical and electronic products with regard to the reduction of hazardous substances.
8. **PN-EN 55032:2015-09/A11:2020-07** - Electromagnetic compatibility of multimedia devices - Emission requirements.

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9. **PN-EN IEC 61000-3-2:2019-04** - Electromagnetic compatibility (EMC) - Part 3-2: Permissible levels - Permissible levels of harmonic current emissions (phase power supply current of the receiver ≤ 16A).
10. **PN-EN 61000-3-3:2013-10/A1:2019-10** - Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and light flicker in public power supply networks low voltage caused by loads with a phase rated current < or = 16 A connected unconditionally.
11. **PN-EN 55035:2017-09/A11:2020-09** - Electromagnetic compatibility of multimedia devices - Immunity requirements.
12. **PN-EN 61000-4-2:2009** - Electromagnetic compatibility (EMC) - Part 4-2: Test and measurement methods - Electrostatic discharge resistance test.
13. **PN-EN IEC 61000-4-3:2021-06** - Electromagnetic compatibility (EMC) - Part 4-3: Test and measurement methods - Test of immunity to radiated radio frequency electromagnetic field.
14. **PN-EN 61000-4-4:2013-05** - Electromagnetic compatibility (EMC) - Part 4-4: Test and measurement methods - Test of resistance to series of fast electrical transients.
15. **PN-EN 61000-4-5:2014-10/A1:2018-01** Electromagnetic compatibility (EMC) - Part 4-5: Test and measurement methods - Surge resistance test.
16. **PN-EN 61000-4-6:2014-04** - Electromagnetic compatibility (EMC) - Part 4-6: Test and measurement methods - Immunity to conducted disturbances induced by radio frequency fields.
17. **PN-EN 61000-4-8:2010** - Electromagnetic compatibility (EMC) - Part 4-8: Test and measurement methods - Test of resistance to magnetic field at power grid frequency
18. **PN-EN IEC 61000-4-11:2020-11** - Electromagnetic compatibility (EMC) - Part 4-11: Test and measurement methods - Tests of immunity to voltage dips, short interruptions and voltage changes for devices with rated current phase not exceeding 16 A.

The declaration was signed on behalf of the manufacturer by:

Place, date
Gdańsk, 01.06.2023

CEO
Aleksander Babś

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