**Joint Action on Harmonised Products 2022**

**JAHARP2022-03 on Electrical safety of e-car charging stations/cables (WP2) *(Grant Agreement No. JA2021-2-03)***

**Activity: JAHARP2022-03 E-car charging stations/cables (WP2)**

**Appendix III – Detailed Product Testing Requirements and Price List**

The project concerns **domestic e-car charging stations** subject to the EU Radio Equipment Directive 2014/53/EU. The project will focus on Article 3.1(a) for safety requirements set out in Directive 2014/35/EU, but with no voltage limit applying, and Article 3.1(b) concerning an adequate level of electromagnetic compatibility as set out in Directive 2014/30/EU.

The products will be rated at approximately 11 kW with charging modes 2 and 3 having a Type 2 connector (European).

The tests to be carried out in the framework of this Joint Market Surveillance Action will be based on the latest valid editions of harmonised standards under the Low Voltage and EMC Directives. While these standards are intended to support type-testing by or for manufacturers, the test programme in this project is for market surveillance purposes. It will therefore consist of a limited ‘smart screening’ approach and not type testing.

Testing is targeted at areas that are likely to result in failures and potential hazards for the user. The contracted testing laboratory is expected to use its professional judgement in selecting safety and EMC critical tests from clauses/sub-clauses in the standards. The project allows for the sampling and testing of 16 e-car charger products.

Product testing criteria are provided in the tables below. Please provide the price in Euros per test clause/parameter including the price for preparing a short-form test report for each product under test.

**It is expected that only one sample of each product will be provided for testing.** **This should be borne in mind when selecting the sequence of testing ensuring that the potentially destructive tests are done at or near the end of the testing sequence.**

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| **RED 2014/53/EU Article 3.1(a) to latest valid edition of EN IEC 61851-1** |
| Clause | Testing criteria | Price ex. VAT (EUR) |
| 12.4 | Moisture ingress, IP44 only.  |  |
| Annex A | Control pilot function through a control pilot circuit using a PWM signal and a control pilot wire. |  |
| 12.8 | Temperature rise test. |  |
| 16.1/16.2 | Installation/user manual - markings and instructions. |  |
| 12.7 | Dielectric withstand voltage. |  |
| 12.3 | Clearances and creepage distances. |  |
| 8.4 | Protective conductor. |  |
| 6.3.1.2 | Continuous continuity checking of the protective conductor. |  |
| 8.1 | Degrees of protection against access to hazardous-live-parts. |  |
| 12.11 | Mechanical strength  |  |
| Price (EUR) for producing test report for one product sample.  |  |
| Total price (EUR) for testing and test report production of one product sample. |  |

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| **RED 2014/53/EU Article 3.1(b) to latest valid editions of listed standards below** |
| Testing criteria  | Standard | Price ex. VAT (EUR) |
| Radiated emission (30 MHz – 1 GHz) | Table 6.3.5 of EN IEC 61851-21-2 or EN 55032. |  |
| Conducted | Table 6.3.2, 6.3.4 of EN IEC 61851-21-2 or EN 55032. |  |
| Electro-static Discharge (ESD) | EN 61000-4-2. |  |
| Price (EUR) for producing test report for one product sample.  |  |
| Total price (EUR) for testing and test report production of one product sample. |  |

# Comments/Suggestions for adjustments of the test programme

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