# OCPP 1.6 Subset Certificate



Certificate holder: KEPCO KDN

Certificate number: OCA.0016.0485.CS

Product type: Charging Station

Product designation: CEC-23107PLW

OCPP Software version: 1.0

Hardware feature set as stated below

Certification date: August 31, 2023

This certificate attests that the above mentioned product successfully completed certification testing in conformance with the reference specification OCPP 1.6 – Edition 2 with OCPP 1.6 Errata sheet (v4.0 Release, 2019-10-23). The optional features of the protocol covered by this certificate can be found in the abstract of this certificate.

Test cases have been performed as described in the test report referred to below. The results and remarks can be found in the complete test report.

| Applied tests   | Performed by / on                                   | Document evidence   |
|---|---|---|
| Conformance testing according to the test specification referenced by the test report | Korea Smart Grid<br>Association,<br>August 31, 2023 | (KSGA)KEPCO KDN_Test Report<br>template_CEC-23107PLW_230830 |

The abstract of test report in the Annex is an integral part of this certificate. This certificate is valid from the Certification Date specified above. This certificate is only applicable to the product designation described above and permits the use of the OCPP logo as laid down in the OCA certification logo license agreement on this product only.

This certificate shall neither be tendered nor accepted by any party as a guarantee covering quality of a product which includes OCPP. The Open Charge Alliance, and/or its agents, including, inter-alia, test laboratories, disclaim liability for any damages or losses incurred by the certified company or by any other party resulting from reliance on the results of OCPP certification testing.

For the Open Charge Alliance:

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# **Abstract of test report**

### Test Result Summary

| Test Report                        | OCPP 1.6                                  | Certification  |  |
|------------------------------------|---|--|--|
| Test laboratory:                   | Korea Smart Grid Association              |  |  |
| Location:                          | Seoul , Korea                             |  |  |
| Test Report Reference:             | KSGA-OCPP1.6TEST-156-2023                 |  |  |
| Vendor name:                       | KEPCO KDN                                 |  |  |
| Device Under Test:                 | Charging Stati                            | ion  |  |
| Communication:                     | JSON                                      |  |  |
| OCPP Software version:             | 1,0                                       |  |  |
| Test Result Summary                | for the ce                                | rtified functionalities  |  |
| Functionalities                    | OCPP 1.6<br>Certification<br>Test Results | Description  |  |
| Core                               | Pass                                      | Basic Charging Station functionality for booting, authorization (incl. cache if available), configuration, transactions, remote control. |  |
| Optional features                  |   |  |  |
| Firmware Management                | N/A                                       | Support for (remote) firmware update management and diagnostic log file download.  |  |
| Smart Charging                     | N/A                                       | Support for Smart Charging (all profile types, including stacking), to control charging.   |  |
| Reservation                        | N/A                                       | Support for reservation of a connector of a Charging Station.  |  |
| Local Authorization List Managemen | N/A                                       | Features to manage a local list in the charging station containing authorization data for whitelisting users.                            |  |
| Remote Trigger                     | N/A                                       | Support for remotely triggering<br>messages that originate from a<br>Charging Station. This can be used for                              |  |

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Station.

resending messages or for getting the latest information from the Charging



## Performance Measurement Results

| Name                                     | PICS value | Measured value | Description   |
|--|------------|----------------|---|
| OCPP triggered function timeout:         | 30s        | 00:00:29       | The response time for when waiting for an OCPP function with its corresponding request message. (Firmware update, Diagnostics and Reboot are excluded from this measurement.) |
| OCPP response timeout:                   | 5s         | 00:00:02       | The response time for when waiting for an OCPP response message.  |
| Response time<br>RemoteStartTransaction: | 5s         | 00:00:01       | The response time for the RemoteStartTransaction message.   |

## Test Configuration

| Vendor                | KEPCO KDN        |  |  |
|-----------------------|------------------|--|--|
| DUT / SUT             | Charging Station |  |  |
| Communication         | JSON             |  |  |
| Туре                  | CEC-23107PLW     |  |  |
| OCPP Software version | 1,0              |  |  |
| OCTT version          | OCTT 1.6 v1.4.3  |  |  |

| Hardware feature set     |             |  |  |  |
|--------------------------|-------------|--|--|--|
| Feature Configuration    |             |  |  |  |
| Socket(s) / connector(s) | Single      |  |  |  |
| Fixed cable              | <yes></yes> |  |  |  |
| Communication technology | Ethernet    |  |  |  |
| RFID readers             | Single      |  |  |  |

| Non-OCPP Charge Point Configuration |    |  |  |  |
|-------------------------------------|----|--|--|--|
| Configuration key Value             |    |  |  |  |
| <>                                  | <> |  |  |  |
|                                     |    |  |  |  |

| All other relevant limits and non-OCPP settings that are relevant for the test laboratory and for the correct functioning of the CSMS: |     |  |
|--|-----|--|
| Limit / setting Value  |     |  |
| Device supports sending milliseconds in timestamps.  | Yes |  |
|  |     |  |



| Configuration key                           | Value                            |
|---|----------------------------------|
| Allow OfflineTxForUnknownId                 | -                                |
| AuthorizationCacheEnabled                   | -                                |
| AuthorizeRemoteTxRequests                   | TRUE                             |
| BlinkRepeat                                 | -                                |
| ClockAlignedDataInterval                    | 20                               |
| Connection TimeOut                          | 180                              |
| ConnectorPhaseRotation                      | NotApplicable NotApplicable      |
| ConnectorPhaseRotationMaxLength             | -                                |
| GetConfigurationMaxKeys                     | 1                                |
| HeartbeatInterval                           | 20                               |
| LightIntensity                              | -                                |
| LocalAuthorizeOffline                       | FALSE                            |
| LocalPreAuthorize                           | FALSE                            |
|   |                                  |
| MaxEnergyOnInvalidId                        | 0                                |
| MessageTimeout                              | Faran And I a D a c              |
| MeterValuesAlignedData                      | Energy, Active, Import, Register |
| MeterValuesAlignedDataMaxLength             | 1                                |
| MeterValuesSampledData                      | Energy, Active, Import, Register |
| MeterValuesSampledDataMaxLength             | 1                                |
| MeterValueSampleInterval                    | 10                               |
| MinimumStatusDuration                       | -                                |
| NumberOfConnectors                          | 1                                |
| ResetRetries                                | 2                                |
| StopTransactionMaxMeterValues               | -                                |
| StopTransactionOnEVSideDisconnect           | TRUE                             |
| StopTransactionOnInvalidId                  | TRUE                             |
| StopTxnAlignedData                          | Energy. Active. Import. Register |
| StopTxnAlignedDataMaxLength                 | 1                                |
| StopTxnSampledData                          | -                                |
| StopTxnSampledDataMaxLength                 | 0                                |
| SupportedFeatureProfiles                    | Core                             |
| SupportedFeatureProfilesMaxLength           | -                                |
| TransactionMessageAttempts                  | 3                                |
| TransactionMessageRetryInterval             | 60                               |
| UnlockConnectorOnEVSideDisconnect           | FALSE                            |
| WebSocketPingInterval                       | 30                               |
| LocalAuthListEnabled                        | _                                |
| LocalAuthListChabled LocalAuthListMaxLength | <u> </u>                         |
|   | -                                |
| SendLocalListMaxLength                      | <del>-</del>                     |
| ReserveConnectorZeroSupported               | -                                |
| ChargeProfileMaxStackLevel                  | -                                |
| ChargingScheduleAllowedChargingRateUnit     | -                                |
| ChargingScheduleMaxPeriods                  | -                                |
| ConnectorSwitch3to1PhaseSupported           | -                                |
| MaxChargingProfilesInstalled                | -                                |
| SupportedFileTransferProtocols              | _                                |



## Statement of Approval

| Vendor     |   | Date: 2023.08.31 |
|------------|---|------------------|
| Name       | Jongseon KIM                                      | Signature        |
| Company    | KEPCO KDN   |                  |
| Department | KDN Electric Power ICT Research Institute(KDNERI) | 71 7 4           |
| Position   | Director General of R&D Department                | 461              |
| Location   | Naju, Korea                                       | 12               |

| Test laboratory           |                                    |          | <b>Date</b> : 2023.08.31 |
|---------------------------|------------------------------------|----------|--------------------------|
| Name                      | Philip YANG                        |          | Signature                |
| Company                   | Korea Smart Grid Association       | ociation |                          |
| Department                | tment Quality Certification Center |          | 9                        |
| Position Chief Researcher |                                    |          |                          |
| Location                  | Seoul, Korea                       |          |                          |