OCPP 1.6
Full Certificate

OCPP 1.6
Fully Certified

Certificate holder:	**Zhuhai Sino Energy Technology Co., Ltd**
Certificate number:	OCA.0016.0205.CS
Product type:	Charging Station
Product designation:	PEVC3108E OCPP Software version: V2.0.1 Hardware feature set as stated below
Certification date:	October 13, 2022

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 are also covered by this certification.

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 Association,* October 13, 2022	*KSGA_20221013_Test Report SinoEnergy*

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:

ONOPH CARON
Chairman

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-121-2022
Vendor name:	**Zhuhai Sino Energy Technology Co.,Ltd**
Device Under Test:	Charging Station
Communication:	JSON
OCPP Software version:	V2.0.1

Test Result Summary for the certified functionalities		
Functionalities	**OCPP 1.6 Certification Test Results**	**Description**
Core	Pass	Basic Charging Station functionality for booting, authorization (incl. cache if available), configuration, transactions, remote control.

Optional features		
Firmware Management	Pass	Support for (remote) firmware update management and diagnostic log file download.
Smart Charging	Pass	Support for Smart Charging (all profile types, including stacking), to control charging.
Reservation	Pass	Support for reservation of a connector of a Charging Station.
Local Authorization List Managemer	Pass	Features to manage a local list in the charging station containing authorization data for whitelisting users.
Remote Trigger	Pass	Support for remotely triggering messages that originate from a Charging Station. This can be used for resending messages or for getting the latest information from the Charging Station.

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Performance Measurement Results

Performance Measurement Results			
Name	**PICS value**	**Measured value**	**Description**
OCPP triggered function timeout:	30s	0:0025	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:	30s	00:00:01	The response time for when waiting for an OCPP response message.
Response time RemoteStartTransaction:	30s	00:00:00	The response time for the RemoteStartTransaction message.

Test Configuration

Test Configuration	
Vendor	Zhuhai Sino Energy Technology Co.,Ltd
DUT / SUT	Charging Station
Communication	JSON
Type	PEVC3108E
OCPP Software version	V2.0.1
OCTT version	OCTT 1.6 v1.4.3

Hardware feature set	
Feature	**Configuration**
Socket(s) / connector(s)	Multiple
Fixed cable	<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.	No

OCPP Charging Station Configuration	
Configuration key	**Value**
AllowOfflineTxForUnknownId	TRUE
AuthorizationCacheEnabled	TRUE
AuthorizeRemoteTxRequests	TRUE
BlinkRepeat	-
ClockAlignedDataInterval	0
ConnectionTimeOut	60
ConnectorPhaseRotation	0
ConnectorPhaseRotationMaxLength	-
GetConfigurationMaxKeys	10
HeartbeatInterval	30
LightIntensity	-
LocalAuthorizeOffline	FALSE
LocalPreAuthorize	FALSE
MaxEnergyOnInvalidId	-
MessageTimeout	-
MeterValuesAlignedData	Energy.Active.Import.Register
MeterValuesAlignedDataMaxLength	4
MeterValuesSampledData	Voltage,Current.Import,Energy.Active.Import.Register,SoC,Power.Active.Import
MeterValuesSampledDataMaxLength	4
MeterValueSampleInterval	30
MinimumStatusDuration	-
NumberOfConnectors	2
ResetRetries	3
StopTransactionMaxMeterValues	4
StopTransactionOnEVSideDisconnect	TRUE
StopTransactionOnInvalidId	FALSE
StopTxnAlignedData	0
StopTxnAlignedDataMaxLength	4
StopTxnSampledData	0
StopTxnSampledDataMaxLength	4
SupportedFeatureProfiles	Core,FirmwareManagement,Reservation,LocalAuthListManagement,SmartCharging,RemoteTrigger
SupportedFeatureProfilesMaxLength	-
TransactionMessageAttempts	3
TransactionMessageRetryInterval	10
UnlockConnectorOnEVSideDisconnect	FALSE
WebSocketPingInterval	30
LocalAuthListEnabled	TRUE
LocalAuthListMaxLength	5
SendLocalListMaxLength	5
ReserveConnectorZeroSupported	FALSE
ChargeProfileMaxStackLevel	20
ChargingScheduleAllowedChargingRateUnit	Ampere & Watt
ChargingScheduleMaxPeriods	12
ConnectorSwitch3to1PhaseSupported	-
MaxChargingProfilesInstalled	3
SupportedFileTransferProtocols	ftp

Statement of Approval

Vendor		Date: 2022.10.13
Name	何立林　He Lilin	Signature
Company	Zhuhai Sino Energy Technology Co.,Ltd.	
Department	General Manager's Office	
Position	General Manager	
Location	Zhuhai,Guangdong,China	

Test laboratory		Date: 2022.10.13
Name	Philip YANG	Signature
Company	Korea Smart Grid Association	
Department	Quality Certification Center	
Position	Senior Researcher	
Location	Seoul, Korea	