OCPP 1.6
Full Certificate

OCPP 1.6
Fully Certified

Certificate holder:	Borgwarner New Energy (Xiangyang) Co., Ltd.
Certificate number:	OCA.0016.0342.CS
Product type:	Charging Station
Product designation:	DC EV Charger
	OCPP Software version: OCPP-J-1.6_3_1
	Hardware feature set as stated below
Certification date:	May 26, 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 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	*DNV Singapore Pte. Ltd., May 26, 2023*	*DNV_OCPP 1.6 Test Report_CP_Borgwarner (was Hubei SSNE)_20230526*

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

<table>
<tr><td colspan="2">Test Report OCPP 1.6 Certification</td></tr>
<tr><td>Test laboratory:</td><td>DNV Singapore Pte. Ltd.</td></tr>
<tr><td>Location:</td><td>Singapore</td></tr>
<tr><td>Test Report Reference:</td><td>DNV_OCPP1.6 TEST_CP_20230526</td></tr>
<tr><td>Vendor name:</td><td>Borgwarner New Energy (Xiangyang) Co., Ltd. (was: Hubei Surpass Sun New Energy Technology Co., Ltd)</td></tr>
<tr><td>Device Under Test:</td><td>Charging Station</td></tr>
<tr><td>Communication:</td><td>JSON</td></tr>
<tr><td>OCPP Software version:</td><td>OCPP-J-1.6_3_1</td></tr>
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Test Result Summary for the certified functionalities

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 Management	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.

Performance Measurement Results

Name	PICS value	Measured value	Description
OCPP triggered function timeout:	70 seconds	0:01:06	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:	40 seconds	0:00:35	The response time for when waiting for an OCPP response message.
Response time RemoteStartTransaction:	10 second	0:00:04	The response time for the RemoteStartTransaction message.

Test Configuration

Vendor	Borgwarner New Energy (Xiangyang) Co., Ltd. (was: Hubei Surpass Sun New Energy Technology Co., Ltd)
DUT / SUT	Charge Point
Communication	JSON
Type	DC EV Charger
OCPP Software version	OCPP-J-1.6_3_1
OCTT version	OCTT 1.6 v 1.4.3

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.	Yes

OCPP Charging Station Configuration	
Configuration key	**Value**
AllowOfflineTxForUnknownId	-
AuthorizationCacheEnabled	TRUE
AuthorizeRemoteTxRequests	TRUE
BlinkRepeat	-
ClockAlignedDataInterval	0
ConnectionTimeOut	60
ConnectorPhaseRotation	null
ConnectorPhaseRotationMaxLength	-
GetConfigurationMaxKeys	32
HeartbeatInterval	30
LightIntensity	-
LocalAuthorizeOffline	FALSE
LocalPreAuthorize	FALSE
MaxEnergyOnInvalidId	-
MessageTimeout	-
MeterValuesAlignedData	Energy.Active.Import.Register,Current.Import,Voltage
MeterValuesAlignedDataMaxLength	-
MeterValuesSampledData	Energy.Active.Import.Register,Power.Active.Import,SoC
MeterValuesSampledDataMaxLength	-
MeterValueSampleInterval	90
MinimumStatusDuration	-
NumberOfConnectors	2
ResetRetries	3
StopTransactionMaxMeterValues	-

StopTransactionOnEVSideDisconnect	TRUE
StopTransactionOnInvalidId	TRUE
StopTxnAlignedData	null
StopTxnAlignedDataMaxLength	-
StopTxnSampledData	null
StopTxnSampledDataMaxLength	-
SupportedFeatureProfiles	Core,FirmwareManagement,LocalAuthListManagement,Reservation,SmartCharging,RemoteTrigger
SupportedFeatureProfilesMaxLength	-
TransactionMessageAttempts	10
TransactionMessageRetryInterval	3
UnlockConnectorOnEVSideDisconnect	FALSE
WebSocketPingInterval	30

LocalAuthListEnabled	FALSE
LocalAuthListMaxLength	50
SendLocalListMaxLength	10
ReserveConnectorZeroSupported	FALSE

ChargeProfileMaxStackLevel	6
ChargingScheduleAllowedChargingRateUnit	Power
ChargingScheduleMaxPeriods	6
ConnectorSwitch3to1PhaseSupported	-
MaxChargingProfilesInstalled	8

SupportedFileTransferProtocols	ftp

Statement of Approval

Vendor			Date: 2023.05.26
Name	Jiaqiang Yan		Signature
Company	Borgwarner New Energy (Xiangyang) Co., Ltd. (was: Hubei Surpass Sun New Energy Technology Co., Ltd)		*Jiaqiang Yan*
Department	R&D Department		
Position	Software Engineer		
Location	No.59 Guanyu Road, Tuanshan Town, Xiangyang High-tech Zone, China		

Test laboratory			Date: 2023.05.26
Name	Ivan Christian		Signature
Company	DNV Singapore Pte. Ltd.		
Department	Energy Systems		
Position	Senior Consultant		
Location	Singapore		