SLOVENSKI STANDARD
SIST EN IEC 63584-210:2026

01-marec-2026

Protokol odprte polnilne točke 2.1 (hitri postopek) (IEC 63584-210:2025)

Open Charge Point Protocol 2.1 (IEC 63584-210:2025 (EQV)

Open Charge Point Protocol 2.1 (IEC 63584-210:2025)

Protocole de point de charge ouvert 2.1 (IEC 63584-210:2025)

Ta slovenski standard je istoveten z: EN IEC 63584-210:2026

ICS:

43.120	Električna cestna vozila	Electric road vehicles

SIST EN IEC 63584-210:2026   **en**

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EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 63584-210

January 2026

ICS 43.120

English Version

Open Charge Point Protocol 2.1
(IEC 63584-210:2025)

Protocole de point de charge ouvert 2.1
(IEC 63584-210:2025)

Open Charge Point Protocol 2.1
(IEC 63584-210:2025)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

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EN IEC 63584-210:2026 (E)

European foreword

The text of document 69/1052/CDV, future edition 1 of IEC 63584-210, prepared by TC 69 "Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 63584-210:2026.

The following dates are fixed:

- latest date by which the document has to be implemented at national (dop) 2027-01-31 level by publication of an identical national standard or by endorsement

- latest date by which the national standards conflicting with the (dow) 2029-01-31 document have to be withdrawn

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IEC 63584-210

INTERNATIONAL
STANDARD

Open Charge Point Protocol 2.1

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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Open Charge Point Protocol 2.1

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IEC 63584-210 has been prepared by IEC technical committee 69: Electrical power/energy transfer systems for electrically propelled road vehicles and industrial trucks. It is an International Standard.

It is based on Open Charge Point Protocol 2.1 and was submitted as a Fast-Track document.

The text of this International Standard is based on the following documents:

Draft	Report on voting
69/1052/CDV	69/1094/RVC

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this International Standard is English.

The structure and editorial rules used in this publication reflect the practice of the organization which submitted it.

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This document was developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/publications.

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OCPP 2.1

Part 0 - Introduction

Edition 1, 2025-01-23

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Version History

Version	Date	Description
2.1 Edition 1	2025-01-23	OCPP 2.1 Edition 1

Chapter 1. Introduction

Electric Vehicles (EVs) are becoming the new standard for mobility all over the world. This development is only possible with a good coverage of Charging Stations. To advance the roll out of charging infrastructure, open communication standards play a key role: to enable switching from charging network without necessarily replacing all the Charging Stations, to encourage innovation and cost effectiveness and to allow many and diverse players participate in this new industry.

Additionally, the EV charging infrastructure is part of the Smart Grid, a larger and still evolving ecosystem of actors, devices and protocols. In this Smart Grid ecosystem, open communications standards are key enablers for two-way power flows, real time information exchange, demand control and eMobility services.

The Open Charge Point Protocol (OCPP) is the industry-supported de facto standard for communication between a Charging Station and a Charging Station Management System (CSMS) and is designed to accommodate any type of charging technique. OCPP is an open standard with no cost or licensing barriers for adoption.

1.1. OCPP version 2.1

This specification defines version 2.1 of OCPP.

Version 2.1 is an extension of OCPP 2.0.1. OCPP 2.1 has its own JSON schemas, but the schemas are OCPP 2.0.1 schemas that have been extended with optional fields that are used by OCPP 2.1 functionality. With the minor exceptions mentioned below, all application logic developed for OCPP 2.0.1 will continue to work in OCPP 2.1 without any changes. The new features of OCPP 2.1, of course, require new application logic.

Use case A02 & A03

The application logic in a CSMS for OCPP 2.0.1 for use cases A02 & A03 requires a small change in order to work in OCPP 2.1.
The SignCertificateRequest message has been extended with a *requestId* field, such that the resulting CertificateSignedRequest message can be accurately mapped to the request that initiated it. Use of *requestId* is optional for Charging Station, but when present, CSMS will have to use it in the subsequent CertificateSignedRequest message.
Note, that the updated application logic remains valid to use in OCPP 2.0.1.

Use case N02

The application logic in a Charging Station for OCPP 2.0.1 for use case N02 requires a small change in order to work for OCPP 2.1.
The message NotifyMonitoringReportRequest has been extended with a required field in VariableMonitoringType: *eventNotificationType*. Charging Station has to provide this field. It provides essential information to CSMS about the type of monitor (HardWiredMonitor, PreconfiguredMonitor, CustomMonitor) that was missing in OCPP 2.0.1. Existing OCPP 2.0.1 logic in a CSMS that is not aware of this new field, will continue to work.

1.2. Terms and abbreviations

This section contains the terminology and abbreviations that are used throughout this document.

1.2.1. Terms

Term	Meaning
Charging Station	The Charging Station is the physical system where an EV can be charged. A Charging Station has one or more EVSEs.
Charging Station Management System (CSMS)	Charging Station Management System: manages Charging Stations and has the information for authorizing Users for using its Charging Stations.
Electric Vehicle Supply Equipment (EVSE)	An EVSE is considered as an independently operated and managed part of the Charging Station that can deliver energy to one EV at a time.
Energy Management System (EMS)	In this document this is defined as a device that manages the local loads (consumption and production) based on local and/or contractual constraints and/or contractual incentives. It has additional inputs, such as sensors and controls from e.g. PV, battery storage.

1.2.2. Abbreviations

Term	Meaning
CSO	Charging Station Operator
CSMS	Charging Station Management System
EMS	Energy Management System.
EV	Electric Vehicle
EVSE	Electric Vehicle Supply Equipment
RFID	Radio-Frequency Identification

1.3. References

Table 1. References

Reference	Description
[IEC61851-1]	IEC 61851-1 2017: EV conductive charging system - Part 1: General requirements. https://webstore.iec.ch/publication/33644
[IEC62559-2:2015]	Definition of the templates for use cases, actor list and requirements list. https://webstore.iec.ch/publication/22349
[ISO15118-1]	ISO 15118-1 specifies terms and definitions, general requirements and use cases as the basis for the other parts of ISO 15118. It provides a general overview and a common understanding of aspects influencing the charge process, payment and load leveling. https://webstore.iec.ch/publication/9272
[OCPP1.5]	http://www.openchargealliance.org/downloads/
[OCPP1.6]	http://www.openchargealliance.org/downloads/

Chapter 2. New functionality in OCPP 2.1

OCPP 2.1 introduces new functionality compared to OCPP 2.0.1.
The application logic for OCPP 2.0.1 remains valid, but will have to be extended to support the new features of OCPP 2.1.

Most important new features of OCPP 2.1 include support for ISO 15118-20 and extensive support for bidirectional power transfer (V2X), and control of Charging Stations and EVs as Distributed Energy Resources (DER). New use cases have been added that describe ad hoc payment, and Charging Stations can now do local cost calculation based on tariff information from CSMS.

Below is a list of sections of Part 2 of the specification that have new or updated functionality.

A Security

A02/A03 A *requestId* has been added to SignCertificateRequest. Added support for ISO 15118-20 certificates.
A05 Downgrading from security profile 3 to 2 is no longer prohibited.

B Provisioning

B09 SetNetworkProfileRequest has been extended with *basicAuthPassword* and *identity*.
B13 New use case to support resuming transaction after a reset.

C Authorization

Length of IdToken has been extended to 255 characters.

IdToken type is now a predefined list instead of enumeration to allow for easier extension.

C07/C08 ISO 15118 authorization use cases updated with ISO 15118-20 flows.

C10 Explicit requirement added about expiration in authorization cache.

C17 New use case for authorization with prepaid card.

C18-C23 New use cases for ad hoc payment with integrated payment terminal.

C24 New use case for ad hoc payment via stand-alone payment terminal.

C25 New use case for ad hoc payment via dynamic QR code.

E Transactions

E16 New use case for transactions with cost, energy, time, SoC limit.

E17 New use case for resuming a transaction after forced reboot.

F Remote Control

F06 Added CustomTrigger to TriggerMessageRequest.

F07 Net use case for remote start of transaction with limits.

G Availability

Availability notification using NotifyEventRequest for component Connector is now the preferred method, instead of StatusNotification.

I Tariff and Cost

Introducing local cost calculation

I07-I11 New use cases to set default/user tariffs on charging station.

I12 New use case to report calculated cost during and at end of transaction.

J Metervalues

New metervalue location: Upstream.
New measurands for bidirectional charging.

K Smart Charging

New charging profile purposes PriorityCharging and LocalGeneration.

Added *operationMode* to ChargingSchedulePeriodType to facilitate bidirectional charging scenarios.

K01 Added dynamic charging profiles for frequent and unscheduled updates of limits.

K23-K27 New use cases for topologies with energy management systems.

K18-K20 New uses cases to support ISO 15118-20.

K21-K22 New uses cases for priority charging to allow user to overrule charging profile.