SICHARGE D

Dynamic, parallel and fast high-power charging

siemens.com/sicharge-d

SIEMENS

SICHARGE D – A perfect fit for all your applications

For travelling, in town, or short getaways

When the time to charge is short and high-power is required, the perfect choice is SICHARGE D: The high-power charging station that can be seamlessly integrated into your environment.

Highway public charging

Offering much more than a quick recharge of electric vehicles, our smart and cost-efficient SICHARGE D provides you with:

• Best-in-class effiency
• Highest utilization of installed power
• Very compact footprint

Public fast charging

A perfect fit for any cityscape, SICHARGE D provides your charging infrastructure with:

• Robust housing, including anti-vandalism protection IK10, also valid for its large screen
• Noise-level parameterization (< 50db(A)) for functions like day and night mode
• Variety of payment options

Destination charging

SICHARGE D ensures seamless charging, high reliability, and flexibility along with:

• Unique, appealing design and value-adding screen
• Powerful cybersecurity using unique Siemens assessment processes

FAST CHARGING FOR EVERY DAY:

High-power, flexible, modular, and scalable

Dynamic and efficient SICHARGE D high-power charging system offers numerous built-in features.

SICHARGE D high-power charger

ConnectPlus
Additional dual-plug dispenser enables high-power charging of up to five electric vehicles in parallel.

FullDPA
Dynamic power allocation efficiently evaluates each eVehicle's power demands and ensures optimized charging time.

PowerUp
The SICHARGE D chargers allow easy upgrading of charging power to meet evolving charging needs.

ValueScreen
The 24" touchscreen makes charging an effortless experience and enables easy integration of customized content.

SICHARGE D dispenser

ConnectPlus – Future-proof scalability at an optimized cost

Easily extendable with a second dispenser

An easy and flexible set-up and scalability are top considerations when installing a fast-charging solution. With ConnectPlus, the SICHARGE D charging system can be extended with a dual-plug dispenser that provides two more DC charge points – so up to four electric vehicles can be simultaneously charged with DC power. The dispenser can be flexibly located around Sicharge D high-power charger. This is just one way that SICHARGE D's versatility makes efficient use of your charging infrastructure and optimizes the costs per charge point.

SICHARGE D
high-power charger

SICHARGE D
dispenser

DC

DC

AC

DC

DC
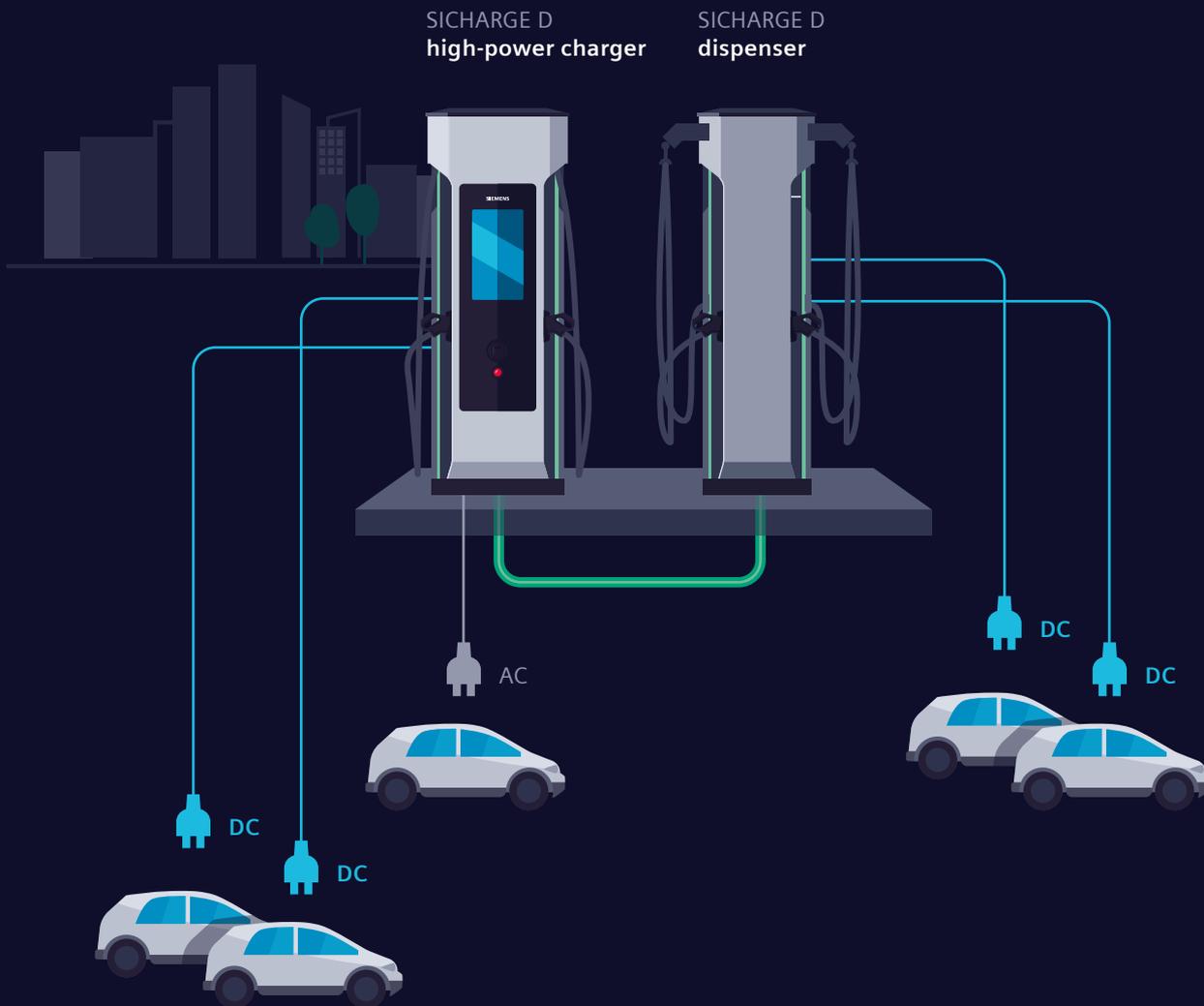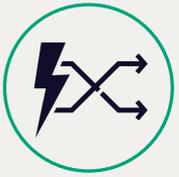
FullDPA – Dynamic Power Allocation

Intelligent and dynamic distribution of DC charging power

Whether it's charging two or four eVehicles in parallel, the DC charging process automatically adapts to the connected vehicles to fulfill two goals. It always seeks to use the full charging power available, and to use it based on the actual power request from each car(s) connected. This allows the entire charging capacity can be used on one vehicle, or it can be distributed to several vehicles based on their demand. Because the power demand is dynamic during the charging process, the appropriate distribution of charging power by SICHARGE D minimizes the charging time for all connected electric vehicles.
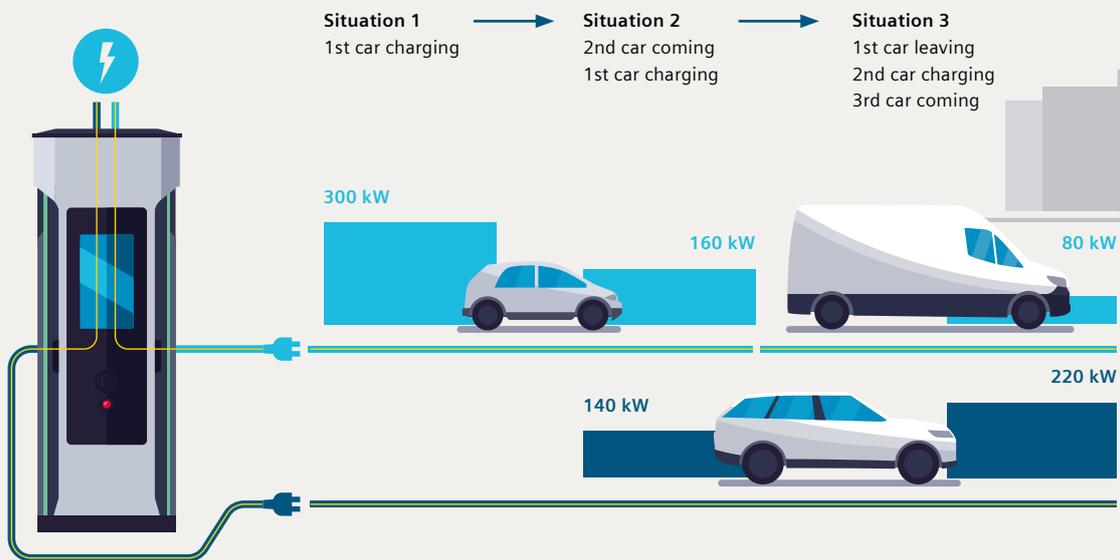
Situation 1
1st car charging

Situation 2
2nd car coming
1st car charging

Situation 3
1st car leaving
2nd car charging
3rd car coming

300 kW

160 kW

80 kW

140 kW

220 kW

Illustration of sample DPA concept

PowerUp –
Future-proof flexibility

Scalable charging power up to 300 kW

SICHARGE D has a modular system that can be easily upgraded to 300 kW. Future demands on charging power and extending the DC outlets can be realized efficiently and cost-effectively to serve the next generations of electric vehicles. The plug-and-play installation of extra power modules guarantees minimum downtime and allows high-power charging without having to replace the entire power system.

Power modules can be easily upgraded on-site

300 kW

240 kW

160 kW
180 kW
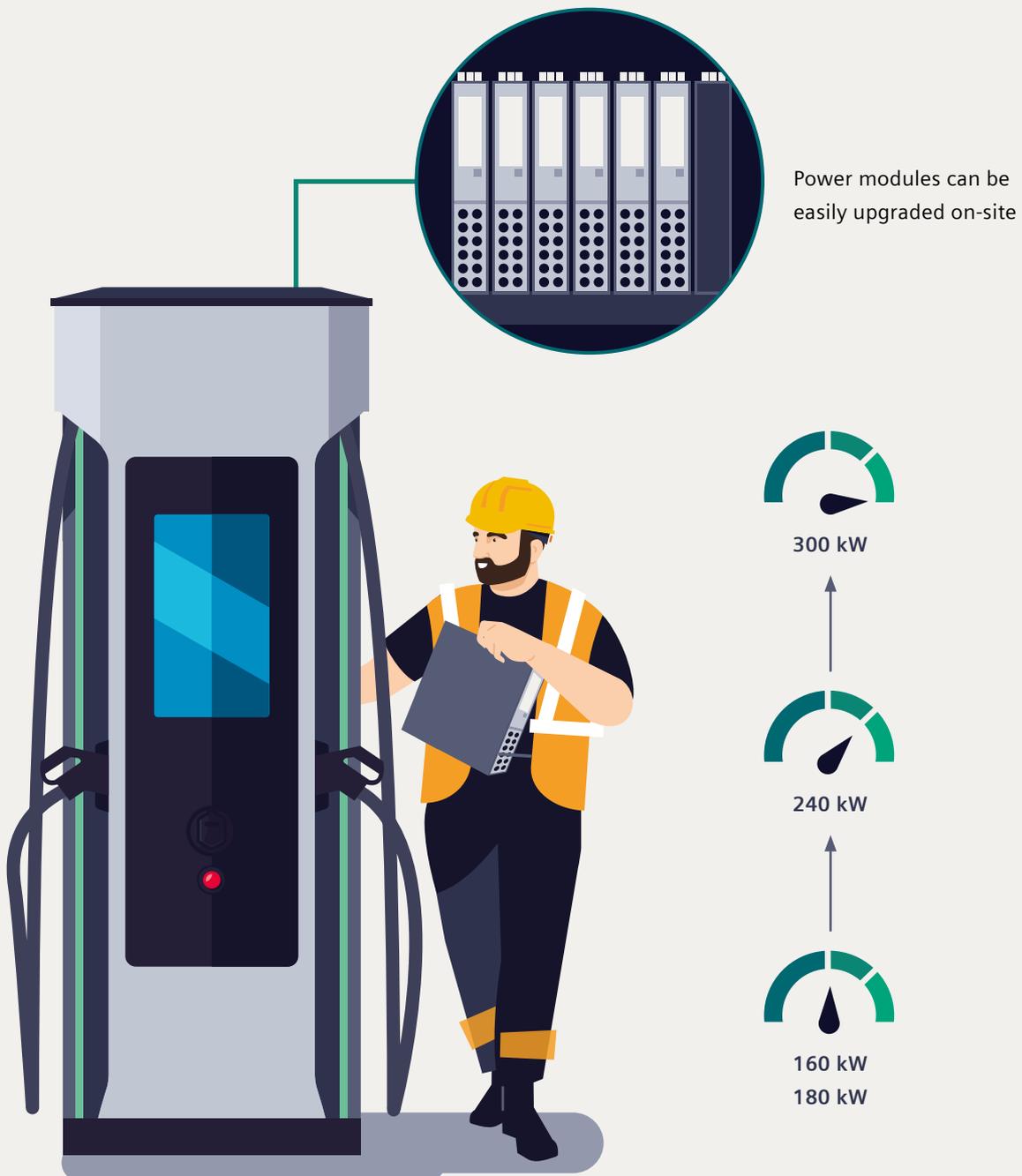
ValueScreen –
More than a touchscreen

Numerous opportunities for flexible interaction for you and your customers

The integrated 24" user-friendly adjustable screen allows your customers to easily operate the SICHARGE D charger at the most convenient height. Future chargers will operate as part of integrated business processes and provide more functions than just charging. With its large, flexible screen, the SICHARGE D is already prepared to support this expanded functionality.
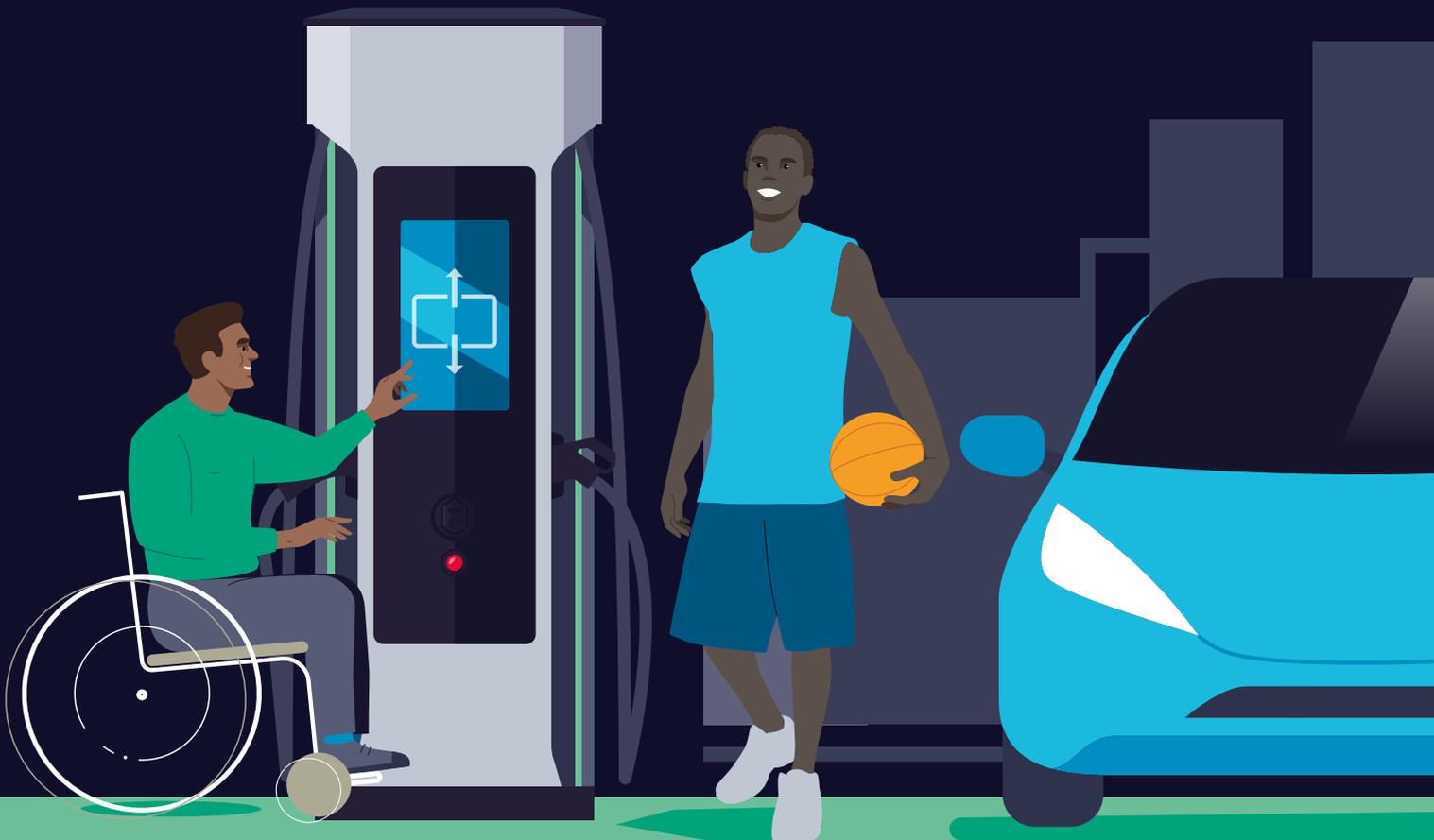
Flexible positioning

Award-winning user interface

Robust and secure

SICHARGE D **high-power charger**

**Dynamic and flexible, the SICHARGE D high-power charger
offers numerous built-in features and options.**

Highlights

- Award-winning ergonomic design and lean architecture for an outstanding charging experience
- Intuitive, award-winning UI on 24" high-brightness touchscreen for true barrier-free access and a variety of customization opportunities
- Ready for outdoor applications thanks to its high degree of protection IP54 and IK10
- Weatherproof, UV-resistant, color-stable, and scratch-resistant powder coating
- Shatterproof glass front with IK10
- LED strips for user guidance and DC status indication on left and right
- RFID card reader for user authentication
- Large front and back doors provide easy access for convenient service and maintenance

Options

A variety of options are available for
SICHARGE D high-power chargers:

Left DC outlet: CHAdeMO instead of CCS, additional AC socket, including AC meter

EMC Class B for installations in residential areas

Emergency stop

Various DC meter options: Basic, MID/LNE or acc. to German Calibration Law, incoming AC meter

Noise-level parameterization, including silent mode at night

Credit card contactless payment terminal or PIN-pad

Technical data (IEC)

SICHARGE D high-power charger

AC nominal input

Voltage	V	400 ± 10%
Current at nom. voltage per phase	A	301/332/423/515 (incl. AC socket)
Frequency	Hz	50/60
Power factor	cos phi	> 0.99 at full load
Short-circuit current rating	kA	50
THDi	%	< 3
Network type		TN-C, TN-S, or TT

DC output

Rated power	kW	160/180/240/300
Upgradeability	kW	up to 300
Voltage (range)	V	150 ... 1,000
Outlet options		DC: 2 x CCS2 or 1 x CCS2 and 1 x CHAdeMO 1.2 Optional AC: AC Type 2 socket (with flap and shutter), 22 kW incl. RCD
Current of connected cables (max.)	A	CCS2: 1 x 400 (air-cooled cable), 1 x 500 (liquid-cooled cable) CHAdeMO: 1 x 125
Interface for additional dispenser (parallel charging)		Preinstalled interface for one dispenser with two DC charge points
Efficiency factor η	%	> 95 rated, > 96 peak
Cable lengths	m	3.1; 5

Environmental conditions

Operating environment		Indoor and outdoor
Operating temperature	°C	– 25 ... +55 (without power derating up to + 35)[1]
Operating altitude	m	≤ 2,000 above sea level (without derating)
Relative humidity	%	5 ... 95 (non-condensing)

Mechanical specifications

Enclosure protection		IP54, IK10 (incl. display)
Housing material		Powder-coated galvanized steel, anti-graffiti paint
Coating		C4-M/C5-L
Color		RAL 9006: white aluminum
Overall dimensions W x D x H	mm	845 x 820 x 2,300
Foundation dimensions W x D	mm	680 x 620
Approx. weight acc. to configuration	kg	540 ... 820

General specifications

Local user interface and LEDs		Full-color 24" touchscreen with adaptable position of user interface; status LED per outlet
User authentication and payment		RFID, PIN code, QR code + smartphone, credit card (optional)
Network connection		Ethernet 10/100 base; 2G; 3G; 4G (LTE)
Electric safety device		Surge protection, overvoltage category III
Operating noise level @3 m distance	dB(A)	< 65 (silent mode: < 50, configurable times e.g., for day and night)
Metering options		Optional: DC meter per outlet (standard meter[2], MID/LNE or according to German MessEV[2]) AC meter for Type 2 outlet (standard meter[2] or according to German MessEV[3]), AC income meter
Remote management		Remote access, over-the-air (OTA) software updates, external load management via modbus[5]

Norms and standards

Charging standards		EN 61851-1/23, ISO 15118 (DIN 70121)[4] [5], IEC 62196-3 (Mode 4, Type 2), JEVS G105 (Mode 4, CHAdeMO 1.2) AC (optional): IEC 61851-1, IEC 62196-2, (Mode 3, Type 2)
Communication protocol[5]		OCPP 1.6J
EMC standards		Immunity Class A (EN 61000-6-2, industrial); Emission Class B (EN 61000-6-3, residential)
Certifications and conformity		CE, RCM, MessEV

1) With no direct sun exposure   2) Accuracy class B   3) Accuracy class A (acc. to EN 50470-3: 2006 and EN 50470-1:2006)   4) Hardware-ready
5) For supported functionalities of OCPP, modbus, and ISO 15118, please refer to the technical documentation

SICHARGE D **dispenser**

**The SICHARGE D dual-plug dispenser offers high-power charging
for two additional cars, with dynamic power allocation for each.
This ensures that the SICHARGE D charging system delivers the fastest
and most efficient charging possible.**

Highlights

- Compact footprint and slim design
  for better space efficiency
- Dispenser is completely integrated into
  SICHARGE D environment to offer smooth operation
  and optimized functioning
- Cable management system with improved technology
  for convenient cable handling
- Ready for outdoor applications thanks to high
  degree of protection IP54 and IK10
- LED for user guidance and DC status indication
  on left and right
- Best-in-class serviceability with optimized
  architecture and complete access from
  the front door

Options

The following options are available
with the SICHARGE D dispenser:

Various DC meter options: Basic, MID/LNE or
acc. to German Calibration Law[1], incoming AC meter

1) coming soon

Technical data (IEC)

SICHARGE D dispenser

DC output

Rated power	kW	Depending on connected SICHARGE D high-power charger (from 160 to 300, including upgradeability)
Voltage (range)	V	150 ... 1,000
Outlet options		2 x CCS2 DC charge points
Current of connected cables (max.)	A	400 (air-cooled cable)
Cable lengths	m	5
Dynamic power allocation		Same as at SICHARGE D high-power charger
Standby power consumption	W	≤ 100

Environmental conditions

Operating temperature	°C	Ambient temperature – 35 ... +50 (without power derating up to +35)[1]
Operating altitude	m	≤ 2,000 above sea level (without derating)
Relative humidity	%	< 95 (non-condensing)

Mechanical specifications

Enclosure protection		IP54, IK10
Housing material		Galvanized steel, anti-graffiti powder coating, C4H
Coating		C4-M/C5-L acc. ISO 12944
Color		RAL 9006: white aluminum
Overall dimensions W x D x H	mm	600 x 490 x 2,300
Foundation dimensions W x D	mm	600 x 342
Approx. weight acc. to configuration	kg	200

General specifications

Local user interface and LEDs	One status LED bar per outlet
User authentication and payment	Available on connected SICHARGE D high-power charger
Network connection	Ethernet 10/100 base
Electric safety device	Surge protection, overvoltage category III, DIN EN 60664-1 (at connected SICHARGE D)
Protection class against electrical shock	Class I; IEC 61140
Metering options	Optional: DC meter per outlet (basic or MID/LNE) Accuracy Class B (acc. to EN 50470-3: 2006 and EN 50470-1: 2006)
Remote management	Remote access, over-the-air (OTA) software updates, external load management via modbus TCP[2] (via connected SICHARGE D high-power charger)
Distance to SICHARGE D high-power charger	Up to 10 m cable length

Norms and standards

Charging standards	ISO 15118 (hardware-ready), DIN SPEC 70121, IEC 61851-1, IEC 62477-1, IEC 62311, EN IEC 63000, IEC 61851-23, IEC 62196-3 (Combo 2, Mode 4)
Communication protocol[2]	OCPP 1.6J (via connected SICHARGE D high-power charger)
EMC standards	EN 61000-6-2 (Immunity, Industrial, Class A), EN 61000-6-3 (Emission, Residential, Class B)
Certifications and conformity	CE

1) With no direct sun exposure
2) For supported functionalities of OCPP, modbus, and ISO 15118, please refer to the technical documentation

About Siemens eMobility

eMobility is already part of our everyday. And we are committed to anchoring this even more in everybody's daily lives by offering a charging infrastructure that is smart, efficient and innovative – and which makes mobility more sustainable ultimately.

And how do we do this?

By building an ecosystem to tackle the challenges of a complex world together. By cooperating with OEMs, utilities, fleet operators, companies, cities and customers alike – while bringing in the sound knowledge in energy supply, grids, mobility and buildings from a technology company that has been transforming the everyday for a 175 years. By connecting the real and the digital worlds with our IoT-enabled hardware, software solutions and service offerings that help customers and users save time, resources and costs.

And finally, with innovations like wireless or megawatt charging providing solutions for the challenges ahead. Our portfolio is designed for every use case in almost every region of the world – be it at home, at work, at bus stations, or within company depots.

To make a long story short: by electrifying mobility and making it more sustainable, we transform the everyday for a better tomorrow.

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Status 09/2023