SICHARGE D

# Dynamic charging for future eMobility

siemens.com/sicharge-d SIEMENS **SIEMENS** 03/2023 **IEC** standard

## SICHARGE D

The future of fast charging: High-power, flexible, modular, and scalable

Dynamic and flexible, the SICHARGE D compact charger offers numerous built-in options.





#### ValueScreen

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



#### **PowerUp**

The SICHARGE D chargers allow an easy upgrade of charging power to meet evolving charging needs.



#### ConnectPlus

Cost-efficient and space-saving, the SICHARGE D can be easily extended with two DC charge points to charge up to five cars in parallel\*.



#### **FullDPA**

Dynamic power allocation easily considers eVehicle's individual power demands and ensures optimized charging time.

\*coming soon

# Perfect fit for all your applications

## When travelling, in town, for short breaks

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



## Highway and urban charging stations

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

- Best-in-class efficiency
- · 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 incl. anti-vandalism protection IK10 also valid for its large screen
- Noise level parameterization (< 50dB(A)) for example for day and night mode
- Variety of payment options



## **Customer and guest parking**

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

- Unique, appealing design and value-adding screen
- High cyber security based on special Siemens assessment processes

## Best-in-class technology

Features designed for you – using extensive technological expertise and passionate ingenuity



## 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 allow more functions than just charging. With its large flexible screen, the SICHARGE D is already prepared to support this expanded functionality.



## Future-proof flexibility

## Scalable power and extendable DC outlets

SICHARGE D has a modular system that can be easily upgraded. Future demands on charging power or extension of DC outlets can be met easily and cost-efficiently to serve next generations of electric vehicles.



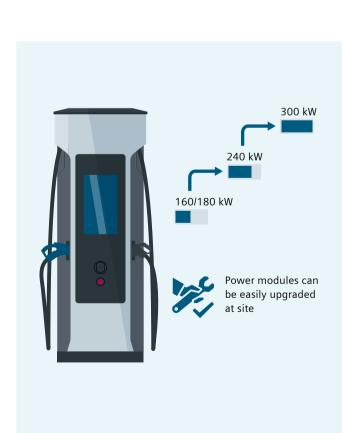
## All chargers can be upgraded to 300 kW

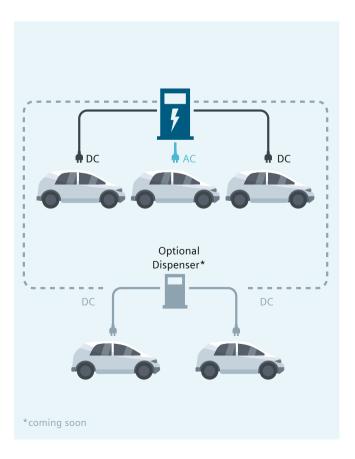
With our SICHARGE D you are ready to meet the rising demands for fast charging. Your charger can easily be upgraded with additional power modules guaranteeing minimum downtime: plug-and-play. After restarting, the system is automatically reconfigured and delivers upgraded power.



## Charge up to five cars with a single system

Easily extendable with two additional DC charge points, the Flex models of SICHARGE D charging systems give you ultimate flexibility and optimized parking space utilization.
Easily accessible by up to five electric vehicles charging in parallel (4 x DC and 1 x AC) at these SICHARGE D compact chargers.





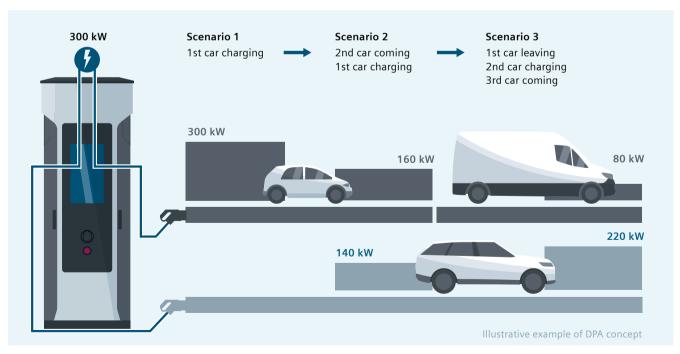
## Dynamic power allocation (DPA)

Intelligent and dynamic distribution of charging power



With SICHARGE D, the charging process automatically adapts to the connected vehicle(s) to fulfill two goals. It always seeks to use the full charging power available, and to use it based on the actual power request of each car(s) connected.

In this way, either 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 times for all connected EVs.



Electric vehicles with high charging capacity can consume up to 300 kW on any DC outlet, depending on configuration.

In case two vehicles are charging in parallel, the available power will be automatically shared according to their individual demand, optimizing the charging time.

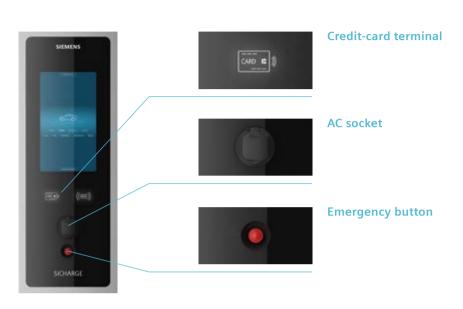
## Technical data

### **SICHARGE D**

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
ГНДІ	%	<3
Network type		TN-C, TN-S or TT
DC output		
Rated power	kW	160 / 180 / 240 / 300
Jpgradeability	kW	up to 300
/oltage (range)	V	1501,000
Outlet options		DC: 2 x CCS2 or 1 x CCS2 and 1 x CHAdeMO 1.2
Current of connected cables (max.)	Α	Optional AC: AC Type 2 socket (with flap and shutter), 22 kW incl. RCD  CCS2: 1 x 400 (air-cooled cable), 1 x 500 (liquid-cooled cable)
		CHAdeMO: 1 x 125 / 200
nterface for additional dispenser <sup>1)</sup> parallel charging)		Preinstalled interface for one dispenser with two DC charge points
Efficiency factor $\eta$	%	> 95 rated, > 96 peak
Cable lengths		3.1; 5
able lengths	m	3.1, 3
invironmental conditions		
Operational environment		Indoor and outdoor
perating temperature	°C	-25+55 (without power derating up to $+35$ ) <sup>2)</sup>
perating altitude	m	2,000 above sea level
Relative humidity	%	595 (non condensing)
Mechanical specifications		
Enclosure protection		IP54, IK10 (including display)
Casting 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
oundation dimensions W x D	mm	680 x 620
Approx. weight acc. to configuration	kg	540 – 820
General specifications		
ocal user interface and LEDs		Full-color 24" touchscreen with adaptable position of user interface; status LED per outlet
Jser 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		
23 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 <sup>3)</sup> or according to German MessEV <sup>3)</sup> )  AC meter for type 2 outlet (standard meter <sup>3)</sup> or according to German MessEV <sup>4)</sup> ), AC income meter <sup>3)</sup>
Remote management		Remote access, over-the-air (OTA) software updates, external load managment via ModBus <sup>6)</sup>
Norms and standards		
Charging standards		EN 61851-1/23, ISO 15118 (DIN 70121) <sup>5) 6)</sup> , 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)
Communications protocol6)		
Communications protocol <sup>6)</sup> EMC standards		OCPP 1.6J
		Immunity Class A (EN 61000-6-2, industrial); Emmission Class B (EN 61000-6-3, residential)
Certifications and conformity		CE, RCM, MessEV

<sup>1)</sup> Coming soon 2) Without direct sunlight exposure 3) Accuracy class B 4) Accuracy class A (acc.to EN 50470-3: 2006 and EN 50470-1:2006)
5) Hardware-ready 6) For supported functionalities of OCPP, Modbus and ISO 15118, please refer to the technical documentation available by your Siemens partner

## Flexible configuration options





This is a selection of configuration options

## **Configuration options**

AC socket	Additional 22 kW AC Type 2 socket
Incoming AC meter	AC meter for measuring total power consumption
AC meter for AC outlet	AC meter for measuring the consumption at the AC outlet
DC meter for DC outlet	DC meter per outlet optional acc. to German calibration law (ERK)
Credit-card payment	Integrated contactless terminal
Additional safety pack	Additional fuses on the DC power trains and an emergency stop button on the housing
Integration test of new backend system	SICHARGE D can be flexibly connected to any backend according to OCPP 1.6J
	On your behalf, we can also configure and test the connection to a previously unconnected backend
Noise level parameterization	Depending on local requirements (in sensitive areas like hospitals, hotels, residential
	dwellings) the charger noise level can be parameterized for day and/or night mode

Configuration options in your region may vary; please contact your Siemens representative for more information



## More than charging

## **Experience peace of mind**

We offer you world-class services and support throughout the entire lifetime of your charging equipment thus assuring the maximum uptime and highest availability of your chargers.



## Today's solution for the challenges of tomorrow

## Benefits at a glance



### Dynamic and scalable

- Modular and scalable power
- Upgradeable up to 300 kW
- Dynamic power allocation
- · Parallel charging



### **User-friendly**

- Intuitive multi-language 24" touchscreen with adaptable height
- Prepared for value-adding marketing content
- Space-saving



## Efficient and grid-friendly

- Best-in-class efficiency (up to 96 percent)
- High short-circuit withstand capability
- Low harmonic distortion (THDi < three percent)</li>



## State-of-the-art and future-proof

- Upgradeable to latest standards
- Highest voltage up to 1,000 V
   High current up to 500 A per charge point
- Open OCPP communication



## Confidence

- High availability
- Industry-leading cybersecurity and functional safety
- Excellent serviceability



## Robust and reliable

- Outdoor protection IP54
- High vandalism protection (IK10)
- Long-lasting components

### Published by Siemens AG

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