

SIEMENS

Ingenuity for life



50 kW Compact Power Charger

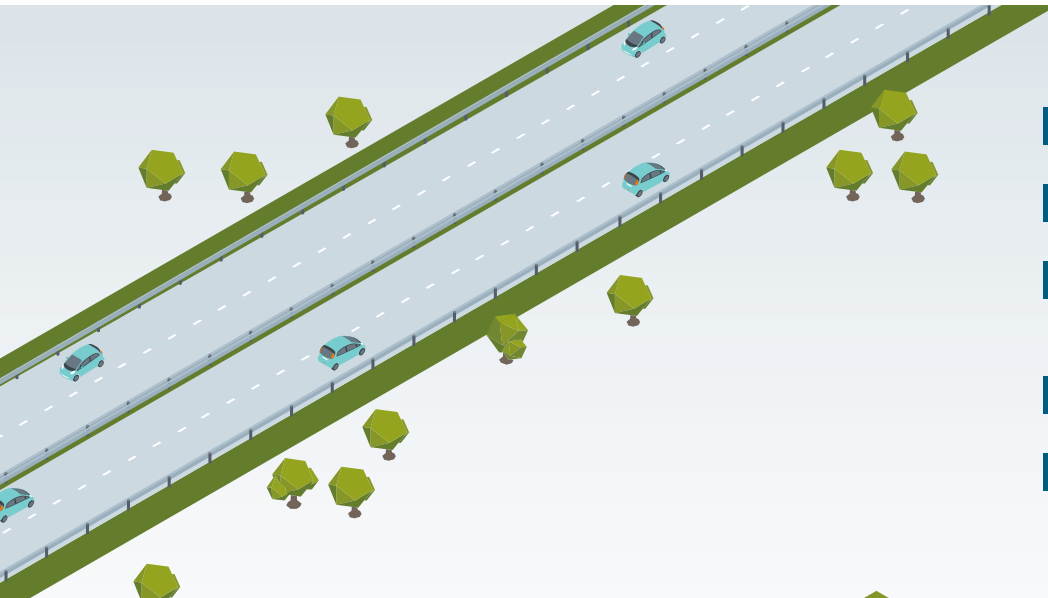
With impressive technology from Siemens,
designed and built by Kostad

[siemens.de/charger](https://www.siemens.de/charger)

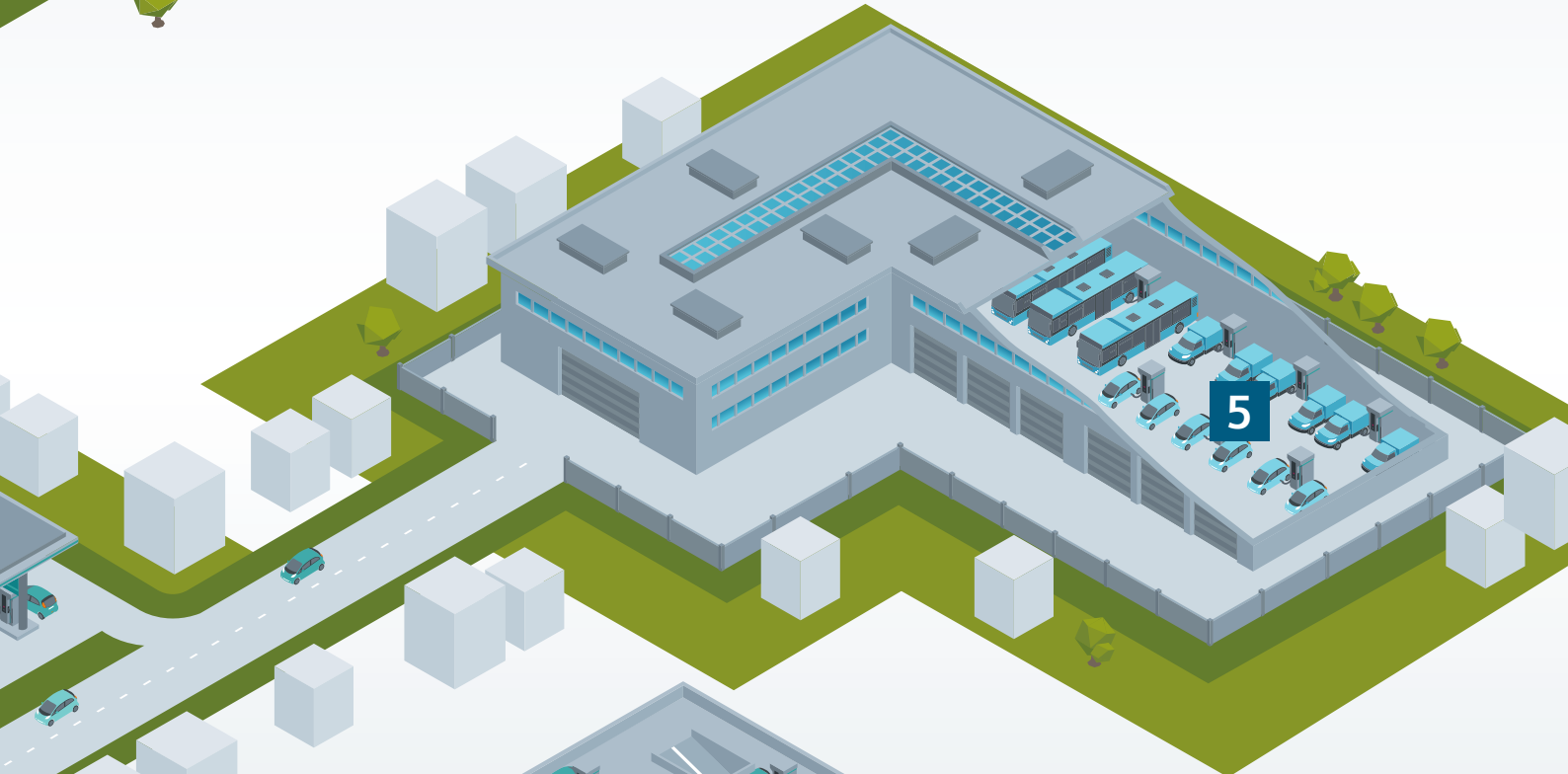
The right charging technology for multiple applications

Price, range, and charging time are the most important buying criteria for electric vehicles today. That's why automobile manufacturers are launching battery-powered vehicles worldwide that can recharge a range of 500 km in 10 to 20 minutes (charging like refueling). This means that e-mobility is going to expand the current gas station network. We're supporting operators of charging infrastructures with precisely tailored charging technology solutions for fleet management, logistics, parking garages, and shopping centers.





- 1** Highway transit charging
- 2** Enterprises and retailers
- 3** Urban gas station networks/
truck stops
- 4** Parking garages
- 5** Fleets with depot and
opportunity charging



50 kW power rating that delivers

The 50 kW Compact Power Charger – one for all

Solution Partner
KOSTAD Steuerungsbau GmbH
Certified Siemens Solution Partner
KOSTAD Steuerungsbau GmbH is a pioneer in electromobility and an expert in the field of charging infrastructures.

That's why we rely on cooperation with this strong partner for the design and manufacture of our solutions in this sector.



Solution Partner

Automation Drives

SIEMENS



 CCS

 CHAdeMO

 Type2

General technical requirements

Power rating and function at a glance

The 50 kW Compact Power Charger is a multi-standard charging station based on reliable Siemens technology. Developed for current and future-generation eCars and plug-in hybrids, its high power rating makes it ideal for heavily trafficked locations and long-distance travel.

Thanks to the 50 kW power rating, eCars can be charged to as much as 80 percent of their battery capacity within 20 minutes. The three most important international charging standards – CCS, CHAdeMO, and Type2 – are all available. A touchscreen reliably guides users through all the steps of operation. For use in the public domain (for example at urban gas stations, depots, enterprises, and retailers), the user interface can be adapted to the operator’s corporate design specifications.

Systems

Permits simultaneous DC and AC charging. An offline list of authorized users can be stored in the station to enable the charging of fees even when the network is down.

Benefits

- Charges electric vehicles using up to 50 kW
- Charging time < 30 minutes
- All relevant charging standards (CCS, CHAdeMO, Type2)
- Connection to operator’s charging management system via OCPP 1.5 Standard (OCPP 1.6 and OCPP 2.0 in preparation)
- Customer-specific configuration (screen design)
- Ready to charge current and future electric vehicles with higher voltages
- DC output voltage: up to 920 V (as of 850 V with low derating)
- Integration of powerful Siemens components (SINAMICS DCP Power Module/SIMATIC S7)
- One charging system for all electric vehicles
- Highly available and reliable

50 kW Compact Power Charger

Model	Version
CPC50C	1 x CCS
CPC50C-S22	1 x CCS & 1 x AC 22 kW socket
CPC50C-P22	1 x CCS & 1 x AC 22 kW plug
CPC50C-P43	1 x CCS & 1 x AC 43 kW plug
CPC50J	1 x CHAdeMO
CPC50J-S22	1 x CHAdeMO & 1 x AC 22 kW socket
CPC50J-P22	1 x CHAdeMO & 1 x AC 22 kW plug
CPC50J-P43	1 x CHAdeMO & 1 x AC 43 kW plug
CPC50CJ	1 x CCS & 1 x CHAdeMO
CPC50CJ-S22	1 x CCS & 1 x CHAdeMO & 1 x AC 22 kW socket
CPC50CJ-P22	1 x CCS & 1 x CHAdeMO & 1 x AC 22 kW plug
CPC50CJ-P43	1 x CCS & 1 x CHAdeMO & 1 x AC 43 kW plug

Reference



Fast charging for visitors and customers, Frankfurt am Main, Germany

The challenge

There's always a lot of activity at a Siemens subsidiary, with a constant stream of customers, suppliers, and sales representatives whose stays are often very brief. Consequently, drivers of electric vehicles today are already wishing that instead of charging for several hours, they could quickly "top up" their vehicles for an extended range – and, of course, that this could be true of all vehicle models.

The solution

A CPC50 Compact Power Charger was installed at the subsidiary. It is available to all visitors and employees and is equipped with two market-standard DC plugs – CCS and CHAdeMO – enabling charging to an 80 percent capacity within a period of 20 minutes. The charger also has a 43 kW connection for AC charging via a Type2 charging cable.

The benefits

Thanks to the CPC50, all drivers of electric vehicles who stop at Siemens Frankfurt, even for a short time, are sure that they've come to the right place.

Technical specifications

General	
Operating temperature	-30° C to +50° C
Storage temperature	-40° C to +85° C
Relative humidity	5% to 95% (without condensation)
Protection	IP54 (indoor/outdoor use)
Dimensions (H x W x D)	1929 x 822 x 618 mm
Weight	approx. 650 kg
Power consumed by charging station	< 130 W
Noise level (at full load)	< 55 dB

Standards	
Electrical safety	EN 61851-1, IEC 61439-2
EMC	EN 61000-6-2:2005, EN 61000-6-3:2007 + A1:2011
CHAdeMO	Rev 0.9.1, Rev 1.0.1 (compatible) JEVS G105 connector
CCS	DIN 70121 (interoperability test: BMW, VW GM)
AC plug	IEC 62196

AC input	
Grid connection	AC 3-phase + PE
Input voltage	400 V _{AC} ± 10%
Input current	up to 3 x 150 A _{AC}
Frequency	47 – 63 Hz

AC output	
AC connector	IEC 62196 Mode 3, Type2
Output power	22 kW/43 kW
Output voltage	400 V _{AC} ± 10%
Output current	3 x 32 A _{AC} /3 x 63 A _{AC}

AC-Stecker (Buchse)	
AC-Stecker (Buchse)	IEC 62196 Mode 3, Type2
Output power	22 kW
Output voltage	400 V _{AC} ± 10%
Output current	3 x 32 A _{AC}

DC output	
DC plug	Plug 1: combined charging system, IEC 62196-2, Plug 2: CHAdeMO JEVS G105
Output power	50 kW
Output voltage	920 V DC (as of 850 V with derating)
Output current	125 A
Power factor (50% load)	> 0.97
Efficiency	> 94%

Other	
Backend interface	OCPP 1.5 (OCPP 1.6 and OCPP 2.0 in preparation)
Authentication/payment systems	RFID/NFC Reader/Writer ISO 14443 A/B, Mifare, ISO 18092 (NFC), DESFire, FeliCA Mobile App
Connectivity	Ethernet, GSM, GPRS, UMTS (3G-Modem), LTE 4G
Compatibility	according to IEC 61851-1

Safety	
Line side (input)	TN system, residual current protective device type A
AC side (output)	Residual current protective device type B
DC-Seite (Ausgang)	Isolationsüberwachung

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