

Electric Vehicle Charging Infrastructure

Terra 53 multi-standard DC charging station

The Terra 53 multi-standard DC charging station is a configurable single, dual or triple outlet 50 kW fast charging station. Its flexible multi-protocol design supports CCS, CHAdeMO and AC functionality depending on the individual charging needs of each customer.

The Terra 53 is ideal for use at highway rest stops, petrol stations, car dealerships and busy urban areas.



The Terra 53 combines industry standardization with fast charging technology to support all current and next generation vehicles. Its multi-protocol design allows for easy tailoring to support CCS and CHAdeMO 1.0, as well as the EN61851-1 standard for AC charging (Type 2, Mode 3).

All ABB chargers come with Internet based Connected services to allow customers to easily connect their chargers to different software systems like back-offices, payment platforms or smart grid energy systems. This allows for remote assistance, tailored diagnostic trouble shooting and repair, and remote updates and upgrades. A reliable, secure, cost efficient and future proof connectivity solution, based on open industry interfaces.

Main features

- CCS standard DC fast charging
 - 30 to 80% of a 24 kW battery in 15 minutes
- Designed to deliver full output power continuously
- IEC 61000 EMC certified for industrial and residential areas (including petrol stations, retail outlets, offices, etc.)
- Future proof connection via open industry standards
 - Flexible interfacing with added value systems
 - Remote uptime monitoring and assistance
 - Remote updates and upgrades
- Easy to use
 - 8" daylight readable touch screen display
 - Graphic visualization of charging progress
 - RFID authorization
- Aesthetic all weather stainless steel enclosure
- Quick and easy installation
- Low operational noise

Applications

- Highway petrol/service station operators
- Busy urban areas
- Commercial fleet operators
- EV Infrastructure operators and service providers
- EV dealers and importers

Key optional features

- CHAdeMO 1.0 DC fast charging expansion package
- AC fast charging expansion package (T or G)
 - 22 kW AC socket (T) or 43 kW AC connector (G)
 - Simultaneous AC and DC charging
- Payment terminal
- Pin code authorization
- Input power limiting software to avoid expensive grid upgrades
- Web modules for statistics and access management
- Integration with back-offices, payment platforms and smart grid energy systems
- Wider temperature range: -35°C to +50°C
- Customized branding possibilities

Possible configurations

The Terra 53 is available in several configurations: C (CCS), CT (CCS and AC socket), CJ (CCS and CHAdeMO), CG (CCS and AC connector), CJT (CCS, CHAdeMO and AC socket) and CJG (CCS, CHAdeMO and AC connector).

Outlet specifications	C (default)	J (option)	G (option)	T (option)
Charging standard	CCS	CHAdE MO	Type 2 cable	Type 2 socket
Maximum output power	50 kW	50 kW	43 kW	22 kW
Output voltage range	50 - 500 V _{DC}	50 - 500 V _{DC}	400 V +/- 10%	400 V +/- 10%
Maximum output current	125 A _{DC}	125 A _{DC}	63 A	32 A
Connection standard	EN61851-23 / DIN 70121	CHAdE MO 1.0	EN61851-1	EN61851-1
Connector/socket type	Combo-2	CHAdE MO / JEVS G105	IEC62196 Mode-3 Type-2	IEC62196 Mode-3 Type 2
Cable length	3,9 m	3,9 m	3,9 m	-
Compatible car brands	BMW, Volkswagen, GM, Porsche, Audi	Nissan, Mitsubishi, Peugeot, Citroen, Kia	Renault, Daimler, Tesla, Smart, Mercedes	Renault, Daimler, Tesla, Smart, Mercedes, Volvo, Opel



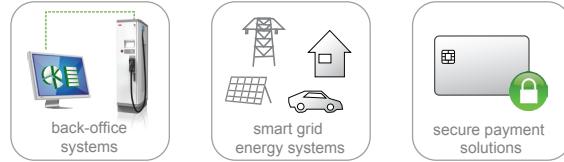
Possible configurations (from left to right): Terra 53 C, Terra 53 CT, Terra 53 CJ, Terra 53 CJT, Terra 53 CG with optional payment terminal (not shown, amongst other, Terra 53 CG and Terra 53 Z)

General specifications

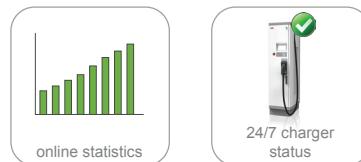
Environment	Indoor / outdoor
Operating temperature	-10 °C to +50 °C (de-rating characteristic applies) Option: -35 °C to +50 °C
Storage temperature	-40 °C to +70 °C
Compliance and safety	CE, RMC, EAC / Option: CHAdE MO
Input AC power connection	3P + N + PE
Input voltage range	400 V _{AC} +/-10% (50 Hz or 60 Hz)
Max. rated input current & power	C, CJ: 80 A, 55 kVA CT, CJT: 112 A, 77 kVA CJG, CG: 143 A, 98 kVA Power limiting options available
Power factor (full load)	> 0.96
Efficiency	94% at nominal output power
RFID system	ISO/IEC14443A/B, ISO/IEC15693, FeliCa™ 1, NFC reader mode, Legic, Calypso
Network connection	GSM / CDMA / 3G modem, 10/100 Base-T Ethernet
Protection	IP54
Dimensions (D x W x H)	760 mm x 525 mm x 1900 mm
Mass	350 kg

Advantages of connected charging

Flexible interfacing with customer's added value systems



Optimal insight in charger operation



Maximize charger uptime with fast and reliable service



Optimize user experience



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