Product Leaflet

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

- 50 kW DC fast charger supporting CCS and optionally CHAdeMO
- Optional 43 kW AC cable or 22 kW AC socket
- 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
- Daylight readable touch screen display
- Graphic visualization of charging progress
- RFID authorization
- Robust 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

- 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: -35ºC to +55ºC
- Customized branding possibilities

Possible configurations

Terra 53 is available in the following configurations:

- Terra 53 C: CCS
- Terra 53 CT: CCS and 22kW AC socket
- Terra 53 CJ: CCS and CHAdeMO
- Terra 53 CG: CCS and 43 kW AC connector
- Terra 53 CJT: CCS, CHAdeMO and 22 kW AC socket
- Terra 53 CJG: CCS, CHAdeMO and 43 kW AC connector

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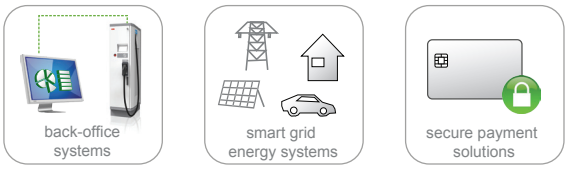
Outlet specifications	C (default)	J (option)	G (option)	T (option)
Charging standard	CCS	CHAdeMO	Type 2 cable	Type 2 socket
Maximum output power	50 kW	50 kW	43 kW	22 kW
Output voltage range	50 - 500 V_{DC}	50 - 500 V_{DC}	400 V +/- 10%	400 V +/- 10%
Maximum output current	125 A_{DC}	125 A_{DC}	63 A	32 A
Connection standard	EN61851-23 / DIN 70121	CHAdeMO 1.0	EN61851-1	EN61851-1
Connector/socket type	Combo-2	CHAdeMO / 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 CJG with optional payment terminal (not shown, amongst other, Terra 53 CG and Terra 53 Z)

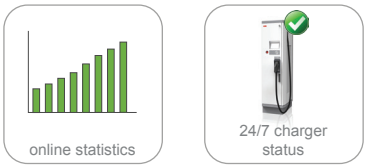
General specifications	
Environment	Indoor / outdoor
Operating temperature	-10 °C to +55 °C (de-rating characteristic applies) Option: -35 °C to +55 °C
Storage temperature	-40 °C to +70 °C
Compliance and safety	CE, RMC, EAC, J versions: CHAdeMO 1.0
EMC emission	IEC 61000-6-3 Class B - Residential
EMC immunity	IEC 61000-6-2 Industrial
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, Mifare, Calypso, (option: Legic)
Network connection	GSM / 3G modem, 10/100 Base-T Ethernet
Protection	IP54
Dimensions (D x W x H)	780 mm x 565 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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