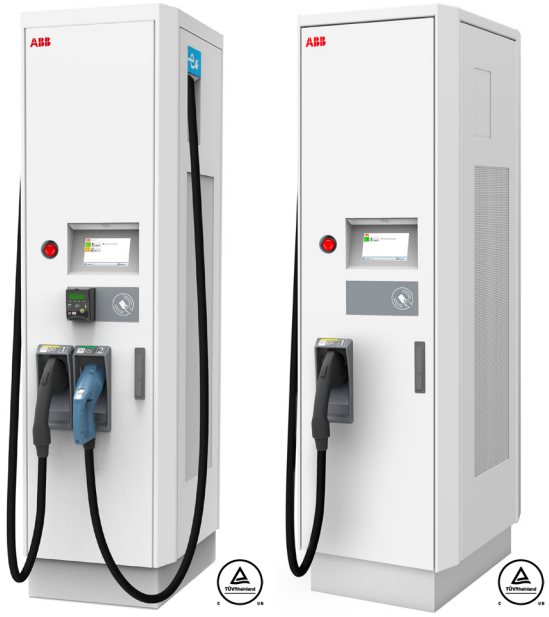
DATA SHEET

Terra 54

50 kW DC fast charging station (NA version)



ABB's Terra chargers are the most preferred DC fast charging solution in the world, shown here in Terra 54 CJ and Terra 54HV C configurations.

Building on more than a decade of DC fast charging experience, the Terra 54 offers enhanced usability and reliability in an all-in-one package. The Terra 54 enables continuous 50 kW charging up to with capability for high voltage charging at 920 VDC. The Terra 54 can be configured with CCS1-only or CCS and CHAdeMO functionality.

All Terra chargers have connectivity for remote services, software updates, access management and OCPP integration.

The future-proof solution
ABB EV infrastructure is committed to a future-proof strategy that includes operational reliability, a 24/7 network uptime, best-in-class connected services, interoperability support and a proactive product roadmap built on close work with OEMs around the world.

The Terra 54 enables high uptime due to redundancy in power and communication architectures. The Terra 54 has an industry-leading modular power conversion topology that delivers high uptime as well as continuous power delivery.

Safety is always paramount with ABB Terra chargers, which are certified to all relevant standards, including EMC Class B for safe operation for all consumers in office, retail and fuel station locations.

Connectivity
All ABB chargers come with Internet based Connected Services to allow customers to easily connect their chargers to OCPP back-offices, payment platforms or other enterprise and energy management tools. This intelligence enables remote assistance, diagnostic trouble shooting and repair, with remote updates and upgrades.

Applications
- Commercial shopping and dining areas
- Metropolitan / urban areas
- Fuel and convenience stores
- Commercial fleet operators
- OEM test facilities
- EV infrastructure operators and service providers

Main features

- 50 kW DC fast charger supporting CCS and CHAdeMO
- Paralleled power module topology with automatic failover offers high uptime through redundancy
- Delivers full 50kW output power continuously and reliably over its lifetime
- High voltage charging capability up to 920 VDC with Terra 54HV configuration
- EMC Class B certified for safe use at fuel stations, retail centers, offices, and residential adjacent sites
- Always connected, enables open industry standards, including remote services, updates and upgrades
- High brightness, daylight readable touchscreen display with graphic visualization of charging progress
- RFID authorization modes
- Robust all-weather powder-coated stainless steel enclosure
- Quick and easy installation as well as serviceability
- Spare parts are backwards and forwards compatible with Terra 53 product line

Optional features

- Cable management solution that is reliable, RAL-matched and easy to install in the field
- Customizable user interface
- PIN code authorization via ABB web tools
- Web tools for statistics and access management
- Credit card payment terminal
- Integration with OCPP networks, payment platforms and energy management; Autocharge and ISO 15118 enabled

Specifications	Terra 54	Terra 54 HV
Electrical		
Max output power	50 kW continuous	
AC Input voltage	480Y / 277 VAC +/- 10% (60 Hz)	
AC input connection	3-phase: L1, L2, L3, GND (no neutral)	
Nominal input current and input power rating	64 A, 54 kVA	
Recommended upstream circuit breaker(s)	80 A	
Power Factor*	> 0.96	
Current THD*	IEEE 519 Compliant; 5%	
Short circuit current rating	65 kA; 10 kA optional	
DC output voltage	CCS1: 200 - 500 VDC CHAdeMO: 50 - 500 VDC	CCS1: 200 - 920 VDC
DC output current	125 A	
Efficiency*	95%	
Interface and Control		
Charging protocols	CCS1 and CHAdeMO	CCS1
User interface	7” high brightness full color touchscreen display	
RFID system	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™ 1, NFC reader mode, Mifare, Calypso, (option: Legic)	
Network connection	GSM/3G/4G modem; 10/100 Base-T Ethernet	
Communication	OCPP 1.6 Core and Smart Charging Profiles Autocharge via OCPP; ISO 15118	
Supported languages	English (others available on request)	
Environment		
Operating temperature	-35 °C to +55 °C / -31 °F to +131 °F (de-rating characteristics apply at extreme temperatures)	
Recommended storage conditions	-10 °C to +70 °C / 14 °F to +158 °C (dry environment)	
Protection	IP54, NEMA 3R; indoor and outdoor rated	
Humidity	5% to 95%, non-condensing	
Altitude	2500 m (8200 ft)	
General		
Charge cable	6 m (19.6 ft) standard	
Dimensions (H x W x D)	1900 x 565 x 780 mm 74.8 x 22.2 x 30.7 in	
Weight	350 kg / 775 lbs	
Compliance and safety	UL 2202, CSA No. 107.1-16, NEC Article 625, EN 61851, EN 62196; CHAdeMO 1.2; DIN 70121, ISO 15118; IEC 61000-6-3; EMC Class B	

*Data shown at nominal output power

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