ABB

Terra 54 UL 50 kW
DC Fast Charging Station

Building on a decade of EV fast charging experience, ABB's Terra 54 offers enhanced usability and reliability in an all-in-one package. The Terra 54 enables continuous 50 kW charging up to 500 VDC, and the Terra 54HV supports up to 920 VDC - accommodating both CCSl and CHAdeMO functionality.

All Terra chargers feature ABB Connected Services for remote services, software updates, access management and OCPP network enablement.

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

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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
- 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

New Features for Terra 54

- CCS cable exit on the left side for even easier cable management and improved cable handling usability
- High voltage charging capability up to 920 VDC with Terra 54HV configuration
- New connector holders for easier handling and stability
- Enhanced payment terminal
- Prepared for options like DC metering, integration with building management systems and cable management.

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 enabled

Specifications	Terra 54	Terra 54 HV
Electrical		
Max Output Power	Multi-standard DC charging station	
AC Input Voltage	Indoor / outdoor	
AC Input Connection	-35 ºC to +50 ºC(de-rating characteristic applies)	
Nominal Input Current and Input Power Rating	-40 ºC to +70 ºC	
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	
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	