

# Terra 54 UL

## 50 kW DC fast charging station



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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         |
|--|---|---------------------|
| <b>Electrical</b>                            |   |                     |
| 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<br>CHAdeMO: 50 - 500 VDC  | CCS1: 200 - 920 VDC |
| DC output current                            | 125 A   |                     |
| Efficiency*                                  | 95%   |                     |
| <b>Interface and Control</b>                 |   |                     |
| 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<br>Autocharge via OCPP; ISO 15118   |                     |
| Supported languages                          | English (others available on request)   |                     |
| <b>Environment</b>                           |   |                     |
| 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)  |                     |
| <b>General</b>                               |   |                     |
| Charge cable                                 | 6 m (19.6 ft) standard  |                     |
| Dimensions (H x W x D)                       | 1900 x 565 x 780 mm<br>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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