The Terra DC Wallbox is a compact DC fast charger rated up to 24 kW, perfect for auto dealerships, retail parking lots, fleets, workplace facilities, and retail parking.

With its low-power, high-voltage architecture, the Terra DC Wallbox can be installed at sites with defined or limited available power service — while offering 920 VDC charging capability for every EV model.

Future-proof “Destination DC” charging
The Terra DC Wallbox is a compact 24 kW DC fast charger with one or two outlets supporting CCS and CHAdeMO protocols.

Operating the Terra DC Wallbox is easy thanks to a full color, daylight readable touchscreen display. This includes starting and stopping of charge sessions, progress indication during charging, help menus, language selection, and PIN code access control.

As connectivity is the key to successful EV charging installations, the Terra DC Wallbox features ABB Ability Connected Services to enable authentication, payment, monitoring, remote diagnostics and repair, as well as over-the-air updates and upgrades.

Benefits of low power DC solutions
Low power DC is an ideal solution for use cases demanding shorter charging times and higher charging asset utilization than can be provided by AC charging solutions. With a 24 kW compact DC solution, charging needs can be met in balance with load demands and infrastructure costs.

In AC charging solutions, the EV’s onboard converter is usually the limiting factor on the charging power that can be supplied to the car. With typical onboard ratings ranging from 3 kW to 11 kW, any additional power the AC charger could provide is left unused. With the Terra DC Wallbox, 24 kW peak DC power is provided directly to the battery, bypassing the limitations of an EV’s onboard converter.

High voltage charging capabilities
As electric vehicles and their use cases grow, high voltage DC charging has become more important to increase charging power while ensuring the highest safety, usability and utilization from charging assets. The Terra DC Wallbox can meet EV battery capabilities up to 920 VDC to enhance power output across a wider range of today’s and tomorrow’s EVs, including both passenger and fleet vehicles.

Applications
- Commercial, retail parking
- Automotive dealers
- Right-of-way parking
- Office, workplace, campus
- Delivery fleets
- High voltage battery EV fleets
- Sites with sensitive load concerns
Main features
- Future-proof DC output voltage range from 150 to 920 VDC supporting EVs today and in the future
- Enables CCS1 only or CCS1 and CHAdeMO
- Daylight readable 7” full color touchscreen display
- Future proof connectivity:
  - OCPP 1.6 and Smart Charging Profiles
  - Capability for remote services and updates
- Compact design
- Robust all-weather enclosure for indoor and outdoor use
- RFID reader
- ENERGY STAR® Certified

Key optional features
- On-screen PIN code authorization
- Input current limiting software to match site requirements
- Web tools for statistics, configuration, access management, remote diagnostics and repair
- Integration with back offices and payment platforms
- Customized branding possibilities
- Pedestal mounted option available

Configurations
The Terra DC Wallbox is available in the following configurations:
- Single outlet CCS1
- Dual outlet CCS1 + CHAdeMO
- Single-phase, 208-240 VAC
- Three-phase, 480 VAC

Specifications

| Electrical |
|------------------|----------------------------------|
| AC Input voltage range | (1) 208-240 VAC +/- 10% (60 Hz) |
| | (2) 480Y / 277 VAC +/- 10% (60 Hz) |
| AC input power connection | (1) 1-phase: L1, L2, GND |
| | (2) 3-phase: L1, L2, L3, N, GND |
| AC input current* and max power | (1) 100 A; 20.8-24 kVA |
| | (2) 32 A; 26.6 kVA |
| | 35 A; 26.6 kVA at 432 VAC (-10% dip) |
| | Current limiting options available |
| Recommended upstream circuit breaker | (1) 125 A |
| | (2) 50 A |
| Power Factor* | >0.96 |
| Current THD* | IEEE 519 Compliant; 5% |
| DC output power | (1) 19.5 kW at 208 V |
| | (2) 22.5 kW at 240 V |
| | (2) 24 kW peak; 22.5 kW continuous |
| DC output voltage | CCS1: 150 - 920 VDC |
| | CHAdeMO: 150 - 500 VDC |
| DC output current | 60 A |
| Efficiency* | 94% |

Interface and Control
- Charging protocols CCS1-only and CCS1+CHAdeMO
- User interface 7” full color touchscreen display
- RFID system ISO/IEC14443A/B, ISO/IEC15693, NFC reader mode, Mifare, Calypso
- Network connection GSM / 4G modem
- 10/100 Base-T Ethernet
- Communication OCPP 1.6 Core and Smart Charging Profiles; Autocharge via OCPP
- Support languages English (others available on request)

Environment
- Operating temperature -35 °C to +45 °C (+45 °C to +55 °C with linear derating)
- Recommended storage conditions -10 °C to +70 °C / 14 °F to +158 °C (dry environment)
- Protection IP54, NEMA 3S; indoor and outdoor
- Humidity 5% to 95%, non-condensing
- Altitude 2500 m (8200 ft)

General
- Charge cable 7 m (23 ft)
- Dimensions (H x W x D) 770 x 584 x 300 mm / 30.3 x 23 x 11.8 in
- Weight 60kg / 132 lbs excluding backplate (10 kg / 22 lbs) and cables
- ENERGY STAR Certification Yes

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, (2) EMC Class B

* Data shown at nominal output power

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