SMART MOBILITY

# The home of charging
## Terra AC wallbox

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- **High-value quality**
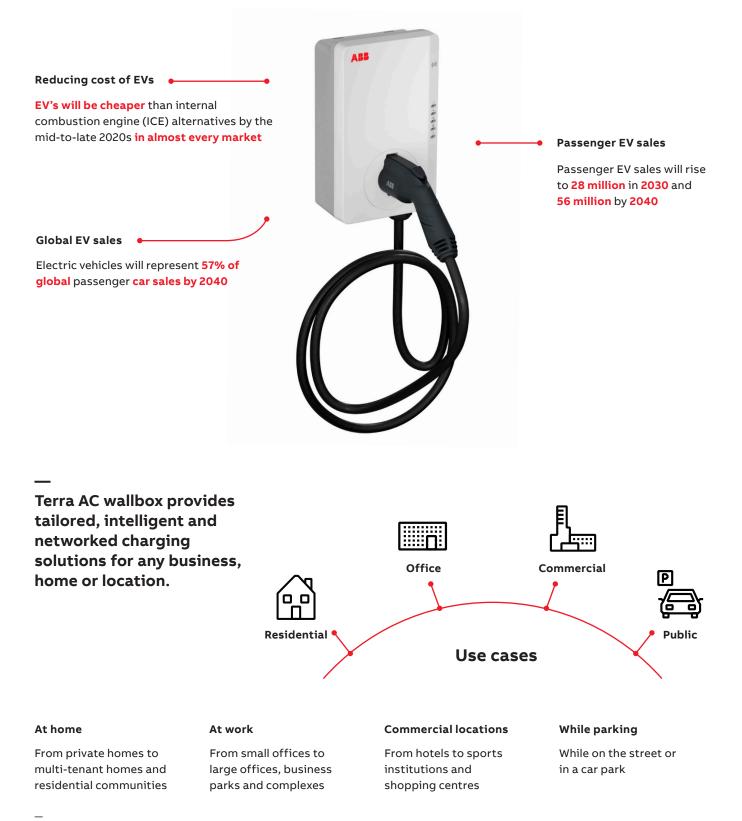- **Futureproof flexibility**
- **Safety and protection**

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**At ABB, we have 130 years of  heritage in accessible technology leadership and a world-leading AC and DC charging portfolio – for safe, smart and sustainable mobility.**

**That's why some of the world's biggest brands trust us to provide market-leading e-mobility solutions from highway to home.**

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**ABB: The home of charging**

# Terra AC wallbox
## To serve a growing market

**Reducing cost of EVs**

**EV's will be cheaper** than internal combustion engine (ICE) alternatives by the mid-to-late 2020s **in almost every market**

**Passenger EV sales**

Passenger EV sales will rise to **28 million** in **2030** and **56 million** by **2040**

**Global EV sales**

Electric vehicles will represent **57% of global** passenger **car sales by 2040**

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**Terra AC wallbox provides tailored, intelligent and networked charging solutions for any business, home or location.**

Office

Commercial

Residential

Public

**Use cases**

**At home**

From private homes to multi-tenant homes and residential communities

**At work**

From small offices to large offices, business parks and complexes

**Commercial locations**

From hotels to sports institutions and shopping centres

**While parking**

While on the street or in a car park

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source: https://about.bnef.com/electric-vehicle-outlook/#toc-viewreport

# Terra AC wallbox benefits

## High-value quality

The **best value AC charger** on the market, providing the exceptional quality expected of the world leader in EV charging.

Enabled for **remote software updates** to ensure optimal performance while minimising the need for onsite intervention.

**Broad range of connectivity options** including Wifi, Bluetooth and Ethernet for easy control and integration with existing infrastructure.

## Futureproof flexibility

**Smart functionality** means the wallbox can adapt its power usage and provide optimal charging, today and into the future.

Set up for **energy meter integration** to provide dynamic load management, reducing energy costs and preventing nuisance tripping of distribution protective devices.

**Dedicated App** provides easy authentication and control of the AC charger, along with and insight into charging status for users.

## Safety and protection

**Evaluated and tested** to the highest standards by independent, third party safety certification organizations.

**Current limiting protection** allows maximum charging power without nuisance tripping, aligned with the design of a given building's electrical distribution system.

**Integrated protections** including DC ground fault and over voltage protect both user and car.

# Smarter charging

**EU portfolio**
AC charger for electric vehicles, type 2
Power supply network: 220 … 240 V single phase and 380 … 415 V three phase, 50 / 60 Hz



TAC-W7-T-0

TAC-W11-G5-R-0

| Rated power (kW) | Max. current (A) | Socket outlet or connector type | Other features | Type | Order code | Weight Pkg (1pce) (kg) |
|---|---|---|---|---|---|---|
| **Single phase** | | | | | | |
| 3.7 | 16 | Socket with shutter, type 2 | - | TAC-W4-S-0 | ABB6AGC082587 | 2 |
| 7.4 | 32 | Socket, type 2 | - | TAC-W7-T-0 | ABB6AGC081278 | 2 |
| | | Cable 5 m, type 2 | RFID | TAC-W7-G5-R-0 | ABB6AGC082155 | 3.5 |
| **Single phase with display and MID certification** | | | | | | |
| 7.4 | 32 | Socket, type 2 | RFID, 4G | TAC-W7-T-RD-MC-0 | ABB6AGC082174 | 2 |
| **Three phase** | | | | | | |
| 11 | 16 | Cable 5 m, type 2 | RFID | TAC-W11-G5-R-0 | ABB6AGC082156 | 3.5 |
| 22 | 32 | Socket, type 2 | - | TAC-W22-T-0 | ABB6AGC081279 | 2 |
| | | Socket, type 2 | RFID | TAC-W22-T-R-0 | ABB6AGC082152 | 2 |
| | | Socket, type 2 | RFID, 4G | TAC-W22-T-R-C-0 | ABB6AGC082153 | 2 |
| | | Socket with shutter, type 2 | RFID | TAC-W22-S-R-0 | ABB6AGC082589 | 2 |
| | | Socket with shutter, type 2 | RFID, 4G | TAC-W22-S-R-C-0 | ABB6AGC082154 | 2 |
| | | Cable 5 m, type 2 | RFID, 4G | TAC-W22-G5-R-C-0 | ABB6AGC082157 | 3.5 |
| **Three phase with display and MID certification** | | | | | | |
| 22 | 32 | Socket, type 2 | RFID | TAC-W22-T-RD-M-0 | ABB6AGC081280 | 2 |
| | | Socket, type 2 | RFID, 4G | TAC-W22-T-RD-MC-0 | ABB6AGC081281 | 2 |
| | | Socket with shutter, type 2 | RFID, 4G | TAC-W22-S-RD-MC-0 | ABB6AGC081282 | 2 |
| | | Cable 5 m, type 2 | RFID, 4G | TAC-W22-G5-RD-MC-0 | ABB6AGC081285 | 3.5 |

**North America portfolio**
AC charger for electric vehicle, type 1
Power supply network: 110 … 240 V single phase, 50 / 60 Hz



TAC-W7-P8-R-C-0

| Rated power (kW) | Max. current (A) | Socket outlet or connector type | Other features | Type | Order code | Weight Pkg (1pce) (kg) |
|---|---|---|---|---|---|---|
| **Single phase without display** | | | | | | |
| 7.4 | 32 | Cable 25 ft, type 1 | RFID, 4G | TAC-W7-P8-R-C-0 | ABB6AGC082552 | 4.5 |
| | | Cable 25 ft, type 1 | RFID, double ethernet | TAC-W7-P8-R-D-0 | ABB6AGC081287 | 4.5 |
| | | Cable 25 ft, type 1 | RFID, 4G, double ethernet | TAC-W7-P8-R-CD-0 | ABB6AGC081288 | 4.5 |
| **Single phase with display** | | | | | | |
| 7.4 | 32 | Cable 25 ft, type 1 | RFID, double ethernet | TAC-W7-P8-RD-MD-0 | ABB6AGC081289 | 4.5 |
| | | Cable 25 ft, type 1 | RFID, 4G, double ethernet | TAC-W7-P8-RD-MCD-0 | ABB6AGC081290 | 4.5 |
| 9 | 40 | Cable 25 ft, type 1 | RFID, 4G, double ethernet | TAC-W9-P8-RD-MCD-0 | ABB6AGC082553 | 4.5 |
| 19 | 80 | Cable 25 ft, type 1 | RFID, 4G, double ethernet | TAC-W19-P8-RD-MCD-0 | ABB6AGC081291 | 4.5 |

# Terra AC wallbox accessories

| Description | Current (A) | Type | Order code |
|---|---|---|---|
| **Pedestal** For floor standing installation | | | |
| Adapter box for 1 or 2 chargers back to back (pole not included) | - | TAC-P1-2 for 60mm pole | ABB6AGC082324 |
| Adapter box for 1 or 2 chargers back to back (60 mm pole included) | - | TAC-P1-2 with 60mm pole | ABB6AGC082576 |
| Metal pole 60 mm with ground plate | - | SER-60mm pole H995mm | ABB6AGC082325 |
| Metal pedestal for 1 or 2 chargers back to back free-standing | - | TAC-P1-2 rectangular | ABB6AGC082326 |
| **RFID card (MIFARE)** | | | |
| RFID cards with ABB logo, pack of 5 | - | SER-abbRFIDtags | ABB6AGC082175 |
| RFID cards, blank, pack of 5 | - | SER-blankRFIDtags | ABB6AGC082176 |
| **Spare cables** Length: 5 m For cable replacement of existing cable version charger | | | |
| Type 2, three phase | 16 | SER-TAC-cable T2 5m3P16A | ABB6AGC082555 |
| Type 2, single phase | 32 | SER-TAC-cable T2 5m1P32A | ABB6AGC082554 |
| Type 2, three phase | 32 | SER-TAC-cable T2 5m3P32A | ABB6AGC082556 |
| Type 1, single phase | 40 | SER-TAC-cable T1 5m1P40A | |
| Type 1, single phase | 80 | SER-TAC-cable T1 5m1P80A | |
| **Charge cables** Length: 7 m Cables with 2 connectors of same or different types | | | |
| **Single phase** | | | |
| Type 2 to type 1 | 16 | TAC-cable T2-T1 7m1P16A | ABB6AGC082538 |
| Type 2 to type 2 | 32 | TAC-cable T2-T2 7m1P32A | ABB6AGC082535 |
| Type 2 to type 1 | 32 | TAC-cable T2-T1 7m1P32A | ABB6AGC082539 |
| **Three phase** | | | |
| Type 2 to type 2 | 16 | TAC-cable T2-T2 7m3P16A | ABB6AGC082536 |
| Type 2 to type 2 | 32 | TAC-cable T2-T2 7m3P32A | ABB6AGC082537 |

# Technical specification

| Product information | |
|---|---|
| Charging type | Mode 3 charging, level 2 |
| Input/output power rating and current | IEC ratings: Single phase up to 7.4 kW / 32 A<br>Three phase up to 22 kW / 32 A<br><br>UL ratings up to 19 kW / 80 A |
| Input/ouput voltage | Single phase: 110 … 240 V<br>Three phase: 380 … 415 V, 50 / 60 Hz |
| Network type | TT, TN, IT |
| Socket outlet or connector type | Type 2 socket with or without shutter<br>Type 1 or type 2 cable. Cable can be wrapped around the charger |
| Protection | Overcurrent, overvoltage, undervoltage, ground fault including DC leakage protection, integrated surge protection |
| Overvoltage category | III |
| Energy metering | Revenue grade energy meter Class B (+/- 1%) , MID certification on display variants only |
| Mobile communication with nano SIM socket | EU: GSM, 4G, LTE, WCDMA<br>US: 4G, LTE, WCDMA |
| Available configurable contacts | 1 input, 1 output |
| **User Interface** | |
| Connectivity | Wifi, Ethernet (RJ45), Bluetooth, RS485/P1, 4G / 3G |
| User authentification | ABB RFID card (1 included) or App |
| User interface | App, ABB web portal |
| Communication protocols | OCPP 1.6 and RS485/P1 for energy meter connection |
| Satus indication | 5 multicolor LED's |
| **Configuration** | |
| Software update | OCPP 1.6, ABB web portal or App |
| Control and configuration | ABB web portal or App |
| **General characteristics** | |
| Lifetime | 10 years. 16 h charging, 8 h standby, 5 charge sessions per day |
| IP and IK rating | IP54, IK10 (IK8+ for operating temperature from -35 to -30 °C) |
| NEMA enclosure type | NEMA 4 and 4X |
| Operating altitude | 4000 m |
| Operating temperature range | -35...+50 °C (derating may apply) |
| Storage temperature range | -40...+80 °C |
| Mounting | Wall or floor using a pedestal |
| Dimensions | H x W x D | 320 x 195 x 110 mm |
| | H x W x D | 12.60 x 7.68 x 4.33 inches |
| **Certification and standards** | |
| Safety standards | IEC/EN 61851-1, IEC/EN 62311, IEC/UL 62479, IEC/UL 62955 |
| | TuV listed conforming to UL 2594, UL 2231-1, UL 2231-2, UL 1998, CSA C22.2. NO.280 |
| Codes and standards | IEC 61851-21-2, EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4, EN 61000-3-2, EN 61000-3-3, EN 61000-3-11, EN 61000-3-12<br>CE RED- WLAN / RFID / E-UTRA: EN 300 328 V2.1.1, EN 300 330 V2.1.1, EN 301 908-1 V11.1.2, EN 301 908-13<br>EN 50470-1, EN 50470-3 |
| | FCC Part 15 Class B<br>ENERGY STAR |
| Certification | CE, CB, MID, UL |
| Warranty | 24 months |

## Smarter by design

- The App allows streamlined charger configuration

- Ready for integration with advanced smart building energy system

- Simple software update via the App makes the charger future-ready

## With the user in mind

- Enables users to authenticate their charger via the App or RFID card. Configuration is easily done via the App or ABB web portal

- Sends charging status via the App

- Provides information about the status of chargers (availability, number of sessions, energy delivery)

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