SMART MOBILITY

SMART CHARGING FOR EVERY JOURNEY

Terra AC wallbox

- Trustworthy Solution
- Futureproof Solution
- Best-in-class Energy Solution

ENGINEERED
TO OUTRUN

At ABB, we have 140 years of heritage in accessible technology leadership and a world-leading AC charging portfolio – delivering safe, smart, and sustainable mobility solutions.

That's why some of the world's biggest brands trust us to provide market-leading e-mobility solutions, designed to meet the needs of homes, workplaces, and beyond.

ABB: Smart Charging for Every Journey

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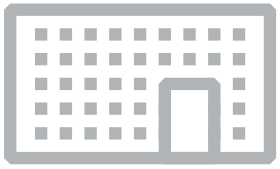
USE CASES

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

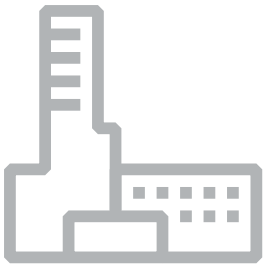
Home

For single unit residential



Destination

For multi-unit tenant residential, workplaces, business parks, shopping malls and hotels



Public

For centralised and roadside charging stations

Fleet

For logistic and transportation services

TERRA AC WALLBOX BENEFITS

Trustworthy Solution

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.

Futureproof Solution

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 ChargerSync™ app provides easy authentication and control of the AC charger, along with an insight into charging status for users.

Best-in-class Energy Solution

It can be integrated with solar systems, enabling the use of clean **solar energy** for EV charging.

Adjusts charging power according to **home appliances' load**, preventing overload and cutting energy costs.

Facilitates centralized control of multiple chargers in places like multi - tenant buildings, optimizing charging schedules and load balancing.

EXPLORE THE TECHNICAL FEATURES OF THE TERRA AC WALLBOX

Load management
- Build-in energy meter
- Set up for external energy meter integration for dynamic load management
- Ready for integration with advanced smart building energy system

Design
- IEC variants:
  – Single phase up to 7.4 kW / 32A
  – Three phase up to 22 kW / 32 A
- NEMA 3 enclosure
- All variants: IP55, IK10

Built-in safety
- Overcurrent
- Overvoltage and undervoltage
- Ground fault
- Surge protection

Connectivity
- Ethernet RJ45
- Bluetooth
- Wifi
- 4G variants
- RS485 for connection to energy meter
- OCPP 1.6
- Authentication via ChargerSync™ app and portal or RFID
- Configuration through TerraConfig app and portal

Connectors
- Type 2 cable
- Type 2 socket with shutter
- No need of extra hook, attached cable can be wrapped around the charger

SMARTER CHARGING

IEC PORTFOLIO

AC charger for electric vehicles, type 2
Power supply network: 230 V single phase and 400 V three phase, 50/60 Hz

	Rated power (kW)	Max. current (A)	Socket outlet or connector type	Other features	Type	Order code	Weight Pkg (1 pce) (kg)
	Single phase						
	7.4	32	Socket with shutter, type 2	RFID	Terra AC W7-S-R-V2-0	ABB6AGC128177	3
			Socket with shutter, type 2	RFID, 4G	Terra AC W7-S-R-C-V2-0	ABB6AGC128176	3
			Cable 5 m, type 2	RFID	Terra AC W7-G5-R-V2-0	ABB6AGC128169	5
			Cable 5 m, type 2	RFID, 4G	Terra AC W7-G5-R-C-V2-0	ABB6AGC128178	6.5
	Three phase						
	11	16	Socket with shutter, type 2	RFID	Terra AC W11-S-R-V2-0	ABB6AGC128174	3
			Cable 5 m, type 2	RFID	Terra AC W11-G5-R-V2-0	ABB6AGC128175	6
	22	32	Socket with shutter, type 2	RFID	Terra AC W22-S-R-V2-0	ABB6AGC128171	3
			Socket with shutter, type 2	RFID, 4G	Terra AC W22-S-R-C-V2-0	ABB6AGC128170	3
			Cable 5 m, type 2	RFID, 4G	Terra AC W22-G5-R-C-V2-0	ABB6AGC128172	6.5
			Cable 5 m, type 2	RFID	Terra AC W22-G5-R-V2-0	ABB6AGC128173	6.5

TERRA AC WALLBOX ACCESSORIES

IEC PORTFOLIO

AC charger for electric vehicles, type 2
Power supply network: 230 V single phase and 400 V three phase, 50/60 Hz

Description	Current (A)	Order code	Weight Pkg (1 pce) (kg)
Pedestal For floor standing installation			
Terra AC accessory, metal pedestal for 1 charger, free-standing	–	ABB6AGC085345	11.5
Terra AC accessory, metal pedestal for 2 chargers, free-standing	–	ABB6AGC085684	11.5
Terra AC accessory, back-to-back pedestal accessory cover plate, for pedestal 6AGC085684	–	ABB6AGC103029	0.20
Terra AC accessory, assembly kit of pedestal single-wallbox 6AGC085345	–	ABB6AGC107887	
Terra AC accessory, assembly kit of pedestal back-to-back 6AGC085684	–	ABB6AGC107700	
RFID card (MIFARE)			
Terra AC accessory, RFID cards with ABB logo, pack of 5	–	ABB6AGC082175	0.07
Terra AC accessory, RFID cards, blank, pack of 5	–	ABB6AGC082176	0.07
Charge cables Length: 7 m Cables with 2 connectors of same or different types			
Single phase			
Terra AC accessory, cable with 2 connectors, 7 m, single phase, type 2 to type 2, 32 A	32	ABB6AGC082535	2.95
Three phase			
Terra AC accessory, cable with 2 connectors, 7 m, three phase, type 2 to type 2, 32 A	32	ABB6AGC082537	4.18
Spare parts			
Terra AC spare part, water and dust proofing set for cable entries including 1 × 32 mm	–	ABB6AGC085387	0.04
Terra AC spare part, front cover (non-display CE), 2 screws included	–	ABB6AGC085388	0.24
Terra AC spare part, front cover (display, CE), 2 screws included	–	ABB6AGC101274	0.24
Terra AC spare part, front cover (non-display, no ABB logo, CE), 2 screws included	–	ABB6AGC101193	0.24
Terra AC spare part, front cover (display, no ABB logo, CE), 2 screws included	–	ABB6AGC101194	0.24
Terra AC spare part, maintenance cover, internal (non-display CE), 6 screws included	–	ABB6AGC085389	0.10
Terra AC spare part, maintenance cover, internal (display, CE), 4 screws included	–	ABB6AGC101275	0.06
Terra AC spare part, socket cover Gen2	–	ABB6AGC123503	0.05
Terra AC spare part, front cover (black, non-display, no ABB logo, CE), 2 screws included	–	ABB6AGC102674	0.20
Terra AC spare part, front cover (black, display, no ABB logo, CE), 2 screws included	–	ABB6AGC102673	0.19
Spare cables For cable replacement of existing cable version charger			
Single phase			
Terra AC spare part, cable replacement, 5 m, single phase, connector type 2, 32 A	32	ABB6AGC082554	1.00
Three phase			
Terra AC spare part, cable replacement, 5 m, three phase, connector type 2, 16 A	16	ABB6AGC082555	1.41
Terra AC spare part, cable replacement, 5 m, three phase, connector type 2, 32 A	32	ABB6AGC082556	2.95

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 Three phase up to 22 kW / 32 A
Input/ouput voltage		IEC: Single phase: 184–276 V, 50/60 Hz IEC: Three phase: 320–480 V, 50/60 Hz
Network type		TT, TN, IT
Socket outlet or connector type		Type 2 socket with shutter
		Type 2 cable. Cable can be wrapped around the charger
Protection		Overcurrent, overvoltage, undervoltage, DC residual current protection, integrated surge protection, over temperature protection
Overvoltage category		III
User Interface		
User authentification		ABB RFID card (1 included) or ChargerSync™ app or portal
User interface / Installer interface		ChargerSync™ app or portal / TerraConfig app and portal for setup / 12V power interface
Communication protocols		OCPP 1.6J (OCPP 2.1 upgradable), Modbus RTU RS485 (energy meter or local controller connection), Modbus TCP/IP (local controller connection)
Status indication		5 LEDs (power / connectivity / authorization / charging / error)
Configuration		
Software update		OCPP 1.6J, ChargerSync™ portal or app, Terraconfig app
Control and configuration		OCPP 1.6J, ChargerSync™ portal or app, Terraconfig app
General characteristics		
IP and IK rating		IP55, IK10
Operation altitude		2000 m
Operating temperature range CE		–30...+50 °C (derating may apply)
Storage temperature range		–40...+80 °C
Mounting		Wall or floor using a pedestal
Dimensions CE	H × W × D	320 × 195 × 110 mm
	H × W × D	12.60 × 7.68 × 4.33 inches
Certification and standards		
EU Declaration of Conformity		https://new.abb.com/ev-charging/terra-ac-wallbox
Safety standards		EN IEC 61851-1: 2019, IEC 62955: 2018, EN IEC 61851-21-2: 2021
Certification		CE, CB, RED, RoHS&Reach

Connectivity	
Communication protocols	OCPP 1.6J, Modbus RTU RS485 (external energy meter or local controller), Modbus TCP/IP (local controller)
Ethernet	1×1/100 BaseT, RJ45 Socket, daisy-chain Ethernet
Mobile communication	Nano-SIM socket type M2M (Machine To Machine): 4G (LTE), 3G (WCDMA)
Bluetooth Low Energy	BLE 5.0
RFID	ISO/IEC 14443A, MIFARE™ Classic, 1K and 4K memory
Compatible mobile device operating systems	Android 4.4 or higher / iOS8 or higher
Available configurable contacts	1 input, 1 output
Configurable output contact rated load	250 VDC or 30VDC, max current 1 A

RF Technology	Frequency Band	Maximum E.I.R.P (dBm)	Applicable Models
LTE-FDD	B1	23	Models with 4G only
LTE-FDD	B3		
LTE-FDD	B5		
LTE-FDD	B7		
LTE-FDD	B8		
LTE-FDD	B20		
LTE-FDD	B28		
LTE-TDD	B38		
LTE-TDD	B40		
LTE-TDD	B41		
GSM	B2	30	
GSM	B3		
GSM	B5	33	
GSM	B8		
RFID	13.56 MHz	NA	All models
Bluetooth Low Energy	2.4 GHz	10	All models
WLAN (802.11b/g/n)	2.4 GHz	16	All models

Smarter by design

- The App allows streamlined charger configuration.
- Ready for integration with advanced smart building energy system.
- Simple software updates 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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https://new.abb.com/ev-charging/terra-ac-wallbox

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Additional information
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