

SMART MOBILITY

# The home of charging

## Terra AC wallbox



- 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**

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# Terra AC wallbox

## To serve a growing market

### Reducing cost of EVs

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

### Global EV sales

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

### Passenger EV sales

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



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# Use cases

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



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## At home

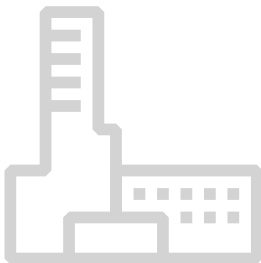
From single unit to multi-tenants



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## At the workplace

From small offices to large offices, business parks and complexes



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## Retail and Hospitality

From hotels to sports institutions and shopping centres

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# Terra AC wallbox benefits

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## 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 minimizing the need for onsite intervention.



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

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

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## 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

## 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)
 <p>Terra AC W7-T-0</p>	<b>Single phase</b>						
	7.4	32	Socket with shutter, type 2	RFID	Terra AC W7-S-R-0	ABB6AGC101252	3
			Socket with shutter, type 2	RFID, 4G	Terra AC W7-S-R-C-0	ABB6AGC105906	3
			Cable 5 m, type 2	RFID	Terra AC W7-G5-R-0	ABB6AGC082155	5
Cable 5 m, type 2			RFID, 4G	Terra AC W7-G5-R-C-0	ABB6AGC085385	6.5	
 <p>Terra AC W11-G5-R-0</p>	<b>Single phase with display and MID certification</b>						
	7.4	32	Socket with shutter, type 2	RFID, 4G, daisy-chain ethernet	Terra AC W7-S-RD-MC-0	ABB6AGC101191	3
Cable 5m, type 2			RFID, 4G, daisy-chain ethernet	Terra AC W7-G5-RD-MC-0	ABB6AGC085386	6.5	
 <p>Terra AC W22-T-RD-M-0</p>	<b>Three phase</b>						
	11	16	Socket with shutter, type 2	RFID	Terra AC W11-S-R-0	ABB6AGC105907	3
			Cable 5 m, type 2	RFID	Terra AC W11-G5-R-0	ABB6AGC082156	6
	22	32	Socket with shutter, type 2	RFID	Terra AC W22-S-R-0	ABB6AGC082589	3
			Socket with shutter, type 2	RFID, 4G	Terra AC W22-S-R-C-0	ABB6AGC082154	3
			Cable 5 m, type 2	RFID, 4G	Terra AC W22-G5-R-C-0	ABB6AGC082157	6.5
Cable 5 m, type 2			RFID	Terra AC W22-G5-R-0	ABB6AGC082158	6.5	
 <p>Terra AC W22-T-RD-M-0</p>	<b>Three phase with display and MID certification</b>						
	22	32	Socket with shutter, type 2	RFID, 4G, daisy-chain ethernet	Terra AC W22-S-RD-MC-0	ABB6AGC081282	3
Cable 5 m, type 2			RFID, 4G, daisy-chain ethernet	Terra AC W22-G5-RD-MC-0	ABB6AGC081285	6.5	
 <p>Terra AC W22-T-RD-M-0</p>	<b>Three phase with display and Eichrecht certification</b>						
	22	32	Socket, type 2	RFID, 4G, daisy-chain ethernet	Terra AC W22-T-RD-PC-0	ABB6AGC107236	3
Cable 5 m, type 2			RFID, 4G, daisy-chain ethernet	Terra AC W22-G5-RD-PC-0	ABB6AGC107239	6.5	

**UL portfolio**

AC charger for electric vehicle, type 1

Power supply network: 208...240 V single phase/split 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)	
<b>Single phase</b>								
 <p>Terra AC W7-P8-R-D-0</p> <p>Terra AC W7-P8-RD-MD-0</p>	7.7	32	Cable 25 ft (7.6 m), type 1	RFID, 4G	Terra AC W7-P8-R-C-0	ABB6AGC082552	7	
			Cable 25 ft (7.6 m), type 1	RFID, daisy-chain ethernet	Terra AC W7-P8-R-D-0	ABB6AGC081287	7	
				Cable 25 ft (7.6 m), type 1	RFID, 4G, daisy-chain ethernet	Terra AC W7-P8-R-CD-0	ABB6AGC081288	7
	9.6	40	Cable 25 ft (7.6 m), type 1	RFID, daisy-chain ethernet	Terra AC W9-P8-R-D-0	ABB6AGC105905	11.8	
			Cable 25 ft (7.6 m), type 1	RFID, 4G, daisy-chain ethernet	Terra AC W9-P8-R-CD-0	ABB6AGC105902	11.8	
	19.2	80	Cable 25 ft (7.6 m), type 1	RFID, daisy-chain ethernet	Terra AC W19-P8-R-D-0	ABB6AGC105904	11.8	
			Cable 25 ft (7.6 m), type 1	RFID, 4G, daisy-chain ethernet	Terra AC W19-P8-R-CD-0	ABB6AGC105903	11.8	
	<b>Single phase with display</b>							
	7.7	32	Cable 25 ft (7.6 m), type 1	RFID, daisy-chain ethernet	Terra AC W7-P8-RD-MD-0	ABB6AGC081289	7	
			Cable 25 ft (7.6 m), type 1	RFID, 4G, daisy-chain ethernet	Terra AC W7-P8-RD-MCD-0	ABB6AGC081290	7	
	9.6	40	Cable 25 ft (7.6 m), type 1	RFID, 4G, daisy-chain ethernet	Terra AC W9-P8-RD-MCD-0	ABB6AGC082553	11.8	
	19.2	80	Cable 25 ft (7.6 m), type 1	RFID, 4G, daisy-chain ethernet	Terra AC W19-P8-RD-MCD-0	ABB6AGC081291	11.8	

## Terra AC wallbox accessories

Description	Current (A)	Order code	Weight Pkg (1 pce) (kg)
<b>Pedestal</b>			
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 and 6AGC082326	-	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	
<b>RFID card (MIFARE)</b>			
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

Description	Current (A)	Order code	Weight Pkg (1 pce) (kg)
<b>Charge cables</b>			
Length: 7 m			
Cables with 2 connectors of same or different types			
<b>Single phase</b>			
Terra AC accessory, cable with 2 connectors, 7 m, single phase, type 2 to type 2, 32 A	32	ABB6AGC082535	2.95
<b>Three phase</b>			
Terra AC accessory, cable with 2 connectors, 7 m, three phase, type 2 to type 2, 16 A	16	ABB6AGC082536	2.15
Terra AC accessory, cable with 2 connectors, 7 m, three phase, type 2 to type 2, 32 A	32	ABB6AGC082537	4.18
<b>Spare parts</b>			
Terra AC spare part, water and dust proofing set for cable entries including 1 × 32 mm and 2 × 25 mm grommets (CE, UL 32 A, JPN)	-	ABB6AGC085387	0.04
Terra AC spare part, charger assembly kit (CE, UL 32 A, JPN)	-	ABB6AGC107747	
Terra AC spare part, front cover (non-display CE), 2 screws included	-	ABB6AGC085388	1.50
Terra AC spare part, front cover (display, CE), 2 screws included	-	ABB6AGC101274	1.50
Terra AC spare part, front cover (non-display, no ABB logo, CE), 2 screws included	-	ABB6AGC101193	1.50
Terra AC spare part, front cover (display, no ABB logo, CE), 2 screws included	-	ABB6AGC101194	1.50
Terra AC spare part, front cover (non-display, UL 32 A, JPN), 2 screws included	-	ABB6AGC101256	1.50
Terra AC spare part, front cover (display, UL 32 A, JPN), 2 screws included	-	ABB6AGC101257	1.50
Terra AC spare part, front cover (non display, no ABB logo, UL 32 A, JPN), 2 screws included	-	ABB6AGC101196	1.50
Terra AC spare part, front cover (display, no ABB logo, UL 32 A, JPN), 2 screws included	-	ABB6AGC101195	1.50
Terra AC spare part, maintenance cover, internal (non-display CE), 6 screws included	-	ABB6AGC085389	1.50
Terra AC spare part, maintenance cover, internal (display, CE), 4 screws included	-	ABB6AGC101275	1.50
Terra AC spare part, maintenance cover, internal (non-display, UL 32 A, JPN), 6 screws included	-	ABB6AGC101277	1.50
Terra AC spare part, maintenance cover, internal (display, UL 32 A, JPN), 4 screws included	-	ABB6AGC101276	1.50
Terra AC spare part, socket cover for Terra AC wallbox (CE, UL 32 A, JPN)	-	ABB6AGC123503	0.90
Terra AC spare part, charger assembly kit (UL 40/80 A)	-	ABB6AGC107748	
Terra AC spare part, aluminum conduit closure plugs, including 1 × 1 inch and 2 × 3/4 inch (UL 40/80 A)	-	ABB6AGC109685	
Terra AC spare part, front cover (non-display, UL 40/80 A), 2 screws included	-	ABB6AGC109717	
Terra AC spare part, front cover (display, UL 40/80 A), 2 screws included	-	ABB6AGC109720	
Terra AC spare part, front cover (non-display, no ABB logo, UL 40/80 A), 2 screws included	-	ABB6AGC109709	
Terra AC spare part, front cover (display, no ABB logo, UL 40/80 A), 2 screws included	-	ABB6AGC109714	
Terra AC spare part, maintenance cover, internal (non-display, UL 40/80 A), 11 screws included	-	ABB6AGC109724	
Terra AC spare part, maintenance cover, internal (display, UL 40/80 A), 11 screws included	-	ABB6AGC109725	
Terra AC spare part, holster inlet cover (UL 40/80 A)	-	ABB6AGC109726	
Terra AC spare part, gasket for SAE J1772, type 1 charge connector (UL 40/80 A)	-	ABB6AGC109902	
<b>Spare cables</b>			
For cable replacement of existing cable version charger			
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, single phase, connector type 2, 16 A	32	ABB6AGC082554	2.05
Terra AC spare part, cable replacement, 5 m, three phase, connector type 2, 32 A	32	ABB6AGC082556	2.95
Terra AC spare part, cable replacement, 7.6 m, single phase, connector type SAE J1772, type 1, JPN 30A, UL 32 A	32	ABB6AGC109259	-
Terra AC spare part, cable replacement, 7.6 m, single phase, connector type SAE J1772, type 1, UL 40 A	40	ABB6AGC109258	-
Terra AC spare part, cable replacement, 7.6 m, single phase, connector type SAE J1772, type 1, UL 80 A	80	ABB6AGC109256	-

# Technical specification

<b>Product information</b>		
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/output voltage	UL ratings up to 19 kW / 80 A IEC: Single phase: 184–276 V, 50/60 Hz UL: Single/ split phase: 208 – 240 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 or without shutter Type 1 or type 2 cable. Cable can be wrapped around the charger	
Protection	Overcurrent, overvoltage, undervoltage, ground fault including DC residual current protection, integrated surge protection	
Overvoltage category	III	
Energy metering	Revenue grade energy meter Class B (±1%) , MID+Eichrecht certification on display variants only	
Energy metering (UL 40/80 A)	Revenue grade energy meter Class B (±2%)	
<b>User Interface</b>		
User authentication	ABB RFID card (1 included) or ChargerSync™ app or portal	
User interface / Installer interface	ChargerSync™ app or portal / TerraConfig app and portal for setup	
Communication protocols	OCPP 1.6J, Modbus RTU RS485 (energy meter or local controller connection), Modbus TCP/IP (local controller connection)	
Status indication	5 LEDs (power / connectivity / authorization / charging / error)	
<b>Configuration</b>		
Software update	OCPP 1.6J, ChargerSync™ portal or app, Terraconfig app	
Control and configuration	OCPP 1.6J, ChargerSync™ portal or app, Terraconfig app	
Control and configuration (UL 40/80A)	display wakeup functionality via touch, current limit by rotary switch	
<b>General characteristics</b>		
IP and IK rating	IP54, IK10 (IK8+ for operating temperature from –35 to –30 °C)	
NEMA enclosure type	UL 32 A, type 3 UL 40/80 A, type 4	
Operation altitude	2000 m (CE, UL 32 A), 4000 m (UL 40 A + 80 A)	
Operating temperature range CE	–35...+50 °C (derating may apply)	
Operating temperature range MID, Eichrecht	–35...+55 °C (derating may apply)	
Operating temperature range UL 40/80A	–30...+50 °C (derating may apply)	
Storage temperature range	–40...+80 °C	
Mounting	Wall or floor using a pedestal	
Dimensions CE, UL 32A	H × W × D	320 × 195 × 110 mm
	H × W × D	12.60 × 7.68 × 4.33 inches
Dimensions UL 40/80A	H × W × D	400 × 230 × 125 mm
	H × W × D	15.75 × 9.06 × 4.92 inches
<b>Certification and standards</b>		
EU Declaration of Conformity	<a href="https://new.abb.com/ev-charging/terra-ac-wallbox">https://new.abb.com/ev-charging/terra-ac-wallbox</a>	
Safety standards	IEC 62955	
	NA: UL 2594, UL 2231-1, UL 2231-2, UL 1998	
	Canada: CSA C22.2. NO.280	
Other standards	Mexico: NMX-J-667-ANCE	
	NA: FCC Part 15B/15C	
Energy efficiency program	ENERGY STAR	
Certification	CE, Eichrecht, MID, SGS	
Warranty	24 months	

Connectivity	
Communication protocols	OCPP 1.6J, Modbus RTU RS485 (external energy meter or local controller), Modbus TCP/IP (local controller)
Ethernet	1x1/100 BaseT, RJ45 Socket, (optional) 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 VAC or 30 VDC, max current 1 A

		EU		NA	
RF Technology	Frequency Band	Maximum E.I.R.P (dBm)	Frequency Band	Maximum E.I.R.P (dBm)	
LTE-FDD	B1	23	B2	33	
LTE-FDD	B3		B4	30	
LTE-FDD	B7		B5	40.60	
LTE-FDD	B8		B12	36.92	
LTE-FDD	B20		B13	36.92	
LTE-FDD	B28A		B14	36.92	
LTE-FDD			B66	30	
LTE-FDD			B71	36.92	
LTE-TDD	B38				
LTE-TDD	B40				
LTE-TDD	B41				
WCDMA	I	24	II	33	
WCDMA	VIII		IV	30	
WCDMA			V	40.60	
RFID	13.56 MHz	NA	13.56 MHz	NA	
Bluetooth Low Energy	2.4 GHz	10	2.4 GHz	30	
WLAN (802.11b/g/n20)	2.4 GHz	20	2.4 GHz	30	

## 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).

**Additional information**

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