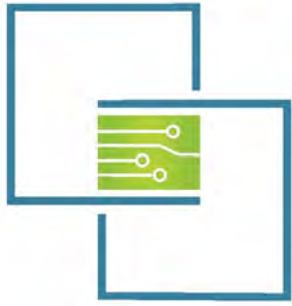# Randridge
Technologies
Powering our clean future

RT Premium
Brochure

Randridge Technologies
Powering our clean future

Based in Ireland, Randridge Technologies utilise their extensive project experience in electrical engineering to offer the newest EV charging technology to both our commercial and domestic clients nationwide.

Supplying everything from your standard home charging unit to the powerful 350kW DC charge points found in petrol stations worldwide. Our partnership with Ensto Finland, Virta Ltd, Delta, ABB Ireland and Schneider allows us to provide all-inclusive EV charging packages to domestic, commercial and public sectors nationwide.

We also provide a high-tech, easy to use charging app & management platform, StopNTop, to make public, private and commercial charging that much simpler.

Our management platform allows customers and businesses to install high spec charge points which have the option to be fully managed via our backend platform. Its allows businesses and customers the opportunity to supply smart charge points and generate a revenue or recuperate charging costs.

Our partnerships allow for us to supply charge points that are Vehicle to Grid Ready and our partnership with Virta and the use of our mobile app, EV drivers can have the ability to put   energy back into the grid. Vehicle to Grid allows for the balancing of the grid and the possibility to generate a revenue.

At Randridge Technologies, we take great pride in each & every EV charge point installation we complete, large or small. We manage every project from start to finish using our extensive experience and knowledge.

Our Partners

EVB Series

The Ensto Wallbox is a modular solution for single or dual EV charging. Its compact and user-friendly design makes it a perfect choice for daily charging in private, public, or semi-public locations.

The Wallbox is perfect for large installations in car parks, offices, and real estates – offering the best charging experience with smart services.

It's Smart

OCPP 1.6 and dynamic load management are basic features of RT Wallbox. With these RT Wallbox qualifies as smartest EV charger on market.

It's Tough

The structure of the RT Wallbox guarantees durability for both the weather (IP54) and external impacts (IK10).

It's Flexible

Agile factory commissioning to back-end systems and wide range of customer tailoring's will make RT Wallbox the most suitable selection to customers.

It's Visible

RT Wallbox is equipped with back-lighted body. Nice ambient light makes Wallbox easy to locate and comfortable to operate

Available in EVB 100 & EVB 200

EVB100 - Single Charging / EVB 200 - Dual Charging

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Wallbox - EVB Series Specifications

Charging Outlet	1 or 2 Mode 3 / Type 2 Socket
	1 or 2 Mode 3 / Type 1 or Type @ Cables
	Option: Charging cable fixing by software (cables not included
Nominal Value	1-ph/3-ph, 230/400VAc, 50Hz
Charging Power/ Current	Max. 22kW/T2 Socket
	Charging Current configurable from 6A to 32A
IP Class	IP54
IK Class	IK10
Protection Options	6mA DC Residual Current Monitoring
Control and Communication	Standalone/Online
	2G/3G, LAN
	OCPP 1.5/ 1.6
	IEC 15118
	Master / Slave
Operating Temperature	-30°C to +50°C
User Interfaces	Local Authentication by RFId (ISO/IEC 14443A/B ISO/IEC15693)
	NFC
	3—Colour LED Status indication (Ready Charging, Error)
Mounting / Installation	Wall or Pole Mounting
Standards / Requirements	CE, IEC 61851-1

Vestel EVC 04

Vestel EVC04 series offers the best connectivity options including LTE, Wi-Fi, Ethernet and RS485 to fit all remote management functionalities via OCPP. Adjustable power control provides flexibility to support customised power setting at the installation site. Dynamic load management helps to balance electric grid power deviations and ensures all time smooth and seamless charging.

Fully compatible according to use cases

Depending on the equipment, the EVC04 can be used simply in the private sector of with full equipment in professional use cases.

Superior Load Management

EVC04 provides load tracking dynamically in single use or multiple use and offer more room for charging with smart load management

Operating with Solar Systems

According to energy production, All green energy can be used for your electric vehicle or grid support can be used together with solar energy.

VESTEL EVC04 Specifications

Charging Mode	AC, Mode 3
Charging Connector	AC Type-2 Socket or Tethered Cable
Cable Length	5 or 7 meters
IT Backend Connection	OCPP 1.6 JSON
Mounting Type	Wall or Pole Mounted
Enclosue	PC Plastic (5VA flame retardant)
Max. charging output per charge point	22kW
Input: Nominal voltage, number of phases	1-P; 230 Vac ±10%, 50/60Hz 3-P; 400Vac ±10%, 50/60Hz
Output: Voltage	230-400V
Output: Current	10-13-16-20-25-30-32A (AC7 and AC22 series) 10-13-16A (AC11 series)
Stand-by Power Consumption	< 5W
Earthing System	3L+N+PE (TN, TT)
IEC Protection Class	Class I
DC Residual Current Sense	6 mA
Built-in RCCB (Optional)	Type-A High Immunity
Internal Protection	Over Current, Over Voltage, Under Voltage, DC/AC Residual Current, Over Temperature, Short Circuit, Socket Interlock, Surge/Lightning, Eath Fault, Phase-Neutral Reverse Detection
Communication Interface	Wi-Fi, Ethernet, Cellular (2G/3G/4G)
Protocols for communication with IT backend	OCPP 1.6 JSON
Communication with third-party devices	Modbus TCP/IP
Authentication Methods	Free Mode, RFID, Mobile Application or OCPP

Alfen Eve Series

A smart charging solution similar to the above. Optimally suited for a private / semi private location.

This unit has a large display screen, improved user interface and new high-tech, reliable hardware platform including RFID access, solid and durable housing, supports charging networks, load balancing and OCPP 1.6

It's Smart

OCPP 1.6 and dynamic load management are basic features of Alfen Wallbox .

It's Tough

The structure of the Alfen guarantees durability for both the weather (IP55) and external impacts (IK10).

It's Flexible

Agile factory commissioning to back-end systems and wide range of customer tailoring's will make Alfen the most suitable selection to customers.

Available in Single and Double

Eve Pro Single - Single Charging / Eve Pro Double - Dual Charging

Alfen Eve Specifications

Charging Outlet	1 or 2 Mode 3 / Type 2 Socket
	1 or 2 Mode 3 / Type 1 or Type @ Cables
	Option: Charging cable fixing by software (cables not included
Nominal Value	1-ph/3-ph, 230/400VAc, 50Hz
Charging Power/ Current	Max. 22kW/T2 Socket
	Charging Current configurable from 6A to 32A
IP Class	IP55
IK Class	IK10
Protection Options	6mA DC Residual Current Monitoring
Control and Communication	Standalone/Online
	GPRS, LAN, ETHERNET
	OCPP 1.5/ 1.6
	IEC 15118
	Master / Slave
Operating Temperature	-25°C to +40°C
User Interfaces	Local Authentication by RFId (ISO/IEC 14443A/B ISO/IEC15693)
	NFC
	3—Colour LED Status indication (Ready Charging, Error)
Mounting / Installation	Wall or Pole Mounting
Standards / Requirements	CE, IEC 61851-1 / -22

ABB Terra Series

ABB is trusted by some of the worlds biggest brands to provide smarter mobility solutions from highway to home. The Terra AC wallbox combines ABB's leadership in e-mobility and 130 year heritage of innovation in a superior wall charging solution
The Terra AC & DC Wallbox provides tailored, intelligent and networked charging solutions for any business, home or location

High-Value Quality

-Broad range of connectivity options

- Space saving and easy to install design

Futureproof Flexibility

- Smart functionality for optimised charging & remote software,

- Energy meter integration for dynamic load management

Safety and Protection

- Evaluated and tested by independent third party to meet highest standards

- Current limiting protection to prevent against tripping and overcurrent to the installation

- Integrated protections including DC ground fault and overvoltage

Available in Single and Double

Terra AC Single - Single Charging / Terra DC - Dual Charging

ABB Terra Specifications

Charging Type	Mode 3 Charging, Level 2
Input / Output Power Rating and Current	IEC Rating—Single Phase up to 7.4kW / 32A Three Phase up to 22kW / 32A UL Ratings up to 7.7kW / 32A
Input Voltage	Single Phase—110—240v Three Phase—380—415V, 50 / 60Hz
Network Type	TT , TN
Socket Outlet / Connector Type	Type 2 Socket with our without shutter Type 1 or Type 2 Cable—can be wrapped around the charger
Protection	Overcurrent, Overvoltage, Under voltage, Ground Fault including DC residual current protection, integrated surge protection.
Overvoltage Category	111
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 US: 4G, LTE, WCDMA
Available Configuration Contacts	1 input, 1 output
Connectivity	WiFi, Ethernet(RJ45), Bluetooth, RS485, 4G/ 3G
User Authentication	ABB RFID Card or ChargerSync app or portal for use
User Interface	TerraConfig app or portal for setup, ChargerSync App or portal for use
Communication Protocols	OCPP 1.6 and RS 485 for Energy Meter Communication
Status Indication	5 LED's
Software Update	OCCP 1.6, ABB Web Portal or App
Control and Configuration	ABB Web Portal or App
IP & IK Rating	IK 54 & IP10 - (IK8+ for operating temperature from –35˚ to –30˚C)
NEMA Enclosure Type	NEMA 3
Operating Temperature Range	-35˚ to +50˚C (derating may apply)
Storage Temperature Range	-40˚ to +80˚C
Mounting	Wall or Floor using mounting pedestal
Dimensions	320 x 195 x 110mm
Safety Standard	IEC/EN 61851-1, EN 62311, EN 62479, IEC/EN62955
Certification	CE, CB, MID, UL
Warranty	24 months

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Pro - EVF 200 Series

Ensto Pro Series is the low maintenance and easy-to-use electric vehicle AC charging station for demanding conditions.

It includes charging and service ability for public and semi-public environment with connectivity to serve users, owners and operators!

It's Smart

OCPP 1.6 and dynamic load management are basic features of RT Pro. With these RT Pro qualifies as smartest EV charger on market.

It's Tough

The full metal structure of RT Pro guarantees durability for both the weather (IP54) and external impacts
(IK10).

It's Flexible

Agile factory commissioning to back-end systems and wide range of customer tailoring's will make RT Pro the most suitable selection to customers.

It's Safe

RT Pro built-in residual circuit breaker
(RCD-A + DC 6mA RCMB). This guarantees user safety and installation according standards. This also allows installation without extra components in switchboard.

Available in EVF 100, EVF 200 & EVF 300

EVF 100 - Single Charging

EVF 200 - Dual Charging

EVF 300 - Dual Charging with Distribution Cabinet Extension

PRO EVF - Technical Specifications

Charger Models	EVF 100 (Single Charging), EVF 200 (Dual Charging), EVF 300 (Dual Charging with a distribution cabinet extension)
Charging Outlet	1 or 2 Mode 3 / Type 2 Shutter—Sockets Option: Charging Cable Fixing by Software (Cables Not Included)
Nominal Voltage	1—ph/3-ph, 230 / 400 VAC, 50Hz
Charging Power / Current	Max. 22kW / T2 Socket Charging current configurable from 6A to 32A
IP Class	IP54
IK Class	IK10
Protection Options	MCB (Miniature Circuit Breaker) Residual Current Protection (RCD) Type A Standard
Control & Communication Options	Standalone / Online 2G/3G, LAN OCPP 1.5 / 1.6 IEC15118 Master / Slave
Operation Temperature	-30°C to +50°C
User Interfaces	Local Authentication by RFID (ISO/IEC 14443A/B ISO/IEC 15693) NFC 3-Colour LED status indication (ready, charging, error)
Mounting / Installation	Ground or Wall
Standard / Requirements	CE, IEC 61851-1

Alfen EV Double PG Line

The Eve Double PG-line is designed for high-volume street environments and is suitable for semi-public or public spaces with 3-phase supply. It provides two easily accessible front facing sockets in a vandal resistant steel column with curved surface to prevent any objects from being put on the unit.

The Eve Double PG-line is equipped with a stylish cover that can be branded for a unique look. The charger includes an RFID reader and an MID meter for financial processing and user authentication. The Internet connection is established via LTE/Ethernet and the data is available via a wide variety of back office management systems.

Durability

Besides its sturdy outer casing the grid operator's side is equiped with a concreteplex sheet for shock resistant, fire proof installation of components while preventing conductive filings

Ease of Use

The 7" full-colour display and multiple LED status indicators make the Alfen Eve Double PG-line DE a user-friendly charge point, where the configuration can be changed easily by the installer with our free configuration software.

Smart Charging

With its entirely renewed soft   ware and hardware, the Alfen Eve Double PG-line DE supports various features such as OCPP 1.6 and OCPP 2.0, smart-charging and Load Balancing

Eve Double PG Line -Technical Specifications

Operation Temperature	-25°C to +50°C
Humidity	5—95%
IP Class	IP54
IK Class	IK10
Socket Type	Type 2 Socket in accordance with IE62196-2, lockable
Output Voltage	400V (3 x 230V)
Max. Charging Current	32A per phase (22kW per charge point)
Local Load Management	Required if the input power is less than the total power of the two charge points.
Protection against short circuits	32A type gG cartridges fuses, per charge point
Protection against residual currents	RCD switch 4P 40A 30mA, type B, per charge point
Energy Measurement	1 MID energy meter per charge point
Circuits	3-fold protection circuit, with soft start via triacs
Overcurrent Protection	Implemented in the firmware, reduction to: 105% after 1000 seconds 110% after 100 seconds 120% after 10 seconds 150% after 2 seconds
Charging Mode	Mode 3
Status Display	**Status LED's on the sockets**
Card Reader	RFID (NFC), ISO/IEC 14443A/B, Mifare13.56 MHz, DESFire
Backend Communication	OCPP 1.5 (JSON), OCPP1.6 (JSON)
Inclination Sensor	Vandalism and accident attempts can be signalled in the backend
Communication Interfaces	RJ45, Ethernet/LAN
Local Power Reduction	Modbus (Master) via TCP/IP
User Interface	Graphic Colour Display, TFT 7" Resolution: 800x480 pixels Backlighting 400NITS

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Alfen Twin 4XL

The Twin is Alfen's robust and smart charging solution with two sockets. It is perfectly suitable for semi-public and public locations. Alfen completely redesigned the Twin in 2017 and renewed its interior with state of the art charging technology based on the preferences of EV drivers. With its clear user interface and highly reliable hardware platform, the Twin offers unparalleled user-friendliness and integrates advanced smart charging features.

Public Charging

The Twin is a charge point often seen at semi-public and public locations. Its robust construction and ease of use make it one of the most popular charging points for public locations.

Integrated Protection

The Twin is equipped with all required protective features. The integrated Grid Connection Box adds all protection normally required in the external infrastructure. This helps you to save money during installation.

Ease of Use

The unambiguous icons and integrated card reader make the Twin a user-friendly charge point. Starting and stopping charging sessions is easy. Invisible to the user are its smart features like energy clearing and ensuring safety.

Smart Charging

With its entirely renewed software and hardware, the Twin supports various features such as OCPP 1.6 and Load Balancing

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Alfen Twin 4XL—Specifications

Number of Outlets	2
Socket Types	2 x Type 2 Socket in accordance with IE62196-2,
IP Class	IP54
IK Class	IK10
Authentication Methods	Plug & Charge RFID Charge Card Central System Third Party Apps
Operation Temperature	-25°C to +50°C
Humidity	5—95%
Output Voltage	400V (3 x 230V)
Local Load Management	Required if the input power is less than the total power of the two charge points.
Max. Design current	64A per phase
Maximum Design Power	7.4kW (1 phase) & 22kW (3 phase)
Energy Measurement	1 MID energy meter per charge point
Circuits	3-fold protection circuit, with soft start via triacs
Overcurrent Protection	Implemented in the firmware, reduction to: 105% after 1000 seconds 110% after 100 seconds 120% after 10 seconds 150% after 2 seconds
Charging Mode	Mode 3 in accordance with IEC 61851-1
Status Indication	**User Interface equipped with LED's**
NFC Card Reader	RFID (NFC), ISO/IEC 14443A/B, Mifare Classic 1K/4K, MIFARE Ultralight DESFire (EV1/EV2)
Backend Communication	OCPP 1.5 (JSON), OCPP1.6 (JSON) 2nd Edition Certified, OCPP2.0 (JSON)
Inclination Sensor	Vandalism and accident attempts can be signalled in the backend
Communication Interfaces	RJ45, Ethernet/LAN

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Vestel EVC05 Series

Vestel EVC05 series offers different connection features such as Ethernet, RS485, Wi-Fi, LTE with its adjustable dual 22kW power.

With the floor mounted product, which includes all protection devices such as MCB and RCCB, users can connect to the charging station management system via OCPP interface

Charging Service can be provided to the end user in public areas.

The Vestel EVC05 offers:

- Up to 22kW AC Charging each socket

- RFID activation already included

- **10.4" display**

- Vandal-proof metal body

- Online via cellular, Wi-Fi or ethernet

- From car parks to urban charging hubs, EVC05 series are fit for many public charging use cases with all connectivity options. Thanks to its robust structure, EVC05 can be used outdoor in all seasons.

- EVC05 is ready for cost-effective installation with its structure including RCD-A and MCB. RCD-A can be reactivated remotely by using remote reclosure. Also EVC05 provides reliable billing to the end user with MID approved meter.

- With resistive touch technology, you can choose your socket and start your charging session even in tough weather conditions .

Vestel EVC05 -Technical Specifications

Power	Dual 22kW Output—Total 44kW
Voltage	400V AC 50/60Hz, 3-Phase
Current	Dual 3x32A
Power Level Control	10-13-16-20-25-30-32A
Socket Type	2 x IEC 62196 Type 2 EU
Authorisation	Built-in RFID Reader (ISO 14443 A/B and ISO 15693)
Electrical Connectivity	Ethernet: RJ45—10/100Mbps Serial: Modbus / M-Bus over RS485 Internal USB 2.0 Port
Protection	Built-in DC 6mA RCD Function Built-in RCCB Type A High Immunity Built-in MCB 40A Type C
Measurement	Built-in Class B MID Meter
Certification	CE, IEC61851-1, IEC 61851-22, IEC60950-1, IEC 60950-22
Material	Full Metal Body
Dimensions (HxWxD) mm	1530x575x200
Weight	65kg
IP Rating	IP54
IK Rating	IK10
Operating Temperature	-25°C to +50°C
Storage Temperature	-40°C to +80°C
Humidity	5%-95% Relative Humidity, non-condensing
Altitude	0-3000m
Connectivity Options	Wi-Fi, LTE, 4G, 3G, 2G, PLC HLC— ISO15118
Network Protocol	OCPP 1.6
Multi –standard RFID	ISO14443 A/B, ISO15693, ISO19092

Power —Ultra Fast Charger

Our other EV chargers include a DC Fast Charger, ideal for for convenience stores & filling stations. This unit is the RT Power. It is capable of charging an EV in 15 - 30 minutes.

Modular scalability to charge next generation cars

Delta Power offers:

- Simultaneous charging up to four cars e.g. - Two DC charge points – total up to 150 kW DC - CCS up to 100 kW DC

- CHAdeMO up to 62.5 kW DC - Type 2 plug 43 kW, Type 2 socket 22 kW

- Easy to install, operate and service

- Dynamic power management to minimize charge time

- Supports OCPP 1.6

- Different plug configurations available

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Power -Technical Specifications

Dimensions	2079 x 852 x 988mm
Enclosure Class	IP54
Impact Resistance Class	IK10
Operating Temperature	-25°C - + 45°C
Humidity	95% Max, (non-compensating)
Weight	400kg
No. of Charging Points	3 or 4 charging points Combination of 2 DC outlets (CCS and/or CHAdeMO) and 1 or 2 AC outlets Type 2 / Mode 3
Efficient Rectifier	94%
Compliance & Safety	IEC 61851-1
EMC	IEC 61851-21-2, EN 61000-6-1/-2/-4
User Interface	
Display	7" Colour Display
Keypad	5 buttons – backlight
Local Authentication	RFID Reader
Connectivity	Fixed Ethernet, GPRS, 3G Modem
Back Office Interface	OCPP 1.5
AC Connection	L1, L2, L3, N, PE
AC Voltage	400 V RMS (L-L) +/- 10%
Frequency	50/ 60Hz
Current Nominal	312 ARMAS @ 150kWs DC + 65 kW AC charge
Powers Factor	0,99
Mains Terminal	Terminal Blocks L1 + L2 + L3 + N + PE
DC Charge Points – CCS / CHAdeMO	
DC Output Voltage Range	170 – 500 V DC
Maximum Charge Current	300 A DC
Maximum Charge Power	150kW DC
Cable / Access Length	3.5m / 2.5m
Protection	Overcurrent circuit breaker, short circuit protection, Overvoltage protection, Low voltage protection, Isolation monitoring, earth monitoring
DC Charge Point CCS	
Compliance	EC 61851-23/ -24, IEC 62196-3, DIN 70121
Rating Cable & Gun	200 A DC / 850 V DC
DC Charge Point CHAdeMO	
Compliance	EC 61851-23/ -24, JEVS G 105, Rev1.0.1 compliance
Rating Cable & Gun	125 A DC / 500 V DC
AC Charge Points	
Compliance	IEC 61851-22
AC Voltage	400 V RMS (L-L) ±10%
AC Plug 43kW Charge Point	IEC 62196-2 Mode 3 / Type 2
AC Socket 22kW Charge Point	IEC 62196-2 Mode 3 / Type 2
Nominal AC Charge	400V RMS
Maximum Charge Current / Power	3 x 63A RMS @ 42kW point
Cable / Access Length	3.5mm / 2.5mm
Protections	RCD Type B

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Veefil—RTM75

Tritium's RTM is the most advanced DC fast charger on the market. This charger retains Tritium's signature small footprint while introducing the first Modular Scalable Charging (MSC) hardware platform unit to the market.

RTM 75 Key Features

- Patented liquid-cooled technology

- Sealed electronics enclosure (IP65)

- Durable and robust double skin metal enclosure – IK 10 (HMI IK08)

- Simultaneous Charging ready (dual EVSE)

- Mix and Match Cables - CCS1, CCS2 and/or CHAdeMO

- 200V to 920V DC output

- Option for six-meter-long cables with integrated cable management

- 10" LCD display

- Supports ISO 15118 'Plug and Charge' technology for hassle-free authentication and payment

- Wide operating temperature range -35°C to +50°C (-31°F to +122°F)

- Continuous operation at ambient temperature of -35°C to +40°C (-31°F to +104°F)

- Ethernet & 3G/4G wireless communication

- Optional contact-less for 3-in-1 credit card reader

- Door ingress and tilt sensors with support for upstream disconnect

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Veefil -Technical Specifications

Supply Input	3ø AC
Output Power	50kW (2 x DC:DC Modules) 75kW (3 x DC:DC Modules)
Output Voltage	CCS: 150—920 VDC CHAdeMO: 150-500 VDC
Output Current	50kW: 134A 75kW: 200A
Supported Cables	CCS @ 200A, 6m (19ft 8in) with cable management CCS2 @ 200A, 6m (19ft 8in) with cable management, CHAdeMO @ 125A, 6m (19ft 8in) with cable management
Outlet Configurations	CCS | CCS CHAdeMO | CCS
Simultaneous Charging	Yes
IP Rating	IP65
IK Rating	IK10
Efficiency	95%
Power Factor	>0.99
Total Harmonic Distortion	<5% THD
Max. Operating Altitude	3000m
Operating Temperature	50kW: -35°C to +50°C—Full power with no de-rating 75kW: -35°C to +50°C—de-rating applies above +40°C
Storage Temperature	-35°C to +70°C
Electrical Protection	Over current, over voltage, under voltage, short circuit, surge protection, protective earth continuity monitor
Enclosure Construction	Aluminium double skin
Dimensions	Footprint: 1998 (H) x 783 (W) x 309 (D)mm
Weight	Installation: up to 294kg with cable management
Communication Protocol	OCPP v1.6J (Ready for OCPP 2.0.1
Network Connection	Cellular: 3G/4G Wired: Ethernet
Authentication Methods	RFID: MI-FARE, ISO/IEC 14443A/B, ISO/IEC 15693, ISO/IEC 18000-3, FeliCA, NFC Plug & Charge (ISO-15118-2) Mobile Application Free Mode / Auto Start
Display	101" display with 4 control buttons

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ABB Terra DC Series

ABB's Terra DC fast chargers are designed for quick, convenient charging of all electric vehicle models, including those equipped with high voltage battery systems. The Terra's compact size makes it perfect for public and fleet use, while its modularity allows an increase of charging power up to 180kW and serve up to 3 electric vehicles simultaneously.

Terra DC Offers:

Compact Footprint

- A small footprint with an all-in-one enclosure makes Terra DC fast chargers perfect for parking and fleet environments with limited space available

- No need for separate power cabinets, significantly reducing installation costs versus other high power charging solutions

Maximized Revenue Generation

- Supports all EV charging standards and battery voltages on the market.

- Can charge up to three vehicles simultaneously. (2 DC fast charging and 1 slow AC charger)

- Large number of customisations: credit card payment terminal, cable management, customised screen

Future Ready

- With output voltage up to 920 VDC its ready to charge every EV battery.

- Supports future businesses needs with easy power upgrade to 180kW

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ABB Terra DC Series Specifications

Product Information	Terra 184	Terra 124
Charging Type	DC Fast Charging and AC Type 2 Charging	DC Fast Charging and AC Type 2 Charging
Outlet Options	C: CCS cable J:CHAdeMO cable T: AC Type 2 Socket	C: CCS cable J:CHAdeMO cable T: AC Type 2 Socket
Input AC Power Rating	C,CC, CJ: 280A, 192kVa @ 50Hz CCT / CJT: 310A, 214kVa @ 50Hz	C, CC, CJ: 187A, 128kVA @50Hz CCT / CJT: 217A, 150kVa @ 50Hz
Input Voltage Range	400 VAC +/- 10% (50Hz or 60Hz) - CE Version	
DC output power rating (max)	180kW	120kW
AC output power rating (optional)	22kW	22kW
DC output voltage	150 – 920 Vdc	150 - 920Vdc
IP and IK Rating	Ip-54 & IK-10 (cabinet) IK-8 (screen)	
Enclosure Type	Stainless Steel 430 and Aluminium	
Operating Temperature Range	-35˚C to +55˚C	-35˚C to +55˚C
Storage Temperature Range	-40˚C to +70˚C	-40˚C to +70˚C
Humidity	20-95% Rh non-condensing	20-95% Rh non-condensing
Mounting	Free-standing cabinet	Free-standing cabinet
Dimensions	H1900 x W 565 x D 880 mm	H1900 x W 565 x D 880 mm
Mass	395kg	365kg
Cable Length	3.9m Optional 6.0m / 8.0m	3.9m Optional 6.0m / 8.0m
CCS Cables Maximum current	Standard: 200A High Current: 400A (peak), 300A (nominal)	Standard: 200A High Current: 400A (peak), 300A (nominal)
CHAdeMO cables max. current	200A, 125A(optiona;)	200A, 125A(optiona;)
Electo-Magnetic Compatibility	Class A (optional Class B) conducted and Class A (optional Class B) radiated emissions according to EN 61000-6—3:2007	
Network Type	TN-S, TN-C, TN-C-S, TT (requires external RCD)	TN-S, TN-C, TN-C-S, TT (requires external RCD)
Connector Types	3P + N + PE	3P + N + PE
Protection	Overcurrent, Overvoltage, Undervoltage, ground fault including DC leakage protection, intergarted surge protection	
Overvoltage Category	Type 2	Type 2
Power Factor (full load)	>0.96	>0.96
Efficiency	>95% peak	>95% peak
Standby Power	80W	80 W
Short Circuit Current	10kA	10 kA
Energy Metering	Optional: MID Metering for AC & DC outlets Optional: Eichrecht / PBT compliant metering solution fpr AC and DC outlets	
Cellular Communication	GSM / 4G / LTE	GSM / 4G / LTE
Connectivity	Internet Access via 4G / 3G / Ethernet (RJ45)	Internet Access via 4G / 3G / Ethernet (RJ45)
User Authentication	App, ISO 15118, Plug'n'charge, RFID, Pin code	App, ISO 15118, Plug'n'charge, RFID, Pin code
User Interface	7" LCD high-contrast touchscreen	7" LCD high-contrast touchscreen
Communication Protocols	OCPP 1.5 /1.6 / 2.0 & OPC-UA	OCPP 1.5 /1.6 / 2.0 & OPC-UA
RFID Reader	ISO14443 A + B to part 4 & ISO / IEC 15693, Mifare, NFC, Calypso, Ultralight, PayPass, HID and more	
Software Update	Over the air updates via ABB web portal , OCPP1.6	
Control and Configuration	ABB Web portal, on-board Service Portal, OCPP 1.6, OPC-UA	

RDCS
Randridge Darkin Charging Solutions

ABB Terra HP Charger

The third generation of the Terra HP charge post is a modular 175—350 kW high power charger ideally suited for highway corridor or EV Fleet operation.

With ABB dynamic DC Power sharing technology, power cabinets can be connected to charge one vehicle at up to 350kWand 500A or two vehicles simultaneously at up to 1752kW and 375A. This enables higher utilization of charging equipment.

Terra HP Offers:

Premium User Experience

- Easy to use

- The Terra HP generation 111 charge post offers a premium charging experience with high output at low noise levels, a long charge cable with cable retraction system, small footprint of the user unit and several authentication, payment and customization options.

Brand Experience

- Customizable Branding

- Customise User Interface

- Apply wrapping and change LED strips to match

Profitable Operation

- Built for Business

- Terra HP fully supports commercial operation with Dynamic DC Power sharing to optimise use of charging assets, site energy management solutions to enable future growth while optimizing grid connection costs and remote software updates enabling a futureproof system supporting todays' and tomorrow's EV's!

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ABB Terra HP Series Specifications

Charge Post	
Charging Performance	500A continuous up to 35˚C with noise level of ≤60dB(A) at 1m
Charging Cable	5.3m / 17ft with retraction system
DC Output Current	500A CCS (liquid cooled) 200A CHAdeMO
DC Output Voltage	150—920V DC
Maximum Noise Level	68 dB(A) at 1 m
Touch Screen	15" high brightness
RFID	ISO/ IEC 14443A/B, ISO/IEC15393, FeliCa™1, NFC, Mifare, Calypso
Network Connections	4G, Ethernet
Dimensions	H 2458 x W 590 x D 425mm
Weight	250kg
Connector Types	CCS 1 / CCS 2 / CHAdeMO
Power Cabinet	
Output Power	175kW up to 40˚C
Output Power Derating	5% per 5 additional degrees
Output Current	1 Cabinet: 375A - 2 Cabinets: 500A
AC Connection	L1, L2, L3, GND (no neutral)
CE Version	400V AC ± 10%, 50Hz (option 60Hz) 277A, 192kVa nominal Recommended Breaker: 315A
UL Version	480Y/277V AC ± 10%, 60Hz 231A, 192kVA nominal Recommended Breaker 300A
CSA Version	600 V AC ±10%, 60Hz 185A, 192kVa nominal Recommended Breaker: 250A
Short Circuit Rating	CE: 25 kAIC, UL/CSA: 65kAIC
Overvoltage	CAT 111
Efficiency	≥94% at full load
Power Factor	≥ 0.7
EMC Emission (conducted)	Standard: Class A (industrial) Optional: Class B (residential) with external filter
Noise Level	≤ 67dB(A) at 1 m
Dimensions	H 2030 x W 1170 x D 770 mm
Weight	1340kg
System	
Compliance	CE, cTUVus for UL and Canada
Environment	IK54, NEMA 3R outdoor use IK10 (Screen: IK08)
Operating Temperature	-35˚C to +55˚C (derating applies)
Storage	+5˚C to +40˚C with RH 5 to 85%

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ABB Terra DC Series

Terra DC wallbox is a futureproof investment supporting current and future EVs with high voltage charging, applicable to a wide variety of use cases, in an ultra-compact footprint, that is safe and reliable, for residential use too .

Terra DC Offers:

Futureproof Investment supporting current and **future EV's with high voltage charging**

Space saving with easy-to– install design

Broad Range of Connectivity Options

Remove Software Update

Certified with EMC Class B Protection for safe use in residential areas.

ABB Terra DC—Specifications

Charging Mode	Type 4, CCS 2 & CHAdeMO
Number of Outputs	Standard: Single Output—CCS 2 Optional: Dual Output - CCS 2 & CHAdeMO
Output Rating	0 -- 22.5kW, 24kW peak
Output Current	60A DC
Output Voltage	CCS—150—920 V DC CHAdeMO—150—500 V DC
Average Efficiency at full power	≥ 95%
Earthing System	3P, N, PE
Input Current	3-phase, 40A
Input Voltage	3-phase, 400V AC +/- 10%
Input Frequency	50Hz
Input Protection	External circuit breaker (not included)
Power Factor	> 0.96
Harmonic Distortion (THDi)	<8%
Dimensions (HxWxD)	770 x 584 x 294mm
IP Rating	IP54
IK Rating	IK10 (IK08 for HMI)
Operating Altitude	2500mm (8200ft)
Operating Temperature Range	-35 to +45˚C
Mounting	Wall or Floor using a pedestal
Emergency Stop Button	Push Button
Screen Type	7 LCD Touchscreen Display
Standby Indicator	Yes
Connectivity	Cellular Connection, 3G/4G 2 port RJ45 Ethernet
Communication Protocol	OCPP 1.5 /1.6
User Authentication	RFID, On Screen PIN code authentication, Supporting Mobile Charging Applications
Warranty	24 months (Warranty Extension possible)
Certification	CE, EMC Class B
Codes & Standards	EN 61851-1, EN 61851-2, UL2202

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Delta DC Wallbox

Delta's dual output DC Wallbox advances EV compatibility at public charging sites.

It's wall mounted and modular design ensures cost efficient installation and lifecycle maintenance. It also features built-in network connectivity for authentication and remote control applications.

DC Wallbox Offers

CCS / CHAdeMO dual charging points

Max 94% Power efficiency

RFID card reader for user authenitication

Network Connectivity (OCPP 1.5S & 1.6J)

IP55 Protection & IK08 Vandal Proof casing

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DC Wallbox—Technical Specifications

Power Input	
Input Rating	380—415 Vac; 50/60Hz; Three Phase / L1, L2, L3. N. PE; 50a max
	230 Vac; 50/60 Hz; Three-phase / L1, L2, L3, PE, 90Amax
Grid Type	Support TN, TT and IT Grid Power
Power Factor	> 0.98
Current THD	Compliant with IEC 61000-3-12
Efficiency	94% at nominal output power
Standby Consumption	<20W
Power Output	
DC Output 1	IEC CCS DC Level 2, 50 –500Vdc, 60A max., 25kW max.
DC Output 2	CHAdeMO, 50 –500Vdc, 60a max., 25kW max.
Protection	Overcurrent, under voltage, over voltage, surge protection, short circuit, over temperature, ground fault
User Interface and Control	
Display	**2.7" OLED screen**
Support Language	English, French, German, Spanish (other language available upon request)
Push Buttons	Multi-functional buttons (LED Light: Orange, Blue) / Emergency stop button (Red)
User Authentication	ISO/IEC 14443 Type A/B RFID
Communication	
Connectivity	OCPP 1.5S, 1.6J
Network Interface	Ethernet, Cellular
Environment	
Operating Temperature	-30°C to +50°C (-22°F to +122°F) Derating from +50°C to +60°C (+122°F to +140°F)
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Humidity	< 95% relative humidity, non-condensing
Altitude	Up to 2, 000m (6,500ft.)
Mechanical Design	
Ingress Protection	IP55
Enclosure Protection	IK08
Cooling	Forced Air
Charging Cable Length	4m (13ft. Standard) / 7m (23ft. Optional for IEC CCS DC)
Dimensions (W x H x D) / Weight	680 x 430 x 230 mm (27 x 17 x 9 inch) / 43kg (95lb), excluding plug and cable
Mounting	Wall mount or optional stand
Regulation	
Certificate	CE
Compliance	CHAdeMO / IEC 61851-1 / IEC 61851-23

RDCS
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Kempower Moveable Charger

The Kempower Moveable Charger is the stand-alone, mobile solution for fast DC Charging of all types of electric vehicles.

The moveable charger can be used anywhere: events, bus and truck depots, logistics centres. Car service shops and other locations where fast charging is needed. The only requirement for using the plug-and-play Moveable Charger is a 63A or 32A mains socket.

The Moveable Charger can have one or two DC Charging Outputs, with CCS2 and CHAdeMO as options. The available charging power is automatically distributed between the charging outputs.

Key Features:

Roll & Plug

Best suited for garage charging: just roll it to the site, connect it to a supply socket, turn it on, and start charging your EV.

Full Connectivity

Through a wireless connection, a movable DC charger can be directly OCPP connected to back-end systems or through an API.

Range of Applications

Non-inflatable PU wheels can cope with all types of operating environments, like workshops, depots, car shows.

Kempower Moveable Charger —Technical Specifications

|	
Charging Power	40kW at nominal voltage
Vehicle Connector Type	CCS2, 2x CCS2, CCS & CHAdeMO
Charging Cable Length	5m or 7m
Nominal Charging Cable Current	80 A (CCS2) 125 A (CHAdeMO), 150 A (CCS2)
User Interface	Standard User Interface
Grid Connection	3P + PE
Grid Supply Connector	IEC 60309
Supply Cable Length	5m
Input Nominal Voltage	400VAC
Input Operating Voltage	380—480 VAC +6%/-10%
Input Frequency	50—60 Hz
Nominal Input Power	47kVa (at nominal input voltage)
Power Factor at full load	0.92
Efficiency at full load	94%
Idle Power	20VA
Electrical Protection	Over current, over voltage, under voltage, short circuit, surge protection, overload protection, earth leakage current monitoring, device overtemperature, vehicle connector pin temperature monitoring
Operating Temperature	-30°C to +50°C
Current Derating	Charging current decreases 1.5% for every 1°C rise temperature above +40°C
Maximum altitude without derating	2000m
Storage Temperature	-40°C to +60°C
Ambient Air Humidity	< 95% relative humidity
IP Rating	IP54
IK Rating	IK10
Connection	Wi-Fi, Cellular / GPS, LTE, Ethernet RJ45, OCPP 1.6J/ 2.0.1
Nominal Output Current	T500: 2 x 50A, 1 x 100A T800: 2 x 30A, 1 x 60A
Output Voltage Range	T500: 150—500 VDC T800: 200—920 VDC
Nominal Output Power @ 400 VAC	T500: 40kW (with 2 outputs: dynamic 40kW one output or 20kw per output) at 400VDC T800: 40kW (with 2 outputs: dynamic 40kW one output or 20kw per output) at 667 VDC

Management Package

What it offers Customers:

– Find an available charging station, reserve a charge point and start charging

– Start and Stop Charging via the Web or Mobile App

– Pay as you go (PAYG) usage or create a prepaid account with no registration fees. Customers will only pay for the connection and kWh used.

– Manage their accounts, receipts and usage

– Payments can be made by bank transfer or credit/debit card

– Prepaid / Registered Customer or PAYG customers will be able to begin charging via the webapp or mobile application—Stop N top

– On the mobile app, customers will be able to locate and reserve a charge point, check the price per kW etc. Customers will also beable to see their charging history and how much they were charged


What it offers Charge Point owners:

– Our management system allows us to monitor and manage customer accounts such as billing information, RFID cards and contact details.

– The system allows us to follow up on any problems / issues that might occur while charging is taking place & allows us to sort it out remotely.

– Visualised reports give a comprehensive overview of your charging business.

– Flexible charging schemes can be set up to suit your wants

    - By Default, per device, per group

    - Per kW, per minute and per reservation minute

    - Per time and date / weekday

Charging units can be programmed to suit the ESB E-car Interoperability, where customers using the ESB-E Cards can also make use of the RDCS charge points.

    StopNTop charging app available for download on iOS and Android.
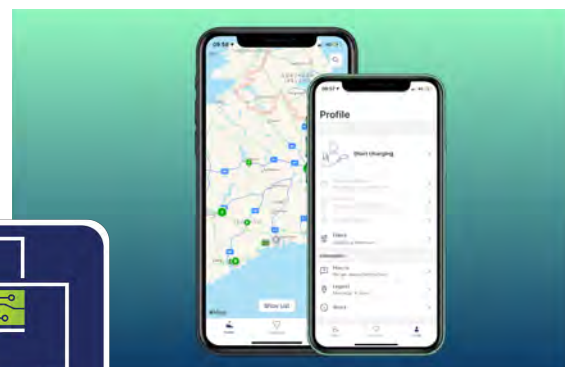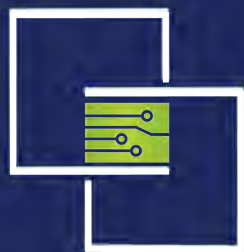
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