



Powering e-mobility forward

ABB E-mobility product portfolio for North America

With more than a decade of EV infrastructure experience, ABB E-mobility is leading the way to a future of zero emission mobility.

1M+

EV chargers
sold worldwide

in operation
across

85+
countries

A full range of
chargers up to

450 kW

13+ years

of EV charging
field experience

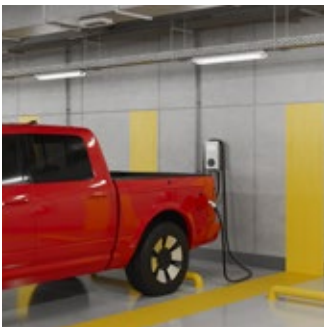
24/7

connectivity offered
for remote services

Charging for every use case

Destination, public, fleet and transit

ABB E-mobility offers a wide range of electric vehicle charging solutions for North America up to 450 kW. Every charger features robust connectivity options for remote services and updates. Our EV charging technology maintains high standards for safety and reliability, and is backed by the most respected engineering and service teams in the electrification industry.



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01 Terra AC Wallbox for 40 A or 80 A "Level 2" charging.

02 Terra DC Wallbox for "Destination DC" EV charging locations

03 Terra 54/124/184 DC fast charger for all in one fast charging needs

04 Terra HP high power charging for highway corridor demands

05 HVC Depot Charging for truck, van and bus fleet charging

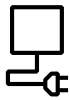
06 HVC Pantograph Down opportunity charging for fast on-route bus charging.

07 HVC360 Power Cabinet with high power density for flexible fleet deployment (coming soon)

Terra AC Wallbox 40/80A

Safe, smart and easy destination charging

The Terra AC Wallbox 40/80A is the safe, smart and high-output 'Level 2' charging solution for fleets, commercial facilities, workplaces, and multifamily residences. The Terra AC Wallbox offers easy installation as well as advanced safety and protection. With multiple connectivity modes and app functionality, this Terra AC configuration is built to deliver optimized charging at any charging site.



Flexible, high quality design

- 40/80 A model for commercial and fleet demands
- Universal PHEV and BEV charging
- UL safety certified with the highest protection
- Built in revenue grade meter supporting load management



Easy siting and installation

- Designed for installation in less than 30 min
- Fastest remote commissioning for multi-charger sites
- Tailored pedestal option available
- Rugged NEMA Type 4 enclosure for any indoor or outdoor location



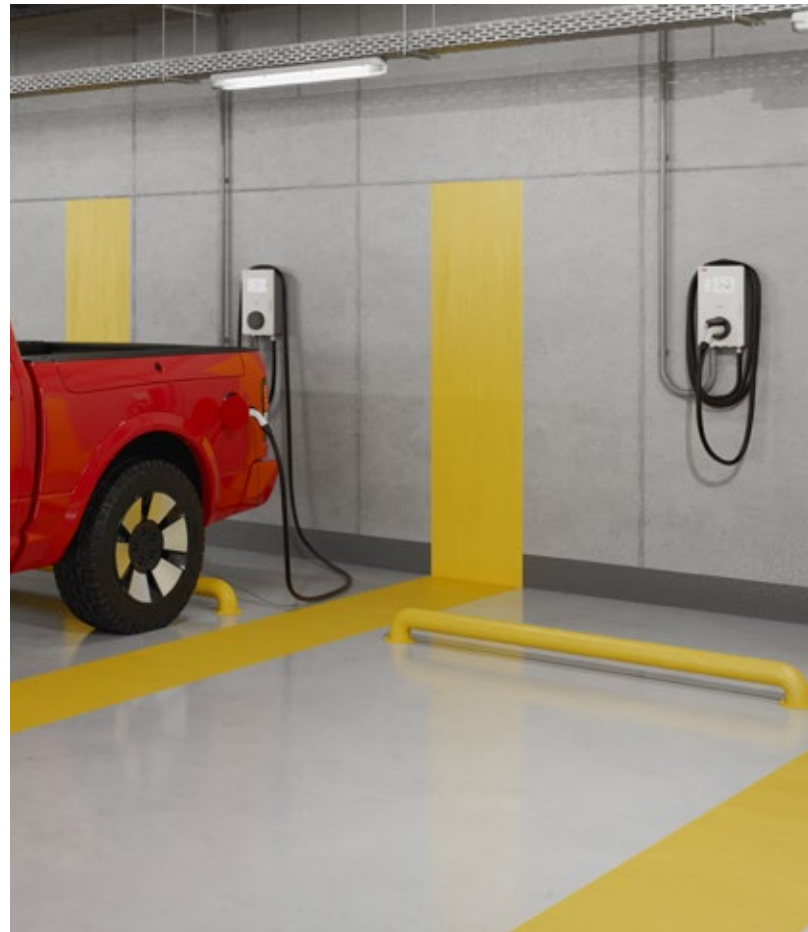
Smart business integration

- OCPP integration with any charging network
- Multiple connectivity and authentication options
- Intuitive app for managing charging sessions and usage
- Dedicated web portal for charger and data management, ideal for large installations



Model configurations						
Part Number	Rated power (kW)	Max current (A)	RFID	Daisy-chain ethernet	4G	Screen display
6AGC105905	9.6	40	✓	✓		
6AGC105902			✓	✓	✓	
6AGC082553			✓	✓	✓	✓
6AGC105904	19.2	80	✓	✓		
6AGC105903			✓	✓	✓	
6AGC081291			✓	✓	✓	✓

Terra AC Wallbox chargers can be configured with or without a screen display, depending on the needs of the site and its users.



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Terra AC Wallbox chargers are easy to install at any site, with an optional pedestal solution that enables flexible siting.



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[Link to the Terra AC Wallbox 40/80A Data Sheet](#)



Terra DC Wallbox

24 kW "Destination DC" charging

Low power DC charging 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 low power DC solution, charging needs can be met in balance with load demands and infrastructure costs.

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.

Configurations

The Terra DC Wallbox UL is available in the following configurations:

- Single outlet CCS1
- Dual outlet CCS1 + CHAdeMO
- Single-phase, 208-240 VAC
- Three-phase, 480 VAC



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Link to the Terra DC
Wallbox Data Sheet

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01 Terra DC Wallbox
single-outlet CCS with
standard holster

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02 Terra DC Wall-
box dual-outlet CCS
and CHAdeMO with
Gold level holsters



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Terra DC Wallbox

Compact, connected and configurable

Main features

- Future-proof DC output voltage range up to 920 VDC supporting EVs today and in the future
- Single or dual outlet: CCS-1 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, UL certified
- 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
- Free-standing pedestal

Benefits of low power DC solutions

Low power DC is ideal for use cases demanding shorter charging times and higher 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.

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, meeting the needs all EVs, including fleet vehicles that charge at higher voltages.



Terra "All in One" DC Fast Charging

50 kW to 180 kW

The best-selling family of Terra fast chargers are designed for convenient charging of every EV. The compact size makes it perfect for every site, while its modularity allows for reliability and flexibility - including a configuration that enables National EV Infrastructure (NEVI) projects in the United States.

Key features

- A compact, all-in-one charger that can be sized from 50 kW to 180 kW
- Modular power module design allows for increased reliability and easier servicing
- Delivers output power continuously and reliably over its lifetime
- Configuration options include CCS-single, CCS-dual, CCS+NACS and CCS+CHAdeMO-dual outlets.
- Terra 124 and Terra 184 can optionally fast-charge two vehicles at the same time
- High current connectors for Terra 124 and Terra 184 are capable of reducing charge times
- Up to 920 VDC serving every EV
- Robust all-weather powder-coated stainless steel enclosure
- Quick and easy installation as well as serviceability

Safety and certification

- UL certified
- High short circuit current rating
- ENERGY STAR certified (Terra 124 and 184)
- NTEP certified (Terra 124 and 184)
- CTEP certified (Terra 54, 124 and 184)

User experience

- Interoperable connectors tested and validated
- Bright, daylight readable touchscreen display with graphic visualization of charging session
- Reliable cable management system
- RFID authorization modes
- Design enables ADA compliant installations

Connectivity features

- Round the clock connectivity, enabling remote services, updates and upgrades
- ISO 15118 enabled
- Designed for fast installation and serviceability
- Pre-integrated with OCPP networks, payment platforms and energy management APIs

Optional features

- Build America, Buy America for NEVI projects
- Reliable cable management system for ease of use as well as cable protection
- Customizable user interface
- Integrated payment terminal (contactless, EMV chip)
- Web tools for statistics and PIN access management



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01 Terra 54, 124/184 C
Single outlet CCS with cable management system for dedicated power to one vehicle.

02 Terra 124/184 CC
Dual outlet CCS with cable management system for shared power options at 120 kW or 180 kW

03 Terra 54, 124/184 CJ
Dual outlet CCS and CHAdeMO with cable management system for multi-standard charging, shown with a credit card reader

04 Terra 184 NEVI
Fast charging system designed to meet NEVI program standards and requirements

Terra 54 and Terra 124/184

Flexible configurations

Power levels

- 50 kW
- 120 kW dedicated or 60 kW shared
- 180 kW dedicated or 90 kW shared
- 180 kW dedicated (NEVI)

Charging standards

- CCS-only single outlet
- CCS-only dual outlet
- CCS+CHAdeMO
- NACS (future)

Cable management

- Reliable, tested system
- Factory or field install

User access / payment

- OCPP integration
- Credit card reader
- PIN via Web Tools
- Autocharge/ISO 15118



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ABB Terra “all in one”
chargers are offered
from 50 kW to 180 kW

The Terra 124 and
184 models can
charge two vehicles
at the same time

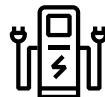
The Terra 184 is offered
in a design that enables
NEVI programs



Terra 54
one EV
up to
50 kW



Terra 124
one EV
up to
120 kW



Terra 124
two EVs
each up to
60 kW



Terra 184
one EV
up to
180 kW



Terra 184
two EVs
each up to
90 kW



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Link to the Terra 54
Data Sheet



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Link to the Terra 124/184
Data Sheet



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Link to the Terra 184
NEVI informational
guide with product data

Terra HP High Power Charging

175 kW to 350 kW

The Terra HP is a modular high power charging system with high output current capability, supporting both vehicles up to 920 VDC. A single power cabinet system can deliver up to 175 kW and 375 A while two power cabinets can deliver up to 350 kW and 500 A. The Terra HP is ideally suited for highway corridor and EV fleet operations where dwell times must be brief.

Modular architecture

The Terra HP system can be configured as:

- 175 kW: one charge post and one cabinet
- 350 kW: one charge post and two cabinets
- 175-350 kW: two charge posts and two cabinets

Scalable and future-proof

The Terra HP system is expandable over time by adding additional power cabinets and charge posts after initial site installation. This capability delivers site planning flexibility by offering a cost-efficient way to build expandable charge points that can grow with EV market demand.

Safety and certification

- UL certified
- NTEP and CTEP certified

ABB Terra HP key features

- Single or dual outlet configurations for CHAdeMO and liquid-cooled CCS up to 500 A
- Non-refrigerant-based, cooled cable system
- Long cables with cable retraction system.
- Up to 920 VDC for every passenger or fleet EV
- High brightness 15" intuitive touchscreen display
- Integrated customizable RGB color LED strips
- Robust, all-weather enclosure for all environments
- Energy management via OCPP Smart Charging Profile
- Scalable installation with integrated galvanic isolation
- Design enables ADA compliant installations
- Suited for current and next generation EVs

ABB Terra HP optional features

- Dynamic DC functionality
- Customizable user interface
- Integrated payment terminal

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01 The Terra HP 175 kW configuration with one power cabinet serving one charge post.

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02 The Terra HP 350 kW configuration with two power cabinets serving one charge post.

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03 The Terra HP 175-350 kW dynamic configuration with two power cabinets serving two charge posts simultaneously.





Terra HP

Advanced, scalable deployment

Industry leading cable cooling technology

Every Terra HP charge post is equipped with an integrated chiller and environmentally-friendly cooled cables offering higher peak and continuous output power performance. This technology enables faster charging for vehicles where legacy 200 A rated systems cannot deliver above 80 kW to 400 VDC battery electric vehicles.

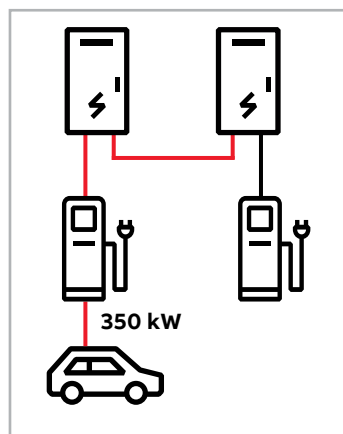
Dynamic DC capability

With ABB Dynamic DC power sharing technology, power cabinets can be connected to charge one vehicle at up to 350 kW or two vehicles simultaneously at up to 175 kW. When one vehicle is fully charged, the power will be redistributed automatically. This architecture enables higher utilization of charging assets.

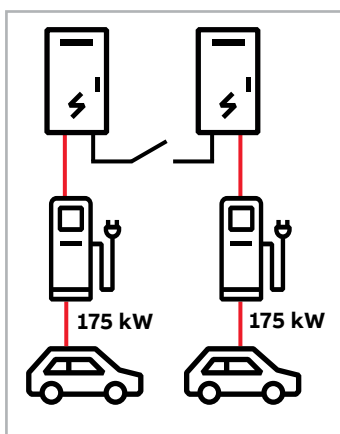


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Link to the Terra HP
Data Sheet

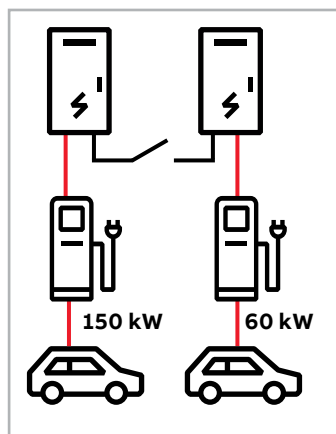
Dynamic DC illustrated



Max charging dedicated to premium EV at up to 350 kW on either charge post.



Shared power delivery for premium EV utilization at up to 175 kW to each vehicle.



Shared delivery tailored to varied EV model demands.

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Dynamic DC utilization
scenarios with varied
vehicle demand profiles.

Heavy vehicle charging infrastructure

HVC Depot 100 kW to 150 kW

connector-based charging systems



ABB E-mobility offers a complete portfolio for charging heavy electric vehicles such as buses and trucks with a CCS connector. ABB HVC Depot charging systems are specifically designed to charge larger fleets of electric vehicles in the most optimized way with sequential capability.

Main features and key benefits:

- Power range of 100 kW or 150 kW
- Voltage range from 150-850 VDC
- Small infrastructure footprint at vehicle interface
- Flexible design for roof and floor mounting
- Sequential charging for up to 3 outlets with 100 and 150 kW
- Compliant with UL, OCPP 1.6, ISO 15118, CCS / DIN 70121 / IEC 61851-23 & -24
- Remote diagnostics and management tools
- Buy America option available

Sequential Charging

Improving total cost of ownership is easy using the sequential charging feature offered by ABB's depot chargers. This feature allows connection of up to three depot charge boxes with a single power cabinet and vehicles are charged sequentially over time. The system can follow an embedded, predefined charging process or remote triggers sent by a fleet management system via OCPP 1.6.

- Vehicles are charged with high power, maximizing vehicle availability
- The required grid connection is smaller, reducing upfront investments and operational costs
- The compact depot box is easy to install at sites with space constraints
- Optimal utilization of installed infrastructure meaning lower investments in charging equipment.

HVC 100C / HVC 150C



HVC 150C*



* 150 kW overnight charging system with three depot boxes; shown here mounted on ABB's pedestal option.



Link to the HVC Depot Data Sheet

Heavy vehicle charging infrastructure

HVC Pantograph down 150 kW to 450 kW overhead charging systems



ABB E-mobility's Heavy Vehicle Charger (HVC) system architecture offers an ideal solution for opportunity charging, ensuring zero-emission public transit during the day without impacting daily route operations.

Main features and key benefits:

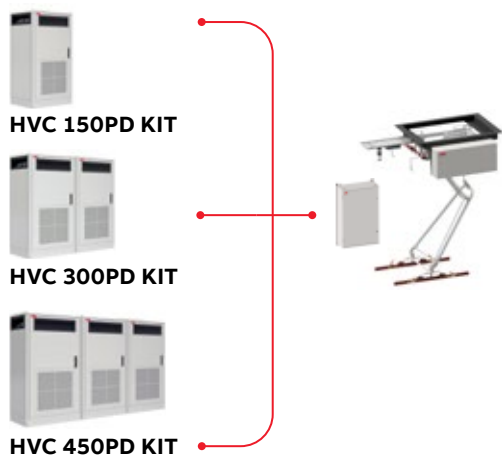
- Power range of 150-300-450 kW
- Voltage range from 150-850 V
- Charge in 3 to 6 minutes
- One charger can serve multiple vehicle types and brands
- Safe and reliable fully automated connection
- Compliant with OppCharge / IEC 61851-23 / SAE J3105-1 and OCPP 1.6
- Remote diagnostics and management tools
- Buy America option available

With ABB's flexible HVC architecture, power capability can be expanded over time, allowing operators to spread out infrastructure investments as their fleet grows – and can be installed on existing structures, or pole mounted.



Link to the HVC-PD Pantograph Down Data Sheet

Charging on existing structure



Charging on route

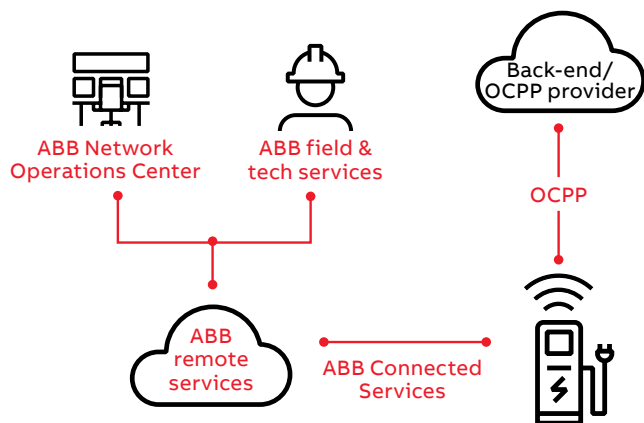


Flexible network enablement

Back-office integrations backed by ABB connectivity

Network communications

ABB E-mobility has integrated with most charging networks around the world for OCPP support across public and fleet charging operations. ABB chargers can be operated using a direct OCPP connection while linking to ABB's advanced diagnostics and firmware update services for additional intelligence, technical support as well as reduced maintenance.



Better and faster support: Chargers connected to ABB's network operations center can achieve fast remote support from ABB network engineers. This leads to higher uptime of a charger network, minimizes the number of unplanned on-site visits, and can reduce overall operational costs.

Scalability and security: IT resources can scale in the ABB Ability cloud while connectivity monitoring is supported by ABB around the clock. ABB leverages Microsoft Azure based security with fewer backend connections to monitor.



OCPP Integrations

The Open Charge Point Protocol (OCPP) includes a broad set of messages with a wide range of functionality for enterprise telematics and usage data. The transaction-based set-up of the messages makes it easy to connect to a back-end system to process charging sessions, define usage models and handle data. Other capabilities include integration with apps and energy management, such as with OCPP Smart Charging Profiles.



Plug and charge

Eliminating manual authentication methods for drivers while delivering granular data sets to network operators and fleets has never been easier with 'plug and play' charging solutions.

ABB supports Autocharge, in conjunction with an OCPP network integration, to meet vehicle-based authentication demands seamlessly with any CCS vehicle.

Additionally, ABB has proactively enabled ISO 15118 (Plug & Charge) for its charging systems to deliver more advanced plug and play charging experience for the next generation of electric vehicles.

ABB E-mobility services

For high reliability and optimal user experience

Operational excellence

Charging infrastructure must be optimized for the highest utilization and lowest downtime. ABB E-mobility's remote and real-time services can meet that demand, incorporating more than a decade of experience with 1M+ intelligent chargers deployed across the globe.

ABB E-mobility's family of EV chargers are the easiest equipment in the market to service, with high uptime due to its innovative modularity, round the clock connectivity and experience-led design.



Remote services

- Round-the-clock connectivity
- Remote services
- Remote diagnostics
- Firmware updates and upgrades
- Web tools



On-site service & parts

- Standard & extended warranty execution
- Service level agreements
- Preventive service and maintenance
- Corrective service and maintenance
- Spare parts stocking programs



Custom services

- OCPP integration
- Plug and charge integration testing
- Interoperability testing and validation



Training

- Standardized online training
- Product and service classroom training
- Customized service training programs
- Third-party service training programs



To learn more about charging deployment strategies that meet EV driver expectations while supporting operational goals, please read the ABB E-mobility white paper, "Charger reliability best practices."



ABB E-mobility facilitates charger reliability through our comprehensive approach to service, including Service Level Agreements (SLAs) that support high uptime requirements.

E-mobility industry leadership

Leading with reliability, intelligence and experience



SUPERIOR CHARGERS

The highest quality and widest range of charging technology

- High quality: components, materials and designs in the widest power range
- Field tested: Built on more than decade of experience in all conditions and use cases
- Safety first: Third party certifications; company-wide health, safety and sustainability mandates.



SMARTEST SERVICES

The most flexible provider of smart, networked and remotely serviced chargers

- Business model enablement: Technology integration, network operations support and 24/7 connectivity
- High uptime: Remote and field service support team for exceptional charger availability
- Future-proof: Always up to date with latest standards and protocols



RELIABLE PARTNER

Vast experience designing and deploying EV charging technology

- Project and service excellence: Dedicated teams to support charger deployment and maintenance
- Human talent: unrivaled engineering and service organization
- Committed: Electrifying transportation for more than a decade

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ABB E-mobility has the technology, services and experience to enable successful EV charging programs.





ABB E-mobility has charging systems deployed globally, serving every site and user need.

References include the first high power charging stations and electric bus installations in the world, as well as thousands of commercial fleet chargers for a range of demands from long-haul to last mile.





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