



# ABB E-mobility charging solutions for middle mile logistics fleets

## **ABB E-mobility** We electrify mobility

ABB E-mobility's charging solutions simplify electrification of commercial and public fleets providing a seamless integration in existing infrastructure as well as a seamless charging experience.

High flexibility set-up is a must. Our solutions perfectly meet your challenges of providing a scalable environment.

Significantly reduce your TCO with our smart charging operations and energy management solutions.

We enable predictable charging operations and business continuity, including uptime guarantee for chargers and leading service and maintenance.

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# ABB E-mobility charging solutions for middle mile logistics fleets

Electrifying a middle mile logistic fleet fleet comes with challenges, especially in choosing the right infrastructure to support the fleet's operational needs. ABB E-mobility uses rapidly deployed smart technologies to help address these challenges while reducing operational costs.

ABB E-mobility has a track record of highly successful OEM collaborations dating back to the dawn of the EV industry, which allowed us to generate in-dept knowledge of automotive EV business. Our hardware, software, and service solutions are explicitly designed for heavy-duty applications to meet the challenges of fleet professionals and provide our customers and partners with business continuity and maximum reliability.

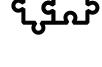
We offer a large solution portfolio for middle mile logistics fleets charging ensuring high uptimes, reduced energy consumption costs, and overall optimized fleet operations.

Our charging solutions for fleets not only help our customers transition their business into a more sustainable future but are also developed sustainably. Our dedicated sustainability team constantly reduces our own operational and development CO2 footprint along the value chain to reach carbon neutrality in our operations by 2030.



#### Seamlessness

Adapt as your fleet and infrastructure requirements evolve . ABB E-mobility's charging solutions simplify electrification of commercial fleets providing a seamless integration into existing infrastructure as well as a seamless charging experience.





#### Flexibility

ABB E-mobility's modular solution portfolio provides commercial transport fleet professionals with a highly flexible setup for fleet electrification. Our product design, supporting over-the-air updates and configurable solutions perfectly meet the challenges of providing a scalable environment for public transport fleets.

#### Efficiency (TCO)

ABB E-mobility's global leading charging solutions reduce fleet operator's total cost of ownership (TCO) significantly with smart charging operations and energy management, providing you with the best-in-class power density for maximum efficiency.

Υ γ



#### Reliability

ABB E-mobility's charging solutions are developed to the highest quality standards for large vehicles and heavy-duty applications. Our industry-leading service offering ensures charging operation's reliability and predictability while maintaining business continuity for public fleets.

### Charging solutions for middle mile logistics fleets

#### High-power charging

Fast charging sessions can be carried out during daily operations, at planned stops, or at visiting and home depots. This so-called high-power charging focuses on shorter charge sessions to enable extra range for the next trip. High-power charging at depots is an ideal solution to ensure zero emission transport during the day without impact on the preplanned operations.

#### Charging at depot parking

Electric trucks that have limited daily mileage, or short distance trips during the day often rely on a long charging session at parking or overnight when a lower power can be used to charge the vehicles. The energy consuption is spread out over the night when the vehicle fleet is parked, optimizing energy consumption, reducing peak and grid connection costs.

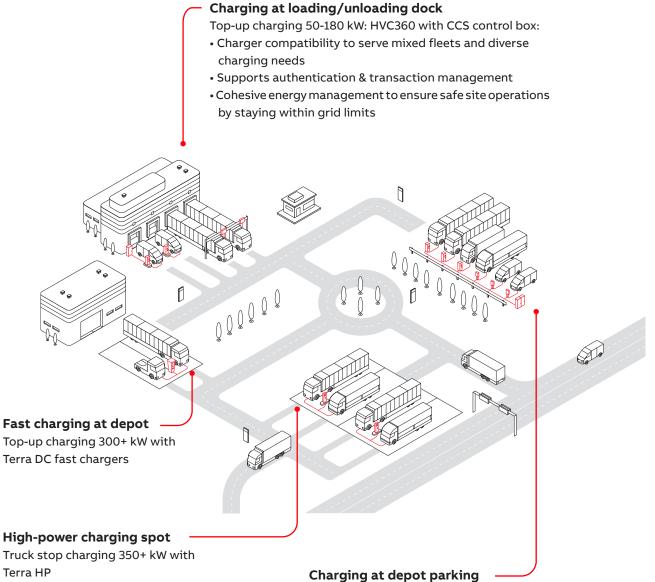


#### Charging at loading/unloading dock

Electric trucks can be charged while they are being loaded or unloaded at the loading dock, which leads to an optimized truck availability by limiting additional charging time. Also, overhead dispensers require less space around the vehicle, enabling seamless integration into site, simplifying and providing safe daily operations.



### **Use cases**



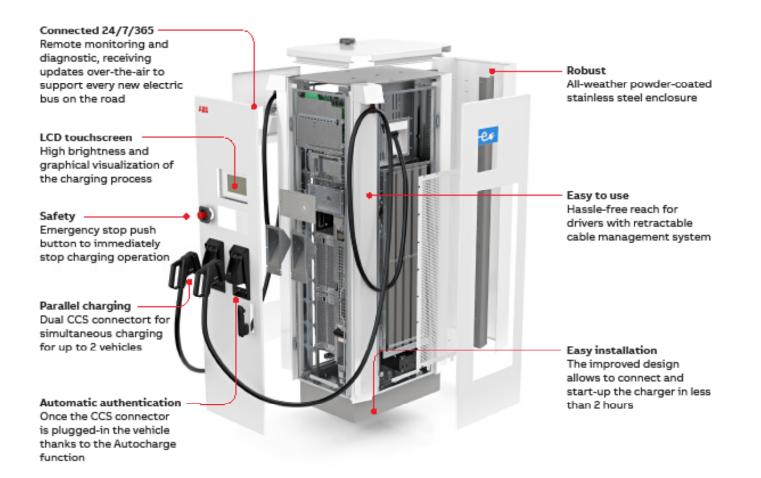
- Public or shared infrastructure
- Adjacent offerings for waiting time

Parking charging 50 - 180 kW: HVC360 with depot charge boxes

- Efficient over-night charging process
- Identification of vehicle and chargers status
- Track and manage energy consumption
- Occasional top-up charging with faster chargers (300+ kW)
- Dynamic charging feature increases utilization and decreases TCO significantly

### **Terra DC fast chargers** The fast all-in-one charging solution

The range of Terra DC fast charger, including Terra 54, Terra 94, Terra 124, and Terra 184, is an all-in-one solution in a compact size suitable for logistic depots. They offer a wide power range of 50-180 kW, and 400 A charging on CCS connectors. They are a perfect fit in depots where there is sufficient space available around the vehicle.





- Easy and low cost installation, as this all-in-one charge post does not require a separate power cabinet
- Proven technology, as it is based on the Terra 54 control platform Endurance mode to optimize heavy duty truck long-charging session



Terra DC Fast Single CCS connector CE market



Terra DC Fast Dual CCS connector CE market



Terra DC Fast Single CCS connector UL market



Terra DC Fast Dual CCS connector UL market



### **Terra 360** The all-in-one high power charger, CE market

The Terra 360 is an all-in-one charger able to deliver up to 360 kW peak - 300 kW in continuous use.

Designed around the needs of today's EV fleet, it can charge up to two vehicles at the sames time with dynamic power allocation across the outlets, allowing various parking configurations.

- Cost efficient charging performance: up to 360 kW, 500 A
- Reduced maintenance: air cooled cable, so simpler product design
- User centric design: intuitive interface, customization options
- Easy and safe driver operations: LED strip for better visibility and status of charge.



Terra 360 Dual CCS connector



### **Terra High Power** The fastest continuous charging

The Terra HP charger is a decentralized charging solution (the power cabinet is separated up to 60 m (196,85 ft) from the dispenser) that can charge one vehicle at up to 350 kW and 500 A or two vehicles simultaneously at up to 175 kW and 375 A. Its small footprint user unit offers a premium charging experience with high output power at low noise levels, and a long charge cable with cable retraction system.

- Best in class charging performance: 350 kW and 500 A continuous with low noise level during the entire charging session
- Easy to use: 5.3 m (16.4 ft) charge cable with retraction system
- Easy and safe driver operations: LED strip for better visibility.



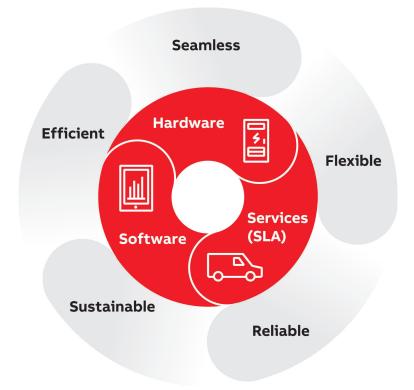
Terra HP dispenser

### **HVC360** Delivering a 360-degree solution for fleets

Specifically designed for large vehicles and heavy-duty applications, the HVC360 provides fleet owners and operators with a continuously high power supply for reliable and predictable charging operations. In combination with our industry-leading service agreements and fleet charger management system InControl, the HVC360 power cabinet becomes a 360-degree solution for fleet professionals.

Smart energy management significantly reduces the total cost of ownership (TCO) while the cutting-edge split system design provides the most flexible set-up for fleet electrification. The solution integrates into existing facility hassle-free and provides the end-user with a seamless charging experience.

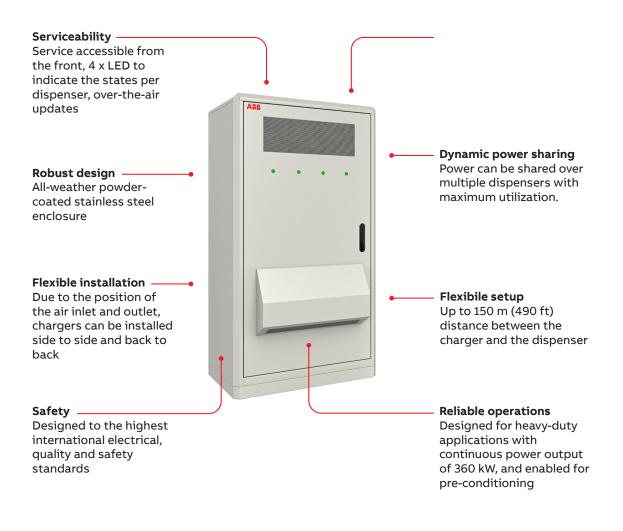
This best-in-class power density charging solution is ideal for fleet operators seeking maximum flexibility and reliability in their charging operations.



### **HVC360** The power to make a difference

Offering a best-in-class power density with remarkable power for its footprint, the HVC360 delivers up to 360 KW of charging power. It enables up to four vehicles to be charged simultaneously, with up to 150 meters of distance between the power cabinet and each dispenser.

Supporting all dispensers simultaneously, from CCS to pantograph, its compact design allows installation back-to-back, side-to-side, or along a wall. High reliability and continuously high output power make this power cabinet the perfect core of your fleet's charging infrastructure.





### **CCS control box and cable balancer** For limited space requirement around the EV

This dispenser is designed for overhead constructions like roofs, canopies, and truss structures. It is a perfect solution for site layouts with a shortage of space around the vehicles. The reliably designed optional cable balancer prevents the cable from drooping or lying on the ground. By pulling a rope, the cable can be extended from the ceiling to connect to the vehicle's inlet, and then safely retracted when not in use.

#### Cable balancer \*

- Easy to install
- Easy to maintain
- · Easy to use : available for different cable lengths
- \* For product availability and information, please contact your ABB E-mobility representative.





### **Depot charge box, single or dual connector** The small footprint charging solution

The depot charge boxes are designed to charge larger depot-based fleets, fit several site layouts. and are flexible as they come in single and dual connector versions.

#### Depot charge box single connector

Each HVC multi-diepenser power cabinet can be connected to 2 or 4 depot charge boxes single connector, delivering 50-180 kW per vehicle.

- High uptime: proven robust design and technology
- The wide charging power range and number of dispensers is the perfect fit for low-power long charging sessions and higher-power faster charging sessions
- Space-saving: wall or pedestal mounted.

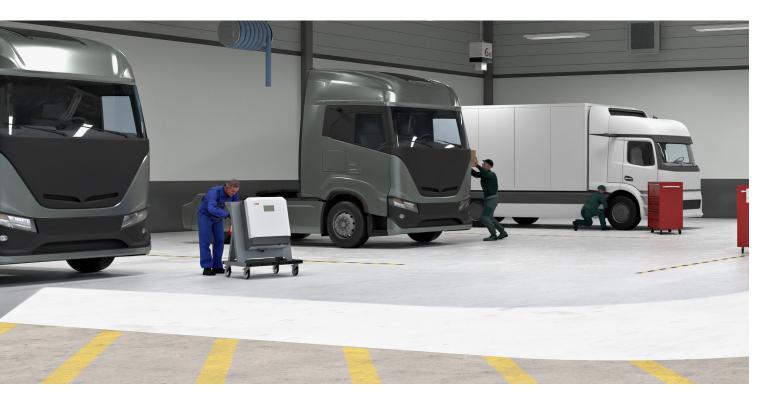
#### Depot charge box dual connector

Each HVC multi-connector power cabinet can be connected to one or two depot charge boxes dual connector, delivering 50-180 kW per vehicle.

- Space-saving design
- Same footprint as depot charge box single outlet
- Limited investment: less installation work required, reducing cost.







### Terra DC wallbox

Mobile chargers at workshop or service center

The Terra DC Wallbox is a flexible wall, pedestal, or cart-mounted charger that supports current and future EVs with up to 24 kW power charging. It is applicable for a wide variety of use cases, has an ultra-compact footprint, and is safe and reliable.

- Intelligent design: compact, convenient, connected and movable on a kart
- Futureproof: ROI maximized
- Safety: built-in protection



### **Further technical information**

Product brochure - Terra DC Fast charger

Product brochure - Terra 360

Product datasheet - Terra High Power

Product brochure - HVC360, a 360 degree solution

Product datasheet - Depot charge box

Product datasheet - Depot charge box dual connector

Product datasheet - CCS Control box and cable balancer

















### **ABB E-mobility Services offering**

ABB E-mobility's global service concept and its 'Care' Service Level Agreement combine leading technologies with the knowledge and talents of experienced service experts to enable fast and reliable solutions in critical moments for vital infrastructure.

Supporting any business model or installation size, ABB E-mobility provides services to its global installed base of EV chargers, ensuring the same high-quality service to our customers in the sector that trusts our expertise and commitment.

#### **Remote service**

ABB E-mobility technical support teams can diagnose more than 90% of cases and solve over 75% remotely.

#### **On-site service**

ABB E-mobility on-site teams perform expert preventive maintenance and can quickly solve the last 25% of remotely diagnosed cases with well-planned parts stocking program.

#### Service Level Agreement

- Remote & on-site support
- Preventive maintenance
- Spare parts

#### Commissioning •

Ensure that ABB E-mobility charging equipment is properly installed

### On-demand preventive • or corrective maintenance

Ensure optimal performance and compliance scheduled to meet your needs Diagnostic training
Field service training

Training & certification

**Extended warranty** Lengthen the period of warranty coverage



### **ABB E-mobility "Care" SLA** 97% uptime

ABB E-mobility's "Care" Service Level Agreement (SLA) offers a superior level of services in addition to a product warranty, providing the perfect solution for any type and size of installation, even during the warranty and extended warranty periods. It can be purchased at any point within the product's life cycle. The "Care" SLA helps optimize the total cost of ownership and improves uptime.

Together with ABB E-mobility Connected Services, including 24/7 connectivity support, our SLA programs ensures the best experience in remote and on-site diagnosis thanks to support from our global Network Operation Center's experts, ensuring faster response times.



#### Get peace of mind

#### Global and continuous customer support

Thanks to ABB E-mobility certified local partner network, the Network Operation Center and technical support team ensure high connectivity and fast response and resolution times.



#### High uptime, low investment

#### Maximize your profitability

Implementing a SLA means charger performance is measured and improved. The 97% uptime provides a reliable charging experience for EV charging operators, thereby increasing usage and profitability.



#### Best-in-class user experience

#### Easy to use

Mixing ABB E-mobility Connected Services and our "Care" SLA enables easy, real-time diagnostics of your chargers. Avoid unexpected downtime with up-todate status across your charger fleet, while easily scheduling preventive and corrective on-site maintenance.



	Standard warranty	Extended warranty	Enterprise 'Care' SLA
Starting date	Included in the product	After standard warranty	At any time
Connected Services	$\checkmark$	$\checkmark$	$\checkmark$
Technical support access and response time	$\checkmark$	$\checkmark$	√ Phone & Web - Same day
On-site response	√ Best effort	√ Best effort	√ 5 business days (1)
Annual preventive maintenance visit	(2)	(2)	$\checkmark$
Parts	In warranty scope	In warranty scope	$\checkmark$
Labor & travel	In warranty scope	In warranty scope	$\checkmark$
Contract success onboarding			$\checkmark$

(1) Upgrade to 24 /7 or upgrade response time to 3 or 1 business days can be quoted. Please consult your ABB E-mobility local sales organization (2) To be ordered separately

> To learn more about ABB E-mobility's SLA offering, click and open the brochure "Global service concept"





### **ABB E-mobility Digital Solutions**

To run a successful charging operations in dynamic environments, connectivity is essential. ABB E-mobility Digital Solutions range provides services that accelerates electrification and supports the growth of electric mobility, while conserving resources and promoting zero carbon progress.

#### Scalable and flexible

ABB E-mobility's modern cloud platform enables operators to manage their IT costs and risks, providing a reliable central connection point for large numbers of chargers. By leveraging ABB E-mobility's experience and expertise in managing Internet of Things (IoT) platforms and in connecting thousands of chargers, customers remove the cost of building and operating their own infrastructure.

#### IT investment minimized

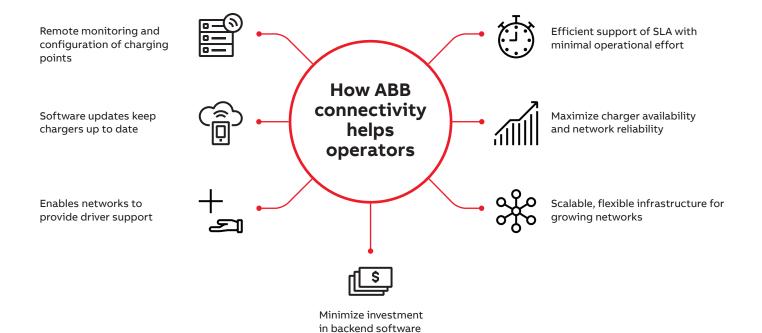
With ABB E-mobility's service platform and its extensive technical support, operators can focus their resources on business-driven responsibilities, such as driver access management, billing, and innovative e-mobility fleet management services.

ABB E-mobility Digital Solutions minimize the need for deep technical hardware expertise, providing advanced remote diagnostics and troubleshooting that are easy and efficient to use.

#### Best-in-class service and support

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In addition to industry standard protocols such as OCPP, ABB E-mobility can also provide detailed, real-time diagnostic data. With the best possible information available remotely, operations costs are significantly lower and on-site support arrives ready and equipped to get things right first time.



and IT

### **ABB E-mobility Digital Solutions**

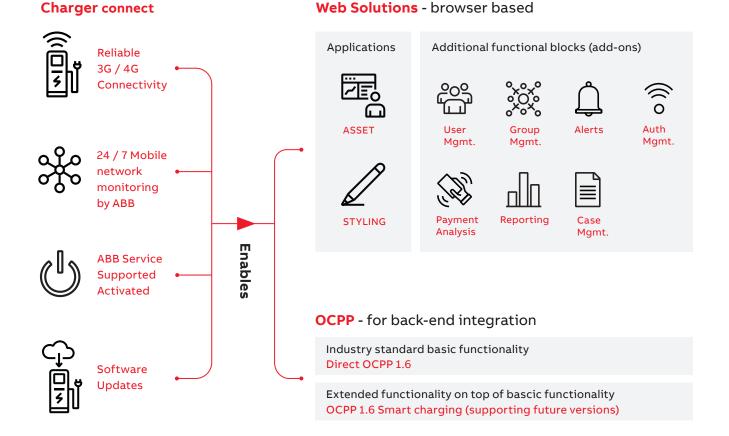
ABB E-mobility offers Digital Solutions which can be acquired in combination with ABB E-mobility DC chargers. These solutions are built on top of cloud platform that is ISO27001 compliant.

The new tools "ASSET" and "STYLING" offer several levels of tiers and some optional 'Add-ons', providing customers the possibility to select the capabilities they value most.

### 1. ASSET - Remote monitoring and troubleshooting

The new ASSET solution enables Charge Points Operators (CPO) to optimize processes and reduce operational costs based on real-time, data-based insights.

2. STYLING - Customize the end user interface The new STYLING tool is designed for e-Mobility Service Providers (e-MSP) enabling to bring brands to life, tool on the EV charger display through a flexible, easy-to-use and remotely controlled solution.



### **EV Charger Management - ASSET** Easy remote monitoring of EV charger networks

ABB E-mobility's ASSET enables EV charging infrastructure operators to optimize their processes thanks to real-time data-based insights, and a modular selection of web tools to allow customization meeting every operation needs. Charging patterns, cost predictions and opportunities to optimize charging networks are examples of some of the features available without additional investment in an external backend system. With remote troubleshooting, more efficient servicing and higher system availability is achieved. Ultimately helping to build customer trust and loyalty, improving the operation revenue predictability.



Become customer's trustworthy partner

#### **Reliable power**

Maximum uptime creates a service that EV drivers know they can count on. Remote health status monitoring of charging stations ensures a swift response when any issue requires attention. Ultimately making the preferred and most reliable charging partner for customers.



#### A system that adapts to the needs

#### **Flexible functionality**

Be able to select the web tool functions that allow to extract most value from operational data. Provide employees the real-time insights they need to make good decisions and identify the right actions they can take to improve the efficiency of the business.



Designed to grow the business

#### **Data driven**

Digital energy monitoring, cost predictions and usage pattern insights enable charging network operators to optimize their charging operations, reduce costs and scale up their business.

ASSET				
Essentials	Professional	Enterprise		
Asset management solution intended for organizations running a non-commercial charger network and need essential monitoring capabilities without investing in an external OCPP based system.	Asset management solution intended for organizations running a non-commercial charger network and want to operate their network in a professional manner without investing in an external OCPP based system.	Asset management solution intended for experienced Charge Point Operators that have the scale and ambition to pick up technical troubleshooting and problem- solving activities.		
Easily monitor the status of the charging network and view charge sessions. It includes basic functionalities and the configuration of the payment terminal.	Effectively operate non-commercial charging network who do not use an advanced OCPP back-end but need extended settings and configuration capabilities.	Get more insights in the status of ABB E-mobility DC chargers in addition to the OCPP standard. Increase uptime and reduce TCO.		

### **Optional Add-ons**

Extend the capabilities of your web solution based on the needs of your business

ABB E-mobility STYLING tool provides EV charging infrastructure operators with branding and customization opportunities that will allow them to stand out. The web tool's unrivaled flexibility brings brands to life on the EV charger display and creates unique user experiences. STYLING tool offers a wide range of modification sets to meet the requirements of every application with a solution that is easy to customize and update, ultimately allowing EV charging infrastructure operators to build stronger customer engagement and improve customer retention.

User Management	Charger access management	Alerts
Intended for organizations who want to use our web solutions with <b>more</b> <b>than one user.</b>	Intended for organizations who want to structure their charger net- work to simplify its operation and want to control access to their char- gers.	Intended for organizations who want to be informed when certain events happen on their charger network.
Pay as you grow. Start small and just register more users when you need them. Stop paying when people don't need portal access anymore.	Locally group chargers together any way you you want to. Define which employees will be able to access which chargers, and which activities they will be able to execute on these.	Configure which type of events on your charger network you want to re- ceive a notification. Define how quickly you want to be informed to take appropriate actions.
Card Payment Analysis	Charging Authorization	Reporting
Intended for organizations with <b>fully integrated</b> payment terminals.	Intended for organizations <b>without</b> an OCPP based backend system that want to control who is using their chargers.	Intended for organizations who want to <b>better understand what's happen-</b> ing on their charger network.
Track analysis and your revenues originating from credit card sessions.	Only let authorized people use your chargers (authentication via registered RFID's or PIN's).	Get better visibility on the operational staus of your DC charger network, and make sure all charger parameters are





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For more information please contact:

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