HVC360

360-degree solution for fleets

Middle miles logistics, and public transit bus fleets - CE & UL

ABB E-mobility

We electrify mobility

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

We enable predictable charging operations and business continuity, including uptime commitment as well as leading service and maintenance organization.

With over 1 million chargers delivered globally and several successful OEM collaborations, ABB E-mobility is a world leader in EV charging solutions, guiding your fleet to a fully electrified future.

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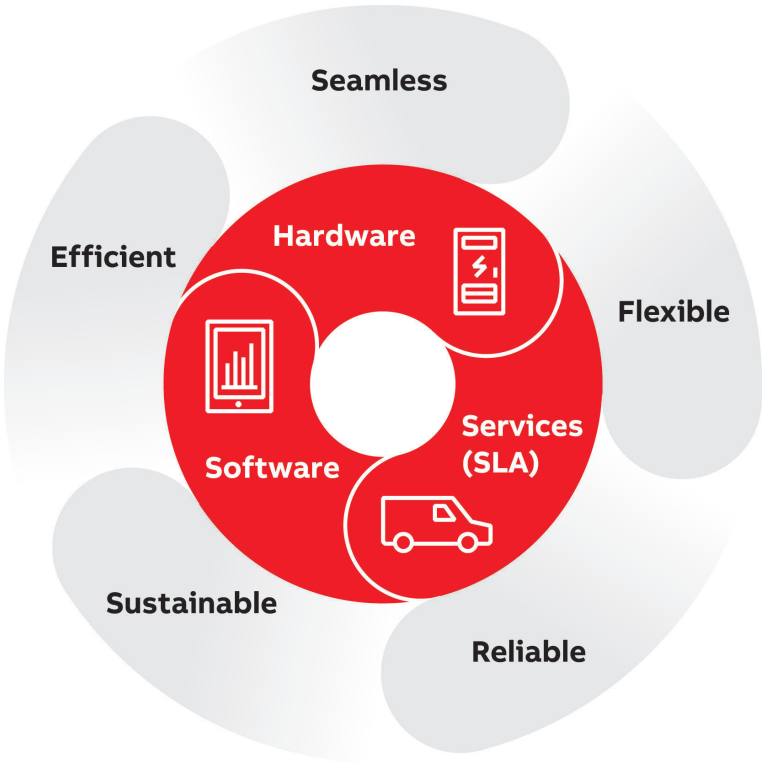
HVC360
Delivering a 360-degree solution for fleets

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.

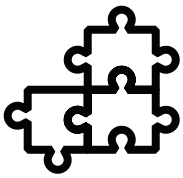
Smart energy management significantly reduces the total cost of ownership (TCO) while the cutting-edge split system design provides the most flexible set-up for fleet electrification. The solution easily integrates into existing facility hassle-free and provides the end-user with a seamless charging experience.
This best-in-class power density charging solution is ideal for fleet operators seeking maximum flexibility and reliability in their charging operations.

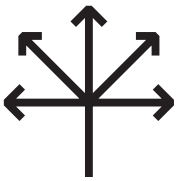


Seamlessness

Adapt as your fleet and infrastructure requirements evolve. The future-proof ABB E-mobility's HVC360 comes with an intuitive and robust design for a seamless end-user experience, and offers hassle-free integration into existing infrastructure.

Also, our InControl API connections enable smooth integration of your charging management system, keeping your business up and running while electrifying your fleet.





Flexibility

ABB E-mobility’s HVC360 provides installation flexibility, works with all dispensers, and supports up to four dispensers at the same time, providing fleet professionals with a highly flexible setup for fleet electrification. The power cabinet is configurable and scaleable, allowing over-the-air updates at any time. The HVC's cutting-edge split system design also allows the dispensers to be installed up to 150 meters from the power cabinet.

Efficiency (TCO)

The HVC360 provides long maximum power charging sessions with a continuous power output of up to 360 kW. It supports parallel charging, dynamic power sharing, and pre-conditioning for vehicles, even with multibrand fleets. Its dynamic power sharing function enables maximum efficiency when splitting the power over up to 4 dispensers while the advanced pre-conditioning functionality provides a steady supply of low current to avoid standby mode. Furthermore, the InControl charger management system significantly reduces your TCO with smart energy management.

Reliability

The HVC360 is especially designed for large vehicles and heavy-duty applications providing a continuously high-power supply for fleet charging operations. In addition to our industry-leading service offering, the ABB E-mobility 97% uptime commitment ensure your charging operation's reliability and predictability while maintaining business continuity.

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 foundation of your fleet's charging infrastructure.

Serviceability
Service accessible from the front, 4 x LED to indicate the states per dispenser, over-the-air updates

Robust design
All-weather powder-coated stainless steel enclosure

Flexible installation
Due to the position of the air inlet and outlet, chargers can be installed side to side and back to back

Safety
Designed to the highest international electrical, quality and safety standards

Support all charging interfaces
Panto-down, Panto-up (CE market) , CCS connectors can be combined

Dynamic power sharing
Power can be shared over multiple dispensers with maximum utilization.

Flexibile set-up
Up to 150 m (490 ft) distance between the charger and the dispenser

Reliable operations
Designed for heavy-duty applications with continuous power output of 360 kW, and enabled for pre-conditioning

Mix and match any dispenser to one power cabinet

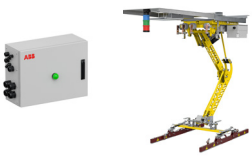
The HVC360 power cabinet unlocks freedom in site layout by enabling the connection of up to four dispensers to one power cabinet. Its innovative flexibility allows them to be mixed and matched to better suit and optimize new or existing site constraints.

Depot charge box
- Up to 250A
- Wall/ Pedestal mounting

Depot charge box dual connector
- Up to 250A
- Wall/ Pedestal mounting

CCS Control box with cable balancer
- Up to 200A
- Ceiling mounting
- Cable balancer for indoor
- use only

Pantograph-up depot set (CE only)
- Up to 350A Contact dome
- Light weight and small dimensions



Pantograph-down depot set (CE)
- Up to 400A

Pantograph-down depot set (UL)
- Up to 400A

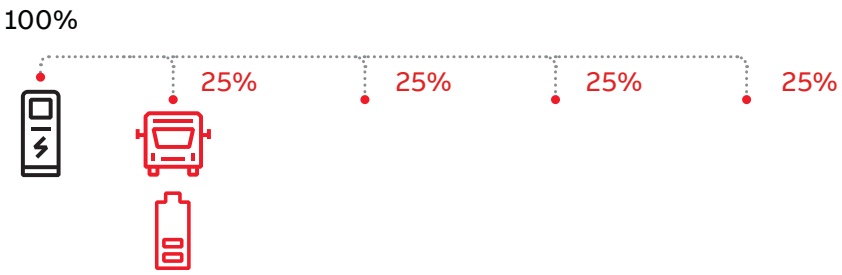
Charging strategies
Smart solution for improved Total Cost of Ownership

HVC360 ensures your site's power hardware matches your operation's charging requirements. The dynamic power sharing strategy makes your charging more cost-effective, and give you maximum flexibility on site by splitting 360 kW on up to four vehicles at the same time.

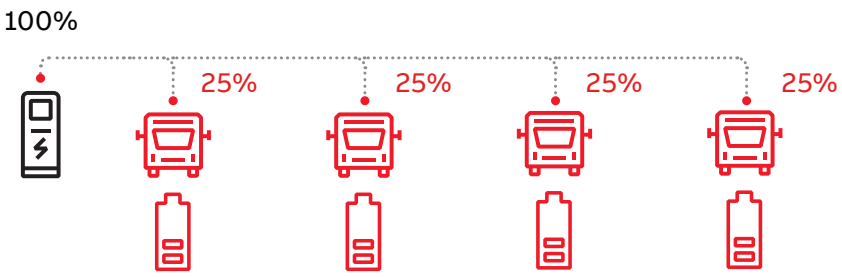
Static HVC
The power delivered by the power cabinet is equally split over the 4 dispensers. The charging power per dispenser will be the same whether there is one or more vehicles being charged at the same time.

Charging order

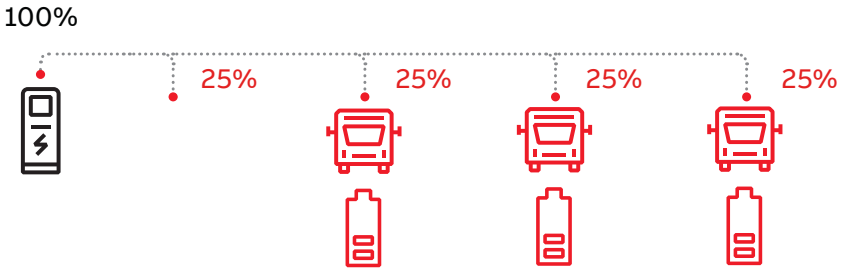
Only vehicle 1 is plugged in, the three other charging posts are free
Vehicle 1 gets 25% of the power delivered by the power cabinet.



All vehicles are plugged in
Each vehicle gets 25% of the power delivered by the power cabinet.



A vehicle is fully charged
The three remaining vehicles each get 25% of the power delivered by the power cabinet.



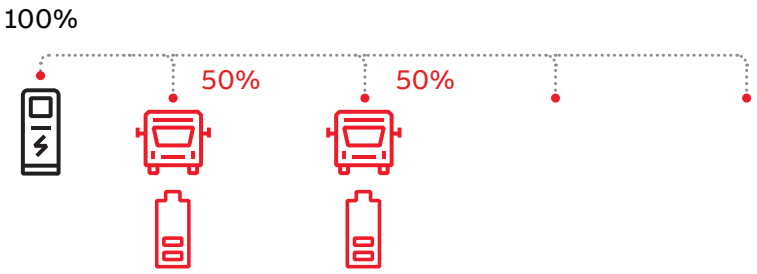
Dynamic: Share+ *

The power delivered to a vehicle depends on the number of vehicles plugged. If one or two vehicles are plugged in, the power delivered per vehicle will be half of the power available from the power cabinet.

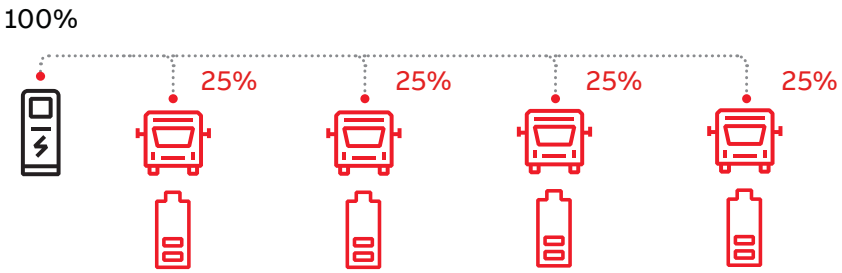
If more than two vehicles are plugged in, the power delivered per dispenser will be a quarter of the power available from the power cabinet.

Charging order

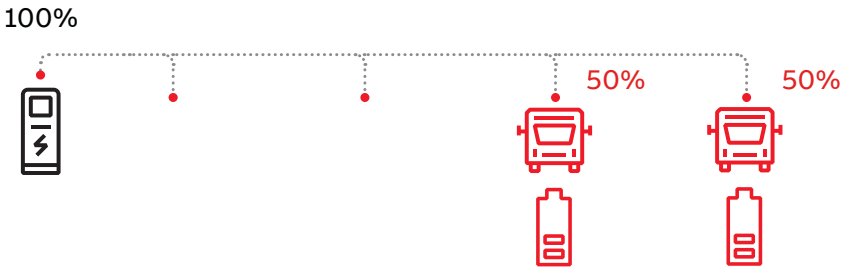
Only vehicle 1 is plugged in alone, or vehicle 2 is plugged in too
They each get 50% of the power delivered by the power cabinet.



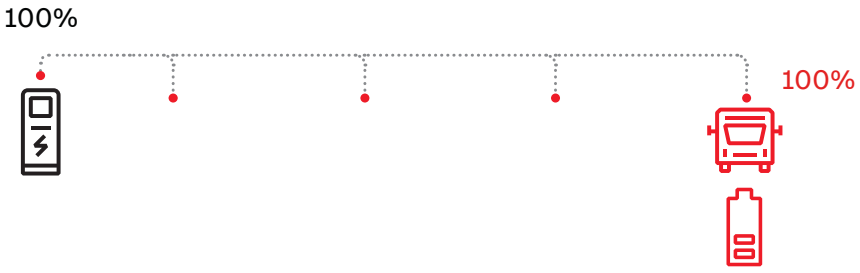
Vehicle 3 is now plugged in, then vehicle 4
The four vehicles each get 25% of the power delivered by the power cabinet.



Vehicle 1 and 2 are fully charged and go back to operation
Vehicle 3 and vehicle 4 now get 50% of the power delivered by the power cabinet.



Vehicle 3 charging session is over too
Vehicle 4 get 100% of the power delivered by the power cabinet.



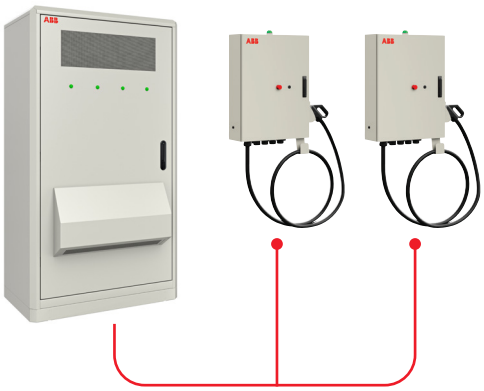
* Available end of Q2 2024

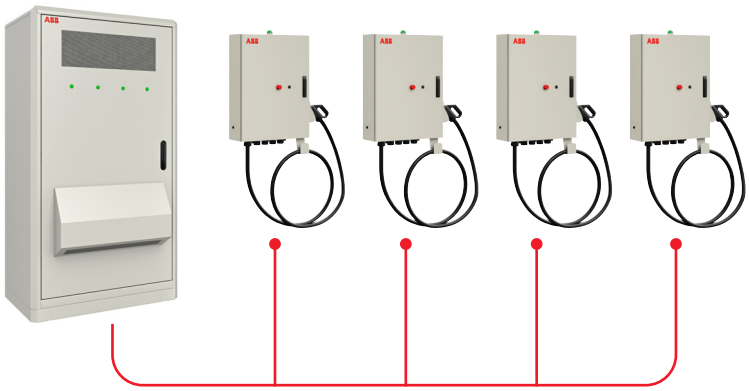
Depot charge box

The small footprint dispenser, wall or pedestal mounted

The depot charge boxes are designed to charge larger depot-based fleets, and fit several site layouts.
Each HVC multi-dispenser power cabinet can be connected to 2 or 4 depot charge boxes, delivering 50-180 kW per vehicle.

- High uptime: proven robust design and technology
- The wide charging power range and number of outlets enable shorter or longer sessions to be planned in alignment with the lowest energy costs
- Space-saving: wall or pedestal mounted.



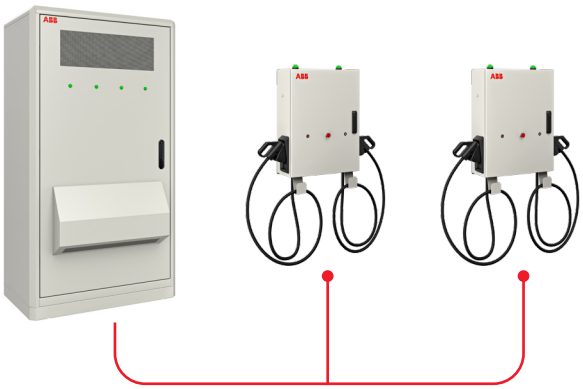


Depot charge box dual outlet

Even more space saving and flexible dispenser

Designed with two connectors, this solution reduces the use of depot charge boxes and saves space around the vehicle.
Each new HVC multi-dispenser 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 connector
- Limited investment: less installation work required, reducing cost.



CCS control box and cable balancer

Overhead dispenser with CCS connectors

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. Its reliably designed cable balancer prevents the cable from drooping or lying on the ground. When in use, 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.

Pantograph-down depot set, and Pantograph-up depot set

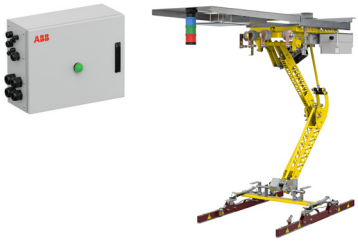
Installed on the infrastructure or on the vehicle

ABB E-mobility offers an ideal solution for charging electric buses equipped with a vehicle-mounted pantograph (panto-up, CE market only) or an inverted pantograph (panto-down) positioned over the electric bus, on the infrastrcture. Pantographs can easily be integrated into existing operations and bus depots, ensuring zero-emission public transport.

- Safe and reliable operation: RFID* pairing technology (for panto-down)
- Optimum interface: remote diagnostics and management tools
- Flexible: one charger can serve multiple vehicle types and brands.

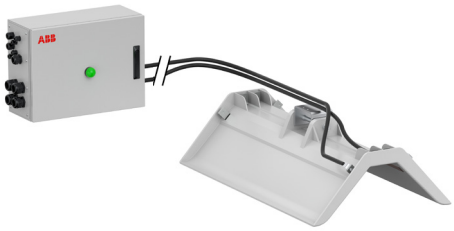
* For more details, please refer to the technical specification pages.

Pantograph-down depot set, CE



Pantograph-down depot kit, UL

Pantograph-up depot set, CE

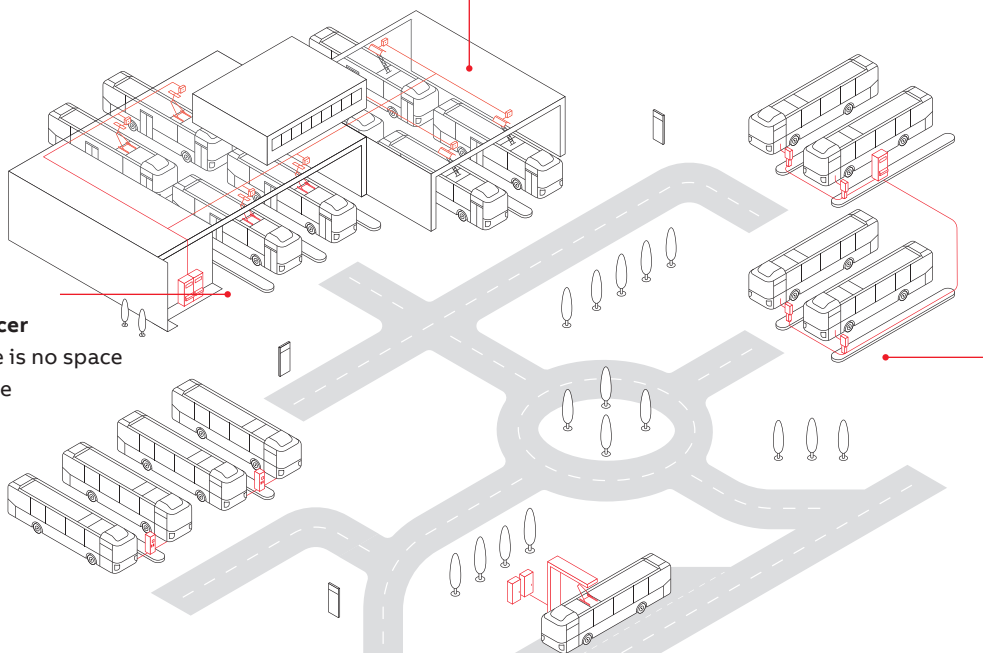


Bus depot use cases
HVC360 to charge fleet overnight

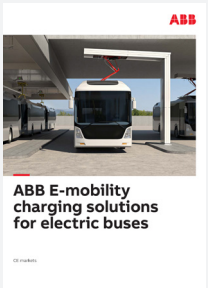
Depot charging

Every bus in a fleet will have to return to a depot for a few hours, and this is the perfect time to charge the vehicle with a lower charging power.

Energy management solution offers various charging strategies for sharing a site's available power, while monitoring and controlling energy consumption to keep costs within set limits.



Discover our ABB E-mobility charging solutions for Electric bus fleets



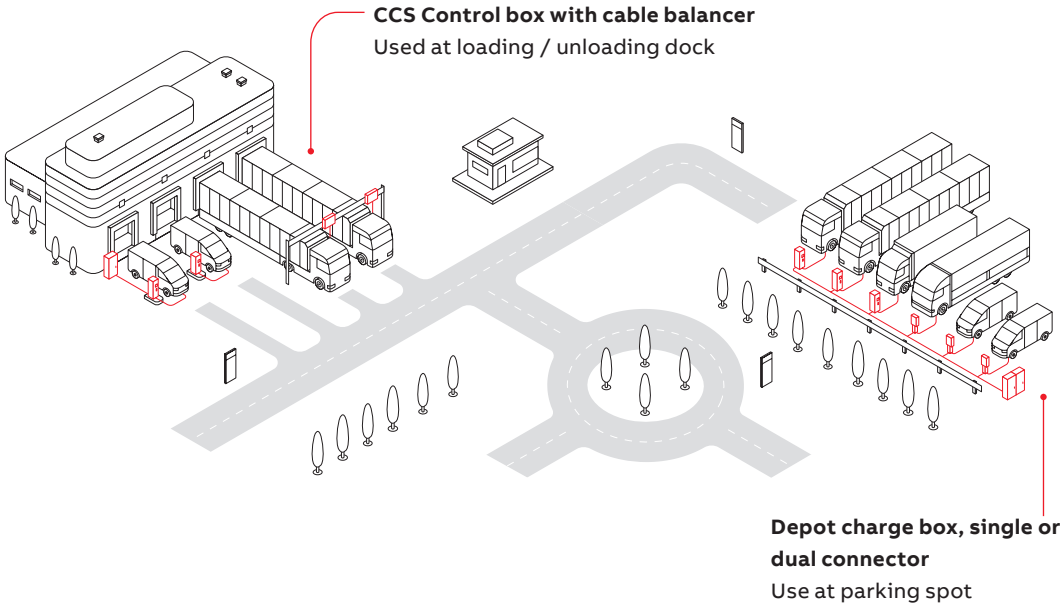
Logistic depot use cases
HVC360 for fast or long charging sessions

Charging at the loading/unloading dock

Electric trucks can be charged while they are being loaded or unloaded at the loading dock, optimizing truck availability by limiting additional charging time. Overhead chargers require less space around the vehicle, facilitating the driver's maneuvers.

Charging at depot parking

Electric trucks that have short daily operating cycles often rely on a long charging session at parking breaks or overnight when lower power can be used to charge the vehicles. The charging power is spread out over several hours while the vehicle is parked, reducing energy consumption and grid connection costs.



Discover our ABB E-mobility charging solutions for Middle mile logistics fleets

ABB E-mobility provides more than individual chargers, we provide end-to-end charging solutions

In combination with our industry-leading service agreements and fleet charger management system, InControl, the HVC360 becomes a 360-degree solution for fleet professionals.

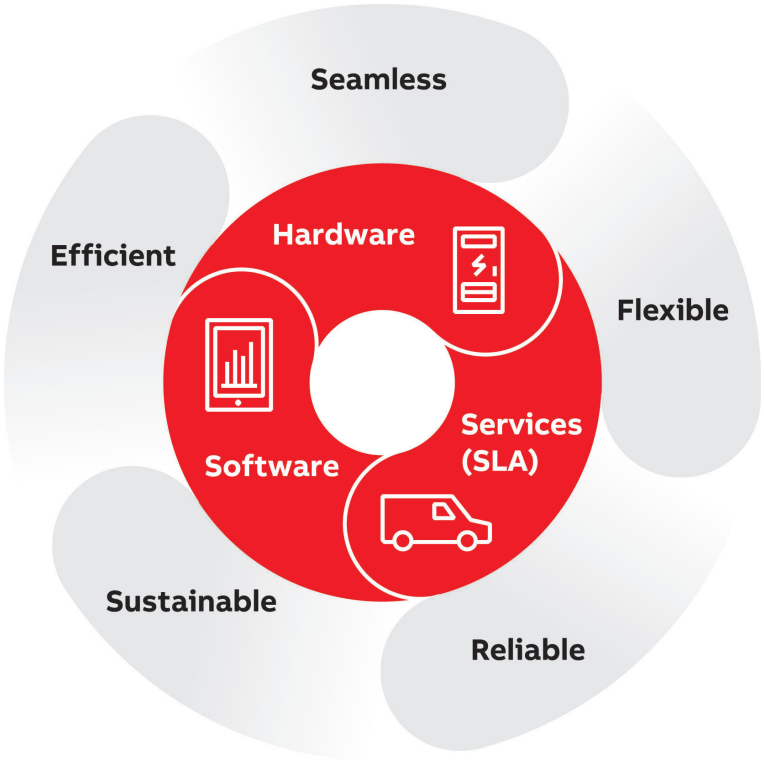


ABB E-mobility Services offering

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

Training & certification
- Diagnostic training
- Field service training

Extended warranty
Lengthen the period of warranty coverage

ABB E-mobility "Care" SLA
97% uptime commitment

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. Our 97% uptime commitment provides a reliable charging experience for EV charging operators, thereby increasing usage and profitability.

Best-in-class user experience

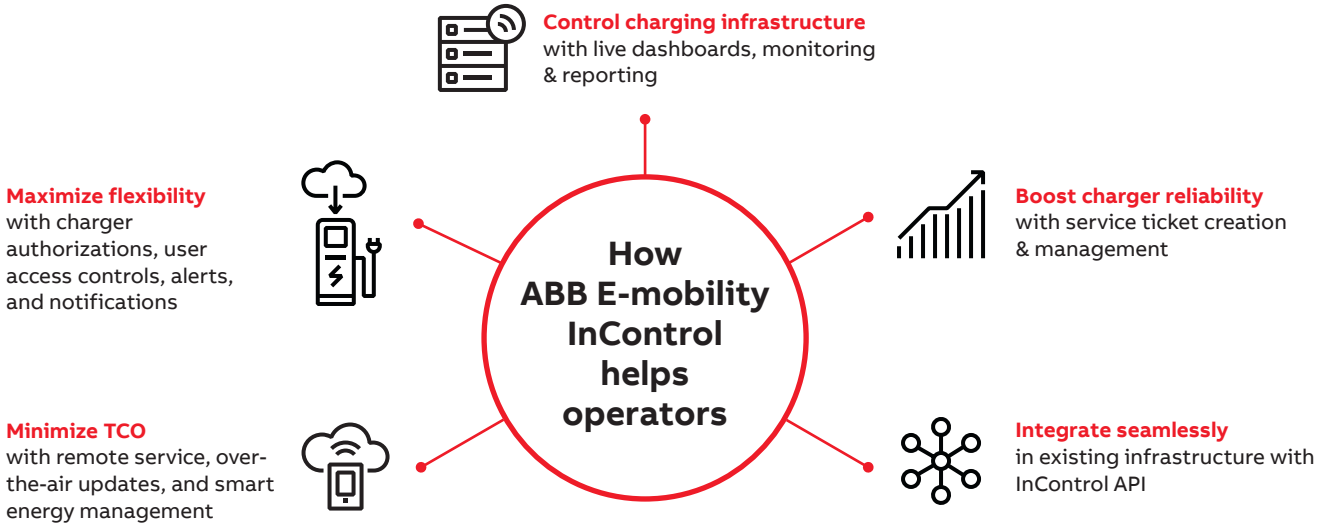
Easy to use

Mixing ABB E-mobility Connected Services and our "Care" SLA enables easy, real-time diagnostics of your chargers. You can avoid unexpected downtime by knowing the current state of your installation and by scheduling preventive and corrective on-site maintenance.

To learn more about ABB E-mobility's SLA offering, click to open the brochure “Global service concept”

ABB E-mobility InControl
Charger management system

Designed for fleet operators, InControl makes it easy to manage your electric vehicle charging. Built for commercial fleets, our cloud-based software allows you to control energy costs, manage your charging depot, maintain your charging equipment, and find revenue opportunities from anywhere with an internet connection.



Live monitoring & reporting

- Monitor fleet charging live with interactive charger, depot, and map views
- Track live sessions, state of charge, charging speed, and more
- Generate revenue with customized energy, utilization and uptime reporting for grant programs and LCFS credits
- Fine-tune user permissions, charger access, and track usage via PIN, RFID, Vehicle ID
- Manage chargers remotely, including reset, configuration, and over-the-air firmware updates.

Service & maintenance

Automatic notification of service events

Manage users, charger access, alerts

Fine tune user permissions

In-app support ticket creation and tracking

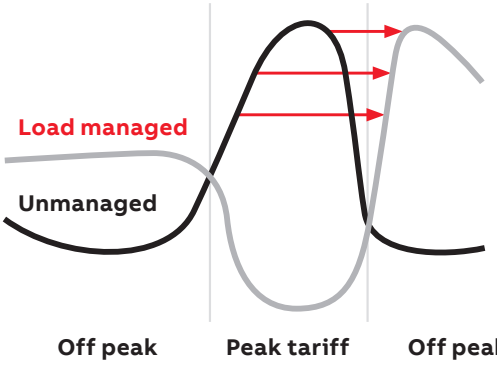
In-app software feature requests and bug reporting

ABB E-mobility InControl
Intelligent energy management

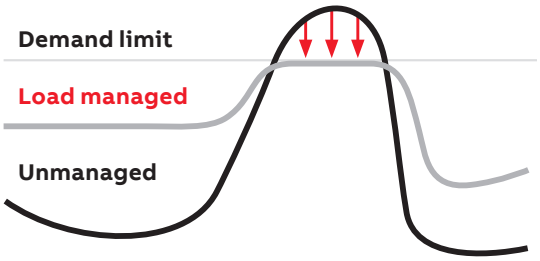
Cost control with smart load management

- Minimize costs with delayed or scheduled charging to avoid peak times and utility demand surcharges
- Adjust power output on the fly and enforce panel/breaker limits
- Serial and parallel charging support
- Enforce charging limits at a site, group, or charger level
- Automatically balance power between charging sessions.

Time shifting



Peak shaving



Integrations & grid service participation

- Integrate own EMS to set load management policies using InControl interface or API
- Manage on-site energy sources seamlessly with DER integration for renewables, BESS, microgrids, etc.
- Automate curtailment and/or discharging to the grid with OpenADR certified demand response support
- Generate revenue opportunities from responding to utility signals

Discover our ABB E-mobility InControl
Charger management system for fleets

InControl

Technical specification

Multi-outlet power cabinet

HVC200

HVC300

HVC360

Dispensers with CCS connectors

Depot charge box

Depot charge box dual connector

CCS control box

Dispensers with Pantographs

Pantograph-down depot set

Pantograph-up depot set

HVC200 power cabinet - Technical specification

Power cabinet		HVC200-2S	HVC200-2D	HVC200-4S	HVC200-4D
Product code	CE	6AGC116198	6AGC116202	6AGC116227	6AGC116203
	UL	-	6AGC116223	-	6AGC116226
	BAA	-	6AGC116231	-	6AGC116232
Dispenser compatibility					
Charging mode		2 dispensers - Static	2 dispensers - Dynamic	4 dispensers - Static	4 dispensers - Dynamic
Depot charge box single connector		Yes			
Depot charge box dual connector		Yes			
Parallel charging		Yes			
CCS Control box		Yes			
Pantograph-down depot set		Yes			
Pantograph-up depot set		Yes			
Distance between power cabinet & dispensers		100 m / 328 ft standard, up to 150 m / 492 ft with long distance package			
Electrical characteristics					
DC output current (1)		285 A at 700 V DC; 250 A at 800 V DC			
DC output current per dispenser (1)		142 A at 700 V DC, 125 A at 800 V DC	285 A at 700 V DC, 250 A at 800 V DC	71 A at 700 V DC, 63 A at 800 V DC	285 A at 700 V DC, 250 A at 800 V DC
DC output power rating (1)		200 kW			
DC output power rating per dispenser		100 kW	max. 200 kW	50 kW	max. 200 kW
DC output voltage		150-940 V			
Input AC power rating - 400 V AC		218 kVA			
Input nominal current - 400 V AC		315 A,			
Input AC power rating - 480 V AC		218KVA			
Input nominal current - 480 V AC		262 A			
Input voltage range		CE: 400 V AC +/- 10% (50 Hz) UL: 480 V AC +/- 10% (60 Hz)			
Power factor (2)		≥ 0.98			
Efficiency		94-96%			
Standby power (3)		0.13 kW			
Input power cables		AC power cable 3P+PE maximum: 240 mm² / 500 MCM AWG			
Product characteristics					
IP and IK rating		IP-54 and IK-10 (cabinet) / NEMA 3R			
Noise level		62 dB in any direction at 1 m			
Enclosure type		Stainless steel			
Placement		Concrete foundation on soil; Metal frame foundation on a solid floor; Custom foundation on a solid floor			
Operational attitude		Up to 2000 m / 6562 ft			
Operation temperature range (4)		-35°C to +55°C / -31°F to 131°F			
Storage temperature range		+5 to +40°C with relative humidity 5 to 85%			
Humidity limitation		5-95% non-condensing is standard			
Derating		Derating highly depends on the dispenser (cable/pantograph), vehicle inlet, temperature and duration. This can only be given on a system level.			
Dimensions (H x W x D)		2180 x 1170 x 770 mm / 85.83 x 46.06 x 30.32 in			
Weight		830 kg / 1829.84 lb			
Color		RAL 9002			
User interface					
Emergency button		Power Cabinet: Can be connected external EMG button. Dispensers: Can be connected external EMG button, Depot Boxes have internal EMG button			
LED		Yes, RGB LED on the power cabinet, 1 per outlet (green: ready to charge / blinkging green: preparation phase / blinking blue: charging / blue: charging complete / red: error)			
Service access		Front door			
Vehicle ID recognition		Yes can be used to enable Autocharge			
Communication & configuration					
Communication cabinet - dispensers		CAN2Ethernet			
Connectivity		Internet access via 4G / 3G / Ethernet (RJ45)			
Communication protocols		OCPP 1.6 JSON			
Charging protocols		DIN 70121, ISO/IEC 15118 series ed 1 with PnC and EIM			
Software update		Over-the-air updates via ABB web portal, OCPP 1.6			
Control and configuration		ABB web portal, on-board service portal, OCPP 1.6			
Certification and standards					
Charging standards		IEC 61851-1 ed 3, IEC 61851-21-2 ed 1, IEC 61851-23 ed 1, IEC 61851-24 ed 1, IEC 62196-2, IEC 62196-3, IEC 61000, UL 2202, CSA 22.2			
Electro-Magnetic Compatibility		EMC-Class A Conducted and Radiated			
Compliance		CE and UL certification, BAA compliant option for transit			
Warranty		Base warranty 24 months after Site Acceptance Test or 30 months after factory delivery. Warranty extensions available.			
Designed lifespan		ABB chargers are designed for a lifetime of 10 years assuming they receive maintenance according to the maintenance schedule by a trained engineer.			

(1) Maximum output current and output power rating could be limited by the dispenser
(2) Power factor at Output power ≥ 10 kW
(3) HVC360 + 2 x depot charge box + 2 x Control Box / Ambient 25°C, no heater
(4)Measured according to IEC 62196-1, current rating and duration at higher temperatures is highly dependent on the dispenser and vehicle inlet.

HVC300 power cabinet - Technical specification

Power cabinet		HVC300-2S	HVC300-2D	HVC300-4S	HVC300-4D
Product code	CE	6AGC116204	6AGC116205	6AGC116228	6AGC116200
	UL	-	6AGC116219	-	6AGC116222
	BAA	-	6AGC116214	-	6AGC116230
Dispenser compatibility					
Charging mode		2 dispensers - Static	2 dispensers - Dynamic	4 dispensers - Static	4 dispensers - Dynamic
Depot charge box single connector		Yes			
Depot charge box dual connector		Yes			
Parallel charging		Yes			
CCS Control box		Yes			
Pantograph-down depot set		Yes			
Pantograph-up depot set		Yes			
Distance between power cabinet & dispensers		100 m / 328 ft standard, up to 150 m / 492 ft with long distance package			
Electrical characteristics					
DC output current (1)		430 A at 700 V DC; 375 A at 800 V DC			
DC output current per dispenser (1)		215 A at 700 V DC, 188 A at 800 V DC	430A at 700V DC, 375A at 800V DC	105 A at 700 V DC, 90 A at 800 V DC	430 A at 700 V DC, 375 A at 800 V DC
DC output power rating (1)		300 kW			
DC output power rating per dispenser		150 kW	max. 300 kW	75 kW	max. 300 kW
DC output voltage		150-940 V			
Input AC power rating - 400 V AC		326 kVA			
Input nominal current - 400 V AC		470 A			
Input AC power rating - 480 V AC		326 kVA			
Input nominal current - 480 V AC		392 A			
Input voltage range		CE: 400 V AC +/- 10% (50 Hz) UL: 480 V AC +/- 10% (60 Hz)			
Power factor (2)		≥ 0.98			
Efficiency		94-96%			
Standby power (3)		0.13 kW			
Input power cable		AC power cable 3P+PE maximum: 240 mm² / 500 MCM AWG			
Product characteristics					
IP and IK rating		IP-54 and IK-10 (cabinet) / NEMA 3R			
Noise level		62 dB in any direction at 1 m			
Enclosure type		Stainless steel			
Placement		Concrete foundation on soil; Metal frame foundation on a solid floor; Custom foundation on a solid floor			
Operational attitude		Up to 2000 m / 6562 ft			
Operation temperature range (4)		-35°C to +55°C / -31°F to 131°F			
Storage temperature range		+5 to +40°C with relative humidity 5 to 85%			
Humidity limitation		5-95% non-condensing is standard			
Derating		Derating highly depends on the dispenser (cable/pantograph), vehicle inlet, temperature and duration. This can only be given on a system level.			
Dimensions (H x W x D)		2180 x 1170 x 770 mm / 85.83 x 46.06 x 30.32 in			
Weight		890 kg / 1962.11 lb			
Color		RAL 9002			
User interface					
Emergency button		Power Cabinet: Can be connected external EMG button. Dispensers: Can be connected external EMG button, Depot Boxes have internal EMG button			
LED		Yes, RGB LED on the power cabinet, 1 per outlet (green: ready to charge / blinkging green: preparation phase / blinking blue: charging / blue: charging complete / red: error)			
Service access		Front door			
Vehicle ID recognition		Yes can be used to enable Autocharge			
Communication & Configuration					
Communication cabinet - dispensers		CAN2Ethernet			
Connectivity		Internet access via 4G / 3G / Ethernet (RJ45)			
Communication protocols		OCPP 1.6 JSON			
Charging protocols		DIN 70121, ISO/IEC 15118 series ed 1 with PnC and EIM			
Software update		Over-the-air updates via ABB web portal, OCPP 1.6			
Control and configuration		ABB web portal, on-board service portal, OCPP 1.6			
Certification and standards					
Charging standard		IEC 61851-1 ed 3, IEC 61851-21-2 ed 1, IEC 61851-23 ed 1, IEC 61851-24 ed 1, IEC 62196-2, IEC 62196-3, IEC 61000, UL 2202, CSA 22.2			
Electro-Magnetic Compatibility		EMC-Class A Conducted and Radiated			
Compliance		CE and UL certification, BAA compliant option for transit			
Warranty		Base warranty 24 months after Site Acceptance Test or 30 months after factory delivery. Warranty extensions available.			
Designed lifespan		ABB chargers are designed for a lifetime of 15 years assuming they receive maintenance according to the maintenance schedule by a trained engineer.			

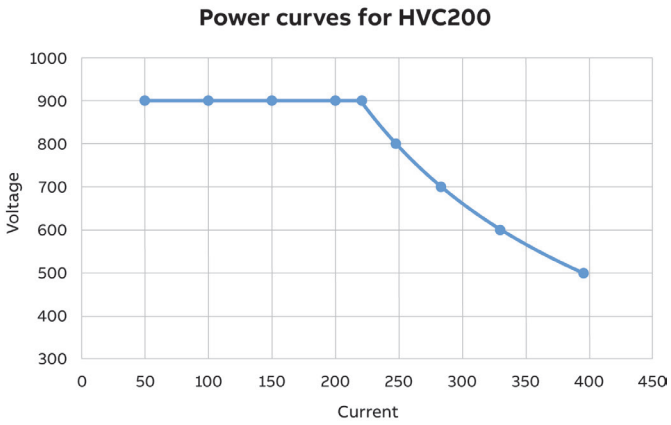
(1) Maximum output current and output power rating could be limited by the dispenser
(2) Power factor at Output power ≥ 10 kW
(3) HVC360 + 2 x depot charge box + 2 x Control Box / Ambient 25°C, no heater
(4) Measured according to IEC 62196-1, current rating and duration at higher temperatures is highly dependent on the charging interface and vehicle inlet.

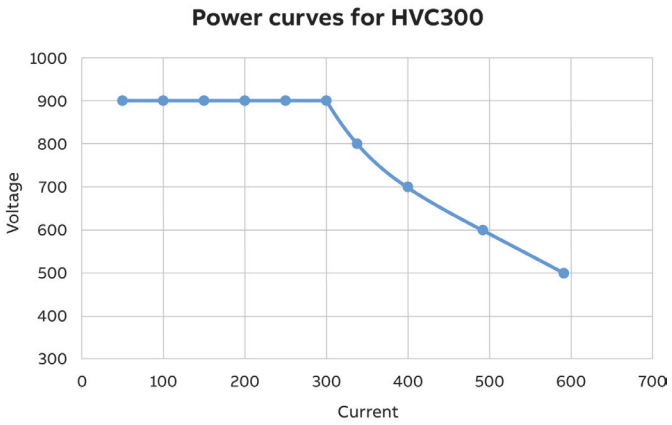
HVC360 power cabinet -Technical specification

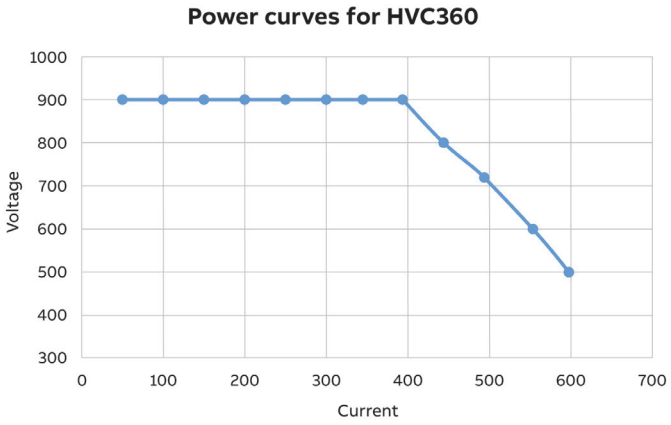
Power cabinet		HVC360-2S	HVC360-2D	HVC360-4S	HVC360-4D
Product code	CE	6AGC116216	6AGC116208	6AGC116206	6AGC114241
	UL	-	6AGC116210	-	6AGC115579
	BAA	-	6AGC116213	-	6AGC116199
Charging interface compatibility					
Charging mode		2 dispensers - Static	2 dispensers - Dynamic	4 dispensers - Static	4 dispensers - Dynamic
Depot charge box single connector		Yes			
Depot charge box dual connector		Yes			
Parallel charging		Yes			
CCS Control box		Yes			
Pantograph-down depot set		Yes			
Pantograph-up depot set		Yes			
Distance between power cabinet & dispensers		100 m / 328 ft standard, up to 150 m / 492 ft with long distance package			
Product information					
DC output current (1)		500 A at 720 V DC; 450 A at 800 V DC			
DC output current per dispenser (1)		250 A at 720 V DC, 225 A at 800 V DC	500 A at 720 V DC, 450 A at 800 V DC	125 A at 720 V DC, 125 A at 800 V DC	500 A at 720 V DC, 450 A at 800 V DC
DC output power rating (1)		360 kW			
DC output power rating per dispenser		180 kW	max. 360 kW	90 kW	max. 360 kW
DC output voltage		150-940 V			
Input AC power rating - 400 V AC		390 kVA			
Input nominal current - 400 V AC		560 A			
Input AC power rating - 480 V AC		391 kVA			
Input nominal current - 480 V AC		470 A			
Input voltage range		CE: 400 V AC +/- 10% (50 Hz) UL: 480 V AC +/- 10% (60 Hz)			
Power factor (2)		≥ 0.98			
Efficiency		94-96%			
Standby power (3)		0.13 kW			
Input power cable		AC power cable 3P+PE maximum: 240 mm² / 500 MCM AWG			
General characteristics					
IP and IK rating		IP-54 and IK-10 (cabinet) / NEMA 3R			
Noise level		62 dB in any direction at 1 m			
Enclosure type		Stainless steel			
Placement		Concrete foundation on soil; Metal frame foundation on a solid floor; Custom foundation on a solid floor			
Operational attitude		Up to 2000 m / 6562 ft			
Operation temperature range (4)		-35°C to +55°C / -31°F to 131°F			
Storage temperature range		+5 to +40°C with relative humidity 5 to 85%			
Humidity limitation		5-95% non-condensing is standard			
Derating		Derating highly depends on the dispenser (cable/pantograph), vehicle inlet, temperature and duration. This can only be given on a system level.			
Dimensions (H x W x D)		2180 x 1170 x 770 mm / 85.83 x 46.06 x 30.32 in			
Weight		950 kg / 2094.39 lb			
Color		RAL 9002			
User interface					
Emergency button		Power Cabinet: Can be connected external EMG button. Dispensers: Can be connected external EMG button, Depot Boxes have internal EMG button			
LED		Yes, RGB LED on the power cabinet, 1 per outlet (green: ready to charge / blinkging green: preparation phase / blinking blue: charging / blue: charging complete / red: error)			
Service access		Front door			
Vehicle ID recognition		Yes can be used to enable Autocharge			
Communication & Configuration					
Communication cabinet - dispensers		CAN2Ethernet			
Connectivity		Internet access via 4G / 3G / Ethernet (RJ45)			
Communication protocols		OCPP 1.6 JSON			
Charging protocols		DIN 70121, ISO/IEC 15118 series ed 1 with PnC and EIM			
Software update		Over-the-air updates via ABB web portal, OCPP 1.6			
Control and configuration		ABB web portal, on-board service portal, OCPP 1.6			
Certification and standards					
Charging standard		IEC 61851-1 ed 3, IEC 61851-21-2 ed 1, IEC 61851-23 ed 1, IEC 61851-24 ed 1, IEC 62196-2, IEC 62196-3, IEC 61000, UL 2202, CSA 22.2			
Electro-Magnetic Compatibility		Standard: EMC-Class A Conducted and Radiated			
Compliance		CE and UL certification, BAA compliant option for transit			
Warranty		Base warranty 24 months after Site Acceptance Test or 30 months after factory delivery. Warranty extensions available.			
Designed lifespan		ABB chargers are designed for a lifetime of 15 years assuming they receive maintenance according to the maintenance schedule by a trained engineer.			

(1) Maximum output current and output power rating could be limited by the dispenser
(2) Power factor at Output power ≥ 10 kW
(3) HVC360 + 2 x depot charge box + 2 x Control Box / Ambient 25°C, no heater
(4) Measured according to IEC 62196-1, current rating and duration at higher temperatures is highly dependent on the dispenser and vehicle inlet.

Performances

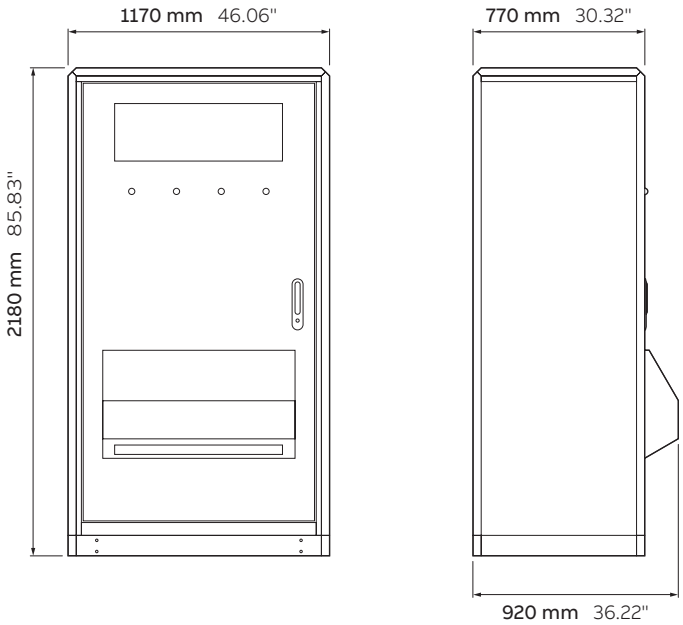






Dimensions

Power cabinet



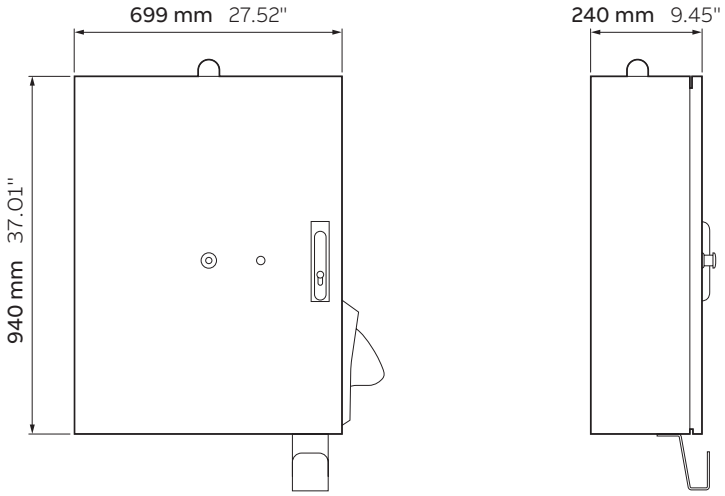
Dispensers with connectors

Dispenser		Depot charge box	Depot charge box dual connector	CCS Control box
Electrical characteristics				
DC output current max (1)		250 A (CE) / 200 A (UL)	250 A	200 A
DC output current rating max per dispenser (2)		With HVC200: 142 A With HVC300: 215 A With HVC360: 250 A		With HVC200: 142 A With HVC300: 200 A With HVC360: 200 A
DC output power rating		50 - 360 kW		
DC output power rating max per dispenser (2)		With HVC200: 100 kW With HVC300: 150 kW With HVC360: 180 kW		
DC output voltage range		150 - 940 V DC		
Standby power				8W
Connector Types		CCS1, CCS2		
Cable length		7 m, 9.5 m / 22.97 ft, 31.17 ft	9.5 m / 31.17 ft	7 m, 9.5 m / 22.97 ft, 31.17 ft
Product characteristics				
Installation		Wall or pedestal		Overhead (truss, celling, ...)
Environmental protection rating		IP-65 - NEMA 3R		
Enclosure type		Stainless steel		
Operational altitude		Up to 2000 m / 6562 ft		
Operation temperature range		-35°C to +55°C / -31°F to +131°F		
Storage temperature range		+5 to +40°C / +41 to +104°F with relative humidity 5 to 85%		
Humidity limitation		5% to 95%, RH - non-condensing		
Dimensions (H x W x D)	Box	940 x 699 x 240 mm / 37.01 x 27.52 x 9.45 in	940 x 699 x 280 mm / 37.01 x 27.52 x 11 in	450 x 600 x 250 mm / 17.72 x 23.62 x 9.84 in
	On pedestal	2440 x 699 x 240 mm / 96 x 27.52 x 9.445in	940 x 699 x 280 mm / 96 x 27.52 x 11 in	-
Weight	Box	95 kg (7 m cable) / 209.4 lb (22.97 ft cable) 98 kg (9.5 m cable) / 216 lb (31.17 ft cable)	122 kg (9.5 m cables) / 269 lb (31.17 ft cables)	50 kg (7 m cable) / 110.23 lb (22.97 ft cable) 55 kg (9.5 m cable) / 121.25 lb (31.17 ft cable)
	Pedestal	60 kg / 132 lb		-
Color	Box	RAL 9002		
	Pedestal	RAL 7012		-
User interface				
Emergency button		Included on dispenser, also available as an externally mounted option		Available as an externally mounted option
Stop button		Yes & external option		Option for external stop button
LED indicator		Yes, RGB LED on the dispenser (green: ready to charge / blinkging green: preparation phase / blinking blue: charging / blue: charging complete / red: error) & external option		
Electrical connection (between power cabinet and dispenser)				
DC power cable		2 or 4 x 185 mm² (maximum) / 2 or 4 x 350 MCM AWG (maximum)		
AC power cable		3 x 6 mm² / 3 x 14 AWG	3 x 2.5 mm² / 3 x 14 AWG	2 x 6 mm² / 2x10 AWG
Distance (3)		Up to 150 m - 492 ft		
Communication and protocols (via power cabinet)				
Communication cabinet - outlet		CAN2Ethernet (CE) / CAN2FIBER (UL)	CAN2Ethernet	
Connectivity		Internet access via 4G / 3G / Ethernet (RJ45)		
Charge protocols		DIN 70121, ISO/IEC 15118 series ed 1 with PnC and EIM		
Communication protocols		OCPP 1.6 JSON		
Certification and standards				
Standards		'EN 61851-1: 2011, EN 61851-23: 2014, IEC 61851-1: 2010, IEC 61851-23: 2014, EN 61000-6-1: 2019, EN 61000-6-2:2019, EN 61000-6-3: 2007+A1, EN 61000-6-4: 2007+A1, UL 2202: 2009 R2.18, CSA C22.2 No. 107.1-16		
Compliance		CE and UL certification, BAA compliant option for transit		
Warranty		Base warranty 24 months after Site Acceptance Test or 30 months after factory delivery. Warranty extensions available.		
Designed lifespan		ABB chargers are designed for a lifetime of 10 years assuming they receive maintenance according to the maintenance schedule by a trained engineer. Under certain conditions and for certain models this can be extended to 15 years.		

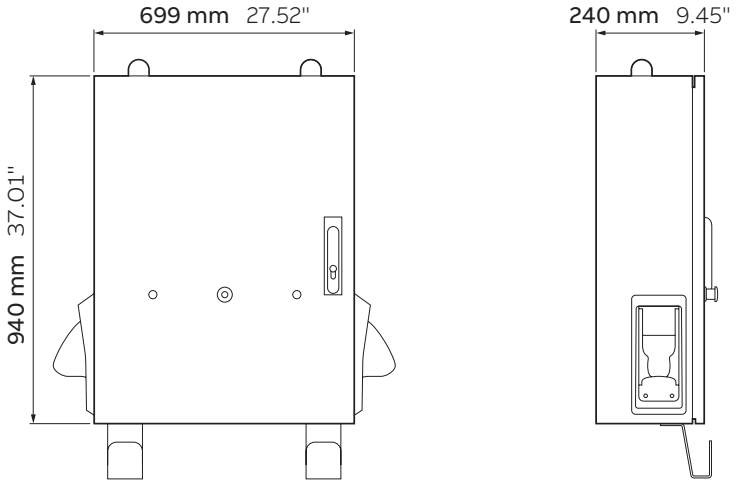
(1) Peak value under conditions. As specified by cable/ connector supplier and measured according to IEC 62196-1, current rating and duration is highly dependent on the vehicle inlet, the ambient temperature and sun radiation. More details can be provided upon request.
(2) DC output current and power ratings per outlet depend on the power cabinet power (200-360 kW) and number of connectors (2-4).
For more information, please refer to the HVC power cabinet technical specification in this brochure.
(3) Values with long distance kit. The standard distance (without long distance kit) is 100 m / 328 ft.

Dimensions

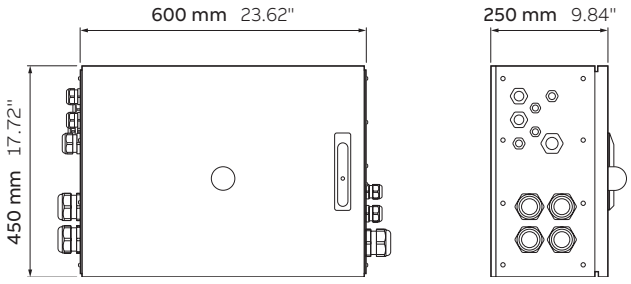
Depot charge box



Depot charge box dual outlet



CCS control box



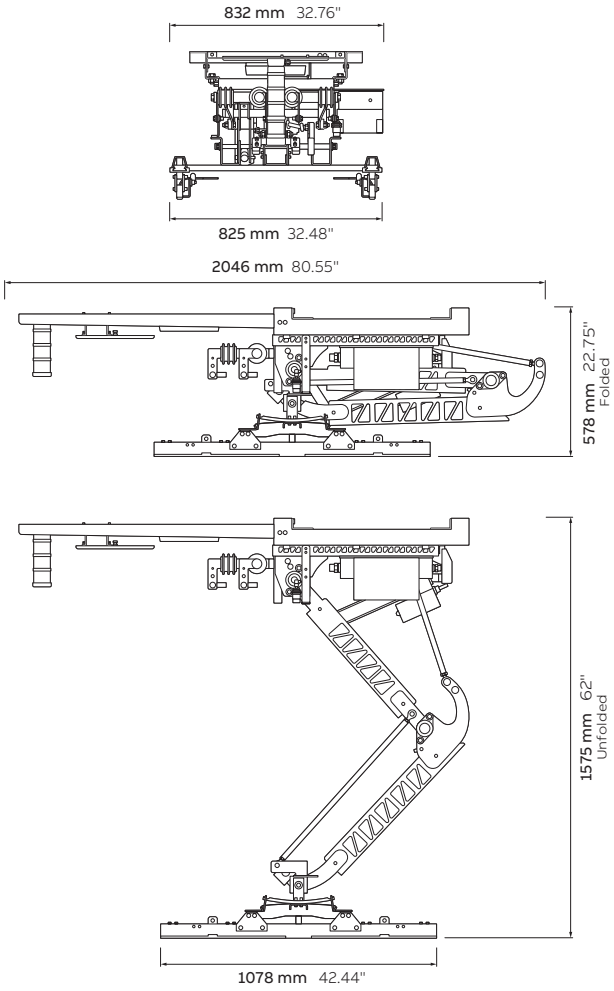
Dispensers with pantographs

Pantograph	Pantograph-down depot set (CE)	Pantograph-down depot set (UL)	Pantograph-up depot set (CE)
Product information			
DC output current peak	400 A		350 A
DC output current rating max per dispenser (1)	With HVC200: 142 A With HVC300: 215 A With HVC360: 400 A		With HVC200: 142 A With HVC300: 215 A With HVC360: 350 A
DC output power rating	50 - 360kW		
DC output power rating max per dispenser (1)	With HVC200: 200 kW With HVC300: 300 kW With HVC360: 360 kW		
DC output voltage range	150 - 1000 V DC		150 - 940 V DC
Standby power	15 W		< 8 W
Product characteristics			
Installation	Overhead, on any kind of support (truss, ceiling, ...)		
IP and IK rating	IP-65, IK10	Nema 3R	IP-65, IK10
Enclosure type	Stainless steel		
Operational altitude	Up to 2000 m / 6562 ft		
Operation temperature range	-35°C to +55°C / -31°F to 131°F		
Storage temperature range	-10°C to +70°C / 14°F to 158°F		
Humidity limitation	5% to 95%, RH - non-condensing		
Dimensions (H x W x D)	Control box: 450 x 600 x 250 mm Pantograph: 572 x 2046 x 825 mm Unfolding range: 400 - 1000 mm	22.75 x 82.76 x 50.79 in Unfolding range: 15.75 - 39.37 in	Control box 450 x 600 x 250 mm Dome: 385 x 1300 x 770 mm
Mass	Control box: 45 kg Pantograph: 90 kg	405 lb (the control box and the pantograph are one the same kit)	Control box: 45 kg Dome
Color	Control box: RAL 9002		
User interface			
Emergency button	Option for external emergency button		
Stop button	Option for external emergency button		
LED indicator	Yes, RGB LED on the dispenser (green: ready to charge / blinkging green: preparation phase / blinking blue: charging / blue: charging complete / red: error) & external option		
RFID reader (2)	-		
Electrical connection - between power cabinet and control box			
DC power cable	2 or 4 x 185 mm² (maximum) / 2 or 4 x 350 MCM AWG (maximum)		
AC power cable	3 x 6 mm²	3 x 14 AWG	-
24 V DC cable	-		2 x 6 mm²
Distance (3)	Up to 150 m - 492 ft		
Electrical connection - between control box and pantograph			
DC power cable	2 x 185 mm² (maximum) / 2 x 350 MCM (maximum)		
ACS pantograph control	7 x 2.5 mm²	7 x 14 AWG	-
Distance	Up to 10 m	-	Up to 10 m
Communication and protocols (via power cabinet)			
Communication cabinet - outlet	CAN2Ethernet		
Connectivity	Internet access via 4G / 3G / Ethernet (RJ45)		
Charge protocols	-		DIN 70121, ISO/IEC 15118 series ed 1 with PnC and EIM
Communication protocols	OCPP 1.6 JSON		
Certification and standards			
Standards	'EN 61851-1: 2011, IEC 61851-1: 2010, EN 61851-23: 2014, IEC 61851-23: 2014, EN 61851-1: 2011, EN 61851-23: 2014, IEC 61851-1: 2010, IEC 61851-23: 2014, EN 61000-6-1: 2007, EN 61000-6-2:2005, EN 61000-6-3: 2007+A1, EN 61000-6-4: 2007+A1		
Compliance	CE	UL	CE
Warranty	Base warranty 24 months after Site Acceptance Test or 30 months after factory delivery. Warranty extensions available.		
Designed lifespan	ABB chargers are designed for a lifetime of 10 years assuming they receive maintenance according to the maintenance schedule by a trained engineer. Under certain conditions and for certain models this can be extended to 15 years.		

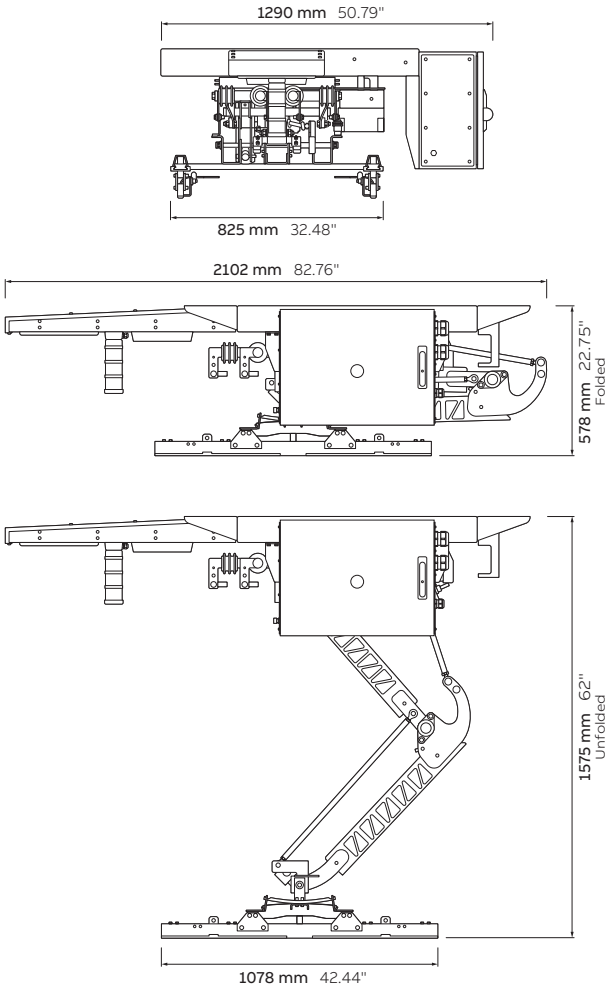
(1) DC output current and power ratings per dispenser depend on the power cabinet power (200-360 kW) and number of dispensers (2-4).
For more information, please refer to the HVC power cabinet technical specification in this brochure.
(2) RFID is an additional safety measure to prevent the pantograph from moving down when no bus is parked underneath. It is mandatory when two charge poles or pantographs are positioned within a distance of 12 m or less from each other (centre-to-centre of each pantograph).
RFID is used as a pairing verification method to guarantee the bus always communicates with the right charger. The RFID antenna is installed in the charge pole, and the RFID tag will need to be installed on the bus' roof.
(3) Values with long distance kit. The standard distance (without long distance kit) is 100 m / 328 ft.

Dimensions

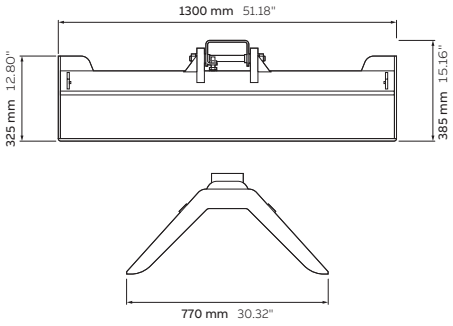
Pantograph-down depot set, CE



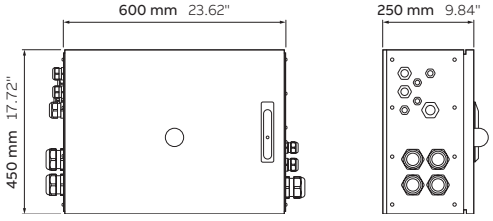
Pantograph-down depot kit, UL



Pantograph-up depot set, CE



Control box, CE (for pantograph-up and pantograph-down)



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For more information

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