

Electric Vehicle Infrastructure

HVC Depot (UL) charging for electric fleets



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HVC Depot
Boxes and power
cabinets, lined up
at a depot site.

A practical solution for busy depots

ABB Heavy Vehicle Charger (HVC) products enable electric buses and trucks to charge at the depot ensuring flexibility and scale for every fleet operation that is transitioning to zero-emission transportation.

Key Benefits

- + Smart charging
- + Small infrastructure footprint at vehicle interface
- + Flexible design for roof and floor mounting
- + SAE J1772 CCS and OCPP 1.6 compliant
- + Remote diagnostics and management tools

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.

ABB HVC-C Depot charging systems offer a highly reliable, intelligent and cost-effective solution to charge large EV fleets such as buses, trucks and other commercial vehicles.

Buy America

ABB can offer the HVC-C Depot Charging Solution with compliance to the Buy America Act Rule 49 CFR Part 661.5.

Future-proof modular design

Power cabinets can be upgraded from 100 or 150 kW in the field, as well as add additional depot charge boxes, allowing operators to scale their operation and to spread investments over time.

Safe and reliable operation

ABB fast chargers are designed to the highest international electrical, safety, and quality standards, and are certified by notified bodies - guaranteeing safe and reliable operation.

Connectivity and remote services

ABB chargers come with an extensive suite of connectivity features including remote services such as monitoring, management, diagnostics and software upgrades. These advanced services provide equipment owners with powerful insights into their charging operations while enabling high uptime.

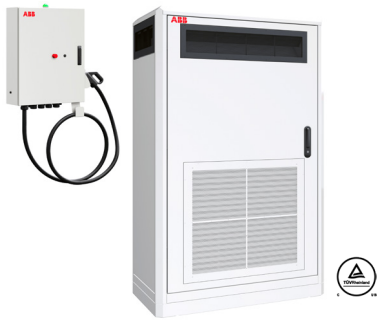
ABB E-mobility is your experienced partner

ABB HVC products are based on a decade of high power experience in EV charging solutions. ABB has sold over 50,000 DC fast charging systems in more than 85 countries – and is the leading EV infrastructure technology supplier globally.

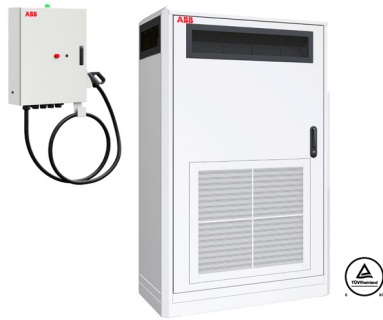
Overnight charging 100 kW - 150 kW

Flexible choices for bus and fleet charging demands

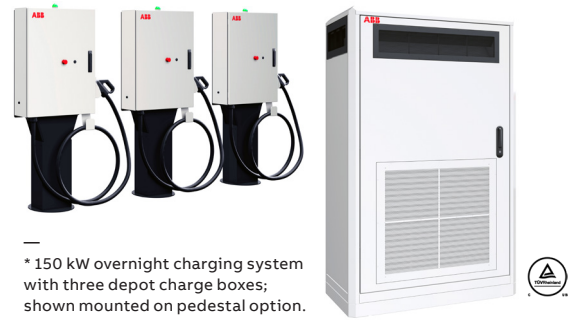
HVC 100C



HVC 150C



HVC 150C*



* 150 kW overnight charging system with three depot charge boxes; shown mounted on pedestal option.

Technical specifications

Configurations		HVC 100C	HVC 150C
Maximum output power		100 kW	150 kW
AC Input voltage		UL: 3-phase, 480Y/277 VAC +/- 10% (60 Hz) CSA: 3-phase, 600Y/347 VAC +/-10% (60 Hz)	
AC Input connection		L1, L2, L3, GND (no neutral)	
Rated input power		117 kVA	170 kVA
Rated input current		UL: 132 A / CSA: 108 A	UL: 198 A / CSA: 168 A
Recommended upstream circuit breaker(s)		UL: 1 x 200 A / CSA: 1 x 150 A	UL: 1 x 250 A / CSA: 1 x 250 A
Output voltage range		150 – 850 VDC	
Maximum DC output current		166 A	200 A
Power Factor		≥ 0.97	
Current THD		IEEE 519 Compliant; <8%; option for 5%	
Short circuit current rating		25 kA; 65 kA optional	
Efficiency		95%	
Vehicle connection interface		CCS-1	
User interface		RGB beacon light system indicates: 1) Ready to charge; 2) Handshake; 3) Charging and 4) Error	
Cable length		3.5 m (11.5 ft) standard; 7 m (23 ft) optional	
DC connection standard		SAE J1772 - IEC 61851-23 / DIN 70121 - ISO 15118	
Environment		Indoor/Outdoor	
Operating temperature		Standard: -10 °C to +50 °C (de-rating characteristic applies) Optional: -35 °C to +50 °C	
Protection		Power Cabinet: IP54 – IK10 (equivalent to NEMA 3R) Depot Charge Box: IP65 - IK10	
Humidity		5% to 95%, non-condensing	
Altitude		2500 m (8200 ft)	
Network connection		GSM/3G modem 10/100 base-T Ethernet	
Communication		OCPP 1.6 Core and Smart Charging Profiles; Autocharge via OCPP	
Compliance and Safety		CSA No. 107.1-16 and UL 2202 certified by TUV; SAE J1772 - IEC 61851-23 / DIN 70121 - ISO 15118; BA Rule 49 CFR Part 661.5 (optional)	
Dimensions			
Power Cabinet	Dimensions (H x W x D)	2030 x 1170 x 770 mm / 79.9 x 46.1 x 30.3 in	
	Weight	1340 kg / 2954 lbs	
Depot Charge Box (without pedestal)	Dimensions (H x W x D)	800 x 600 x 210 mm / 31.5 x 23.6 x 8.3 in	
	Weight	61 kg / 134.5 lbs (with 7 m / 23 ft cable)	
Depot Charge Box (with pedestal)	Dimensions (H x W x D)	1914 x 600 x 400 mm / 75.4 x 23.6 x 16.3 in	
	Weight	181 kg / 398 lbs (with 7 m / 23 ft cable)	

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