

# Electric Vehicle Infrastructure

## HVC-PD NA opportunity charging for electric buses



ABB's HVC-PD opportunity charging system offers high-power charging via an automated rooftop connection. With typical charge times of 3 to 6 minutes the system can be easily integrated in existing operations by installing chargers at endpoints, terminals and intermediate stops.

The HVC-PD charging system leverages an automated connection to enable extremely fast charge times.

### A practical solution for route charging

ABB'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.

#### Key Benefits

- + Charge in 3 to 6 minutes
- + One charger serves many vehicle makes and models
- + Safe and reliable fully automated connection
- + SAE J3105-1 and OCPP 1.6 compliant
- + Remote diagnostics and management tools

### Future-proof modular design

Additional power cabinets can be installed at any time, allowing operators to scale their operation and flexibly spread out infrastructure investments as their fleet grows.

### Safe and reliable operation

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

### Interoperability

ABB HVC chargers are based on international standards for operational compatibility with multiple

vehicle types and brands. This allows operators to select vehicles from multiple vendors and not be locked into a single supplier.

### Connectivity and remote services

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

### OCPP 1.6

ABB HVC-PD charging systems can be connected to standardized charging infrastructure management platforms using OCPP 1.6. ABB's HVC suite supports OCPP 1.6 Core and Smart Charging Profiles.

### Buy America

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

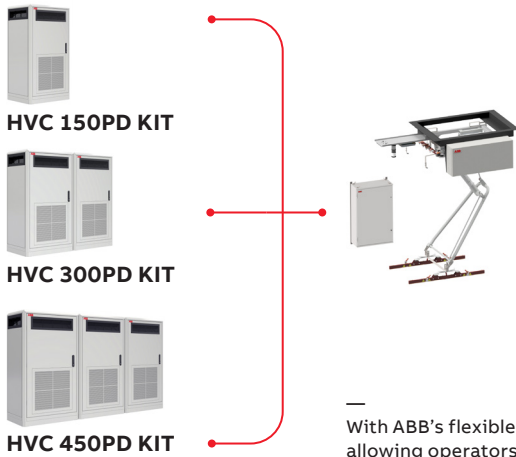
### ABB is your experienced partner

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

# Opportunity charging 150 kW to 450 kW

A scalable system with future-proof reliability

## Charging on existing structure



## Charging on route



With ABB's flexible HVC architecture, power capability can be expanded over time, allowing operators to spread out infrastructure investments as their fleet grows.

## Technical specifications

Configurations	HVC 150PD	HVC 300PD	HVC 450PD
Maximum output power	150 kW	300 kW	450 kW
Input AC connection	U.S.: 3-phase, 480Y/277 VAC +/- 10% (60 Hz); Canada: 3-phase, 600Y/347 VAC +/-10% (60 Hz)		
Rated input power	170 kVA	2x 170 kVA	3x 170 kVA
Rated input current	U.S.: 198 A Canada: 168 A	U.S.: 2x 198 A Canada: 2x 168 A	U.S.: 3x 198 A Canada: 3x 168 A
Recommended upstream circuit breaker(s)	1 x 250 A	2 x 250 A	3 x 250 A
Output voltage range	150 – 850 VDC		
Maximum DC output current	250 A	500 A	600 A*
Vehicle connection interface	Inverted crossrail pantograph - OppCharge		
DC connection standard	SAE J3105-1 - IEC 61851-23-1 - ISO 15118		
Environment	Indoor/Outdoor		
Operating temperature	Standard: -10 °C to +50 °C (de-rating characteristic applies); Optional: -35 °C to +50 °C		
Protection	IP54 – IK10 (NEMA 3R)		
Network connection	GSM/3G/4G modem   10/100 base-T Ethernet		
Compliance and safety	UL 2202: 2018, C22.2 No. 107.1-16, EN 61851-23: 2014, EN 61851-1: 2011, EN 61000-6-3: 2007+A1: 2011		

## Dimensions

Power cabinet (each)	Number of Power Cabinets	1	2	3
	Dimensions (H x W x D)	2030 x 1170 x 770 mm / 79.9" x 46.1" x 30.3"		
	Weight	1340 kg / 2954 lbs		
Charge pole (includes Pantograph & ACM)	Dimensions (H x W x D)	5240 x 1040 x 300 mm / 206.3" x 40.9" x 11.8"		
	Outreach	4670 mm / 183.9" x 30.3"		
	Weight	1706 kg / 3762 lbs		
ACM Control Module KIT	Dimensions (H x W x D)	1600 x 1000 x 476.9 mm / 63" x 39.4" x 18.8"		
	Weight	193 kg / 425 lbs		
Pantograph KIT	Dimensions (H x W x D)	(resting position / bolt-hole pattern) 574 x 1300 x 900mm / 22.6"H x 51.2"W x 35.4"D		
	Weight	387 kg / 854 lbs		

\* Limited by inverted pantograph contact ratings

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