

# Electric Vehicle Infrastructure

## Terra HP high power charging



ABB's Terra HP family has ultra-high current charging capability and can charge both 400 V and 800 V cars at full power. With 375 A output, a single power cabinet can charge a 400 V car at full 150 kW continuously.

Unique Dynamic DC power sharing technology ensures the most efficient way of charging multiple high-power EVs while optimizing the available grid connection.

Terra HP is ideally suited for highway corridor charging, travel plazas and convenience stops. The system is expandable over time by adding additional power cabinets and charge posts after initial site installation. This capability delivers future-proof site planning flexibility by offering a cost efficient way to build expandable charge points that can grow with EV market demand.

A single power cabinet system can charge a 400 V car at full 150 kW (375 A) continuously. With Dynamic DC power sharing technology, a two power cabinet Dynamic DC charger configuration can charge two EVs simultaneously, with up to 350 kW and 500 A, while optimizing the available grid connection.

The system has the highest uptime due to redundancy on power and communication, along with individually cooled charging cables. Moreover, the power cabinet has already proven its reliability in commercial e-bus field installations around the world.

### ABB Terra HP key features

- Ultra-high current of 375 A per individual power cabinet
- Dynamic DC functionality: 500 A per charge post, to charge multiple EVs simultaneously
- Wide voltage range: 150 – 920 V
- Modular system: 175 – 500 kW
- Supports CCS (500 A liquid-cooled cables) and CHAdeMO (200 A) charging standard
- Compatible with all current and next generation BEVs
- Integrated chiller in charge post allows for ease of installation
- Distance between power cabinet(s) and charge post(s) up to 150 m
- High brightness, intuitive, easy to use 7" touchscreen display
- Multiple payment options
- ADA compliant

Technical specifications	
DC output power per power cabinet	175 kW peak 160 kW continuous (375 A)
DC output voltage range	150 – 920 V <sub>DC</sub>
Maximum DC output current	375 or 500 A per charge post
AC Input (UL version)	3-phase 480 V <sub>AC</sub> ± 10% 265 A, 174 kVA, 60 Hz
Power factor	> 0.99
Efficiency (full load)	95%
Mechanical impact protection	IK 10 (screen: IK 08)
Environment	IP 54, stainless steel, outdoor use
Operating temperature	-35 °C to +55 °C
RFID	ISO/IEC 14443A/B, ISO/IEC 15393, FeliCa™1, NFC, Mifare, Calypso (option: Legic)
Network connections	GSM/2G/3G 10/100 base-T Ethernet
Compliance and certification	CE, UL, cUL, RMC, EAC, KC, EN 61851, EN 62196, CHAdeMO 1.2 IEC 61000-6-3 EMC Class B DIN 70121, ISO 15118
Power cabinet	
Dimensions (H x W x D)	2103 x 1170 x 770 mm 82.8 x 46.1 x 30.3 in
Weight	1340 kg / 2954 lbs
Charge post	
Dimensions (H x W x D)	2200 x 520 x 400 mm 86.6 x 20.5 x 15.7 in
Weight	350 kg / 772 lbs

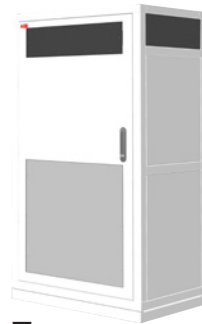
### ABB Terra HP optional features

- Car presence detection
- 15" high brightness touch screen
- Customizable user interface
- Charging site load balancing
- Integrated payment terminal

### ABB Ability Connected Services

Connected Services provide enhanced functionality for:

- Easily connect chargers to back offices, payment platforms or smart grid systems
- Remote configuration, access management
- Remote diagnostics, repair and over-the-air software updates, keeping costs low
- Detailed charger fleet statistics, analytics and reports



175 kW  
375 A  
150-920 V<sub>DC</sub>



**Dynamic DC**  
2x 350 kW  
2x 500 A  
150-920 V<sub>DC</sub>



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