

# 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 rest stops and petrol stations. The system is expandable over time; it is possible to add additional power cabinets and charge posts after installation. This is a cost efficient way to build expandable charge points that can grow with market demand, as the EV base grows.

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, and individually cooled charging cables. Moreover, the power cabinet has already proven its reliability in commercial e-bus field installations.

### 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
- Suited for current and next generation EVs
- Supports CCS (500 A liquid-cooled cables), CHAdeMO (200 A) and GB (500 A) charging standard
- 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

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 (CE version)	3-phase 400 V <sub>AC</sub> ± 10% 265 A, 174 kVA, 50 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
Weight	1340 kg
Charge post	
Dimensions (H x W x D)	2200 x 520 x 400 mm
Weight	350 kg

### ABB Terra HP optional features

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

### Why charging operators prefer ABB

- ABB Ability Connected Services provide enhanced functionality:
  - Easily connect chargers to back offices, payment platforms or smart grid systems
  - Remote diagnostics, repair and over-the-air software updates, keeping costs low
- A separate leaflet is available for all Connected Services (Driver Care, Charger Care, etc.)
- ABB's years of EV charging experience, and close cooperation with EV manufacturers
- Highest reliability and uptime of the charger network
- Large quantity orders are already possible from end of 2017



### For more information please contact:

#### ABB EV Infrastructure

Delftweg 65  
2289 BA Rijswijk  
The Netherlands  
Phone: +31 70 307 6200  
E-mail: info.evci@nl.abb.com

Drivenergy Ltd  
The Innovation Centre  
Trevenson Road  
Pool  
REDRUTH TR15 3PL  
Phone: 0800 242743  
info@drivenergy.uk

[abb.com/evcharging](http://abb.com/evcharging)

[www.drivenergy.uk](http://www.drivenergy.uk)

Notice: product under development, specifications may deviate without prior notice