Ultra Fast Charge Station

HV175 | HV350

Overview

- Charge any compatible vehicle with CCS standard
- Output voltage up to 920 V
- Combo DC output (Mode-4) / Option CHAdeMO
- TFT color display
- Network integration (OCPP or proprietary protocol)
- Built-in communications (2G/3G/4G(LTE))

Product Description

Focused on bringing new and innovative solutions to the EV charging market characterized by a growing trend for fast high-power chargers, Efacec developed a solution that fits all features of this emerging market. The HV350 is a High Power Ultra Fast charging solution, able to supply up to 320 kW by connecting two HV175 units to an user interface unit with adequate cable and connector. HV350 charging station is able to charge all electric vehicles including buses with battery voltages up to 920 V d.c. and 350 A d.c., compliant with Combined Charging System (CCS) standard with power levels up to 320 kW. A second output is also available. It can be a CHAdeMO charging system with voltage up to 500 V d.c. and current up to 125 A d.c or a Combined Charging System (CCS) with voltage up to 920 V d.c. and current up to 200 A d.c.
Using Efacec's more than 30 years of experience in power electronics technology, the HV350 is a powerful charging system, safe, robust, durable, stable and environmentally friendly.

HV175 HV350

DC plug-in charging systems

CCS CHAdeMO

Main features

- Fits all CCS vehicles
- Customizable
- Mode-4 charging
- HV350 = 2 x HV175
- Liquid cooled cable
- Indoor/Outdoor (IP54)

Applications

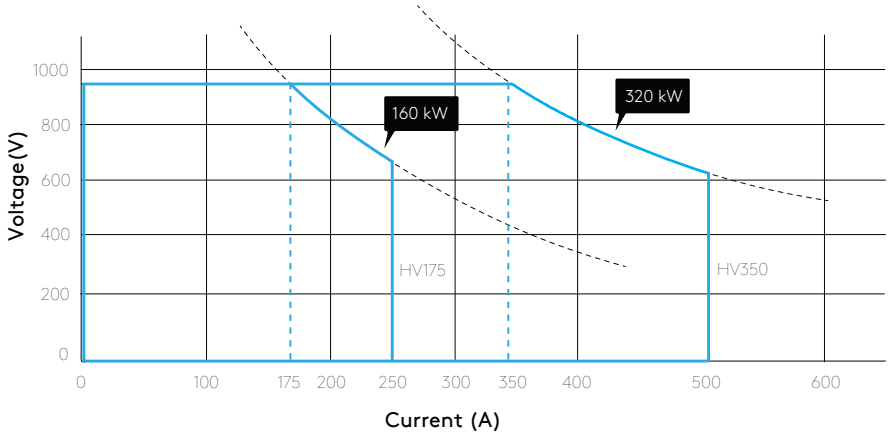
- Long-range EVs charging spots

Technical Information

Technical data	HV175	HV350
AC nominal input		
Phases / lines	3 phases + neutral + PE	3 phases + neutral + PE
Voltage	400 Vac ± 10 %; 50 Hz	400 Vac ± 10 %; 50 Hz
Frequency	50 Hz	50 Hz
Power factor	0,98	0,98
Nominal input current / power	248 A / 172 kVA	2x (248 A / 172 kVA)
Efficiency	> 95% @ full power	> 95% @ full power
DC output		
Maximum voltage	920 V	920 V
Maximum current	175 A 250 A[(a)] up to 640 V	350 A 500 A[(b)] up to 640 V
Nominal power	161 kW	322 kW
General specifications		
Communication with EV	IEC 61851-23 PLC (CCS / Combo-2) / CHAdeMO	IEC 61851-23 PLC (CCS / Combo-2) / CHAdeMO
DC plugs	Combo T2 (CCS / Combo-2) / CHAdeMO	Combo T2 (CCS / Combo-2) / CHAdeMO
Human machine interface	By default	By default
Display	15.6" TFT Color screen	15.6" TFT Color screen
RFID system (optional)	Mifare (Classic, DesFire EV1) or others on request	Mifare (Classic, DesFire EV1) or others on request
Communication	2G/3G/4G (GSM or CDMA) | LAN | Wi-Fi	2G/3G/4G (GSM or CDMA) | LAN | Wi-Fi
Communication protocols	OCPP1.5 ; OCPP1.6	OCPP1.5 ; OCPP1.6
Place of installation	Indoor/Outdoor	Indoor/Outdoor
Altitude	Up to 1000 m	Up to 1000 m
Protection degree	IP54 | IK10	IP54 | IK10
Operating temperature	-25 °C to +50 °C	-25 °C to +50 °C
Optional cold option	-35 °C to +50 °C	-35 °C to +50 °C
Storage temperature	-40°C to +60 °C	-40 °C to +60 °C
Humidity	5% to 95%	5% to 95%
Sound pressure (power unit)	<55 dB(A) at 5 meters	<55 dB(A) at 5 meters
Dimensions power unit (W x D x H)	1000 x 800 x 1900 mm	2 x (1000 x 800 x 1900 mm)
Weight power unit	1100 kg	2 x (1100 kg)
User interface unit		
Dimensions (W x D x H)	600 x 300 x 2500 mm	600 x 300 x 2500 mm
Weight	260 kg	260 kg
Charging cable length	3,7 m	3,7 m

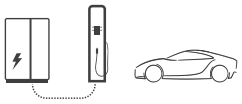
(a) Boost mode

(b) Under request



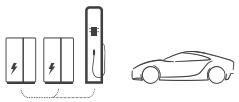
Output Configurations

Scenario 1



One HV175 power unit connected to an user interface unit

Scenario 2



Two HV175 power units, with a total output current of 350 A connected to an user interface unit equipped with a 350 A charging cable

Efacec Electric Mobility, S.A.
Electric Mobility Business Unit

Via de Francisco Sá Carneiro Apartado 3078 • 4471-907 S. Moreira da Maia • Portugal
T. +351 229 402 000 • **F.** +351 229 403 209 • evcharging@efacec.com • www.electricmobility.efacec.com

www.efacec.com

efacec Empowering the future

MOD. CS474I2008A1