

Ultra Fast Charge Station

HV175^{G2} | HV350^{G2}

Overview

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



HV175^{G2} HV350^{G2}

Product Description

Efacec developed a new and innovative solution that fits all features of this emerging market. The HV350^{G2} is a High Power Ultra Fast charging solution, able to supply up to 350kW by connecting two HV175^{G2} units to an user interface unit with adequate cable and connector setup. HV350^{G2} charging station is able to charge all electric vehicles including buses with battery voltages up to 920V DC and 500A DC, compliant with Combined Charging System (CCS) standard with power levels up to 350kW. A second output is also available. It can be a CHAdeMO charging system with voltage up to 500V DC and current up to 200A DC or a CCS with voltage up to 920V DC and current up to 200A DC.

Using Efacec's more than 30 years of experience in power electronics technology, the HV350^{G2} is a powerful, reliable and environmentally friendly charging system, designed to support the requirements of a demanding energy infrastructure and a sustainable industry growth.

DC plug-in charging systems



CCS



CHAdeMO

Main features

- Fits all CCS vehicles
- Customizable
- Mode-4 charging
- HV350^{G2} = 2 x HV175^{G2}
- Liquid cooled cable
- Indoor/Outdoor (IP54)
- 500A continuous current
- Simultaneous charging options
- Eichrecht option (in process of certification)
- Load Management System (LMS) integration via MODBUS TCP / IP
- Smart charging via OCPP 1.6
- Cyber security enhanced features
- Legal backdoor for maintenance (optional)
- Over the air update

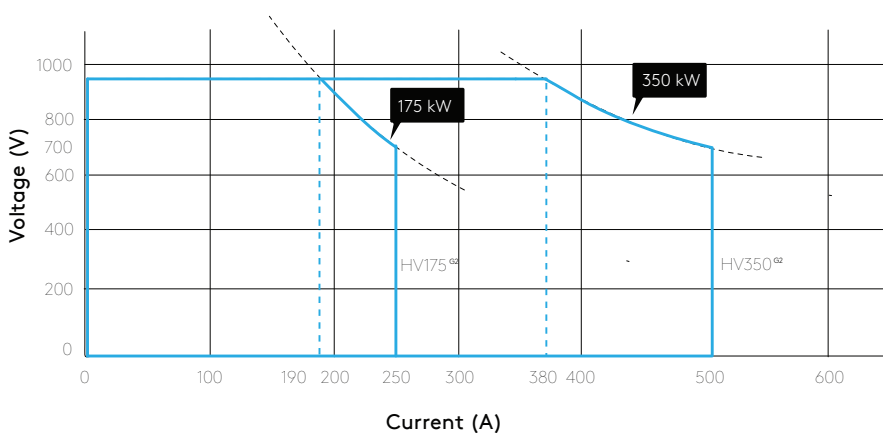
Applications

- Long-range EVs charging spots

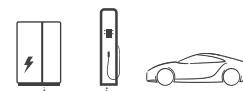
Technical Information

Technical data	HV175 ^{G2}	HV350 ^{G2}
AC nominal input		
Phases / lines	3 phases + neutral + PE	3 phases + neutral + PE
Voltage	400 Vac ± 10 %	400 Vac ± 10 %
Frequency	50 Hz	50 Hz
Power factor	0,98	0,98
Nominal input current / power	271A / 188kVA	2x (271A / 188kVA)
Efficiency	> 95% @ full power	> 95% @ full power
DC output		
Maximum voltage	920V	920V
Rated current	190A	380A
Maximum continuous current	250A up to 700V	500A up to 700V
Nominal power	175kW	350kW
General specifications		
Communication with EV	IEC 61851-23 PLC (CCS / Combo-2)	IEC 61851-23 PLC (CCS / Combo-2)
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	-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 m	<55 dB(A) at 5 m
Dimensions power unit	1149 x 868 x 2047 mm	2 x (1149 x 868 x 2047 mm)
Weight power unit	1356 kg	2 x (1356 kg)
User interface unit		
Dimensions (W x D x H)	736 x 450 x 2500 mm	735 x 450 x 2500 mm
Weight	304 kg	304 kg
Charging cable length	3,7 m	3,7 m

Output Configurations

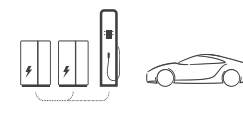


Scenario 1



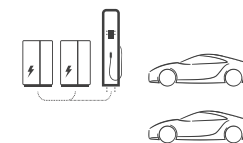
One HV175^{G2} power unit connected to an user interface unit.

Scenario 2



Two HV175^{G2} power units, with a total output current of 500A connected to an user interface unit equipped with a 500A charging cable.

Scenario 3



Two cars up to 250A each and with simultaneous charging system.

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