

Charging station for electric vehicles type EV-C

180 kW | 240 kW | 300 kW



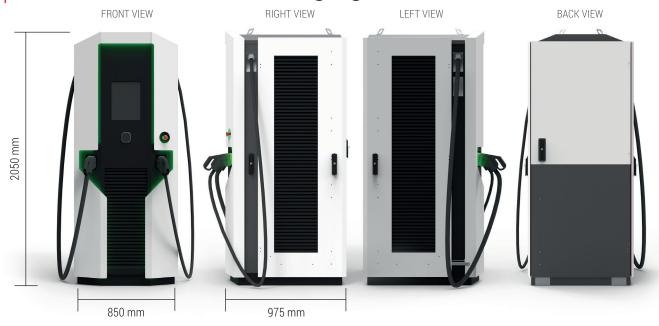
The EV-C300 type electric vehicle charging station enables charging of electric vehicles with a direct current (DC) power of up to 300 kW through CCS Type 2 connectors. The device is powered by three-phase alternating current (AC) with a voltage of 400 V and a frequency of 50 Hz in a TN system with a maximum connection power of 330 kVA. The housing is made of powder-coated stainless steel with an IP54 protection rating and IK10 mechanical resistance class. The efficiency of the system under rated charging parameters is greater than 95%, and the content of higher harmonics in the current is less than 5%. The charging station is resistant to weather conditions. The authorization of the charging process is done through an RFID reader, optionally with a PIN code or through an external application. The charging station supports OCPP 1.6 communication protocol and comes equipped with a GSM modem as a standard feature. It can be operated via a touch screen display or optionally through an application.

Main components of the charging station:

- Powder-coated stainless steel housing,
- Charging cables with CCS Type 2 connectors,
- Simultaneously supported electric vehicles two,
- → 15-inch touch screen display for charging control,
- LCD multimedia screen for displaying advertising content (optional),
- → LED illumination.
- RFID card reader.
- AC/DC power converters up to 10 units,
- Programmable DC charging controller,
- ✓ Integration with Elocity or other software through OCPP 1.6 (optional),
- → GSM/4G LTE cellular network modem,
- Wireless OTA ("Over-The-Air"),
- 2 channels of cellular network communication, one for service support and the other for operator backend communication.
- MID-compliant electric energy meter,
- Emergency switch on the housing,
- ≥ Electrical devices (circuit breakers, contactors, overcurrent and differential protections, surge protectors, insulation status relays).

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Electric vehicle DC charging stations:



		EV-C180	EV-C240 ¹⁾	EV-C300	
AC POWER SUPPLY	Voltage U _{AC}		3 x 400 V / 50 Hz		
	Maximum current drawn from the grid at 3 x 400V		286 A	381 A	477 A
	Rated current / characteristics of the fuse insert		3 x 300 A gG	3 x 400 A gG	3 x 500 A gG
	Connection power		198 kVA	264 kVA	330 kVA
	Power Distribution System		TN-S, TN-C-S, TN-C ²⁾		
DC FAST CHARGING	Nominal power		180 kW	240 kW	300 kW
	U _{DC} voltage		150 ÷ 1000 VDC		
	Number of connectors / type		2 / CCS typ 2		
	Maximum current on the charging connector	Connector 1	250A (up to 500A in Boost Mode) / 500 A - liquid-cooled (optional)		
		Connector 2	250A (up to 500A in Boost Mode)		
	Power distribution between connectors	Connector 1	180 kW	240 kW	300 kW
		Connector 2	90 kW	120 kW	150 kW
	Charging cable length		4,2 m ^{15% 3)}		
GENERAL CHARACTERISTICS	Efficiency		≥95% (für Ausgangsleistung >50%)		
	THDi		≤5%		
	Power factor (at full load)		≥0,99		
	Charging system		Mode 4		
	Communication protocol		0CPP 1.6J, 0CPP 2.0.1		
	Charging authorization		RFID-Karte / PIN ⁴⁾ / Anwendung ⁴⁾		
	Display		TFT 15", Touchscreen		
	Protection rating		IP54 / IK10		
	External dimensions		850mm x 975mm x 2050mm		
	Weight		~700 kg	~780 kg	~860 kg
	Operating temperature range		von -25°C bis +50°C (> +40°C mögliche Leistungsbeschränkung)		
	Standards and regulations		CE, LVD 2014/35/UE, EMC 2014/30/UE, PN EN IEC 61851 1, PN-EN 61851 23, PN EN 61851 24, PN EN 62196-1, PN EN 62196 3:2015-02, DIN SPEC 70121		

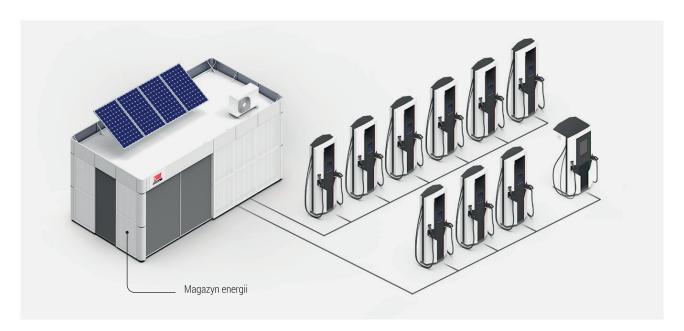
^{1) –} Possible construction of EV-C210 and EV-C270 charging stations after consultation with the manufacturer

²⁾ – A different network layout can be accomplished after consultation with the manufacturer

 $^{^{3)}}$ – Standard charging cable length is 4.2m±5%, different length available on request after consultation with the manufacturer

^{4) -} Option

HUB - Electric Vehicle Charging Center



Main advantages of the **HUB**

- Prevention of significant load fluctuations during electric vehicle charging,
- Storage of electricity from the distribution grid (e.g., less expensive night tariff) or RES so that it can be used at times when no electricity is generated,
- Security and continuity of supply,
- Optimisation of supply infrastructure, possibility of installing more charging stations,
- Power factor adjustment,
- Lower contracted capacity, reduced demand for electricity from the power grid.

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