Quick Charger

QC 60/90/120

Overview

The QC 60/90/120 is a modular Quick Charger, for electric vehicles, with output power from 60 kW up to 120 kW, with simultaneous charging in 3 plugs (CCS, CHAdeMO and AC).

These chargers are Plug-n-Charge ready and incorporate an active monitoring and remote upgrade system.

After user identification (if authentication is required), by simply choosing the charging standard compatible to your vehicle and coupling the charger's output plug to the EV, you will have a fast, secured and proven charging process. The battery charging status is displayed and the charging cycle finishes by itself or can be terminated by user command.

Main features

- Scalable option from 60 kW to 120 kW
- High efficiency: > 95 % (for d.c. charging)
- Multi standard compliant (CHAdeMO, CCS and AC Type-2 up to 43 kVA)
- Up to 400 A max. charging current
- Simultaneous charging for all output configurations (AC | CCS | CHADEMO; AC | CCS | CCS; CCS | CCS | CHADEMO; CCS | CCS)
- Plug-n-Charge (ISO 15118)
- Noise reduction operative modes
- TFT colour display (for user interface and advertising)
- Network integration via OCPP 1.6 with Smart Charging or proprietary protocol
- Built-in communications (2G; 3G; 4G; LAN; Wi-Fi) with high gain external antenna
- Load Management System (LMS) integration via MODBUS TCP/IP
- Cyber security enhanced features
- Legal maintenance access (optional)
- Over-the-air update
- NFC Payment System (optional)
- Eichrecht compliant (optional)
- C4 Corrosion class
- Branded cabinet customisable (optional)

DC charging systems

CCS   **CHΛdeMO**   AC ~

Value proposition

- Small footprint with high power density
- Simple plug & play installation
- Flexibility/scalability - pay as you grow
- Business opportunity with digital advertising
- Low Total Cost of Ownership (TCO)
- Output voltages up to 1000 V
- Up to 400 A maximum charge current (Boost Mode)
- CMS
- Dynamic power allocation in 30 kW steps
- Local and remote monitoring

efacec Empowering the future

Technical data	QC 60	QC 90	QC 120
AC input			
Phases / lines	3 Phase + Neutral		
Voltage / frequency	400 V (± 10 %) / 50 Hz (45 Hz - 55 Hz)		
Nominal input current / power	DC: 93 A / 64 kVA DC + AC22: 125 A / 86 kVA DC + AC43: 155 A / 107 kVA	DC: 139 A / 96 kVA DC + AC22: 171 A / 118 kVA	DC: 185 A / 128 kVA DC + AC22: 217 A / 150 kVA
Efficiency (for d.c. charging)	>95 %[1]		
Power factor	0,98		
DC output			
Voltage range (CCS / CHAdeMO)	150 V to 1000 V [2] / 150 V to 500 V		
Maximum power (CCS / CHAdeMO)	60 kW / 50 kW [3]	90 kW / 50 kW [3]	120 kW / 50 kW [3]
CCS cable current (max. continuous / boost)	200 A [4] / -	250 A / 300 A	250 A / 400 A[5]
CHAdeMO max. continuous current	125 A		
AC output (optional)			
Voltage	230 V or 400 V		
Nominal power	22 kVA (Socket) / 43 kVA (Cable) [6]	22 kVA (Socket)	22 kVA (Socket)
DC/AC output configuration	CCS | CCS CCS | CCS | CA CCS | CHAdeMO | CA CCS | CCS | CHAdeMO [7] CCS | CHAdeMO [8]	CCS | CHAdeMO | CA CCS | CCS | CA CCS | CCS | CHAdeMO CCS | CCS	CCS | CHAdeMO | CA CCS | CCS | CA CCS | CCS | CHAdeMO CCS | CCS
General specifications			
Equipment	Multi-standard DC outputs (Mode-4), with optional AC (Mode-3)		
DC plugs	JEVS G105 (CHAdeMO) Combo T2 (CCS / Combo-2)		
AC plug (or socket)	IEC 62196 Type-2		
Cable Length	2,9 m (standard) / 3,5 m / 5 m (other cable lengths under request)		
Metering	(optional) - MID Meter for each DC and AC output (EN 50470-1:2006, EN 50470-3:2006) (for German market) Eichrecht compliance for each DC and AC output [9] (PTB-A 50.7, PTB-A 20.1)		
Human Machine Interface			
Display	6.4'' TFT Color screen		
Buttons	4 x push buttons + 1 x Stop Charger button (optional)		
RFID system	Mifare (Classic, DesFire EV1) or others on request		
Payment terminal	On request (optional)		
Led station indication	Yes		
Communication	4G,3G,2G | LAN | Wi-Fi		
Interface with EV	DIN 70121, ISO 15118–2, ISO 15118–20 [10], CHAdeMO 0.9, IEC 61851-1 (AC)		
PnC	Yes (ISO 15118)		
Upstream propocols	OCPP (1.6 and 2.0.1) [10] and others		
High gain external antenna	Yes		
Place of installation	Floor mounted (Indoor / Outdorr)		
Altitude	Up to 2000 m [11]		
Protection degree	IP54 | IK10		
Operating temperature	-30 °C to +55 °C		
Storage temperature	-40 °C to +60 °C [12]		
Humidity	5 % to 95 % [13]		
Dimensions (W x D x H)	809 x 516 x 1982 mm		
Weight (without package)	355 kg	378 kg	400 kg
Other options			
Software update	Remote software update via OCPP or web portal		
Anti-graffiti paint	Under request		
Plug cable detection in stand by	-	Under request	Under request
Retrofit kit for 120 kW	Yes [14]	Yes [14]	-

[1] Peak;
[2] For Eichrecht metering propose, DC output voltage is 150 V dc to 1000 V dc;
[3] Rating @ 400 V;
[4] For non-upgradable version, max. continuous current is 150 A;
[5] Standard version up to 300 A boost. Premium version up to 400 A boost current;
[6] Only available in non-upgradable version and only for MID certified models;
[7] Only available in upgradable version;

[8] Only available in non-upgradable version;
[9] For AC charging, only available for AC22;
[10] Future upgrade through OTA;
[11] For other installation conditions, please contact the factory for more information;
[12] Depending on type of package;
[13] No condensation;
[14] Upgradable version specifications under consultation.

MOD. CS48212102F1