# hyc200



100 kW to 200 kW
DC-charging system
for EVs

Up to **97.5 %**
efficiency under full load

Max. total DC output
**600 A**

**50 kW**
granularity for dynamic load management

**150 - 1000 V**
future-proof output range

**Bidirectional**
native design

Integrated power electronics
in an ultra-compact design

Simultaneous charging
for up to 3 cars

Power-Stack concept:
Scalable power
100 kW or 200 kW

Product data sheet HYC200 / V1 - 2

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## System Specifications

| | |
|---|---|
| DC interfaces | CCS2 up to 500 A (600 A boost)<br>CHAdeMO up to 200 A<br>CCS1*<br>NACS*<br>GB/T*<br>* Only upon special request by OEMs |
| Load and charging management | Smart, dynamic allocation of power modules and distribution of charging power to charging points. |
| Operating temperature | -30° up to +55° C |
| Operating height | ≤ 4,000 m a.s.l.*<br>* For configuration with CHAdeMO cables, the max. installation height is limited to 2,000 m a.s.l. |
| Environmental conditions, in storage | -40° up to +55° C |
| Environmental conditions, under transport | -40° up to +70° C |
| Humidity (in operation, storage) | 10% - 95% relative (non-condensing) |
| Efficiency | up to 97.5% |
| Protective class | Class I (protective earth connection) |
| Environment pollution degree | Class 4 |
| Noise emission | < 52 dBA*<br>*Standard environmental conditions (20° C, 3 m distance;) |
| Installation location | Indoor and outdoor installation |
| Type of installation | Floor mounted on plinth or base (Optional concrete foundation base) |
| Inlet cable | 1x 300 $mm^2$ per phase, max. ∅ 33 mm per conductor |
| Protection rating | IP54 |
| Impact resistance | IK10 in accordance with IEC 62262 |
| Dimensions (H x W x D) | 2185 x 420 x 663 mm |
| Weight | 325 kg up to 462 kg*<br>* Depending on configuration |
| User interface | 15.6” display, 4 buttons |
| Remote management | Remote access, diagnostics, software updates |

## Power Supply

| | |
|---|---|
| AC nominal voltage (RMS) | 400 V -15% \| +10% |
| AC maximum input current (RMS) | 320 A |
| Frequency | 50 Hz \| 60 Hz |
| Network type | 3phase TN-C \| TN-S \| TN-C-S \| TT |
| Power factor | > 0.99 (@ full load) |
| Controllable PF range | ±0.95 |
| THDi (Total harmonic distortion) | < 5% @ full load |
| Efficiency | up to 97.5 % @ full load |
| Overvoltage category | OVC III, DIN EN 60664-1 |
| Integrated coordinated lightning protection (SPD) | Type 1 + 2 + 3 |
| Standby power consumption | 43 W |

## Charging Interfaces

| | |
|---|---|
| Maximum total DC output power | 100 kW (one Power-Stack), max. 300 A<br>200 kW (two Power-Stacks), max. 600 A |
| Granularity of output power | 50 kW |
| Maximum output current | 500 A continous (600 A boost) |
| Output DC voltage range | 150 Vdc - 1000 Vdc |
| Charging connection options | CCS2 up to 500 A (prepared for 600 A boost)*<br>CHAdeMO up to 200 A<br>CCS1<br>GB/T<br>* Preliminary data to be verified |
| Cable lengths | 3.5 m or 5 m and Cable Management System (CMS) |

## Configuration Options

| | |
|---|---|
| Branding | Options for custom colours (powder coating), foil application and stickers |
| CMS (Cable Management System) | For 5 m cables, provides ease of use and ensures a longer cable lifespan |
| Mounting | Floor mounted on plinth or base (Optional concrete foundation base) |
| Accessibility | Optional, barrier-free version for the operating elements and plugs in terms of installation height (1,050 mm each) is possible (in accordance with DIN 18040-3) |
| Payment system | Choose between different card readers for credit cards or EC card, QR-Code-reader; |
| Law on Weights and Measurements | DC meters available in accordance with the German Calibration Law |
| Parametrisation of noise levels | Parameters can be set for the maximum noise level for day and night operation (e.g. for use in sensitive areas) |
| Additional safety features | Emergency stop button (optional), external emergency stop, crash (tilt) sensor, door contact switch; |
| Multilingual system | GUI in 27 languages |

## Norms, compliance and standards

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|---|---|
| DC standard protocol (communications with the vehicle) | CCS1/2: SAE J1772 / EN 61851-24/DIN SPEC 70121; ISO 15118<br>CHAdeMO 1.2<br>GB/T 27930 (for automotive multicharger) |
| RFID system | RFID reader (ISO/IEC 14443A/B, ISO/IEC 15693) |
| Network connections | LTE/UMTS/GSM Modem 4G/3G/2G<br>10/100Base-T Ethernet |
| Communications protocol for the charging infrastructure | Open Charge Point Protocol (OCPP) 1.6 J, ready for 2.0 J |
| Certifications | TÜV Süd CB in progress |
| EU Directive | 2014/53/EU (RED), 2011/65/EU (ROHS2), 2015/863/EU (ROHS3), 2012/19/EU (WEEE), 1907/2006 (REACH REGULATION); |
| Electrical Safety | IEC 61851-1, IEC 61851-23, IEC 61439-7 (as required by IEC 61851 series), IEC 62311, IEC 62477-1; |
| RED | ETSI EN 301 330; ETSI EN 301 511, ETSI EN 301 908-1; ETSI EN 301 893; ETSI EN EN 300 328; |
| EMC | EN 61000-6-4, EN 61000-6-2, IEC 61851-21-2 (INDUSTRIAL - ENVIRONMENTS), ETSI EN 301 489-1, ETSI EN 301 489-3; ETSI EN 301 489-52; |