

HYC400



The world's most efficient 400 kW charger

 **98.2%**

Up to 98.2%
conversion efficiency

 **1200 A**

Max total DC output
(2x 600 A continuous)

 **50 kW**

Granularity providing dynamic
load management

 **150-1000 v**

Future-proof
output range

 **2 vehicles**

Simultaneous DC charging
for up to 2 vehicles

 **Scalable**

Power-Stack concept:
scalable power (100 kW or 400 kW)

System specifications

DC interfaces	CCS2 up to 600 A CHAdeMO up to 200 A CCS1* NACS* GB/T* * 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.* * 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 97.7% at full load
Protective class	Class I (protective earth connection)
Environment pollution degree	Class 4
Corrosion class	C5-I
Noise emission	< 52 dBA* *Standard environmental conditions (20° C, 1 m distance;)
Installation location	Indoor and outdoor installation
Type of installation	Floor mounted on plinth or base (Optional concrete foundation base)
Inlet cable	2x 300 mm ² per phase, max. Ø 33 mm per conductor
Protection rating	IP54
Impact resistance	IK10 in accordance with IEC 62262
Dimensions (H x W x D)	2185 x 732 x 663 mm

Weight	560 kg up to 890 kg* * 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)	630 A
Frequency	50 Hz 60 Hz
Network type	3-phase TN-C TN-S TN-C-S TT
Power factor	> 0.99 at full load
Controllable PF range	±0.95
THDi	< 5% at full load
Efficiency	up to 97.7% at 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 200 kW (two Power-Stacks), max. 600 A 300 kW (three Power-Stacks), max. 1 x 600 A + 1 x 300 A or 2 x 450 A 400 kW (four Power-Stacks), max. 2 x 600 A
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Granularity of output power	50 kW
Maximum output current	600 A continuous
Output DC voltage range	150-1000 VDC
Charging connection options	CCS2 up to 600 A CHAdeMO up to 200 A CCS1 GB/T
Cable lengths	3.5 m or 5 m with or without Cable Management System (CMS)

Configuration options

Branding	Options for custom colours (powder coating), foil application, and stickers
CMS (Cable Management System)	For 5m 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 with additional display available in accordance with the German Calibration Law and MID Meter in accordance with MID Directive and LNE
Parameterization 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

DC standard protocol (communications with the vehicle)	CCS1/2: SAE J1772 / EN 61851-24/DIN SPEC 70121; ISO 15118 CHAdeMO 1.2 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 10/100Base-T Ethernet
Communications protocol for the charging infrastructure	Open Charge Point Protocol (OCPP) 1.6 J, 2.0.1 J
Certifications	TÜV Süd CB DE3-D0044
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