Data sheet

go-e Charger CORE

up to 11/22 kW

Stationary charging station for electric vehicles
According to EN IEC 61851-1:2019
valid for article numbers: CH-CORE-001, FR-CORE-T2S-001

Smart EV Charging Solution

Charges reliably and safely any electric car and plug-in hybrid. Provides all features for intelligent charging at any location thanks to numerous communication interfaces.

V2X ready + Plug & Charge ready (in accordance with ISO 15118)
Charging power from 1.4 kW to 11/22 kW (single-phase or three-phase)

V 1.1

go-e Charger CORE Highlights

Intelligent and reliable charging - the go-e Charger CORE offers the smart features you are used to from go-e, such as **PV surplus charging or charging with flexible energy tariffs**. The wallbox also enables data exchange via the **most common communication interfaces** and is **in accordance with ISO 15118 V2X ready*** **and Plug&Charge ready***. Even more convenient and efficient charging at an excellent price-performance ratio. **Scalable thanks to load balancing and open interfaces.** Easy to install, convenient to use and always intelligently connected. The go-e Charger CORE features a permanently attached charging cable with a type 2 plug. The go-e Charger CORE offers the same range of functions as the go-e Charger PRO with just one difference - the CORE's electricity meter is not certified in accordance with the MID directive. However, the charged kWh are also displayed directly via the LED display integrated on the front of the charging station. Alternatively, you can also view this via the app.

Quick installation and commissioning

Compact and lightweight. The go-e Charger CORE can be installed easily and put into operation within a very short time. The wallbox is **suitable for indoor and outdoor use thanks to its IP66 protection class**. The electrician simply attaches the wall mount, inserts the power connection cable and fixes it. **The power cable can be fed in from behind, below and above, providing maximum flexibility for every location.** Finally, the charging unit is attached and bolted in place. After that charging is possible without any further setup. Additional initial setup can be done via the app or alternatively through the go-e backend , which can be used to commission a large number of chargers in a very short time. This ensures the wallbox is prepared for special usage scenarios.

Convenient handling

The go-e Charger CORE is equipped with a permanently attached charging cable with a type 2 plug. It can be used to charge almost every electric car and plug-in hybrid commonly used in Europe, as these usually have a type 2 connector. Forwards, backwards or sideways, **the 6 m long charging cable adapts flexibly to any parking situation**.[1] Once the charging process is complete, the cable management is intuitive and the charging cable can be stowed safely and compactly around the go-e Charger CORE.

The charging station **indicates the current charging status via the LED ring**. This can also be tracked via the **free go-e app or go-e backend**, which can be used to control and manage the charger locally and worldwide.

Highest manufacturing quality - **Made in Austria** - ensures long-lasting and low-maintenance handling. **Continuous updates** that the charging station offers all the latest features.

Additional interfaces for reliable data exchange and even smarter charging

Besides to wireless data transmission via **WiFi and cellular network (LTE)**, the go-e Charger CORE offers wired data exchange via **Ethernet**. This ensures smart charging and connection to external systems at any location. In addition, the wallbox can be controlled via a digital input and output. Various **open API interfaces and OCPP** enable connection to third-party software such as **backend systems, energy management systems, PV surplus or billing systems**.

Cost-effective and sustainable with PV surplus, favourable electricity prices & bidirectional charging*

Intelligent features such as the **scheduler** or **automated charging with PV surplus** help to save costs, just like **charging with flexible energy tariffs,** which are already integrated into the go-e app. This not only pays off financially but also reduces the load on the power grid.

On the hardware side, the go-e Charger CORE is **prepared for V2X functionalities* in accordance with ISO 15118**. These include vehicle-to-grid (V2G) or vehicle-to-home (V2H), often also known as **bidirectional charging***.

*Functionality is prepared on the hardware side and will be provided as an feature at a later stage via software update.

[1]CORE is also available as version go-e Charger CORE T2S (item number: FR-CORE-T2S-001) with integrated charging cable and type 2 plug with an additional shutter. This product is specifically intended for deliveries to France.

go-e Charger CORE
Highlights

3 years warranty

Scalable thanks to load balancing, even for large parking areas

The go-e Charger already offers **static load balancing without additional hardware**, allowing a large number of vehicles to be charged at the same power connection - prioritisation for individual charging stations is possible. In addition, the go-e Controller, OCPP, Modbus TCP or open API can be utilised to take advantage of **dynamic load balancing**. This means that the charging power is continuously adapted to the currently available electricity, even taking surplus PV power into account. In this way, a **charging network with hundreds of charging stations** can be set up without having to worry about a power outage. At the same time, you can avoid peak loads and reduce costs.

Authorisation via RFID or Plug&Charge*

When delivered, the charging station allows free charging. However, this can be switched to authorisation. The go-e Charger CORE offers **user authentication, enabling the charging process and clear assignment of charging processes to specific persons** via the integrated RFID reader. The device is supplied with a paired RFID tag. Additional RFID tags can be taught in, even for several chargers simultaneously via the go-e backend or other backend systems. **Conventional credit cards or RFID tags already in use within companies are also compatible**, as long as they transmit at a frequency of 13.56 MHz. **Detailed charging data** is provided for individual users. **Activation via app** is also possible.

The go-e Charger CORE is **Plug&Charge ready* in accordance with ISO 15118**. In future, this will allow for the authorisation, activation and billing of charging processes without the user having to enable the charging process via RFID or app.

Charging capacity up to 3.7, 7.4, 11 or 22 kW

The go-e Charger CORE can be connected single-phase and three-phase. When connected three-phase, the charging power is limited to a maximum of 11 kW on delivery (single-phase 3.7 kW). However, all components are designed for a charging power of up to 22 kW. As part of the setup process, the installer can increase the maximum charging power for the three-phase connection to 22 kW (single-phase to 7.4 kW) via the app or installation backend.

*Functionality is prepared on the hardware side and will be made available as a function at a later stage via a software update.

Technical data
go-e Charger CORE

Scope of delivery

CORE
1 x charging unit with permanently attached charging cable and type 2 plug (according to IEC 62196)
Charging capacity limited to 11 kW on delivery, can be increased to 22 kW by the installer
1 x wall mount
1 x cable/plug holder
2 x cable clamps + 2 x cable ties
3 x large + 4 x small grommets
1 x sealing sticker
11 x TX20 screws + 6 x wall plugs
1 x RFID tag (already taught) + 1 x reset card
1 x quick reference guide

Product specifications

		CORE	
Stationary charging station		According to EN IEC 61851-1:2019	
Dimensions (B x H x D)		Approx. 18.6 x 29.7 x 9.9 cm	
Weight (including charging cable)		Approx. 5.1 kg	
Mounting types		Wall, stand/pillar	
Charging cable	Length	6 m	
	Cross section	5 x 6 mm² + 1 x 0.5 mm²	
Grid connection cable (to be supplied by installer)	Permissible cable cross-section	3 x 1.5 mm² - 5 x 10 mm²	
	Permissible cable diameter	10 mm - 20 mm	
	Cable routing options	from above | below | behind	
Connection (number of phases)		Single-phase or three-phase	
Rated voltage		230 V - 240 V (single-phase) / 400 V - 415 V (three-phase)	
Nominal frequency		50 Hz	
Maximum Rated Current		16 A (single-phase / three-phase)	32 A (single-phase / three-phase)
Power grid types		TT / TN / IT	
Standby power consumption		3.5 W	

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Charge point management

		CORE
Local or worldwide* management and monitoring		go-e app go-e Portal (backend system) or via external backend system
Monitoring parameters		Voltage, current, power, energy
Adjusting charging power		Adjusting the current level in 1 ampere steps
Photovoltaic surplus charging		Photovoltaic connection via go-e Controller (separate product) or open API interface (programming required) or alternative energy management system*
Charging with flexible/dynamic energy tariffs*/**		Charge automatically during the hours with the lowest electricity prices
Phase switching		1-/3-phase switching via app or automatically with go-e Controller - even during the charging process
Start/stop function and scheduler		Start and stop charging as required Restrict charging or set charging periods
kWh limit		Set a maximum desired amount of energy
Charging log / documentation of the charging sessions		Synchronisation of charging processes with the cloud and display of the past charging processes*
Load balancing*	static	Distribution of the power available at the connection to several chargers for optimum utilisation and protection against power failure - prioritisation possible
	dynamic (with Controller or other EMS)	Extended blackout protection through continuous monitoring of the current power consumption in the building and adjustment of the charging current
Management of RFID tags		Locally up to 10 users per Charger Unlimited number via OCPP / go-e Portal
Authorisation methods / Access and user management		RFID tag / RFID card
		App
		Plug & Charge ready*** according to ISO 15118
Charging modes	Basic	Simple charging without special settings
	Eco*	Sustainable and economical and therefore particularly favourable charging
	Daily Trip*	Set energy target and time for the end of the charging process
Push notifications*		Automatic notifications about the charging status
Firmware updates*		Regular function and security updates keep the Charger young
Bidirectional charging		V2X ready*** according to ISO 15118

*Internet connection of the Charger required
**Contract with an electricity provider whose flexible electricity tariff is integrated in the go-e app is required. Several 100 tariffs are stored. The number of tariffs is constantly being expanded.
***Functionality is prepared on the hardware side and will be provided as a function at a later stage via a software update.

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Communication interfaces and protocols

	CORE
RFID	13.56 MHz
WiFi	802.11b/g/n 2.4 GHz / frequency band 2412-2472 Mhz
Bluetooth	BLE ready (2.4 GHz)
Cellular	LTE FDD (B1/3/5/7/8/20) / GPRS / EGPRS (GSM 900MHz/GSM-DCS 1800 MHz)
Ethernet	10/100 Mbit/s, RJ45 connector, LSA terminals
Digital Input	2 x non-isolated inputs, which can be connected to various equipment such as a ripple control receiver
Digital Output	1x fully isolated switching contact to support fault isolation or other regulatory requirements. 230 V AC / 30 V DC, 5 A
Power Line Communication	Physical layer in accordance with ISO 15118-3
API	Open and documented local + cloud HTTP API, Modbus TCP, MQTT
OCPP 1.6 (Json)	Communication with backend systems for smart charging and billing of transaction costs

Cellular specifications

	CORE
Mobile phone contract	At least 5 years of free cellular connection. Extension possible for 12 euros incl. VAT per year.
SIM card type	Factory-integrated eSIM from go-e (not exchangeable). Factory-installed customer-owned nano-SIM for larger B2B projects.
Activate/Deactivate	At any time via go-e app or API
Connection types	Standard: 4G LTE Cat-1 Fallback in case of limited reception: 2G / EDGE
Country availability go-e tariff	Unlimited cellular connection in all **EU countries, Great Britain, Switzerland, Norway and Liechtenstein**.
Mobile networks	An overview of the mobile networks used in the above-mentioned countries is available on the go-e website in the Support/FAQ section.

Overview of network interfaces go-e Charger series

	HOME series	Gemini series	Gemini 2.0 series	CORE/PRO series
WiFi hotspot	Yes (can be disabled)	Yes (can be disabled)	Yes (can be disabled)	yes (can be disabled)
WiFi connection	Yes	Yes	Yes	Yes
4G / LTE	No	No	Yes	Yes
2G / Edge (Fallback)	No	No	Yes	Yes
Bluetooth	No	No	No	BLE ready
Ethernet	No	No	No	Yes

Functions & interfaces go-e Charger CORE

	Using WiFi / Ethernet	Using cellular
App connection	Yes	Yes
OCPP[1]	Yes	Yes
Dynamic energy tariffs	Yes	Yes
Static load balancing	Yes	Yes
Dynamic load balancing with go-e Controller	Yes (Internet connection required for Controller)	Yes (Internet connection required for Controller)
PV surplus charging with go-e Controller	Yes	Yes
Dynamic load balancing and PV surplus charging using other energy management systems	Yes (based on OCPP or API integration)	Yes (based on OCPP or API integration)
Charging log recording and export	Yes	Yes
Billing of transaction costs for charging sessions with an external backend system	Yes (based on OCPP or API integration)	Yes (based on OCPP or API integration)
HTTP Cloud API	Yes	Yes
MQTT API[2]	yes	No
Modbus TCP[3]	yes	No

[1]OCPP connection is established directly from the Charger. No tunnelling through the go-e Cloud. OCPP can also be used when the go-e Cloud connection is deactivated.
[2]MQTT connection is established directly from the Charger. When using WiFi, the connection to MQTT brokers is possible both in the local network and on the Internet. It is not possible to use MQTT via cellular connection due to the high data volume.
[3]As Modbus TCP connection to the go-e Charger has to be established by directly using an IP address, a connection via cellular network is technically not possible.

Energy meter and status display

		CORE
Electric energy meter		Simple (not calibrated)
Display of the charged kWh	Total	Alternating visualisation via LED display integrated on the front
	Charging session	
Status indication		Readable via LED ring on the device and app

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Safety functions

	CORE
DC protection module with DC detection and additional AC detection	The CORE has a built-in residual current protection module with residual current detection (IΔn = 20mA AC and 6 mA DC), a separate residual current circuit breaker must be connected upstream of the installation at least type A (IΔn = 20mA AC). IEC 60364-7-722 or the corresponding national installation regulations may contain additional requirements for the installation.
IP66	Protected against dirt and water, suitable for permanent outdoor operation
Electrical protection class	I
Pollution degree	2
Access control	Can be activated if required. Authentication via RFID or APP possible. One learned RFID chip is already included.
Input voltage	Phase and voltage testing
Switching functions	Testing of the switching functions
Ground check	For TT, TN grids (deactivatable ground check for IT grid - Norway mode)
Current sensor	3-phase
Temperature sensors	Regulation of the charging current in case of overtemperature
Impact resistance	IK08

Charging capacity

	CORE	
Maximum charging power	11 kW (16 A, 3-phase)	22 kW (32 A, 3-phase)
	3.7 kW (16 A, 1-phase)	7.4 kW (32 A, 1-phase)
Adjusting charging power	By app or backend	
	Via charging current in steps of 1 Ampere between 6 A and 16 A	Via charging current in steps of 1 ampere between 6 A and 32 A

	max. 11 kW	max. 22 kW	Remark
Single phase charging car[1]	1.4 kW to 3.7 kW	1.4 kW to 7.4 kW	Country-specific limitations need to be observed
Two phase charging car[1]	2,8 kW to 7.4 kW	2,8 kW to 14.8 kW	Two-phase connection of the charger is not possible
Three phase charging car[1]	4.2 kW to 11 kW	4.2 kW to 22 kW	go-e Charger switches trough the power that is avaiable at the connection

[1]Charging power depending on the number of phases of the car's onboard charger

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Permissible ambient conditions

	CORE
Installation site	Indoors and outdoors
Operating temperature	-25 °C bis + 45 °C
Storage temperature	-40 °C bis +85 °C
Altitude	Maximum 2.000 m above sea level
Relative humidity	Not more than 95 % (not condensing)

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