

# go-e

**Data sheet**

## go-e Controller

**Even cheaper, safer and  
more sustainable charging**

Maximising the self-consumption of a PV system. Dynamic load balancing to avoid overloading a building's power connection when charging electric vehicles. Energy Monitoring.

Supported charging powers: e.g. 1.4 - 3.7 - 7.4 - 11 - 22 kW

Single-phase and three-phase charging

V 1.0



# Highlights

## go-e Controller

The go-e Controller ensures that surplus electricity from a PV system is used to charge electric vehicles. In this way, you get the most out of your investment in a PV system because you increase your own consumption. By means of dynamic load balancing, the go-e Controller prevents an overload of the house power supply by automatically reducing the charging power for electric cars and plug-in hybrids connected to go-e Chargers during detected load peaks and increasing it again later.

The go-e Controller is compatible with all go-e Chargers (Gemini and HOME series) and all types of photovoltaic inverters\* and AC battery storage systems.



### Energy Monitoring

With the go-e Controller, you monitor the energy flows of buildings. As a result, depending on the position of the sun and the current power demand in a building, charging processes of electric cars can be controlled even smarter in interaction with go-e Chargers. But you can also simply use the Controller to monitor consumers. For example, you can keep an eye on the energy flows of a heat pump, air conditioning system or sauna. 1-phase or 3-phase operation of the controller is possible. In the case of three-phase power grids, you can monitor 3 additional devices (e.g. PV inverter, AC battery storage and heat pump), in the case of single-phase power grids even 5 additional devices.



### Self-consumption optimisation: Efficient use of surplus solar power

With the go-e Controller, you charge surplus solar energy into the batteries of electric vehicles via one or more go-e Chargers. If your PV panels generate more energy than is needed to operate your household appliances, you increase your self-consumption by charging

## go-e Blog

### PV Surplus Charging with the go-e Charger



[go-e.com](https://go-e.com)

and thus save a lot of money with green energy. At the same time, you avoid feeding electricity into the public grid at a possibly too low price. For the PV Surplus Charging and Dynamic Load balancing functions, no measurement of PV production is necessary. However, by direct measurement at the AC connection of the inverter, self-consumption can also be displayed correctly. No direct communication to the PV system is necessary. Battery storage systems can also be taken into account as long as they can be measured at the AC connection (for hybrid inverters with DC battery connection, direct measurement of battery power is not possible). It is up to you whether you want to charge exclusively with PV surplus electricity or also with mains electricity.

\*PV optimisation is also possible without direct measurement of production by the inverter. Own production can be measured and visualised via a sensor for AC inverters only.

# Highlights

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### Automatic phase switching\*\*

If your PV system generates at least 1.4 kW of surplus energy, the go-e Controller transmits this information to the go-e Charger, which then takes care of the actual charging process with PV surplus power. The Controller automatically switches between single-phase and three-phase charging depending on the available current. In this way, you can achieve high self-consumption even with low production of PV surplus energy. As soon as your PV system produces enough excess power, the Controller switches to three-phase charging.



### Dynamic load balancing to prevent black-outs & Peak Shaving

To avoid power cuts, you need a load balancing system when charging electric vehicles. The go-e Charger already offers static load balancing, which allows you to take into account the maximum available power of your building when charging several electric cars. However, you would have to plan a buffer, as there are other electricity consumers running in the building. Therefore, the go-e Controller enables dynamic load balancing. If necessary due to many electricity consumers running at the same time the charging power of the go-e Chargers connected to the Controller is automatically adjusted. As a result, your household appliances and charging stations do not consume more electricity at once than your house connection can handle. And that fully automatically.



### Convenient control from the couch

Set your preferences for solar energy production and consumption via the app, right from your couch. Or use the go-e app to access all controller settings and adjust them to your needs. Whether dynamic load balancing or electricity consumption in your building. You keep an eye on everything. Once the controller is connected via WiFi or Ethernet, charging your electric vehicle becomes even simpler, safer, cheaper and more sustainable.



### Advanced functions for experts and integrators

You have programming skills? Get even more control when charging an electric vehicle. The controller has additional interfaces such as local HTTP API, Modbus TCP and MQTT. With the optional cloud connection, the controller's functions can be optimised even further

\*\*Only available for HOME Series V3 and Gemini Series.

## What is Dynamic load management?

## Charging with a smart wallbox



Check out the YouTube video.



# Technical data

## go-e Controller



### Product specifications

Dimensions (W x H x D)	approx. 72 x 90 (with plugs) x 61 mm (4 division units)
Weight	193 g
Voltage measurement	4 inputs three-phase (L1, L2, L3 and N) single-phase (L1 and N)
Nominal voltage	3 x 230 V (single-phase) / 400 V (three-phase)
Nominal frequency	50 Hz
Display	Color display
Compatibility	go-eCharger Home Serie go-e Charger Gemini Serie All PV inverters* All AC battery storage systems

\*PV optimisation is also possible without direct measurement of production by the inverter. Own production can be measured and visualised via a sensor for AC inverters only.

### Installation

An electrical installation distributor is recommended as the place of installation. If there is no more space, it is also possible to install the go-e Controller in a new surface-mounted / flush-mounted distributor next to it and to lay the connection cables for voltage measurement and current transformers there.

### Measurement functions: nominal voltage

	Min	Nominal	Max
L1 - PE L2 - PE L3 - PE		230 V	277 V
L1 - N	100 V	230 V	277 V
L1 - L2 L1 - L3 L2 - L3		400 V	

### Inputs for current measurement

	Sinus	RMS	Peak
max. measurable current	100 A		144 A
max. permanent current (thermally limited)		140 A	

### Network

Ethernet 802.3	10M / 100M, Full-Duplex or Half-Duplex DHCP or static IP address
WLAN station 802.11 b/g/n 2,4GHz	Supported encodings: open / WEP / WPA / WPA2 / WPA3 up to 10 configurations can be saved DHCP or static IP address
WLAN Access Point	for local connection with the app or API Channel freely adjustable from 1 - 13 SSID and password adjustable deactivatable



# Technical data

## go-e Controller

Interfaces and features		
	Possible in the local network	Cloud connection
Modbus TCP API	yes	not possible
MQTT API	yes, connections in local networks and to the internet possible	not possible
HTTP API	yes	yes
Connection to go-e Chargers (HOME series V3 and Gemini series)	yes, number not limited	Optional data transmission via cloud possible (necessary if not in the same subnet or separated by NAT)
Connection to go-e Chargers (HOME series V2)	no	Cloud connection at go-e Charger HOME V2 and go-e Controller has to be established
Dynamic load balancing	yes, local transmission of measured values	Cloud connection on the go-e Charger must exist
go-e App	yes, automatically finds go-e Charger in local network with mDNS	yes, remote access with serial number and password input
Log data recording and export with measured values	no	yes
Graphical representation of the power consumption in the past	not via the go-e app / go-e cloud / display. Own data acquisition via API possible	yes



# Scope of delivery go-e Controller

1 go-e Controller

1



2

2 Connecting clamp

3 6 Current transformers foldable, 100 A with jack plug

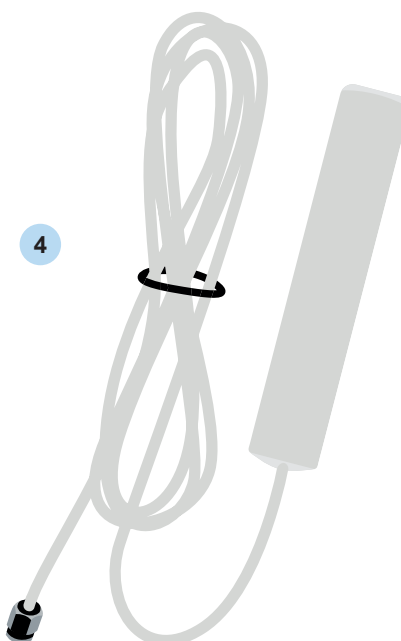
3



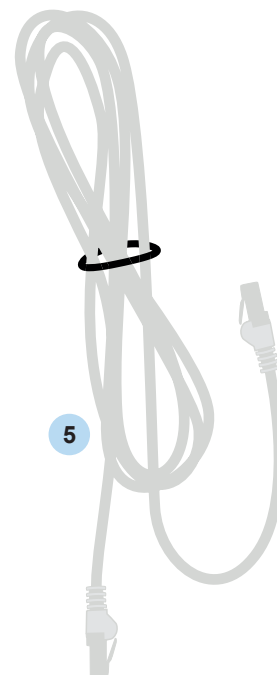
4 WiFi antenna, self-adhesive optionally connectable

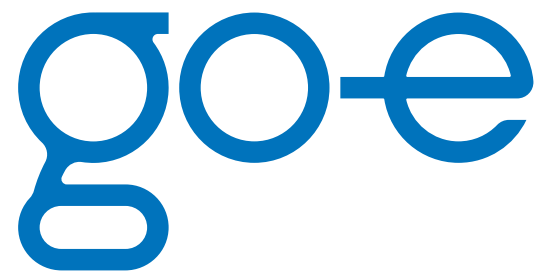
5 Ethernet flat cable 2 m optionally connectable

4



5





## Support

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## Online support

[www.go-e.com](http://www.go-e.com)



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