## **POWER BREAK.**

with GARO Futuresmart<sup>™</sup>

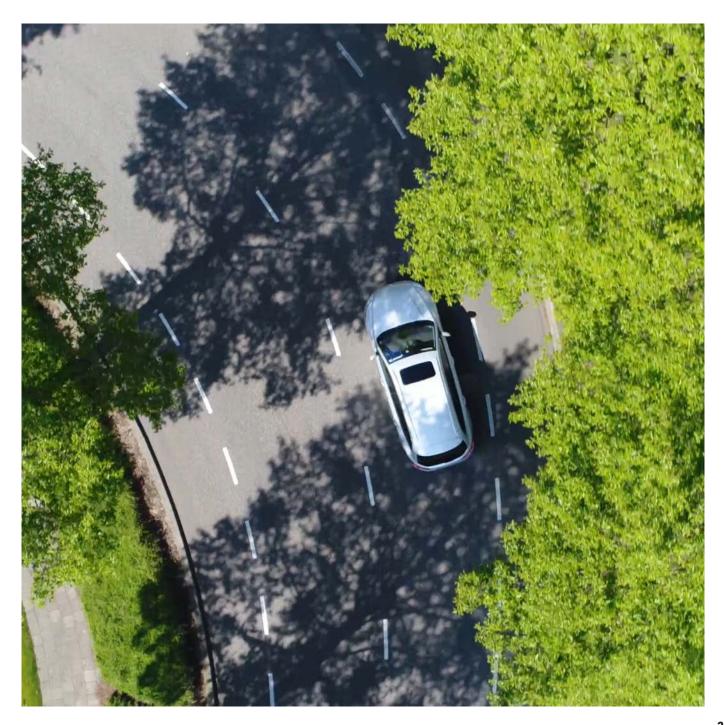
GARO DC fast charger

### The future is electric

The ever-present climate debate has led increasingly more people to take responsibility and join efforts to reduce carbon emissions. Car manufacturers are investing heavily, offering new electric vehicles. This means that we can expect to see huge demand for charging facilities in our communities moving forwards. A golden opportunity to demonstrate both environmental responsibility and customer care.

#### **GREEN CUSTOMER CARE**

For anyone running a business that customers visit by car, whether to shop, get coffee, eat, exercise, have their hair done or just take a break, this is a great opportunity to attract more customers. Installing a charging station that offers fast charging will not only attract more customers, it will also reward you with greater loyalty by clearly showing which side of the climate debate you stand on.







### A quick top-up

#### ALTHEA – GARO's LATEST FAST CHARGER, MADE IN SWEDEN

With many years of experience developing charging products, GARO is now launching a completely new proprietary DC charger. Althea is not only stylish and contemporary, it is also superior in all respects in terms of remote control, operation and maintenance. Althea has also been complemented with an aftermarket concept, with local access to service and maintenance. Following the recommended service intervals gives you the option of an extended warranty.

#### **ROADSIDE APPEAL**

With the development of the Althea fast charger, GARO now has its very own 50 kW DC charger perfectly suited for places where people run shorter errands and are happy to have the opportunity to top-up their electric charge. Since Althea can be equipped with both CCS and CHAdeMO charging cables, it is suitable for use with all electric cars that support fast charging. The straightforward touchscreen makes the charger easy to use regardless of language. Moreover, the high-quality technology and components mean that this charging station takes care of itself with minimal maintenance.

## GARO – quality that makes a difference

#### **CHARGES ALL CARS**

Althea can be equipped with both CHAdeMO and CCS charging cables to ensure that all electric car models can be charged.

#### A QUICK POWER BOOST

During a half-hour coffee break, a car can be fast-charged enough to cover another 100–180 km.

#### SIMPLE TOUCHSCREEN

The touchscreen and symbol-based interface make it easy to understand how the charger works regardless of the user's language. All software development and future updates are handled by GARO.

#### FULL CONTROL WITH RFID

An RFID card reader protects Althea from unauthorised use. If the charging station is connected to a charging network, the RFID card reader can be used to identify and bill the user.

#### **CUSTOM SCREENSAVER**

The standby mode screensaver can be customised with your brand. In the future, you will also be able to present special offers here.

#### **ENCLOSURE**

The Althea enclosure is manufactured from proprietary metal with a modern design. The housing is made of environmentally friendly Magnelis<sup>®</sup>, which is strong, corrosion resistant and self-healing.

#### **CUSTOM WRAP**

Althea can be customised with your own vinyl wrap to strengthen your brand and advertise your contribution to the environment.

#### MADE FOR HARSH CLIMATES

Developed and thoroughly tried and tested in Sweden and Norway, Althea is designed to cope with our harsh northern climate, resistant to both cold and moisture. Althea is equipped as standard with a heating function to ensure long-term reliable operation in harsh climate conditions.



### **Customise your Althea**

Although Althea looks stylish straight from the factory, you have the option of using a vinyl wrap featuring your own brand and design. This provides a first-rate marketing space to strengthen your brand and advertise your contribution to the environment. Althea can be delivered with a custom design straight from the factory. This requires that you select this option when ordering and provide GARO with the necessary design specification.

When the touchscreen is in standby mode and waiting for the next charge, you can set it to display a welcome message along with your brand. In the future, we may develop additional screen functions, providing you with a practical communication channel.



### What does an Althea installation require?

An Althea installation should be carefully planned based on the location and the layout of the parking area. The charging station should be powered from a supply rated of at least 100A (400V TN). If the charger is to be connected to a charging provider or back office, you need to decide how access control is to be implemented. It is also advisable to consider service and support. This is an area where GARO can help out. Once everything has been planned and ordered, Althea will be delivered ready to use and configured with all the right settings. Like all GARO products, Althea is designed to be very easy to install and intuitive to use.







### **Technical specifications**

#### INPUT

Voltage: 400 VAC 50Hz TN-S

Nominal input current: 85 A

Max. grid short circuit current: 36 kA

Recommended min. fuse: 100 A (C-car)

Grounding: Recommended to use reinforced grounding to fulfil  ${\rm EMC}$  standards.

Power factor: >0,98

Harmonics: EN61000-3-122

Efficiency: >94%

MID-CERTIFIED Energy meter on AC supply side

#### OUTPUT

- Voltage: 200-500 VDC
- Current: max 125A

Max. Power: 50 kW

Efficiency: >94%

#### INSULATION

Input/output: 3 kVAC

Output/PE: 2,2 kVDC

Output grounding system: DC Ungrounded

Caution: Insulation test requires special actions.

#### **OPERATING TEMPERATURE**

External temperature: -30°C to +40°C

Derated output power at higher temperatures.

Recommendation to avoid direct sunlight

Lower temperatures will mainly affect LCD display

#### HARDWARE PROTECTIONS

Overvoltage/Surge protectors

Moulded Case Circuit Breaker with thermomagnetic trigger

MCCB serves as Lock out/tag out disconnection point

RCBO (type A) 30mA to all support systems

Fuses on each module

Fast acting fuses on output DC

#### **ELECTRONIC PROTECTIONS**

Insulation monitoring device on DC output

Overload and shortcircuit protection

Overtemperature and temperature regulation

Output overvoltage protection

Reverse polarity protection

Charging plug defects/communication failure

#### **CONNECTION PROTOCOL**

CCS / COMBO (type 2)

CHAdeMO

Cable length: 4,5m (standard) OR 6,5m (Option)

#### **MECHANICAL FEATURES**

Dimensions: H=1955mm, B=600mm, D= 540mm

Weight: 280kg

Shipping pallet dimensions: 1200x1000x2200, 305kg

IP 54, IK10

#### LIST OF STANDARD COMPLIANCE

EN 61851-1:2017 ed. 3.0 IEC 61851-21-2 ed.10. (part21-2), -23:2014 ed 1.0, -24:2014 ed 1.0 IEC 61439-1:2011 ed 2.0, -7:2018 ed 1.0 IEC 60529:2013 + A1:1999 + A2:2013 EN61000-3-122, -6-2:2005, 61000-6-3:2006 + A1:2010 IEC 62311:2007

CE-Marked (LVD, EMC, RED, ROHS)

#### **CONFIGURATIONS & OPTIONS**

Delivery with preset OCPP settings to fit CPO

Extra long cables (6,5m)

LAN/Ethernet connectivity

#### COMMUNICATION

OCPP 1.6 J-SON

2x4G modems, one for service and one for OCPP

Option: LAN/TCP-IP Ethernet (RJ45 connector)

Vehicle: CAN (CHAdeMO) or PLC (CCS/COMBO)

Access: RFID reader









# GARO's dependable service and support

Althea offers modern remote connection options to simplify service and support, with the aim of minimising the need for callouts. Althea requires regular servicing for optimal operation and high availability. For customers who want a convenient turnkey solution, GARO can offer attractive service agreements and other services, such as commissioning and remote monitoring with a callout response when necessary. We help you to ensure that your customers can always charge their car.



### The leading Nordic supplier of vehicle charging technology

After 80 years in the industry, GARO has built up a level of stability and expertise that makes us a reliable and trustworthy supplier. Since 2008, we have developed all types of electric car charging equipment and delivered over 100,000 charge points throughout Europe. We manufacture high-quality products based on our own advanced research and development and technical expertise in the fields of software and electronics. This also means that we always ensure that our future technological developments are backwards compatible with existing GARO products. This makes an electric vehicle charger from GARO a futureproof investment underpinned by reliable and knowledgeable support close to hand.



### We are GARO. We are Futuresmart.

GARO Futuresmart stands for innovation and products developed for the future; products that ensure energy savings, smart control and ease of use. At GARO Futuresmart, our intention is to continuously develop by creating new products, training packages, certifications, sustainability solutions, user satisfaction, service, etc. We constantly strive to make things simpler, better and smarter. For a safer, more sustainable future.

#### **GARO FUTURESMART GUARANTEES:**

- Innovation
- Safety
- Energy savings
- Control
- Modern design • Sustainability

- Training
- Service and support



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