# Today's complete electric propulsion systems

GreenStar Marine

December 2020

# To glide in silence

With an electric inboard, you have an efficient, renewable and sustainable energy source on board. Powerful, silent and safe.

GreenStar's proven and complete electric propulsion systems are designed to deliver maximum power and operating time.

Single or dual assembly, straight shaft or sail drive.

Hybrid, propeller charge. There are multiple options.

Coupled with minimal maintenance and inexpensive running costs, you will undoubtedly see the benefits for your boat.

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GreenStar Marine

# With sufficient power when needed

Our motors are constant speed controlled, which means they almost maintain a steady speed, regardless of the load. This provides a quiet smooth propulsion while allowing the motor to fluctuate power when impacted by conditions. Meaning, when the vessel is on the uphill of a wave cress, the motor will engage more and then decrease power when riding the wave down to keep a constant rate of knots. Due to the motors' high torque capabilities, the vessel could be fitted with a larger propeller, giving it a better direct power source which can be observed in unfavourable wave and wind conditions..

# Power, Consumption and Fueling places

## One electric horsepower is equivalent to three diesel horsepower's?

The answer is both yes and no. The power needed to drive a boat in say 5 knots is exactly the same regardless of what type of motor that delivers the power. On the other hand there is something called torque, which is what connects power and rpm. A high torque gives you much power at low rpm and this is what makes the response of the motor quick and powerful. Our motors are designed to deliver low rpm's and a high torque, which makes them very suitable for marine propulsion. Translating this into two hypothetical examples where two identical boats, one with a diesel engine and the other one with an electric motor. If we were to race these two boats over one nautical mile, the diesel motor would win. Thou, if we were to have a tug of war scenario with the two boats GreenStar Marine's propulsion system would be the victor!

## Consumption

How much energy a boat use mainly depends on two things, boat speed and hull shape. To reach a greater velocity requires more power and therefore more energy. If this energy is to be stored in batteries the boat will get heavy, which makes planning boats a challenge. Therefor pure electric propulsion is best suited in boats that are light driven and not too weight sensitive.

A 27-feet sailboat have a typical fuel consumption at 5 knots of 0,3 liters of diesel/Nautical mile. The same boat but with a GreenStar electric drive will use roughly 0,3 kWh. Extremely simplified you can say that power consumption will double for every knot you increase boat speed

## Where do you fuel up?

For a typical diesel engine, fueling stations are far between. This has created a behavior on fueling when and where you can. With electric propulsion system, any 230VAC socket is your fueling station. This means, any place that provides electricity, you can easily refuel your vessel and would not have to look for a specific diesel refueling station.

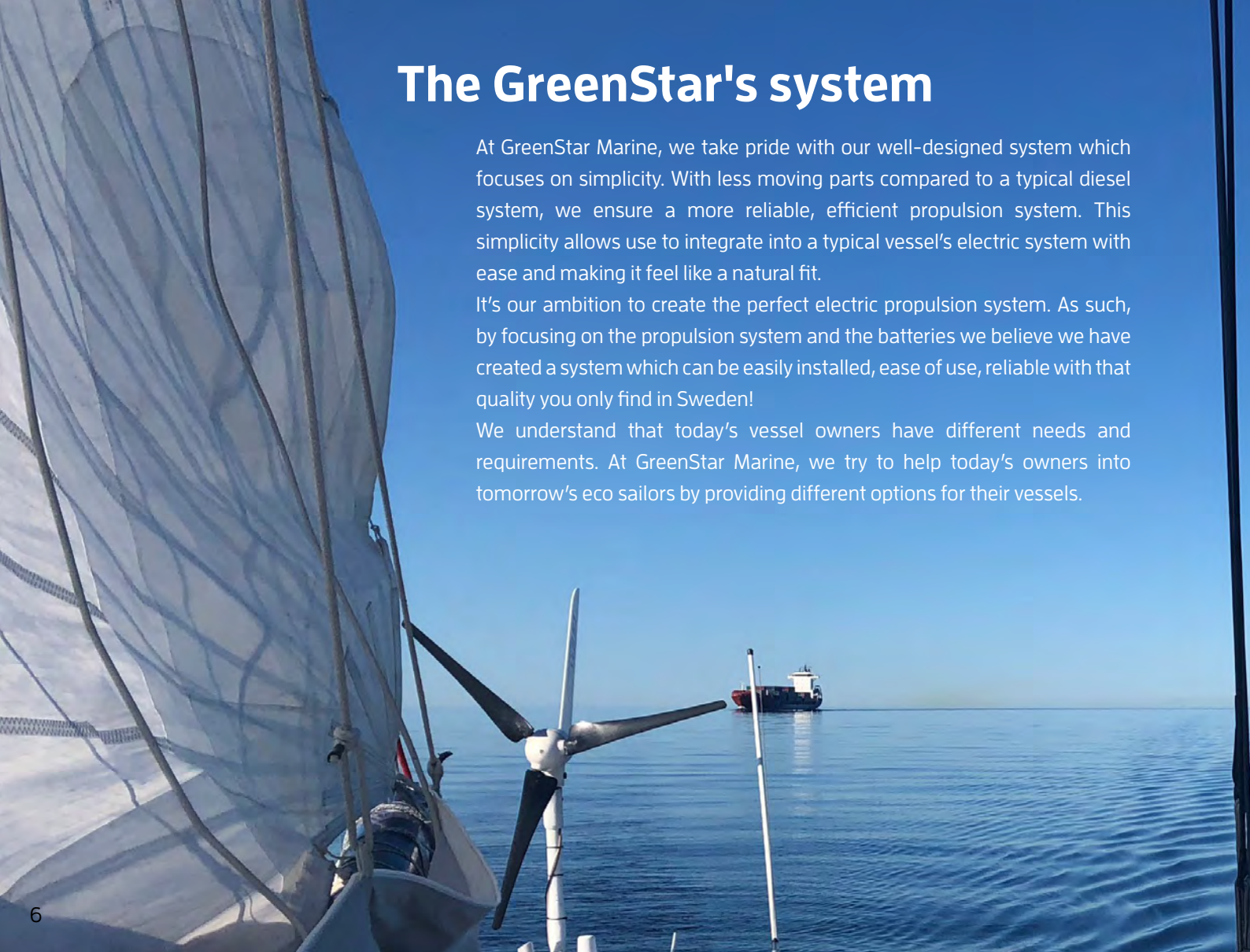
On the other hand, more power consuming boats like the RIB on the picture demand a charging infrastructure similar to the one we see for cars.

# The GreenStar's system

At GreenStar Marine, we take pride with our well-designed system which focuses on simplicity. With less moving parts compared to a typical diesel system, we ensure a more reliable, efficient propulsion system. This simplicity allows use to integrate into a typical vessel's electric system with ease and making it feel like a natural fit.

It's our ambition to create the perfect electric propulsion system. As such, by focusing on the propulsion system and the batteries we believe we have created a system which can be easily installed, ease of use, reliable with that quality you only find in Sweden!

We understand that today's vessel owners have different needs and requirements. At GreenStar Marine, we try to help today's owners into tomorrow's eco sailors by providing different options for their vessels.



**P-Line**

P-Line is our Performance line with a design focus towards those who have a newer boat or are willing to spend a little more to get something a bit more quiet, more efficient and more high tech.

All P-line systems are based on our new communication platform that provides for a safe and easily installed system that will not only perform but also grow better as years pass on.

Features for P-Line above EC and EB are:

- Quiet
- High efficiency
- Connected to Star
- Brushless AC-motors
- IP54 or higher

**EC-Line**

EC-Line like P-Line is based on our communication platform. The platform is all digitalized and is supported with our cloud system "STAR"..

The EC-Line is for those who want a modern drive system but to a fair cost.

Features for EC-Line above EB are:

- STAR- Our very own cloud support, allowing automatic wireless updates.
- Customization on display and relative information.
- Future features and functions.
- Integration toward our lithium batteries.
- Brushed DC-motors

**EB-Line**

EB-Line is our effective system which provides the relative information without the extra features. This package is suited towards the upgrade of an older vessel system, without the costs.

EB-Line features:

- A cost-effective system for your boating needs.
- Opportunities to purchase upgrades or packages to provide more features.
- Brushed DC-motors

# Shaft system and Saildrive

We have taken the traditional shaft system and redesigned it to integrate into any vessel that has an existing system. This allows our system to be easily installed and improve on performance while motoring, sailing or recharging the battery bank.

The Sail drive systems provides a nice and thin hydrodynamic profile allowing a low drag. Thanks to its integrated adapter plate installation, it's a simple system that is fully compatible for most existing sail drive foundations.


**1. Propeller**

*Folding*
Manufactured and customized for us by Flexofold. Prepared for our sacrificial anodes. Design optimized for both our existing stern tubes and stern tubes already on the market.

*Fixed*
For customer with motorboats or other needs..

**2. Sacrificial anode**

Our Sacrificial Anode are created to further your life span of your system while being optimized to create less drag.

**3. Shaft bearing**

Offering significantly lower friction than traditional bearings which increase range while motoring and more power when regenerating
This allows the shaft to be run without the need of a coolant on land for inspections and tests..

**4. Stern tube**

*Standard*
For fully integrated propeller shafts or suspended shafts with fixed propellers.

*Cone*
For suspended propeller shafts with folding propellers. The hydrodynamic design makes the propeller more efficient when running whilst simultaneously providing reduced drag when not in use, such as under sails..

**5. Shaft seal**

Completely oil and grease free. Due to its low friction, it is durable and does not wear on the propeller shaft.

**6. Propeller shaftl**

Stainless steel 25mm
Standard length is l,5 m

**7. Shaft coupling**

The penetrating bolts ensure a very secure and extremely straight connection between the motor and propeller shaft.

# Structure of the P-Line

**8. Common Connection Box**

The boats connection center.

This is the box to which connect not only the motor but also 12 V consumers, solar panels wind generators etc.

**9. Central Unit**

The Central Unit is the brain of the system and controls communication within the drive system, the batteries and Star

**10. Speed control**

Clear fixed steps offer control over energy consumption.

The neat recessed design enables the controls to be ideally placed and offers good protection from impact,feet and ropes.

**11. System display**

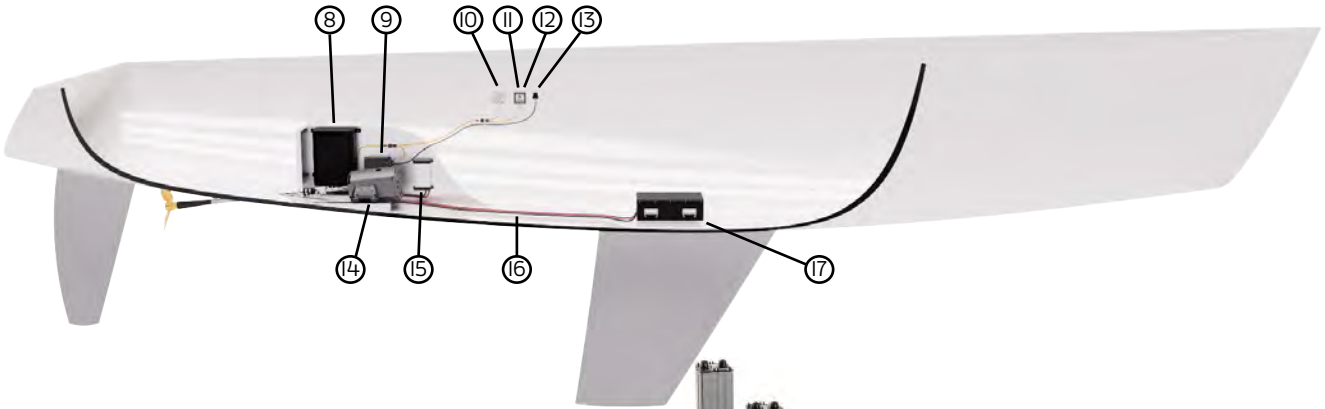
The display is your way into the drive system. It is here you enter the Pin-code to activate the system, read your consumption, battery stage of charge, system information etc.

**12. EcoCharge**

Regenerate while you sail by using the motor as a hydro generator. EcoCharge is activated on the system display and is constantly optimized by the Central Unit...

**13. Antenna**

GPS and 4G antenna for communication with Star range calculations




**14. Motor**

Combined with our suspended, flexible mountings our motors provide a powerful, quiet and pleasant propulsion experience year after year.

**15.Battery charger**

Charges your batteries correctly and safely without overloading the mains.

**16. cables**

Flexible, durable, multi stranded and tin coated neoprene cables

**17 Batteries**

Lithium or lead. Type and number according to your needs

**Shore power system**

Complete system with RCD, cables etc

**App**

Use an app to remotely monitor your boat.

**Star**

Puts you in control at the same time as it lets us improve your system over time.

# Structure of the EC-Line

**8. Common Connection Box**

The boats connection center.

This is the box to which connect not only the motor but also 12 V consumers, solar panels wind generators etc.

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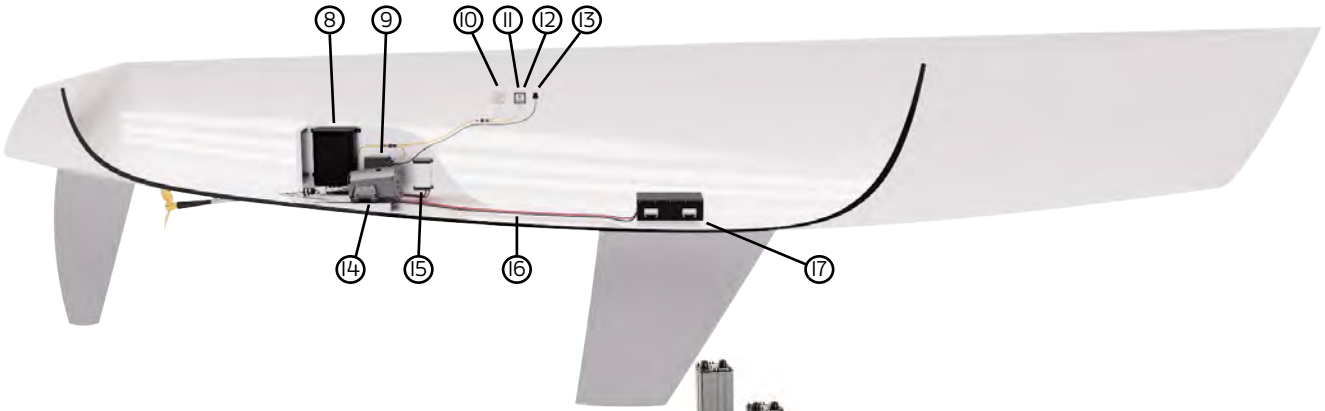


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Complete system with RCD, cables etc

**App**

Use an app to remotely monitor your boat.

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# Structure of the EB-Line

**8. Common Connection Box**

The boats connection center.

This is the box to which connect not only the motor but also consumers, solar panels wind generators etc.

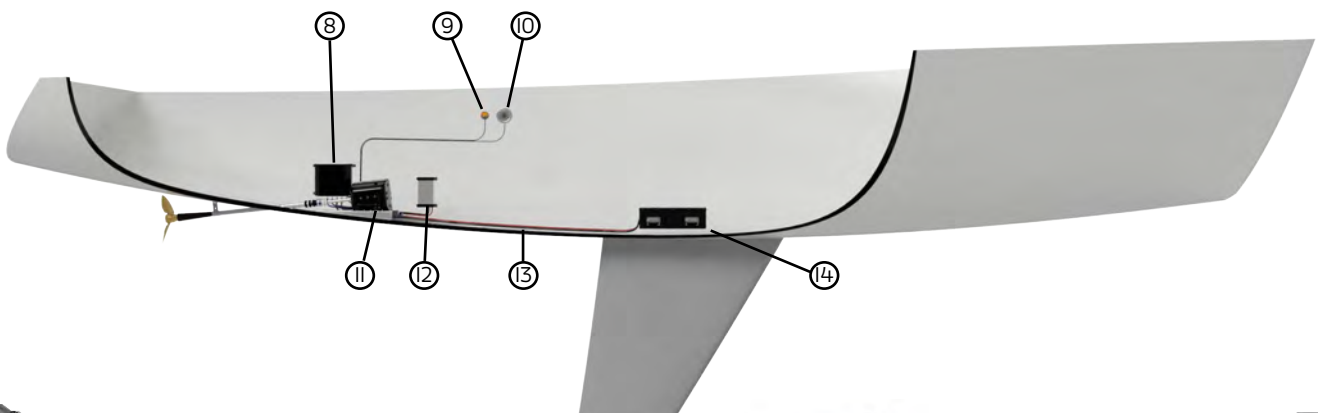

**9. System display**

The display gives you all necessary information about your boats batteries. It will not only show how much you are consuming it will also tell you for how long you can continue doing it before the batteries are empty..

**10. Speed control**

Clear fixed steps offer control over energy consumption.

The neat recessed design enables the controls to be ideally placed and offers good protection from shocks,feet and ropes.

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**14 Batteries**

Lithium or lead. Type and number according to your needs

**Shore power system**

Complete system with RCD, cables etc

**App**

Control your batteries comfortably on your smartphone by the Bluetooth connected app.

# The Star Connectivity Platform

Today's society is becoming more connected and more people want to be able to control and monitor their car or summer cottage through an app on the phone. We have now taken this technology into our drive systems and from now on they are always connected to our cloud service, Star. Star handles data traffic between the boat, our service department, our developers, our partners, but more importantly, you the user. This allows you to remotely monitor the location of the boat, the batteries state of charge etc. In addition, it helps us in the development of better software and if an accident would occur, our technicians would get remote access to the status of your system. We hope this will lead to an even better user experience that improves over time.

Remote support

Data collection

Star - Plattform

Smartphone App

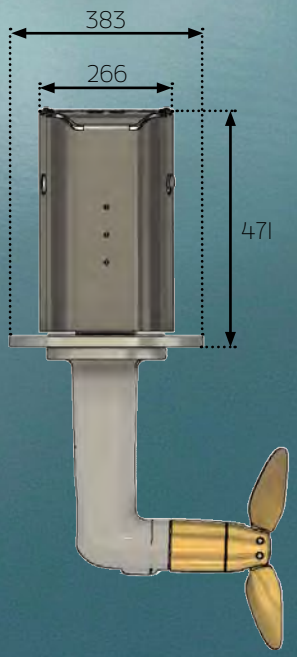
1+1=3

Added value from partners

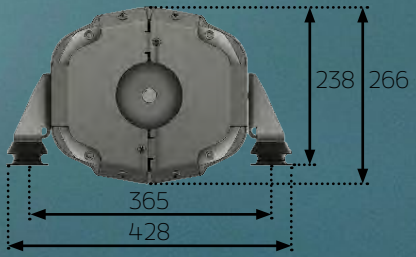

INDIO

# Motors, P-Line

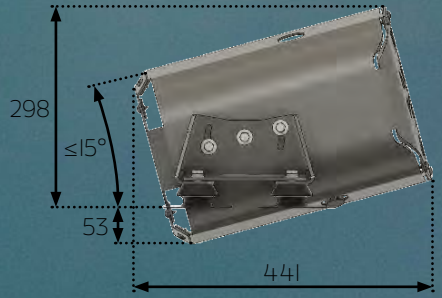
### P30 Saildrive




### P30 Straight shaft



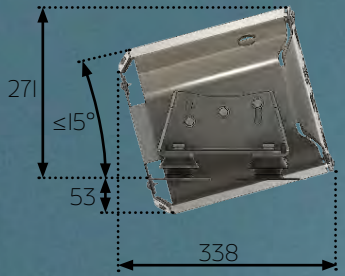

### P30 straight shaft



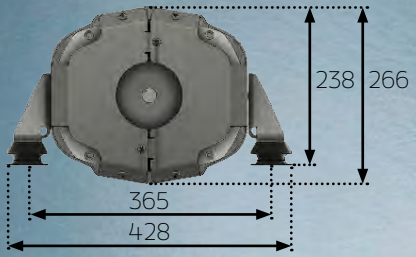

| | P30 |
|---|---|
| Characteristics: | High torque, low speed |
| Type of motor: | Brushes AC-motor |
| Continuous input power: | P30: 10 kW |
| Maximum input power: | P30: 20 kW |
| Continuous torque: | P30: 80 Nm |
| Maximum torque: | P30: 160 Nm |
| Maximum static thrust:: | P30: 300 kp |
| Speed: | 1200 rpm |
| Weight: | Shaft: P30: 30 kg |
| | Saildrive: P30:43 kg |
| Voltage: | 48 V |
| Cooling: | Air |
| IP class: | 56 |
| Equivilent diesel engine: | P30: 30 hp |

# Motors, EC-Line and EB-Line

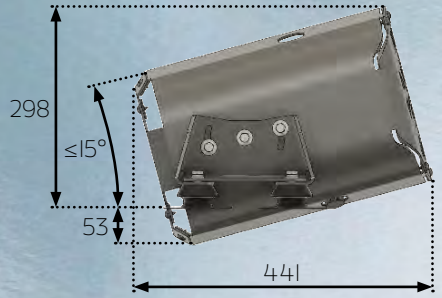
**EI0 Straight shaft**

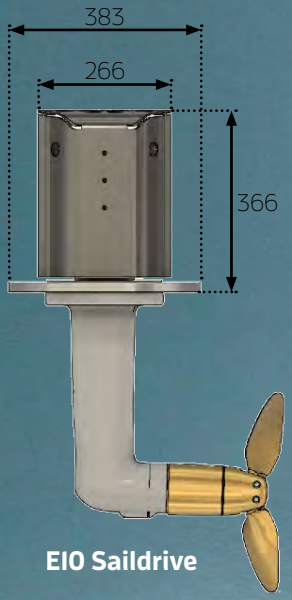



**EI0 & E20 Straight shaft**




**E20 straight shatf**

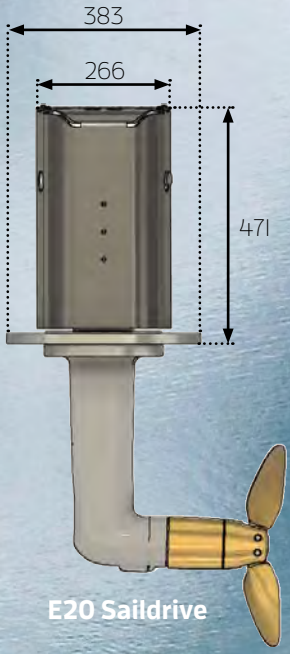



**EI0 Saildrive**

**EI0 and E20**

| | |
|---|---|
| Characteristics: | High torque, low speed |
| Type of motor: | DC-motor with brushes |
| Continuous input power: | EI0: 3,2 kW, E20: 5,2 kW |
| Maximum input power: | EI0: 4,8 kW, E20: 7,8 kW |
| Continous torque: | EI0: 25 Nm, E20: 40 Nm |
| Maximum torque: | EI0: 37 Nm, E20: 60 Nm |
| Maximum static thrust: | EI0: 100 kp, E20: 180 kp |
| Speed: | 1000 rpm |
| Weight: | Shaft: EI0: 25 kg, E20: 32 kg |
| | Saildrive: EI0: 38 kg, E20; 45 kg |
| Voltage: | 24 V |
| Cooling: | Air |
| IP class: | 20 |
| Equivilent diesel engine: | EI0: 10 hp, E20: 20 hp |

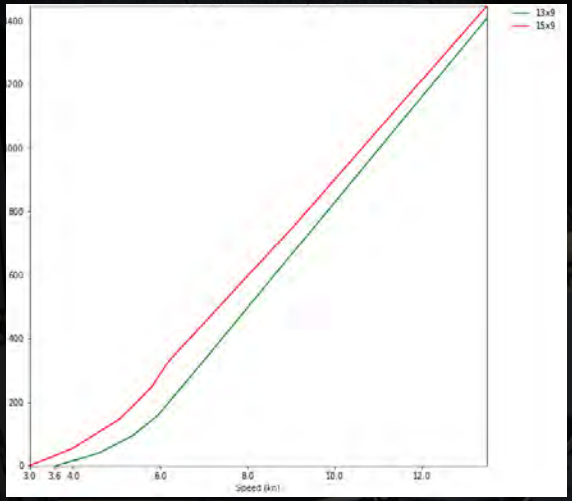



**E20 Saildrive**

# EcoCharge propeller charging

Our systems have been developed with a focus on efficiency and user experience. As such, one feature is to charge your batteries while sailing. Do you want to be able to travel in silence, even when traveling by motor, while helping and improving the environment?

- EcoCharge works with both fixed and folding propellers.
- Charging is easily controlled from the System monitor.
- You decide when you want to charge and when you want to sail at full speed.
- For displacement hulls and in moderate breeze, the disruption when sailing is marginal.
- At low speed, Eco-Charge is already far more efficient than a 100 Watt solar panel.
- Built-in overcharge protection means the batteries cannot be overcharged even at long periods of time.
- Charging increases sharply with increasing boat speed but is electronically limited, to protect motor and battery.
- Charging is effective when boat speed is around 4 1/2 knots or more.



# Hybrid


Sometimes having a pure electric drive doesn't suit you. It could be that you need more range than what is practically or economically suitable to store in batteries.

A small portable 'genset' (generator set) could then be the perfect and cheap solution for those who usually have sufficient range on batteries but at rare occasions have need for more range.
A stationary diesel genset is for those who want a permanent solution on-board. A solution that is quiet, provides economic operation and that can provide the entire boat with 230 V for household appliances.

# Solar panels

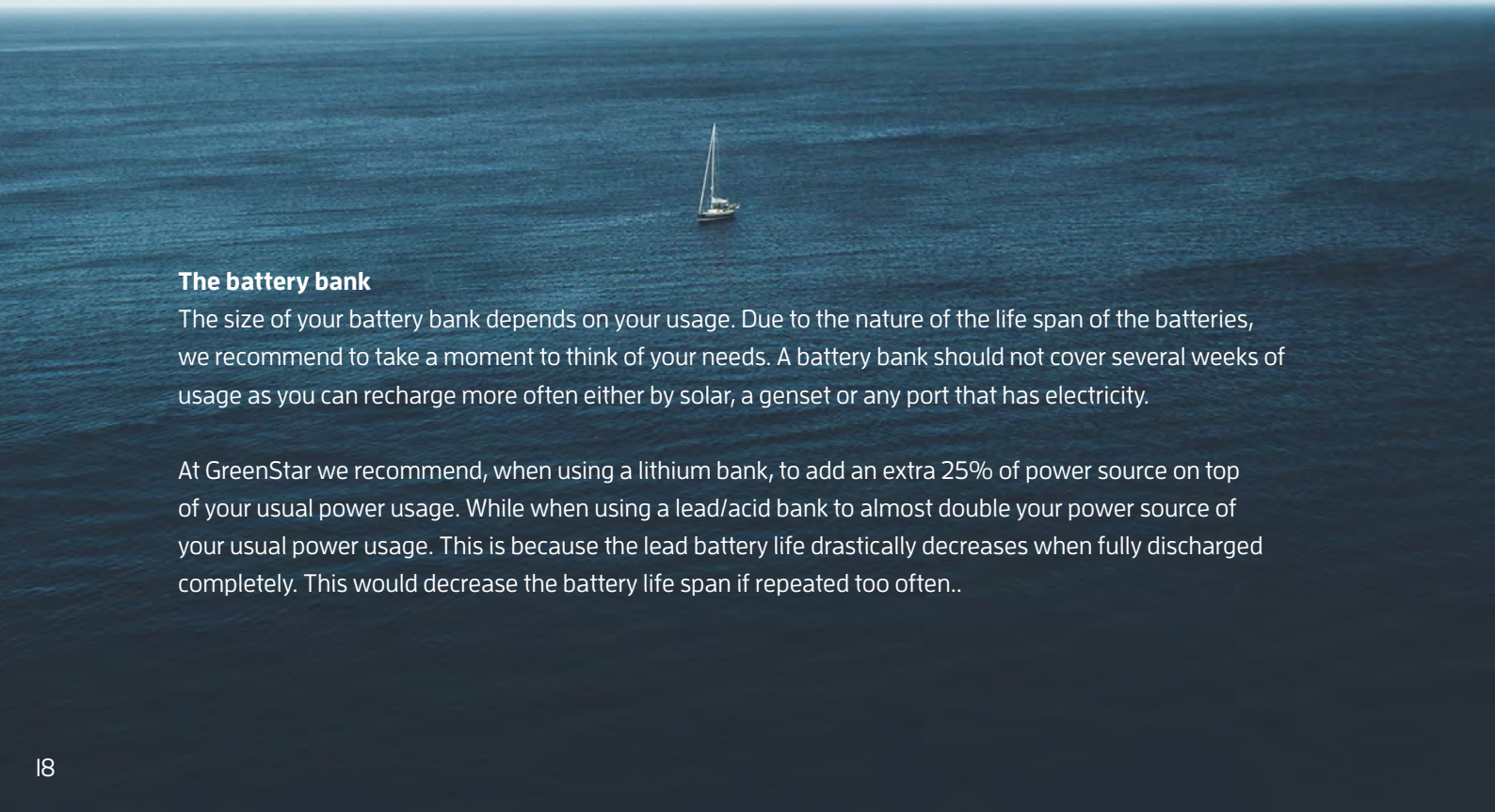

Solar panels are an extremely good complement to our drive systems. In order to further simplify for our customers, we have, in collaboration with the Swedish manufacturer Sunbeam System, developed solar panel packages that harmonize perfectly with our drive systems.

How much solar panels you need is entirely controlled by your needs. If you for example live on your boat, your needs would be higher and thus you would require more solar panels.

# Batteries

At GreenStar Marine, we understand the need for a powerful battery bank.
Our team has searched the current market to determine what the best set up for an electric system is. With our high requirements for the system, we have taken out the guess work for the customer, and found the perfect batteries for the users' needs.

At present we offer two types of battery: lead/acid or lithium. Depending on your needs, we have the solution!



**The battery bank**

The size of your battery bank depends on your usage. Due to the nature of the life span of the batteries, we recommend to take a moment to think of your needs. A battery bank should not cover several weeks of usage as you can recharge more often either by solar, a genset or any port that has electricity.

At GreenStar we recommend, when using a lithium bank, to add an extra 25% of power source on top of your usual power usage. While when using a lead/acid bank to almost double your power source of your usual power usage. This is because the lead battery life drastically decreases when fully discharged completely. This would decrease the battery life span if repeated too often..

**Litium Batteries**

At GreenStar Marine, we recommend the most popular battery, the lithium batteries. This battery performs the best with our drive system. While the cost is more than the Lead/Acid battery, they are virtually impossible to wear out, significantly lighter and easier to install. Lithium batteries also allows us to communicate directly through its management system into our drive system.

We have collaborated with another Swedish manufacturer to create a working solution that is flexible, light and safe, as well as harmonize perfectly with our drive system.

**Lead Acid Batteries (AGM designed for deep cycles)**

Lead Acid Batteries (AGM designed for deep cycles)

Lead Batteries are the most common batteries and have been used for years. Their simple design and robust system give the batteries a life span of 6 to 10 years and are quite cost effective. The disadvantages compared to the lithium batteries, are their weight, longer charge times and provide less running time at a higher power output.

# Electric propulsion since 1999

We sold our very first system to an H-boat owner during Gothenburg boat show in February 1999 and have grown from there! We continue to sell our system to many boat owners while upgrading our technology. We are proud of our eco-friendly system and continue to grow into the greener future.

**H-Båt,** Motor: GSI0. Battery: Lead 24V, 100 Ah
Performance: 4 kn - 3½ h, 6 kn-20 min

**Albatross,** Motor: GSI0. Battery: Litium 24V, 160 Ah
Performance: 4 kn - 5 h, 5½ kn - 1 h

**Dragonfly 32,** Motor: GSI8. Battery: Litium 24V, 320 Ah
Performance: 4 kn - 11 h, 6l/2 kn - 1½ h

**Vikensnipa,** Motor: GSI0. Battery: Litium 24V, 200 Ah
Performance: 4 kn - 11 h, 6 kn - 1½ h

**Säfvelången II,** Motor: GSI8. Battery: Lead 48V, 200 Ah
Performance: 4 kn - 11 h, 6 kn - 2 h


**Ocean Living** Motor:2xGSI8. Batteri: Lead 48V, 800 Ah
Performance: 3 kn - 7 h, 4 kn - 1½ h


**Open 60,** Motor: E35P. Battery: Litium 48V, 160 Ah
Performance: 4 kn - 3½ h, 5 kn - 1 h

**Westfjord 26,** Motor: 2xGSI0. Battery: Lead 24V, 200 Ah
Performance: 4 kn - 6 h, 5½kn - 30 min

**RIO,** Motor: 2xGSI8. Battery: Lead 48V, 400 Ah
Performance: 4 ½ kn - 13 h, 6 1/2 kn - 1 h

**ZEB 25,** Motor: GSI8. Battery: Lead 48V, 100 Ah
Performance: 4 kn - 10 h, 12 kn - 45 min

**Smaragd,** Motor: GSI0. Battery: Litium 24V, 200 Ah
Performance: 4 kn - 7½ h, 6 kn - 1½ h

**Hava 700,** Motor: BO200P. Battery: Litium 350V, 160 Ah
Performance: 20 kn - 2 h, 35 kn - 30 min

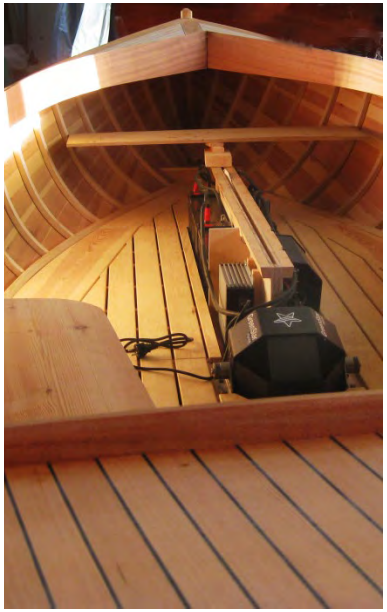

**HPI030,** Motor: GSI0. Battery: Lead 24V, 200 Ah
Performance: 4 kn - 7 h, 6 kn - 40 min

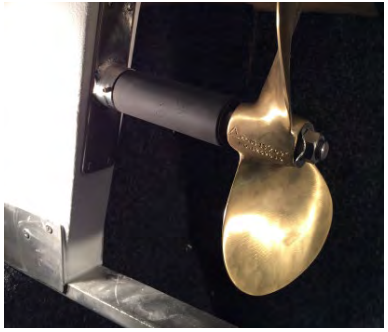
**Grinde,** Motor: GSI0. Battery: Litium 24V, 100 Ah
Performance: 4 kn - 3½ h, 5½ kn - 40 min

**RenStröm,** Motor: 2xGSI8. Battery: Litium 48V, 360 Ah
Performance: 4 kn - 16 h, 5½ kn - 2 h

# Installation

At GreenStar Marine, we are proud of our custom design to help the installation to be an inexpensive, simple, user friendly experience. We have thought about what the user needs and requires such as self-adjusting and rubber mounted motor brackets. Our custom-made speed levers are recessed for protection, and can be mounted in any location for the user. We spend time on the details, so you don't have to!

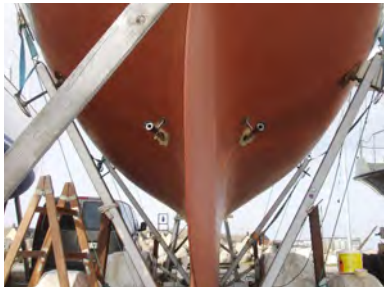


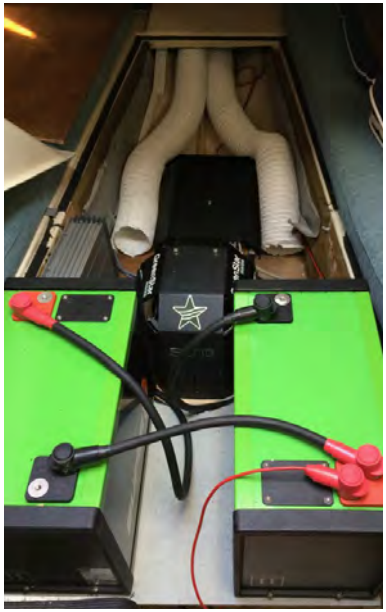


Examples of customer installation.

**1.** System centered around the centerboard drum of a JB Sailor. **2.** Speed control fitted to the control panel of a Gullholmensnipa. **3.**Propeller mounted in a Crescent Alure 20. **4.** Lead batteries in Kostern Kåre.

If you want to use a shaft drive or a saildrive, we have the solution! We have also developed our own shaft solution which is efficient, easy to install and does not need lubricate points. Our saildrive system can be fitted on most common saildrive foundations.





Examples of customer installation.

**1.** E20 prototype installation in Mamba 31. **2.** Double drive-lines mounted in the RIO Aaworyn. **3.** Installation in a Smaragd. **4.** Elder GSSD10 mounted i a Maxi Fenix.

# Overview - Drive systems

| P-LINE COMPLETE SYSTEM | Straight shaft | Sail Drive |
|---|---|---|
| INCLUDED | | |
| Fixed propeller | ✓ | ✓ |
| Shaft Bearing, Shaft Seal, Propeller Shaft, Shaft Coupling | ✓ | |
| Sail drive | | ✓ |
| Common Connection Box | ✓ | ✓ |
| Central Unit, incl antenna | ✓ | ✓ |
| Speed control | ✓ | ✓ |
| Basic system monitor | ✓ | ✓ |
| Motor inkl mounting | ✓ | ✓ |
| Battery charger | ✓ | ✓ |
| All cables | ✓ | ✓ |
| Shore power system | ✓ | ✓ |
| Star, cloud service, incl updates and a phone application | ✓ | ✓ |
| | | |
| ACCESSORIES | | |
| EcoCharge | ● | ● |
| Folding Propeller | ● | ● |
| Stern tube system | ● | ● |
| Other accessories upon request | ● | ● |


✓ Included ● Accessory see price list

| EC-LINE COMPLETE SYSTEM | Straight shaft | Sail Drive |
|---|---|---|
| INCLUDED | | |
| Fixed propeller | ✓ | ✓ |
| Shaft Bearing, Shaft Seal, Propeller Shaft, Shaft Coupling | ✓ | |
| Sail drive | | ✓ |
| Common Connection Box | ✓ | ✓ |
| Central Unit, incl antenna | ✓ | ✓ |
| Speed control | ✓ | ✓ |
| Basic system monitor | ✓ | ✓ |
| Motor inkl mounting | ✓ | ✓ |
| Battery charger | ✓ | ✓ |
| All cables | ✓ | ✓ |
| Shore power system | ✓ | ✓ |
| Star, cloud service, incl updates and a phone application | ✓ | ✓ |
| | | |
| ACCESSORIES | | |
| EcoCharge | ● | ● |
| Folding Propeller | ● | ● |
| Stern tube system | ● | ● |
| Other accessories upon request | ● | ● |

✓ Included ● Accessory see price list

| EB-LINE COMPLETE SYSTEM | Straight shaft | Sail Drive |
|---|---|---|
| INCLUDED | | |
| Shaft Coupling | ✓ | |
| Common Connection Box (CCB) includuing system display | ✓ | ✓ |
| Speed Control | ✓ | ✓ |
| Motor including motor mounting | ✓ | |
| Motor including Sail drive leg | | ✓ |
| | | |
| ACCESSORIES | | |
| Shaft, complete package[1] | ● | |
| Sail drive, complete package[2] | | ● |
| Battert charger | ● | ● |
| Shore power system | ● | ● |
| Cabling | ● | ● |
| Shaft bearing | ● | |
| Shaft sealant | ● | |
| Propeller shaft | ● | |
| Propeller, fixed or folding | ● | ● |
| Stern tube / Stern tube support | ● | |
| Bluetooth interface with smartphone app for system display | ● | ● |

1 Includes shaft bearing, shaft sealant; propeller shaft, fixed propeller, battery charger, cabling and shore power system
2 Includes battery charger, cabling and shore power system

✓ Included ● Accessory see price list

# Overview - Batteries

BATTERIES

| LITHIUM BATTERIES, 48 V | 48 V, 105 Ah | 48 V, 150 Ah | 48 V, 210 Ah |
|---|---|---|---|
| Energy. Nominal / Usable (kWh) | 5,0 / 4,2 | 7,4 / 6,1 | 10,2/ 8,4 |
| Nominal voltage (V) | 51,8 | 51,8 | 51,8 |
| Weight (kg) | 32 | 44 | 60 |
| IP-class | 54 | 54 | 54 |
| Maximum continuous discharge current A) | 210 | 300 | 420 |
| Maximum charging current (A) | 84 | 120 | 168 |
| Number of modules (can be combined into desired shape) | 14 | 14 | 14 |
| Module size, LxWxH (mm) | 219x99x87 | 297x99x87 | 395x99x87 |
| Temperature area, discharge | -28≤°C≤60 | -28≤°C≤60 | -28≤°C≤60 |
| Temperature area, charge | -5≤°C≤55 | -5≤°C≤55 | -5≤°C≤55 |
| Temperature area, storage | -25≤°C≤60 | -25≤°C≤60 | -25≤°C≤60 |
| Smart BMS with battery charger control | ✓ | ✓ | ✓ |
| Communicates with Central unit and Star | ✓ | ✓ | ✓ |

More battery alternatives to be found on the next page.

# Overview - Batteries

BATTERIES

| LITHIUM BATTERIES, 24 V | 24 V, 105 Ah | 24 V, 150 Ah | 24 V, 210 Ah |
|---|---|---|---|
| Energy. Nominal / Usable (kWh) | 2,5 / 2,1 | 3,7 / 3,1 | 5,1 / 4,2 |
| Nominal voltage (V) | 25,9 | 25,9 | 25,9 |
| Weight (kg) | 16 | 22 | 30 |
| IP-class | 54 | 54 | 54 |
| Maximum continuous discharge current A) | 210 | 300 | 420 |
| Maximum charging current (A) | 84 | 120 | 168 |
| Number of modules (can be combined into desired shape) | 7 | 7 | 7 |
| Module size, LxWxH (mm) | 219x99x87 | 297x99x87 | 395x99x87 |
| Temperature area, discharge | -28≤°C≤60 | -28≤°C≤60 | -28≤°C≤60 |
| Temperature area, charge | -5≤°C≤55 | -5≤°C≤55 | -5≤°C≤55 |
| Temperature area, storage | -25≤°C≤60 | -25≤°C≤60 | -25≤°C≤60 |
| Smart BMS with battery charger control | ✓ | ✓ | ✓ |
| Communicates with Central unit and Star | ✓ | ✓ | ✓ |

| LEAD BATTERIES (Deep Cycle AGM) | | 12 V , 100 Ah | 12 V, 105 Ah FT |
|---|---|---|---|
| Energy (10h). Nominal / Usable (kWh) | | 1,2 / 0,6 | 1,26 / 0,63 |
| Nominal voltage (V) | | 12 | 12 |
| Weight (kg) | | 32 | 35 |
| Module size, LxWxH (mm) | | 330x170x220 | 395x110x293 |

# Export price list, Dec-2020

| DRIVE SYSTEM | Straight shaft | Sail drive |
|---|---|---|
| EB10 | € 3 192 | € 5 500 |
| EB20 | € 4 640 | € 6 640 |
| EC10 | € 5 400 | € 7 400 |
| EC20 | € 6 900 | € 8 900 |
| P30 | € 12 240 | € 14 240 |

| BATTERIES | Total price | Price/kWh |
|---|---|---|
| Lithium, 48 V, 105 Ah | € 6 500 | € 1 300 |
| Lithium, 48 V, 150 Ah | € 7 920 | € 1 070 |
| Lithium, 48 V, 210 Ah | € 7 792 | € 862 |
| Lithium, 24 V, 105 Ah | € 3 750 | € 1 467 |
| Lithium, 24 V, 150 Ah | € 4 200 | € 1 138 |
| Lithium, 24 V, 210 Ah | € 4 914 | € 962 |
| Lead, Deep Cycle AGM, 12 V, 100 Ah | € 327 | € 272 |
| Lead, Deep Cycle AGM. 12 V, 105 Ah FT | € 480 | € 380 |

Accessories can be found on the next page.

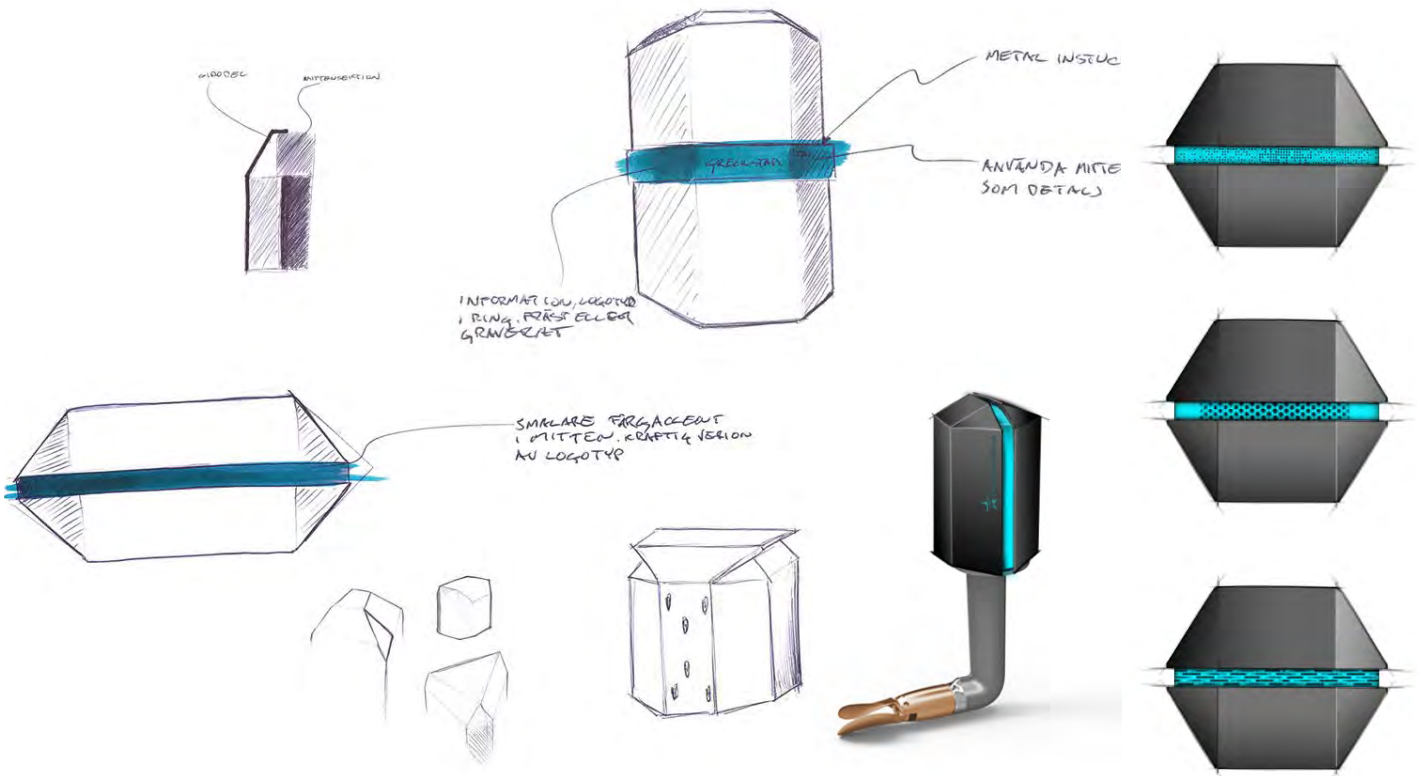
All prices are excl VAT and exworks Gothenburg

| ACCESSORIES | |
|---|---|
| Shaft, complete package (included in EC) | € 1808 |
| Sail drive, complete package (included in EC) | € 1 500 |
| Battery charger, Litium (included in EC) | € 632 |
| Battery charger, lead or 3rd part lithium (included in EC) | € 612 |
| Shore power system (included in EC) | € 724 |
| Battery cabling (included in EC) | € 100 |
| Battery charger cabling (included in EC) | € 36 |
| EcoCharge (EC only) | € 400 |
| Fixed propeller (included in EC) | from € 224 |
| Folding propeller EB (EC) | from € 780 (€ 560) |
| Shaft bearing (included in EC) | € 36 |
| Propeller shaft (diameter 25mm, length 1,5 m) (included in EC) | € 200 |
| Shaft sealant (included in EC) | € 96 |
| Stern tube, internal | € 112 |
| Stern tube, with cornet | € 280 |
| Support to stern tube | € 130 |
| Bluetooth interface with smartphone app for system display (Only EB)) | € 96 |
| Other accessories like solar panels, DCDC- converters etc upon request | - |

All prices are excl VAT and ex-works Gothenburg

# We are constantly developing

Our development department is constantly working to improve our products and make sure everything stays compatible with your GreenStar system.



# Greenstar in harmony with nature

At GreenStar Marine, we strive for a greener tomorrow. As such, we develop our patent products with a mindset of a better, eco-friendly future!

With help from renewable energy sources, lets create a boating world with less impact on the environment!

GreenStar Marine

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