

US

**TORQUEEDO**  
STARNBERG.GERMANY

*Electric Boating 2016*





A modern pioneer: Deep Blue **Hybrid**



# DEEP BLUE

HYBRID

More than a  
hybrid drive

Deep Blue Hybrid integrates propulsion and energy management into one complete system. For more convenience, increased independence and greater harmony with nature.

**40<sup>HP</sup>**  
*equivalent*

**80<sup>HP</sup>**  
*equivalent*

**160<sup>HP</sup>**  
*equivalent*

# Luxury meets sustainability



- ✓ Powerful and silent electric propulsion
- ✓ Abundance of energy to power everything on board - and with less pollution
- ✓ Silent power generation from the wind and the sun
- ✓ Only one type of fuel on board - and less of it
- ✓ More freedom, pioneering mobility

For more information: Page 48

# More innovative and sustainable than ever - electric boating in 2016

For 10 years now, Torqeedo stands for sustainable mobility on the water. Our range of products has grown year after year and now provides drive systems for a variety of boats, from the smallest kayaks right up to 80 foot yachts and everything in between.

With the introduction of the Deep Blue Hybrid, we are taking it one step further. Deep Blue Hybrid is more than just a hybrid drive system. It constitutes a paradigm shift. Traditionally, on-board energy generation was either a by-product of the drive system (via the alternator) or a completely separate standalone on-board system. Solar or wind energy could, at best, be used to recharge the on-board systems, but could not be used for propulsion. Deep Blue Hybrid captures energy from various sources - clean power from solar modules and hydro generation while under sail, shore power and, when necessary, from modern and efficient diesel generators. This energy is managed and distributed to power all electrical devices on board - including the drive system and all house loads, from the air conditioning to the water maker.

But 2016 also brings new pure electric drive systems:

- \_ The new Cruise 10.0, as a 48-volt drive, provides the propulsive power of a 20 HP gasoline outboard
- \_ The 40 HP Deep Blue Systems are available as saildrives for the first time
- \_ And, we are also making our high-tech drives in the 5 to 20 HP range available as pod motors for sailors and motorboat enthusiasts

This year also sees improved accessories, making sustainable boating that little bit more attractive in 2016.



## Contents

### 12 Why Torqeedo

12 Clean mobility

14 Overall efficiency

16 Drive technology

18 Battery technology

### 20 Electric outboards and pod drives

≅ 1 - 20 HP

22 Ultralight 403  
≅ 1 HP

26 Travel 503/1003  
≅ 1.5 - 3 HP

30 Cruise 2.0/4.0/10.0 **NEW**  
≅ 5 - 20 HP

### 38 High-voltage drive systems

≅ 40 - 160 HP

40 Deep Blue  
≅ 40 - 80 HP

48 Deep Blue Hybrid **NEW**  
≅ 40 - 160 HP

*New products* **2016**

**NEW**

#### **Deep Blue Hybrid**

- \_ Powerful hybrid drive
- \_ Integrated energy management

Page 48



**NEW**

#### **Cruise 10.0 R**

- \_ Low-voltage, high-powered
- \_ 20 HP equivalent

Page 32

## 54 Power supply

56 Power 26-104

60 Solar chargers

## 62 Lifestyle & organization on board

64 Torqeedo wear **NEW**

66 Travel bags

67 TorqTrac

## 68 Information

68 Ordering information

70 Technical specifications

72 Contact



**NEW**

### **Cruise pod motors**

- \_ for sailboats and motorboats
- \_ 5- 20 HP equivalent

Page 34



**NEW**

### **Deep Blue 40 SD**

Saildrive model for Deep Blue and Deep Blue Hybrid

Page 45



**NEW**

### **Torqeedo wear**

Casual and comfortable Torqeedo gear

Page 64



Join the discussion!  
<https://www.facebook.com/torqueedo>





# Boating the contemporary way

Torqeedo transforms your marine leisure activity into really modern, clean and safe enjoyment. Our motors are leading-edge, high-tech design products powered by the safest and most powerful lithium batteries of their kind.

## *Please come aboard ...*

- \_ Safe, simple operation
- \_ Clean to use: no smells, no leaks
- \_ Avoid significant harmful nitrogen oxide and hydrocarbon emissions
- \_ Keeps waterways clean: no exhaust discharged into the water
- \_ Stylish



# Electric workboats – a decision that pays off

- Save 100% of your gas or diesel cost
- + Spend a fraction of the saved cost for electricity and battery write-off
- + Reduce maintenance costs
- + Enjoy high reliability

---

**= If you are out on the water 100 days per year or more,  
you may save money by going electric**

Protecting our waters and atmosphere is a bonus.

*It all adds up with Torqueedo ...*



### **Deep Blue - high-voltage drives**

Our 80 HP models\* from the Deep Blue series can help you to save costs if your annual gasoline or diesel bills exceed \$6000 USD. Find out more on page 40.



### **Cruise - outboards**

In the 20 HP performance class, our Cruise series drives can help to save costs if your annual gasoline or diesel costs exceed \$1000 USD. Find out more on page 30.

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

## Clean mobility

# What does a 5 HP gasoline outboard have in common with 38 cars?

Internal combustion engines discharge a number of harmful substances, including carbon dioxide (CO<sub>2</sub>), nitrogen oxide (NO<sub>x</sub>), hydrocarbons (HC) and particulate matter. Imagine you are running a new 5 HP four-stroke outboard for one hour. Would you suspect that you are producing the same amount of NO<sub>x</sub> and HC pollution as if you were driving 38 new cars at 60 mph for the same amount of time?

Let's look at the facts.

The automotive industry uses sophisticated electronic motor and emissions controls. Catalytic converters have been required equipment in

automobiles for 30 years. Exhaust gas recirculation systems are common equipment. Even the latest four-stroke outboards do not have equivalent systems. The level of harmful NO<sub>x</sub> and HC emissions, even from very small gas outboards, is dramatically higher than in cars. Though there are far fewer outboards, their pollution is substantial and vastly out of proportion.

NO<sub>x</sub> and HC are poisonous, carcinogenic, and contribute to the formation of ozone and acid rain.

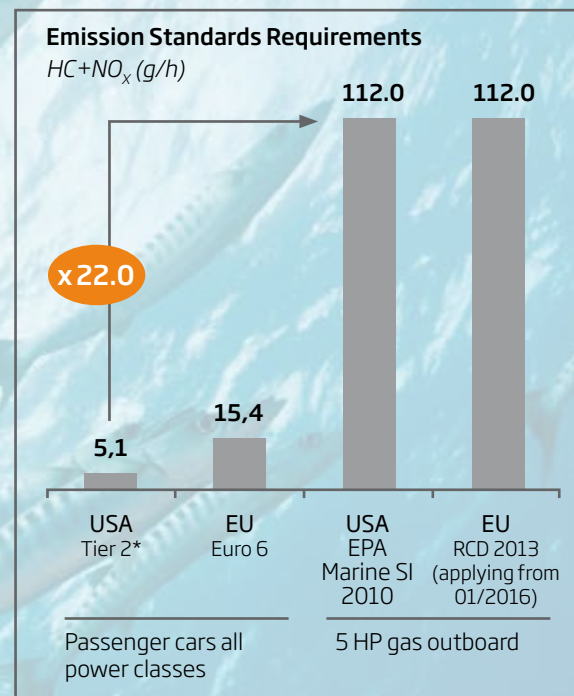
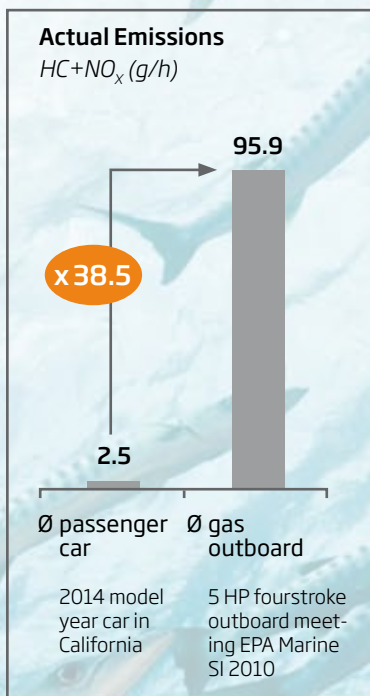
If you can avoid these high levels of pollution by switching to quiet, modern and emission-free electric drive systems - then why wouldn't you?

Emissions asymmetries in numbers:

Running a new 5 HP fourstroke outboard for one hour produces the same  $\text{NO}_x$  and HC emissions as running 38.5 new cars for the same time.

Official emission standards confirm that dramatically higher pollution is permitted for outboard motors.

Even small 5 HP outboards may produce up to 22 times the  $\text{NO}_x$  and HC emissions compared to a car.



In this comparison, cars move significantly faster than small outboards. The results are even more dramatic if viewed in terms of grams per mile.

More powerful outboards are more efficient than smaller outboards but emit far greater amounts of total noxious substances and would perform significantly worse in these comparisons.

\*US and California passenger car emission limits refer to NMOG in place of HC, plus  $\text{NO}_x$   
Sources: United States Environmental Protection Agency, California Air Resources Board, European Commission, Energy Capital Group

## Advantage Torqeedo

# 1 HP is 1 HP. Isn't it?

Standardization of power is nothing new. It all goes back to James Watt, who defined horsepower in the 18th century to demonstrate the performance of his steam engine. Since then, it's been measured uniformly in HP or, in honor of its inventor, in watts. And with that, everything should be clear. Shouldn't it? Not quite, because it depends on where and how you measure.

The **most meaningful performance indicator** of a drive system is **propulsive power**, which indicates the performance actually delivered by the motor to move the boat, taking all losses, including propeller loss, into account. This method has been used in commercial shipping for nearly 100 years.

For combustion and conventional electrical outboard motors the propulsive power is not normally disclosed. Instead, less meaningful indicators are used such as **shaft power**, **input power** or even **static thrust**.

That wouldn't be so bad if the differences between the various power ratings were minimal. However, the opposite is the case. The propulsive power of a gas outboard with 4 HP shaft power, for example, is just 1 HP. How can the differences in efficiency levels of different types of motors be measured? We'll shed some light on them.



**Shaft power:** Power rating of combustion outboards, comparable with cars (torque x angular velocity). The rating is expressed in HP or kW but does not take propeller loss into account, which can vary anywhere from 30% and 80%.

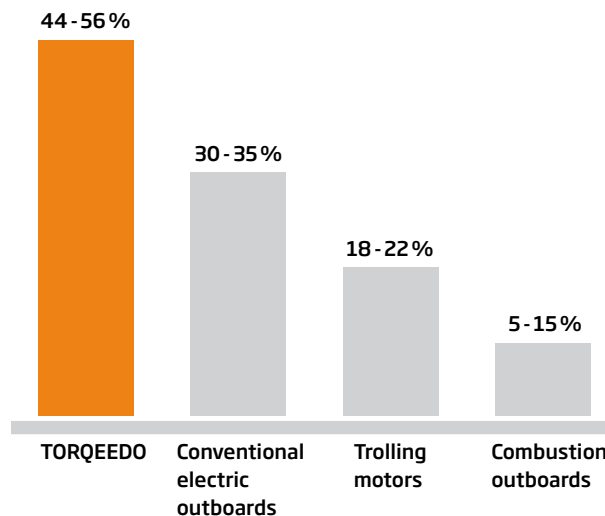
# Superior propulsion and superior overall performance

Our focus on optimizing propulsive power and our use of the latest technologies means Torqeedo has the highest overall efficiency on the market. That is, every Torqeedo drive converts its available battery power to propulsive power better than any other outboard. This is very important for electric drives because it means more power and range from limited battery capacity.

## Overall efficiency levels of various outboards

**Input power:** A drive's power consumption. Often used as a performance indicator for electric outboards (current x voltage), expressed in watts or HP. Does not take system loss into account.

**Propulsive power:** Performance indicator used by commercial shipping and Torqeedo (thrust x speed). The rating is expressed in HP or kW and takes all losses into account, including propeller loss, and clearly indicates the actual power delivered by the drive system for propulsion.

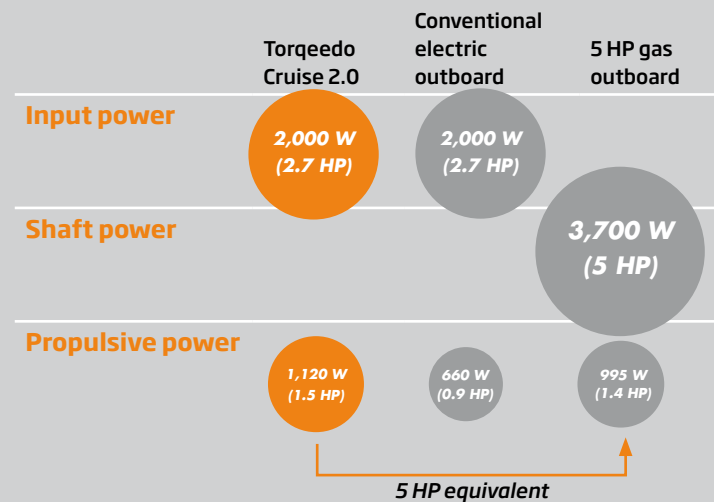


## Comparing the power of electric and combustion outboards: Torqeedo's HP Equivalent

Electric motors can achieve the same propulsive power as combustion engines with significantly lower shaft power. The reason lies in the different torque curves of electric motors and gasoline or propane engines: While the torque curve of combustion engines features a prominent peak, with maximum torque available only in a limited working point, electric motors feature a much flatter torque curve, with ample torque available at any rotational speed. This characteristic allows them to run propellers with substantially higher efficiencies than combustion engines. Propeller efficiencies in the lower horsepower class can vary by a factor of 3 between combustion outboards and Torqeedo electric outboards.

To make the comparison easy for boaters who are used to shaft power ratings of gas outboards, we always compare the actual propulsive power of our outboards versus gas or propane outboards. On the following pages, a Torqeedo outboard specified as a "3 HP equivalent", provides the same propulsive power as a 3 HP combustion outboard - even though its shaft power and input power may be substantially lower.

In the Technical Data section of this catalog, we provide all information on input power, propulsive power, overall efficiency and comparable gas or propane outboards for your reference.



*Designed for power*

# Inner strength – Torqeedo power train engineering

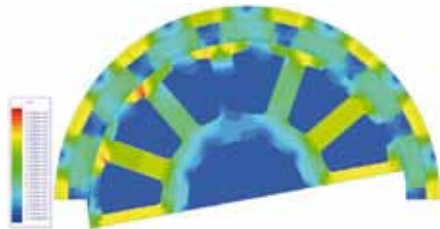
Superior propulsive power and overall efficiency don't just fall out of the sky. They come from inhouse development that works uncompromisingly towards optimizing propulsive power and overall efficiency. It comes from using the newest technology for every compo-

nent. It comes from using tailor-made components where appropriate, instead of off-the-shelf solutions. And it comes from carefully matching all components of the drive train for performance. That is what superior drive train engineering is about.

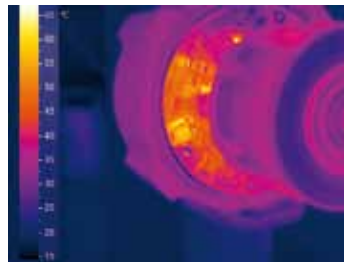
## Efficiency and power - Torqeedo motor technology

Motors and electronics are developed for ultimate efficiency along the entire RPM-range and for superior power densities. That is why our motors are typically lighter and smaller than other motors of the same power class.

Motor optimization always depends on the application. Motors for land vehicles are optimized to provide torque in the low-RPM range for quick acceleration. Motors for boats require maximum torque at full power to fight the resistance of the water. This is one of the reasons why at Torqeedo, we focus on our own in-house high-tech development - to produce the most efficient, most powerful electric boat motors available.



Simulation of the magnetic field distribution for optimizing the design of a motor (structure, magnet geometry, air gap, plate cross-section and rotor design)

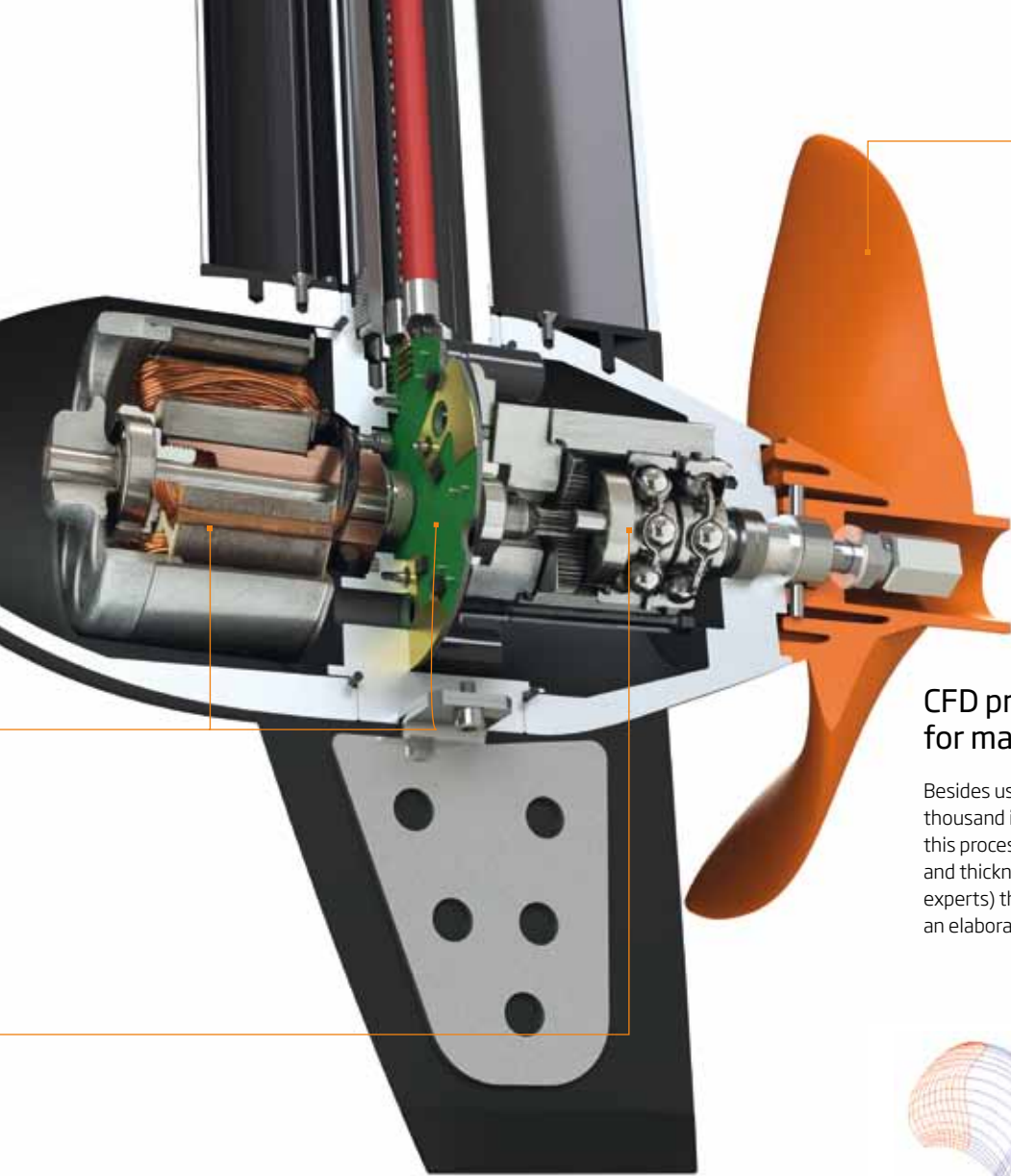


Measurement of thermal load of the motor electronics

## Carefully selected gears for optimum torque and speed

Propellers are at their most efficient when they are moved slowly but powerfully (high torque, low rotational speed). This is achieved by the use of **planetary gears** for minimum weight and volume. Torqeedo uses only the highest quality gears from German precision production. They are extremely efficient and have an impressive **service life of up to 50,000 hours**.



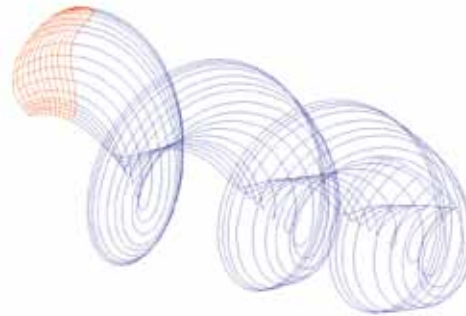


## Conventional propeller optimization - exploiting the outstanding torque characteristics of Torqeedo motors

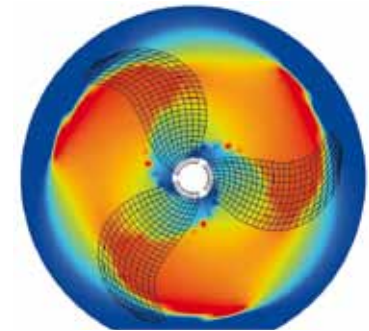
There are dramatic differences in propellers' efficiencies. Poorly designed propellers may deliver only 20% efficiency while outstanding propellers deliver around 75%. According to conventional wisdom, there are three main characteristics of efficient propellers: a large diameter, a high pitch and a slow rotation. To spin large-diameter, high-pitch propellers slowly, motors need to deliver high torque along their entire rpm range. Motors with a suitable torque curve can work efficient propellers; motors with low torque or inadequately curved torque characteristics can't. But, conventional wisdom is not everything. All Torqeedo propellers are tailored to exactly meet the demands of the expected application, allowing our motors to take full advantage of their superior torque characteristics.

## CFD propeller calculations from commercial shipping for maximum efficiency

Besides using conventional optimization methods, we perfect our propellers over several thousand iterations with the help of computational fluid dynamics (CFD) calculations. In this process, all propeller parameters - diameter, chord length, pitch, skew, rake, camber and thickness - are calculated using the same methods (and, incidentally, by the same experts) that are used to design the propellers for commercial ships and submarines. It is an elaborate but worthwhile method for cutting propeller loss to a minimum.



Lattice structure used to calculate the individual characteristics of a custom-made Torqeedo propeller.



Profile of the calculated slipstream (red: high speeds; blue: low speeds)

*Safe performance - designed down to the last detail for the most demanding use*

## Superior battery technology

Lithium-based batteries are the technology of choice for electric mobility applications. They store significantly more energy than all other batteries, they maintain a high current - a major advantage for electric drive systems - they do not lose their charging capacity, they supply power reliably even in the cold and have no memory effect. They also provide many more cycles than lead-based batteries.

Torqeedo has been a pioneer in the development of lithium batteries for boat applications for ten years. Since we make our batteries just a little bit better each year, we offer the most comprehensive and integrated protection and safety concept for lithium batteries on the market - coupled with performance and convenience.

### Intelligent battery management system (BMS)

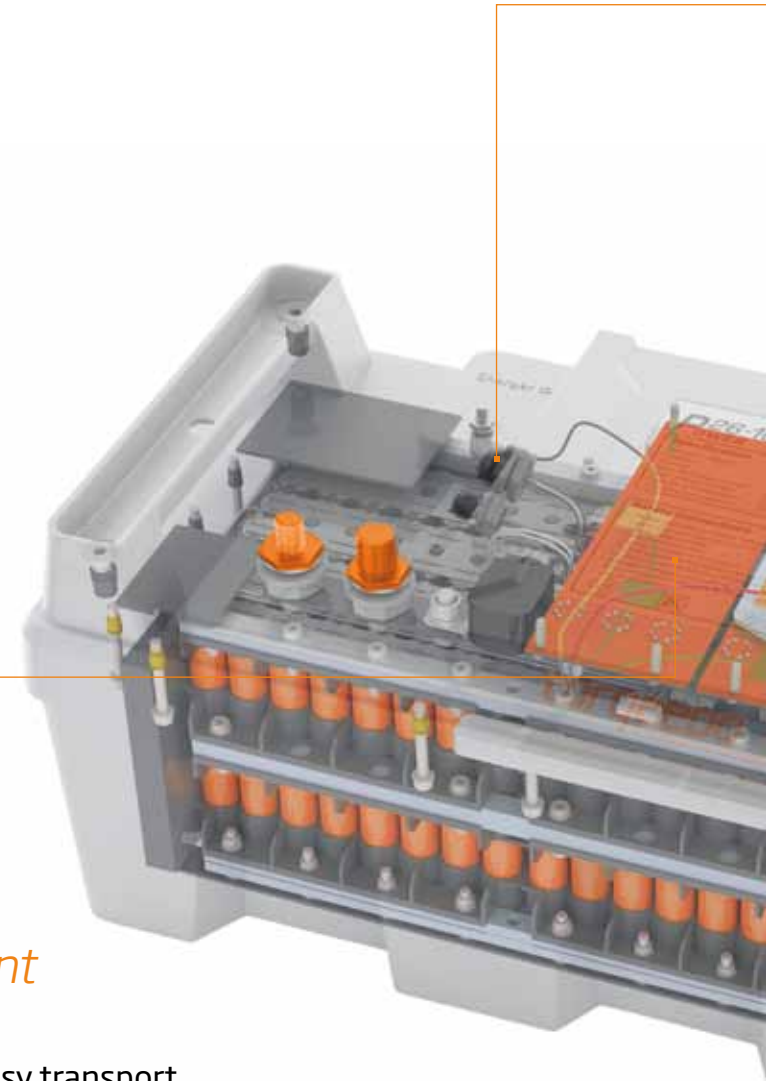
The BMS **monitors and protects** Torqeedo batteries against overcharging, overcurrent, deep discharge, short-circuit and overheating. The battery has comprehensive safety features, in other words, each safety-relevant component is duplicated with a backup component should it fail. In addition to these safety features, the BMS safeguards the battery's life expectancy with balancing and deep-sleep functionality.

*Powerful*

*Convenient*

### Safe and easy transport

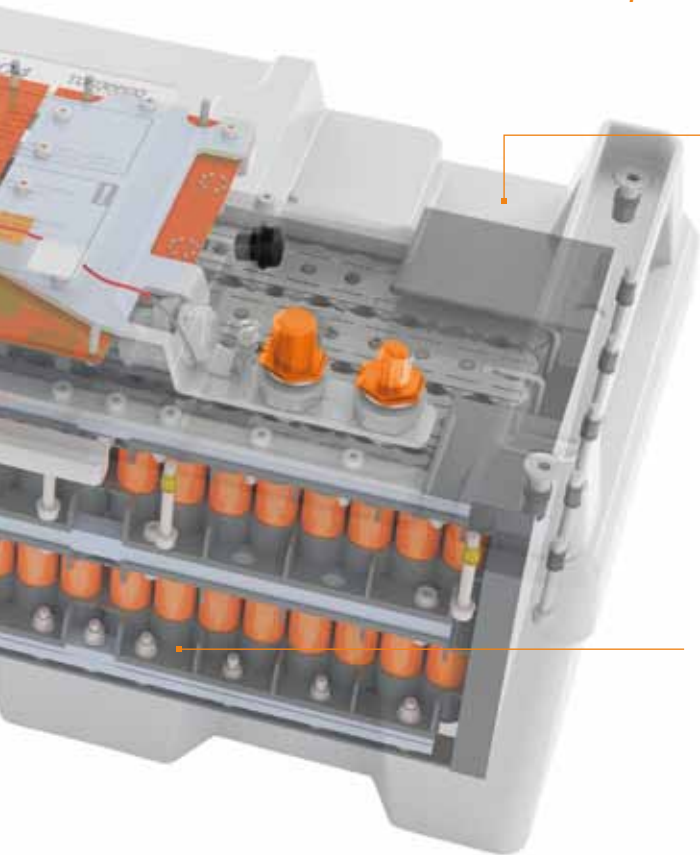
Thanks to their **high energy density**, the volume and weight of lithium batteries are up to 70% lower than comparable AGM or lead-gel batteries. This makes our low-voltage batteries simple to handle and light to carry. On top of that, Torqeedo Power and Deep Blue batteries can be switched on and off, allowing them to be safely **transported and installed** and protecting them against unintentional discharge.



## System communications

The battery electronics continuously communicate all the details of the battery status to the on-board computer.

## Dependable and efficient



### Completely waterproof

**Waterproof housing (IP67).** While battery immersion should be avoided, all Torqeedo batteries are, without exception, completely waterproof. The waterproof characteristics of each battery are individually tested prior to delivery.

**Waterproof data connections.** Whether connected or not, all cable connectors are completely waterproof to IP67.

### High quality safety cells

Three hardware mechanisms in every single cell provide additional safety. Torqeedo only uses cells based on lithium (Li-NMC) sourced from the **clean, precision production processes** of reputable manufacturers.



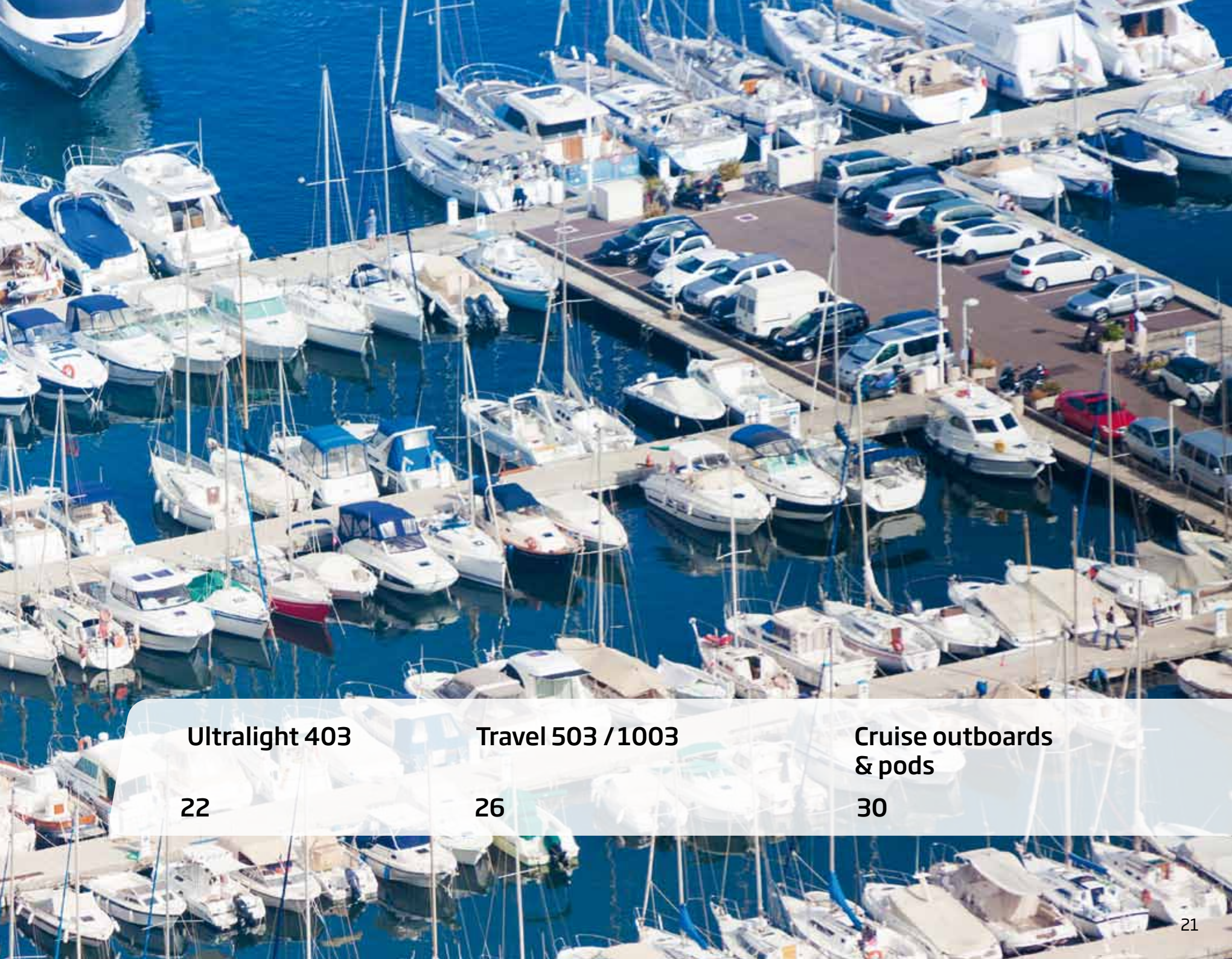
## Safety of lithium batteries

Besides performance, safety plays an important role for lithium batteries. In our view, five factors need to be considered in order to ensure that safe really means safe:

1. **Safe battery chemical engineering,** e.g. LiFePO (lithium iron phosphate) or LiNMC (lithium nickel manganese cobalt oxide). These are now widely used.
2. **Safe, individual cell packaging:** Torqeedo only uses safety cells - welded steel cylinders equipped with multiple hardware safety mechanisms. Other forms of packaging such as foil-sealed cells (coffee bags) offer a lower standard of safety as they afford less effective protection against short circuiting within the cells. (An exception here are cells with ceramic separators, which also provide safe packaging, but these are extremely expensive and very seldom used.)
3. **Clean, precision production processes** on the part of the cell manufacturers. Torqeedo only uses cells sourced from the most reputable brands in the world.
4. **Battery management system (BMS) with redundant safety features:** unlike lead-based batteries, lithium batteries always need a BMS to perform balancing and safety functions. If electronic components of the BMS fail it can itself become a safety problem for the battery. That's why there is hardware backup for all safety-relevant components in Torqeedo batteries. Incidentally, this is also stipulated in the automotive industry, in aerospace and for medical technology.
5. **Waterproof to IP67** - water in lithium batteries can lead to various problems such as corrosion of the BMS hardware or the creation of electrolytic gas. Lithium batteries on board a boat should therefore be waterproof.

# Electric outboards and pod drives

*1-20 HP equivalents*



**Ultralight 403**

**22**

**Travel 503 / 1003**

**26**

**Cruise outboards  
& pods**

**30**

# Ultralight 403

The lightest drive system from Torqeedo. Ideal for very light boats and extended kayak trips. Reliable performance, powerful lithium batteries and a 25 mile range - the Ultralight is a highly efficient flyweight motor with all the convenience of a genuine Torqeedo: GPS in real time, solar-rechargeable, waterproof and with a long service life.

- ✓ Capable of traveling at over 6 mph and covering up to 25 miles
- ✓ Weighs only 16 lbs including battery
- ✓ On-board computer with real-time display of remaining range, speed, charging status and more
- ✓ Long-lasting lithium battery without memory effect  
**New:** Now with shorter charging time and USB connection
- ✓ Compatible with the steering system of all popular kayak models
- ✓ Safe, thanks to emergency kill switch and auto-stop in case of capsizing.
- ✓ Waterproof to IP67
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use



\_ Kayaks  
\_ light boats

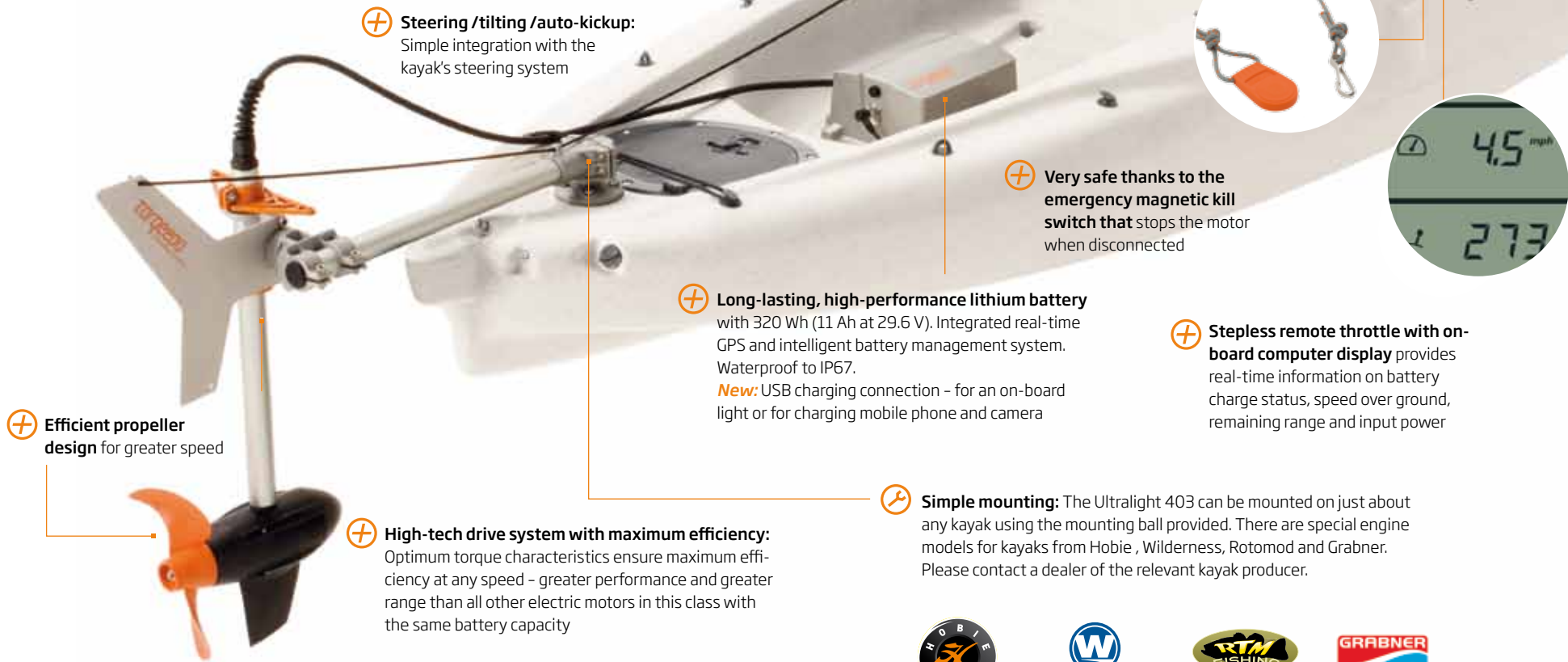
**1** HP  
equivalent\*

# Ultralight 403

*For anglers and adventurers  
unwilling to compromise*

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15.

# Ultralight 403



**+** **Steering /tilting /auto-kickup:**  
Simple integration with the kayak's steering system

**+** **Very safe thanks to the emergency magnetic kill switch that stops the motor when disconnected**

**+** **Long-lasting, high-performance lithium battery** with 320 Wh (11 Ah at 29.6 V). Integrated real-time GPS and intelligent battery management system. Waterproof to IP67.  
**New:** USB charging connection - for an on-board light or for charging mobile phone and camera

**+** **Stepless remote throttle with on-board computer display** provides real-time information on battery charge status, speed over ground, remaining range and input power

**+** **Efficient propeller design** for greater speed

**+** **High-tech drive system with maximum efficiency:** Optimum torque characteristics ensure maximum efficiency at any speed - greater performance and greater range than all other electric motors in this class with the same battery capacity

**+** **Simple mounting:** The Ultralight 403 can be mounted on just about any kayak using the mounting ball provided. There are special engine models for kayaks from Hobie , Wilderness, Rotomod and Grabner. Please contact a dealer of the relevant kayak producer.



## Performance: speed and range\*\*

### Ultralight 403 with integrated battery (29.6 V / 11 Ah)

Fishing kayak (13.5 ft/58 lbs, Model: Hobie Mirage Revolution)	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	2.6	21.9	08:20
● ● ● Half throttle	3.7	15.5	04:10
● ● ● Full throttle	5.8	4.6	00:48


### Ultralight 403 with integrated battery (29.6 V / 11 Ah)

Touring kayak (15.4 ft/51 lbs, Model: Prijon Prilite T470)	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	2.6	26.1	10:00
● ● ● Half throttle	3.9	16.2	04:10
● ● ● Full throttle	6.1	4.8	00:48

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

\*\* Depends on type of boat, load, propeller and conditions. Speed and range indications do not represent a legal guarantee.



 **Simple motor start** at the press of a button

## Navigation

### TorqTrac

The upgrade for the on-board computer on your smartphone. With convenient navigational functions and GPS data in real time. For more information: Page 67.

**Part no. 1924-00**



## Power supply



### Sunfold 50

The plug & play solution for solar-charging the Ultralight 403. This light solar charging panel delivers lots of solar energy and can be easily folded together. For more information: Page 61.

**Part no. 1132-00**

(suitable for Ultralight battery 1416-00 only)



### Spare battery

Extend your range with a second battery on board. The battery supplied as standard has a capacity of 320 Wh.

**Part no. 1416-00**

More accessories are on the right or in the appendix beginning on page 68.

#### Does the battery need to be fully discharged before I can recharge it?

No, because lithium batteries have no memory effect, i.e. you can fully recharge the battery after each trip regardless of the charge level.

#### How long does the battery take to charge?

When the battery is completely discharged it takes approx. 5 hours to fully recharge it. A spare battery means that you are mobile again immediately. You can charge your battery with the Sunfold 50 solar charger during your journey.

#### How long does a lithium battery last?

When used recreationally, the service life of our lithium batteries is virtually independent of the number of times it is charged. Generally speaking, an average capacity loss of 4% a year can be assumed. Aging will, however, accelerate if the battery is permanently exposed to high temperatures. You can use your battery in high temperatures, but take the battery out of the sun and store it in a cool place when not in use. Your battery must be returned to a Torqeedo Service Center for service 8 years after manufacture.

#### What happens if I capsizes?

The Ultralight is fitted with a sensor that monitors the position of the motor. If the kayak capsizes or the motor tips up, the drive is automatically switched off. In addition, the emergency magnetic kill switch always must be worn around the wrist or attached to your life jacket. This will stop the motor immediately if required.

You will find more answers about this product at:  
[www.torqeedo.com/ultralight](http://www.torqeedo.com/ultralight)

## Ordering information

### Ultralight 403 Ultralight outboard motor (1 HP)\*

**Part no. 1404-00**

Includes:

- \_ High-performance lithium battery (320 Wh) with integrated GPS and USB connection
- \_ Remote throttle with on-board display
- \_ Mounting kit with mounting ball
- \_ Charger
- \_ Emergency magnetic kill switch
- \_ USB adapter

Additional accessories and spares	Part no.
Spare battery Ultralight 403 (320 Wh)	1416-00
Spare Charger 90 W	1133-00
Motor cable extension 6.5 ft	1920-00
Remote throttle cable extension 5 ft	1921-00
Remote throttle cable extension 15 ft	1922-00
Spare propeller v10/p350	1912-00

## Travel 503/1003

There is a compelling alternative to small combustion outboards. The Travel will take you wherever you wish without exhaust and oil. With the power and range of a 3 HP combustion motor and all the advantages of an electric drive system from Torqeedo - GPS in real time, USB charging connection and a high-performance battery are only a few of the many convenient extras.

- ✓ As powerful as a 1.5 or 3 HP gas outboard
- ✓ Long-lasting, high-performance lithium battery
- ✓ Integrated on-board computer with real-time GPS and display of remaining range, speed, charge status and other functions
- ✓ A lightweight 19 lbs without battery, or only 30 lbs including battery
- ✓ USB connection for an on-board light or for charging mobile phone and camera
- ✓ Simplicity<sup>3</sup> - mounted without tools, starts at the press of a button, battery replaced in no time at all
- ✓ Everything is waterproof to IP67
- ✓ **New:** 915 Wh spare batteries - more energy and range for all Travel 503/1003 models
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use





- \_ Tenders
- \_ Dinghies
- \_ Daysailers
- \_ 503: Boats up to 1650 lbs
- \_ 1003: Boats up to 1.5 tons

**1.5<sup>HP</sup>**  
equivalent\*

**3<sup>HP</sup>**  
equivalent\*

# Travel 503/1003

*Clean and convenient - the alternative to the small combustion outboard*

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

# Travel 503 / 1003

**+** Clearly audible alarm signal reports low battery charge

**+** Very safe thanks to the emergency magnetic kill switch that stops the motor when disconnected

**+** Stepless speed control in the tiller, option to connect a remote throttle

**+** On-board computer display in the tiller provides real-time information on battery charge status, speed, remaining range and input power

**+** Available in two shaft lengths: 24.6 or 29.5 in

**+** Ideal motor cooling in the pylon ensures maximum performance

**+** Simple motor start at the press of a button

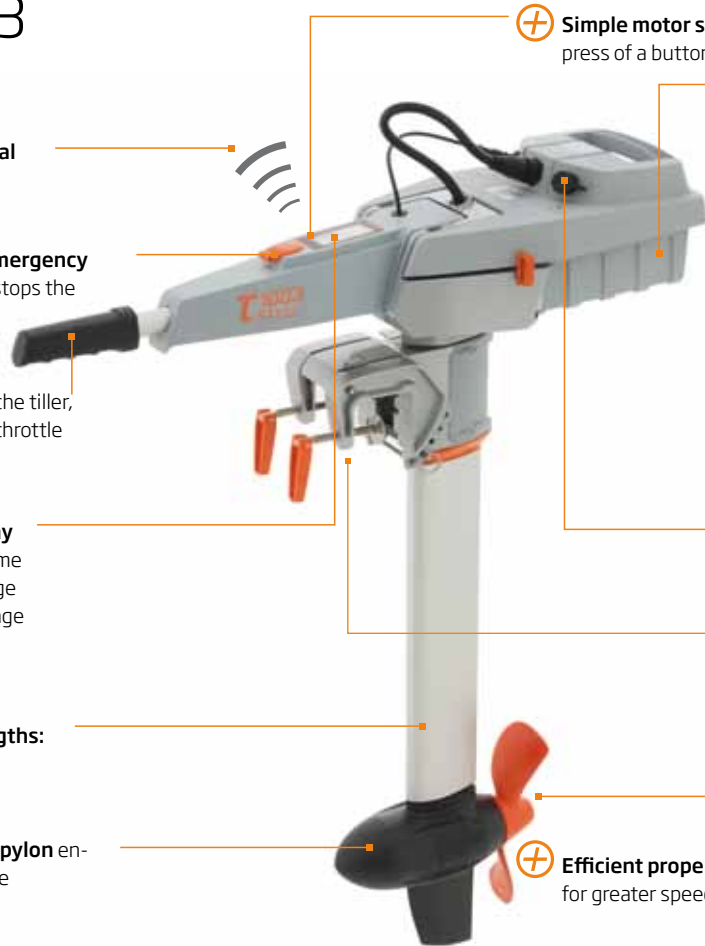
**+** Long-lasting, high-performance lithium battery with 320 Wh (11 Ah at 29.6 V) and 530 Wh (18 Ah at 29.6V). Integrated real-time GPS and intelligent battery management system. USB charging connection - for an on-board light or for charging mobile phone and camera. Waterproof to IP67. **New:** Spare battery with 915 Wh (31 Ah at 29.6 V)

**+** Connection for solar charging while traveling or when moored up

**+** Simple mounting: You can easily attach the Travel to the stern of your boat using the integrated mounting bracket; no special tools are required.

**+** High-tech drive system with maximum efficiency: The optimized drive shaft ensures maximum efficiency at any speed - greater performance and greater range than all other electric motors in this class with the same battery capacity

**+** Efficient propeller design for greater speed



## Performance: speed and range\*\*

### Travel 503 with integrated 320 Wh battery (29.6 V / 11 Ah)

Inflatable, dinghy, sailboat up to 1650 lbs	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	approx. 2.3	approx. 14.7	06:20
● ● ● Half throttle	approx. 3.4	approx. 7.4	02:08
● ● ● Full throttle	approx. 4.6	approx. 3.2	00:42

### Travel 1003 with integrated 530 Wh battery (29.6 V / 18 Ah)

Inflatable, dinghy, daysailer up to 1.5 tons	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	approx. 2.3	approx. 23.0	10:30
● ● ● Half throttle	approx. 3.4	approx. 12.1	03:30
● ● ● Full throttle	approx. 5.7	approx. 3.2	00:35

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

\*\* Depends on type of boat, load, propeller and conditions. Speed and range indications do not represent a legal guarantee.

# Navigation

## TorqTrac

The upgrade for the on-board computer on your smartphone. With convenient navigational functions in real time.

For more information: Page 67.

**Part no. 1924-00**



## Remote throttle

For applications where the tiller is not easy to access. You can control your Travel from a distance - with on-board computer display, stepless speed control and two different lengths of data cable (5 and 16 ft).

**Part no. 1918-00**

# Protection & transportation

## Protective cover

Protects motor cable from UV fading and shaft head from dirt.

**Part no. 1931-00**



# Power supply

## Sunfold 50 **NEW**

This lightweight solar panel delivers lots of solar energy and can be easily folded together. Suitable for all Travel models from 2015. For more information: Page 61.

**Part no. 1132-00**



## Spare battery **NEW**

Extend your range with a second battery on board.

**Part no. 1148-00 (915 Wh)**

**Part no. 1147-00 (530 Wh)**



## Travel bags

Carry your Travel and battery conveniently in stylish bags. Convenient protection.

**Part no. 1925-00 (Travel bag, 2-piece)**

**Part no. 1926-00 (Travel battery bag)**

More accessories are on the right or in the appendix beginning on page 68.

### Which Travel for which boat?

Both models are suitable for inflatables and other small boats. For sailboats up to 1650 lbs we recommend the Travel 503. The Travel 1003 easily propels up to 1.5 tons. Both models provide similar performance on the same boat at the same speed. However, the Travel 1003 has a higher maximum power and offers over 60% more battery capacity, providing longer range.

### Does the battery need to be fully discharged before I can recharge it?

No, because lithium batteries have no memory effect, i.e. you can fully recharge the battery after each trip regardless of the charge level.

### How long does the battery take to charge?

That depends on how you charge the battery. Using the charger supplied, it takes about five hours for the Travel 503 and about seven hours for the Travel 1003

to charge from empty to full, with their standard batteries. You can also recharge the battery direct from the 12 V on-board power system. (Accessory required). A full charge with the Sunfold 50 (accessory) that can also charge while traveling takes around 10 hours.

### How long does a lithium battery last?

When used recreationally, the service life of our lithium batteries is virtually independent of the number of times it is charged. Generally speaking, an average capacity loss of 4% a year can be assumed. Aging will, however, accelerate if the battery is permanently exposed to high temperatures. You can use your battery in high temperatures, but take the battery out of the sun and store it in a cool place when not in use. Your battery must be returned to a Torqeedo Service Center for service 8 years after manufacture.

### Will high temperatures damage the battery?

No, because we've integrated a temperature protection mode. Motor power is automatically reduced before the battery gets too hot until the temperature returns to a level where there is no risk of damage to the battery. This function is represented in the display with a thermometer.

### What safety precautions need to be observed?

The emergency magnetic kill switch must always be worn around the wrist or attached to your life jacket. This will quickly stop the motor if you should fall out of the boat or capsize.

You will find more answers about this product at: [www.torqeedo.com/travel](http://www.torqeedo.com/travel)

# Ordering information

## Travel 503/1003 High-tech outboard (Travel 503: 1.5 HP, Travel 1003: 3 HP)\*

Travel 503 S  
Travel 503 L  
Travel 1003 S  
Travel 1003 L

**Part no. 1140-20**  
**Part no. 1141-20**  
**Part no. 1142-20**  
**Part no. 1143-20**

Includes:

- \_ High-performance lithium battery (Travel 503: 320 Wh / Travel 1003: 530 Wh) with integrated GPS and USB connection
- \_ On-board computer display in the tiller
- \_ Emergency magnetic kill switch
- \_ Charger
- \_ USB adapter

Additional accessories and spares	Part no.
Spare battery 915 Wh	1148-00
Spare battery 530 Wh	1147-00
Spare charger 90 W	1133-00
Motor cable extension 6 ft	1920-00
Remote throttle cable extension 5 ft	1921-00
Remote throttle cable extension 16 ft	1922-00
Spare propeller v9/p790 (2-blade, for Travel 503 / 1003)	1917-00
Spare propeller v8/p350 (for Travel 503 until production end 2014)	1901-00
Long tiller arm (23.6 in)	1919-00

# Cruise outboards & pods

These lightweight power packs offer unrivaled efficiency and range - ideally equipped for the challenges of daily use and they feature all the advantages of a Torqeedo high-tech drive system.

The **new Cruise 10.0** is the flagship of the Cruise series - with the propulsive power of a 20 HP combustion engine.

Inconspicuous yet powerful, the **new Cruise pod models** offer high-tech propulsion in the 5 to 20 HP performance class. Suitable for motorboats or sailboats up to 10 tons.

- ✓ More range and power with limited battery capacity than any other e-outboard
- ✓ Minimum weight with maximum performance
- ✓ On-board computer with GPS
- ✓ Extra robust design
- ✓ High level of corrosion protection - even in sea water
- ✓ Operates with lithium or AGM/lead-gel batteries
- ✓ Waterproof to IP67
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use



- \_ Motorboats
- \_ Sailboats up to 10 tons
- \_ Commercial users

**5<sup>HP</sup>**  
equivalent\*

**8<sup>HP</sup>**  
equivalent\*

**20<sup>HP</sup>**  
equivalent\*

# Cruise outboards & pods

*Power, endurance and convenience  
for leisure and commercial use*

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

# Cruise outboards

## Cruise 10.0 R **NEW**

- ✓ Full power: propulsion like a 20 HP combustion engine
- ✓ Low-voltage version (48 V) for simple handling
- ✓ Electric tilt
- ✓ Very robust design - protected from corrosion, saltwater-capable, and completely waterproof (IP67)
- ✓ Low-profile design - elegant and modern ...
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use

Cruise 10.0 R **NEW**

Available from spring 2016



### The new flagship of the Cruise line:

The new Cruise 10.0 not only has an impressive appearance, it also delivers impressive performance. High-tech from the shaft head to the fin - and emission-free. Make way for the Cruise 10.0!

**For electric tenders, for workboats and for motorboats on green waterways.**

- ⊕ **12 kW peak power, 10 kW continuous power** - powerful propulsion like a 20 HP combustion engine
- ⊕ **Intelligent on-board computer and all of the convenience** of a Torqeedo electric drive system
- ⊕ **Electric tilt** for ease of operation
- ⊕ **Simple handling** thanks to voltage level of 48 V
- ⊕ **Extremely robust design**, suitable also for commercial use



### Performance: speed and range\*\*

#### Cruise 10.0 with 4 × Power 26-104 (26V / 104Ah, battery weight 212 lbs)

Motorboats and sailboats up to 10 tons	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	4.8	40.4	08:20
● ● ● Full throttle	19.8	16.1	00:48

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

\*\* Depends on type of boat, load, propeller and conditions. Speed and range indications do not represent a legal guarantee.



## Cruise 2.0 R/T

Also available with tiller



## Cruise 4.0 R/T

Also available with remote throttle



# Cruise outboards - high-tech drive system with maximum efficiency:

The optimum torque characteristics of Torqeedo drive systems ensure maximum efficiency at any speed - greater performance and greater range than all other electric motors in this class with the same battery capacity. Equipped with all of the convenience of a genuine Torqeedo:



**Simple mounting:** You can easily attach the Cruise outboards with tiller steering to the transom of your boat.

**Available in two shaft lengths:** 24.6 and 29.4 in

**Optimized propeller design** for a choice between more thrust or more speed

- +** All models have a **GPS on-board computer and display** in the tiller or the remote throttle with real-time display of speed and input power - and the exact battery status and remaining range when used in combination with the Power 26-104 lithium battery
- +** **Waterproof housing and plug connections (IP67)**, when connected or unconnected
- +** **Extra robust design**, with lubricant-free polymer plain bearing. Protect against damage from debris - wear-resistant and maintenance-free
- +** Stable pylon made from **highest-grade seawater-proof aluminum** and with an extra-reinforced fin, suitable for the toughest conditions
- +** **Simple motor start** at the press of a button

## Performance: speed and range\*\*

### Cruise 2.0 with 2 lead batteries (2 x 12 V / 200 Ah, battery weight approx. 265 lbs)

Dinghies and sailboats up to 3 tons	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	approx. 3.1	approx. 31	10:00
● ● ● Full throttle	approx. 6.9	approx. 14	02:00

### Cruise 4.0 with 2 x Power 26-104 (26 V / 104 Ah, battery weight 106 lbs)

Motorboats and sailboats up to 4 tons	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	approx. 3.1	approx. 33.4	10:45
● ● ● Full throttle	approx. 8.1***	approx. 9.2	01:10

\*\*\* Planing with Cruise: Light boats can reach planing speeds with a Cruise 4.0.

# Cruise pod drives

- ✓ Space-saving, powerful, lightweight
- ✓ Plenty of range due to highest efficiency
- ✓ On-board computer with GPS
- ✓ High level of corrosion protection
- ✓ Salt water-compatible
- ✓ Safe, thanks to emergency magnetic kill switch
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use

## *Move with authority - the new Cruise pod drives*

With the new Cruise FP models, Torqeedo technology is now available for pod drives - powerful, efficient, lightweight, with an intelligent on-board computer and interface with TorqTrac, the smartphone app for Torqeedo drive systems.

## *Pod drives are gaining popularity: They are fitted inconspicuously below water and save space*

The Cruise FP models are installed in a fixed position (therefore the abbreviation FP - fixed pod) as generally desired for sailboats and also for some motorboats. The pod motors for sailboats are available with folding propellers. Other boats would choose our standard, highly efficient propellers. Choose from performance classes from 2 to 10 kW, which correspond to the propulsive power of 5 to 20 HP combustion engines.

Cruise Fixed Pod **NEW**

## Cruise 10.0 FP **NEW**

Available from summer 2016

**20<sup>HP</sup>**  
equivalent\*

## Cruise 2.0 FP **NEW**

Available from spring 2016

**5<sup>HP</sup>**  
equivalent\*

## Cruise 4.0 FP **NEW**

Available from spring 2016

**8<sup>HP</sup>**  
equivalent\*



⊕ **Maximum efficiency** for greater performance and range

⊕ All models with **GPS on-board computer and display**: Real-time display of speed and input power – and also the exact battery status and remaining range when used in combination with the Power 26-104 lithium battery

⊕ **Connection to TorqTrac**: the premium on-board computer on your smartphone



⊕ **Stable pylon** made from highest-grade seawater-proof aluminum

⊕ **Extra robust design** protects against damage from debris – wear-resistant and maintenance-free



### Performance: speed and range\*\*

#### Cruise 10.0 FP with 4 × Power 26-104 (26V / 104Ah, battery weight 212 lbs)

Motorboats and sailboats up to 10 tons

	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	approx. 4.4	approx. 28.3	06:30
● ● ● Full throttle	approx. 19.9	approx. 18.3	00:55

#### Cruise 4.0 FP with 2 × Power 26-104 (26V / 104Ah, battery weight 106 lbs)

Motorboats and sailboats up to 4 tons

	Speed in mph	Range in miles	Runtime in hh:mm
	approx. 3.1	approx. 30.0	09:40
	approx. 6.8	approx. 8.6	01:15

#### Cruise 2.0 FP with 2 lead batteries (2 × 12V / 200Ah, battery weight approx. 265 lbs)

Motorboats and sailboats up to 3 tons

	Speed in mph	Range in miles	Runtime in hh:mm
	approx. 3.1	approx. 28.0	09:00
	approx. 6.9	approx. 12.1	01:45

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

\*\* Depends on type of boat, load, propeller and conditions. Speed and range indications do not represent a legal guarantee.

# Power supply

All Cruise models can be run with modern lithium batteries, saving over 70% of battery weight in electric boat drive systems. AGM or lead-gel batteries are an alternative for lower-cost electric boating or if weight and volume are not important. For best performance, choose our lithium battery Power 26-104.



## Power 26-104

High-performance lithium battery from our own in-house development with all the benefits of lithium, designed for powering the Cruise. Can also be used for a 24 V on-board power system. The Power 26-104 communicates directly with the Cruise motor - in real time. The on-board computer continuously shows dependable information on battery status and the remaining range.

Furthermore, the Power 26-104 offers all the benefits of a lithium battery combined with extraordinary safety:

- \_ Low weight with high performance - up to 70% lighter than AGM/lead-gel batteries
- \_ Better performance in the cold
- \_ Long service life without memory effect
- \_ Intelligent battery management system
- \_ Multi-level protection mechanisms for maximum security
- \_ Excellent high-current capacity for application with high performance
- \_ Higher charge stability over time

You will find more on Power (also suitable as an on-board power source) from page 56 onwards.

**Part no. 2103-00**

	Cruise 2.0 R/T/FP		Cruise 4.0 R/T/FP		Cruise 10.0 R/FP	
Battery options	Power 26-104 (lithium)	others (AGM / lead gel)	Power 26-104 (Lithium)	others (AGM / lead gel)	Power 26-104 (lithium)	others (AGM / lead gel)
Required battery voltage	24 V	24 V	48 V	48 V	48 V	48 V
Number of batteries	1	2	2	4	4	8
Nominal charge Ah (20 hour discharge rate)	104	150	104	150	208	300
Nominal capacity kWh	2.7	3.6	5.4	7.2	10.8	14.4
Capacity not available in typical electric boating application (5 hour discharge rate)	n/a	20%	n/a	20%	n/a	20%
Capacity not available if deep discharge damage is to be avoided	n/a	20%	n/a	20%	n/a	20%
Useable energy for electric boating in kWh	2.7	2.2	5.4	4.3	10.8	8.6
Battery bank weight (in lbs)	53	194	106	388	212	776



**AGM or lead-gel batteries** are recommended for electric boat systems where initial cost is a major concern and weight and volume are of secondary importance. However, when equipping an electric drive system with AGM or lead-gel batteries, care should be taken to choose models with demonstrably high discharge capacities. Batteries without this property, like most starter batteries, cannot cope with the massive loads drawn by boat drive systems over the long term and can very quickly reach the end of their useful life.

# Navigation



## TorqTrac

The upgrade for the on-board computer on your smartphone. With convenient navigational functions in real time. For more information: Page 67.

**Part no. 1924-00**

# Propellers



## High-speed propeller v30/p4000

This propeller was specifically calculated for maximum speeds.

**Part no. 1923-00**



## Folding propeller v13/p4000

Low drag while under sail. Powerful propulsion while motoring.

**Part no. 1932-00**

More accessories are on the right or in the appendix beginning on page 68.

### What should I choose to power my Cruise - lithium or lead?

Cruise outboards can be operated with modern lithium batteries or with conventional AGM or lead-gel cell batteries. The Power 26-104, which was developed for use with the Cruise, offers a number of advantages, while AGM or lead-gel batteries are less expensive to buy and provide only limited functionality for the Cruise and a shorter service life.

### Is the on-board computer compatible with lead batteries?

Yes, but only to a limited extent as lead batteries do not have a battery management system supplying important information. The charge status display (and therefore the remaining range) is only based on derived estimates

of battery information that is entered when the battery is first installed into the system.

### What are the advantages of the Power 26-104 lithium battery for the Cruise?

A lithium battery generally provides far greater performance with lower weight than conventional lead batteries. In other words, it does not weigh down your boat unnecessarily – and you benefit in terms of range and power. Additionally, the integrated battery electronics of the Power 26-104 are designed to communicate with the on-board computer of the Cruise, meaning that the values provided by the battery such as remaining range and capacity are always exact – in real time.

### What requirements must my boat meet for twin motors - the Twin Cruise?

A Twin Cruise outboard system consists of two Cruise models with remote throttle control and the Twin Cruise extension set, which contains a dual throttle and tie bar. The tie bar is used to connect the two Cruise outboards to the same steering mechanism. The standard Twin Cruise mounting assumes a transom width of at least 30 in.

You will find more answers about this product at: [www.torqueedo.com/cruise](http://www.torqueedo.com/cruise)

## Ordering information

### Cruise 2.0 / 4.0 / 10.0 High-tech outboards

Part no.	TS	TL	RS	RL	RXL
Cruise 2.0	<b>1234-00</b>	<b>1235-00</b>	<b>1230-00</b>	<b>1231-00</b>	-
Cruise 4.0	<b>1236-00</b>	<b>1237-00</b>	<b>1232-00</b>	<b>1233-00</b>	-
Cruise 10.0	-	-	<b>1240-00</b>	<b>1241-00</b>	<b>1242-00</b>

Includes:

- Integrated on-board computer with GPS and display
- Fuse and main switch
- Emergency magnetic kill switch
- Cable set
- Battery cable bridge
- Tiller steering (T models) or remote throttle (R models)
- Connection with remote steering system (R models)

### Cruise 2.0 / 4.0 / 10.0 FP High-tech pod drives

Cruise 2.0 FP	<b>Part no. 1250-00</b>
Cruise 4.0 FP	<b>Part no. 1251-00</b>
Cruise 10.0 FP	<b>Part no. 1252-00</b>

Includes:

- Integrated on-board computer with GPS and display
- Fuse and main switch
- Emergency magnetic kill switch
- Cable set
- Battery cable bridge
- Remote throttle

### Additional accessories and spares

	Part no.
Spare propeller v19/p4000 (fast, efficient, weedless)	1916-00
Folding propeller v13/p4000 (for pods)	1932-00
Long tiller arm, 23.6 in	1919-00
Twin Cruise control set	1217-00
Motor cable extension (Cruise 2.0/ 4.0)	1204-00
Remote throttle cable extension 5 ft	1921-00
Remote throttle cable extension 16 ft	1922-00

# High-voltage drive systems

*40 - 160 HP equivalents*





**Deep Blue / Deep Blue i / Deep Blue SD**

**40**

**Deep Blue Hybrid**

**48**

# Deep Blue

It is the first and only one of its kind. More than just an electric motor and a battery. Deep Blue is a fully integrated system - based on high-tech components, industrially engineered to meet the highest demands.

The result - exceptional performance, professional safety, compliance with international standards at the system level and ease of operation. It comes as either a 40 HP or 80 HP equivalent in outboard, inboard or saildrive versions and with a 9-year limited warranty on battery capacity. After 9 years of use, the batteries will still have 80% of original capacity, even if used on a daily basis.\*

- ✓ The first high-performance electric drive system from serial production
- ✓ Standards-compliant, fully developed complete system
- ✓ Best performance with maximum convenience
- ✓ Professional safety
- ✓ 9-year limited warranty on battery capacity
- ✓ **NEW:** Available as outboard, inboard or saildrive

\* Please see warranty conditions for details.





- \_ Commercial users
- \_ Boaters on "green lakes"
- \_ Sailors

**40<sup>HP</sup>**  
equivalent\*

**80<sup>HP</sup>**  
equivalent\*

**160<sup>HP</sup>**  
equivalent\*



# Deep Blue

*The high-performance  
electric drive system*

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15.

# Deep Blue system

The high-performance electric drive system from serial production. A fully integrated system whose high-tech components are carefully tailored to match each other and to work together perfectly on the water. Deep Blue has a modular, integrated design that is flexible and scalable. Deep Blue stands for performance, convenience and professional safety through industrial engineering.

**High-voltage cables and plug connections with pilot line and insulation monitor.** The pilot line and insulation monitor are safety features that protect the entire system from high-voltage damage at all times. What is standard on land for high-voltage equipment is unique to Torqeedo on the water.

**AC connection box:** Bundles all electric cables carrying AC voltage. Determines whether the system is being charged from onshore power (while at dock) or from a generator (while at sea). Waterproof to IP66.

**On-board computer with touch screen:** waterproof with 5.7-inch display, 14 different application views. Displays information on remaining range in real time as well as waypoints, estimated time of arrival, compass heading, speed over ground, battery charge status and much more.

**Connection box:** Bundles electric cables and signal lines. Allows up to four batteries to be connected for each drive train. Waterproof to IP66 with integrated water sensor.

**12 V battery:** activates the high-voltage battery at each start-up. Supplies 12 V for the on-board network and is automatically charged from the high-voltage battery. No additional 12 V charger required.

**Charger:** Advanced engineering from the automotive industry. Waterproof to IP67. The charging rate can be controlled via the display. Up to three chargers possible for each motor - for shorter charging times.

**High-voltage electric motor:** Specially developed for the requirements of the Deep Blue system. Electronically commutated brushless motor with outstanding efficiency (98%). Suitable for salt water cooling. Waterproof to IP67. Comes with NMEA2000 / J 1939 CAN interface.

**Top-quality high-voltage battery:** From the automotive industry, adapted for use in boats and waterproof to IP67. Completely integrated into the Deep Blue information and safety system. Nine-year limited warranty on 80% of the original capacity, even with daily use. Please refer to warranty terms for details.



Low-maintenance system - switching makes sense from as little as \$6000 USD in annual fuel costs



# Configurator

Integrated and scalable thanks to modular design. Put together your Deep Blue to match your requirements.

**Electronic remote throttle with key switch, emergency stop** and neutral lock. The outboard model also offers a power-trim-and-tilt (PTT) function. In the event of an emergency stop, the entire system, including the high-voltage power supply, chargers etc. are shut down.



## Choice of throttle

- \_ Side-mounted
- \_ Top-mounted
- \_ Twin remote throttle



## Charging technology

Up to three chargers possible for each drive train for shorter charging times (accessories required)



## Power supply

1 to 4 batteries possible



## Choice of motor

### Motor options

Outboard (40 HP, 80 HP*)	Inboard (40 HP, 80 HP*)	Saildrive (40 HP*)
-----------------------------	----------------------------	-----------------------

Single or twin motors possible.

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

Torqueedo high-performance motors – available as 40 or 80 HP equivalent

## Deep Blue motors

Specifically developed for the requirements of the Deep Blue systems – maximum efficiency, long service life, low maintenance. Available in various models for different uses:

- ⊕ Electronically commutated brushless **motor with outstanding efficiency** (98% motor efficiency)
- ⊕ **Waterproof to IP67**
- ⊕ Suitable for **saltwater cooling**
- ⊕ Part of the fully integrated Deep Blue drive system

Deep Blue 40 R/T  
Deep Blue 80 R/T



### Deep Blue outboards

The strongest electric outboards from serial production. R models provide control via remote throttle, T models provide tiller control. Available as 40 and 80 HP equivalent in long shaft (L) and extra long shaft (XL) versions.



⊕ **Power trim and tilt (PTT)**

⊕ Extremely **efficient propeller design** with hub-vortex-vane (HVV) propeller

### Performance: speed and range\*\*

#### Deep Blue 40 with one battery

	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	4.6	23-37	5:00 - 8:00
● ● ● Full throttle	20-28	10-14	0:30

#### Deep Blue 80 with two batteries

	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	4.6	25-75	5:20 - 16:00
● ● ● Full throttle	22-33	11-17	0:30

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15

\*\* Depends on type of boat, load, propeller and conditions. Speed and range indications do not represent a legal guarantee.

## Deep Blue 40 SD NEW

Available from summer 2016



### Deep Blue saildrive

The most powerful electric saildrive from serial production, available as 40 HP equivalent



- + **Light weight** (saildrive with motor and electronics system 190 lbs)
- + **Space-saving design**
- + **Compatible with standard mounting flanges**

## Deep Blue i 1400 Deep Blue i 1800



### Deep Blue inboard shaft drives

The most powerful integrated inboard drive system from serial production. Available as 40 HP and 80 HP equivalent. Choose between inboard shaft drives with 1800 or 1400 RPM.



- + **Light weight** (inboard with motor and electronics system 194 lbs)
- + **Compact construction**
- + **Available in various RPM versions**

### Performance: speed and range\*\*

#### Deep Blue 40 SD with one battery

	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	5.8	14.5	2:30
● ● ● Full throttle	11.5	5.8	0:30

#### Deep Blue i 1800 with two batteries

	Speed in mph	Range in miles	Runtime in hh:mm
● ● ● Slow	4.7	25-75	5:20 - 16:00
● ● ● Full throttle	22-34	11-17	0:30

# Professional safety

## Safety standards for high-performance electric drives demand industrial engineering

Powerful electric propulsion systems require industrial-level safety and engineering. With its pioneering development of the Deep Blue System, Torqeedo has set the standard for safety in high-power electric boating. Other industries, such as high power machinery or automotive, offer well-established safety standards. But, simply adopting these standards is not sufficient. Due to their unique characteristics, marine drive systems require specific safety measures and must meet different challenges and norms than products from other industries.

Let's examine some of the elements of the Deep Blue safety system.

### Honored with its very own insurance tariff

Electric drive systems are gaining ground - on land and on the water. Many systems on the market are one-off solutions from small companies without comprehensive engineering for safety. This results in a high rate of dangerous accidents and expensive insurance tariffs.

The comprehensive safety system and standards-compliance of Deep Blue has been recognized by PANTAENIUS, Europe's leading yacht insurance company with a special, lower insurance tariff that provides more comprehensive protection.



The **insulation monitor** constantly monitors that the voltage from all high-voltage components is completely insulated from the boat - not just for individual system components but for all of them. If damage is detected, e.g. to the cable insulation, the system will issue an alert. In the event of dangerous insulation failure, the system will be shut down.



#### Automotive industry-level battery

**safety:** As a result of the cooperation between Torqeedo and Johnson Controls, advanced automotive-grade lithium batteries are available for marine propulsion. Integrating a battery into a drive system and the associated safety concept requires considerable effort that can only be achieved by working together with the battery manufacturer. We went a step further and developed a battery for use on water and for the special challenges of the marine industry.



**Battery venting:** In the unlikely event that the redundant safety mechanisms of the battery fail, the battery cells can reduce their temperature and pressure via pressure valve. The gases emitted in this case are hot, toxic and flammable. While batteries are installed in electric cars in such a way that they can simply "discharge" battery gases onto the road, on electric boats the gases must be channeled safely off the vessel. Torqeedo developed the first safe venting system for boats for Deep Blue.



The **pilot line** monitors all high-voltage plug connections on the Deep Blue. In the event that open high-voltage contacts are detected, the system voltage will be shut down. Pilot lines have been mandatory for high-voltage equipment in other industries for a while now. They are not typically found in one-off high-voltage boats.



**All components are waterproof:** Components that were not specifically developed for boats are not always waterproof. All the components of a high-voltage system on a boat must be waterproof to guarantee safe operation. That is why all of our components are waterproofed and, in some cases, are further protected with water sensors.



**Battery damping:** All components on fast and seagoing boats are subject to constant high levels of shock that exceed shock levels on the road - in some cases over 12 g of acceleration force. Since batteries and battery electronics are not designed for these constant impacts, they need their own damping system on boats (in addition to the damping mechanisms within the battery). Torqeedo is the only company in the world that provides this for maritime use.

# It all adds up

*"Flat fee boating" -  
economical electric mobility  
for commercial operators  
and frequent users*



## When is it worth switching to Deep Blue?

Are your fuel costs higher than \$6000 USD per year? If they are, it may be worth switching to Deep Blue today. Deep Blue protects you from changing fuel costs; electricity prices are more stable and much less expensive. You will set an example of good financial sense while demonstrating how we can retain mobility in increasingly difficult ecological conditions - more quietly, cleanly and with respect for nature.

## 9-year limited warranty on battery capacity

The economic case for electric boating depends on a reliable battery service life. That is why the Deep Blue battery comes with a long-term battery capacity warranty: 9 years after commissioning, the batteries will still have 80 % of their original capacity, even if you use them every day.\* Battery aging can be tracked by the user in the on-board computer at any time.

## Lower maintenance cost

An electric drive system requires less maintenance than comparable drive systems using fossil fuel.

Model	Deep Blue 40	Deep Blue 80	Deep Blue 80	Deep Blue 80
Number of batteries	1	2	3	4
Battery bank capacity in kWh	12.8	25.6	38.4	51.2
<b>Investments</b>				
System (MSRP in USD , without batteries)	21,999	21,999	21,999	21,999
Battery bank (MSRP in USD)	16,499	32,998	49,497	65,996
<b>Battery and electricity costs</b>				
Annual battery costs in USD**	2,125	4,250	6,375	8,500
Electricity cost per kWh in USD***	0.11	0.11	0.11	0.11
Cost for one charge (80%) in USD	1.41	2.82	4.23	5.64
Total annual battery and electricity costs for 150 usage cycles per year	2,337	4,673	7,010	9,346
Total annual battery and electricity costs for 200 usage cycles per year	2,407	4,814	7,221	9,628

If annual fuels costs exceed these values, switching to an electric drive system may make sense for you.

\* Adherence to warranty conditions required. See Deep Blue battery capacity warranty at [www.torqeedo.com](http://www.torqeedo.com) for more details.

\*\* Assuming financing at an annual interest rate of 5% over the warranty period (9 years).

\*\*\* Electricity cost level in Florida, USA.

# Deep Blue Hybrid

Deep Blue Hybrid integrates propulsion and energy management into one complete system.

Energy is captured from various sources - clean power from solar modules and hydro-generation while under sail, shore power and, when necessary, from modern and efficient diesel generators. This energy is managed and distributed to power all electrical devices on board, including the drive system and all house loads, from the air conditioning to the water maker.

## *Luxury meets sustainability:*

- ✓ Powerful and silent electric propulsion
- ✓ Abundance of energy to power everything on board - with less pollution
- ✓ Silent power generation from the wind and the sun
- ✓ Only one type of fuel on board - and less of it
- ✓ More freedom, pioneering mobility





- \_ Sailboats between 40 and 80 feet
- \_ Commercially operated hybrid boats

**40<sup>HP</sup>**  
equivalent\*

**80<sup>HP</sup>**  
equivalent\*

**160<sup>HP</sup>**  
equivalent\*

# Deep Blue Hybrid

*Clean electric propulsion and  
Energy Management 2.0*

\* Propulsive power equivalent to comparably rated combustion engine. See pages 14/15.

# Energy Management 2.0

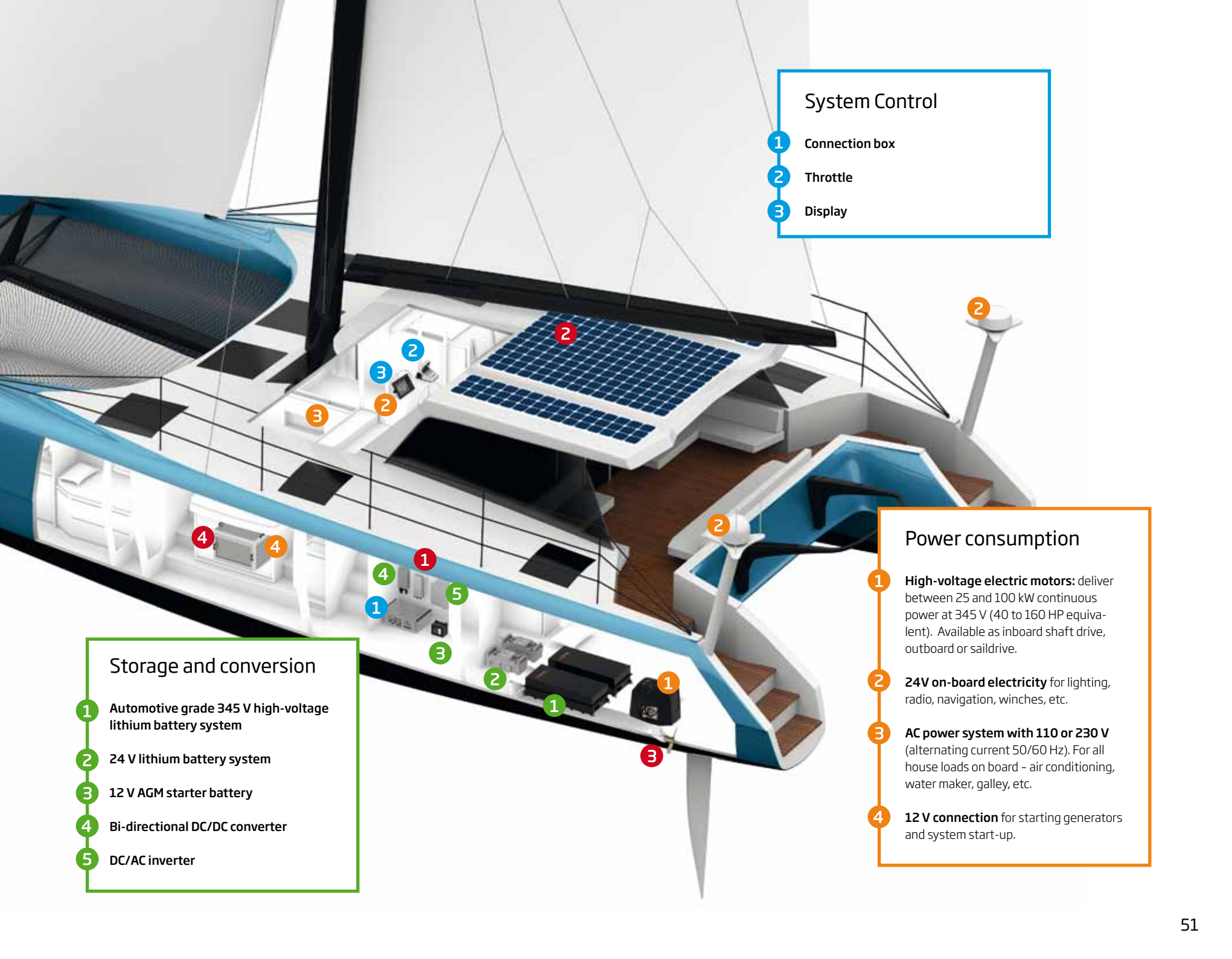
## Chart your own course with Deep Blue Hybrid

- + First hybrid system with **powerful electric propulsion** (25 - 100 kW continuous power)
- + **Fully integrated**, yet flexible and scalable due to its modular design
- + **Industrial engineering** and production
- + **Standards-compliant** on system level
- + International **warranty and service**
- + Remote diagnostics and **remote upgrade and maintenance** capabilities



### Power supply

- 1 Onshore power connection.** The large battery bank can be recharged with plenty of energy while in port.
- 2 Photovoltaic modules** generate power from solar energy.
- 3 Hydro-generation** - the electric drive system can be used to generate power while under sail.
- 4 Efficient DC diesel generator.** Only runs when power needs exceed the renewable sources and available battery capacity.



## System Control

- 1 Connection box
- 2 Throttle
- 3 Display

## Power consumption

- 1 **High-voltage electric motors:** deliver between 25 and 100 kW continuous power at 345 V (40 to 160 HP equivalent). Available as inboard shaft drive, outboard or saildrive.
- 2 **24V on-board electricity** for lighting, radio, navigation, winches, etc.
- 3 **AC power system with 110 or 230 V** (alternating current 50/60 Hz). For all house loads on board - air conditioning, water maker, galley, etc.
- 4 **12 V connection** for starting generators and system start-up.

## Storage and conversion

- 1 **Automotive grade 345 V high-voltage lithium battery system**
- 2 **24 V lithium battery system**
- 3 **12 V AGM starter battery**
- 4 **Bi-directional DC/DC converter**
- 5 **DC/AC inverter**



# Always in control

Deep Blue Hybrid offers intuitive operation presented on the multi-functional display, providing a complete overview of the entire system and access to all control functions. Choose between multihull or monohull layouts.

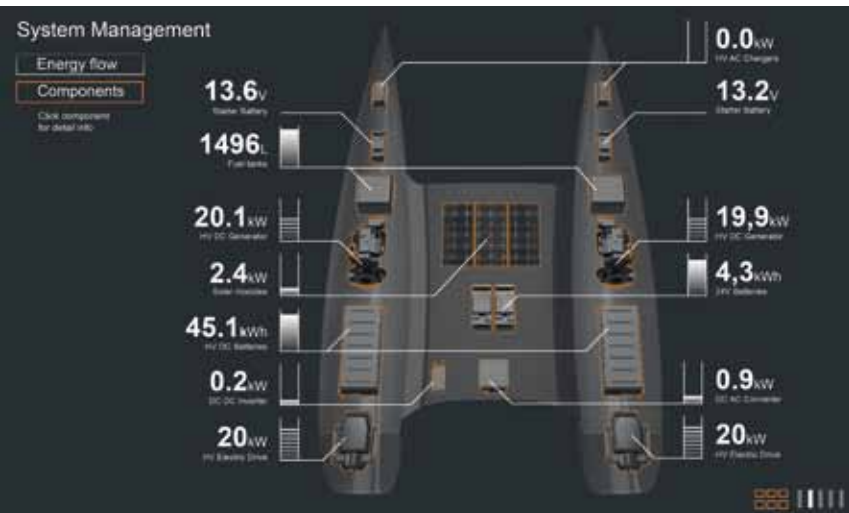
- Intuitive navigation and operation
- Compatible with standard multi-function displays 12" and larger
- View system status on your iPad



**Main menu:** navigate easily between categories.



**Propulsion screen** - all important information needed while motoring. You can choose to display or hide the information line at the top.



**System management:** provides status data on all components of the system. Select individual components for more detail.



**Expanded view:** Detailed information for each component, clearly displayed



**Energy flow:**  
Understand power balance at a glance



**Settings category:**  
Comprehensive and easy to operate menu. Customize displays with your preferred settings and explore options like night mode, which ensures batteries are fully charged by a specified time and can provide power without generator noise.

## Components - technical data

Scalable design allows installation of one or more of each component.

<b>Motors: outboards</b>	<b>Deep Blue 40</b>	<b>Deep Blue 80</b>
Output (peak)	33 kW	65 kW
Output (continuous)	25 kW	50 kW
Weight (incl. electronics)	from 306 lbs	from 306 lbs

<b>Motors: inboards</b>	<b>Deep Blue 40i</b>	<b>Deep Blue 80i</b>
Output (peak)	33 kW	65 kW
Output (continuous)	25 kW	50 kW
Weight (incl. electronics)	194 lbs	194 lbs

<b>Motors: saildrives</b>	<b>Deep Blue 40 SD</b>
Output (peak)	33 kW
Output (continuous)	25 kW
Weight (incl. electronics)	176 lbs

<b>Generators</b>	<b>20 kW</b>
Output (peak)	25 kW
Output (continuous)	20 kW
Weight (including sound insulation)	551 lbs

<b>Batteries</b>	<b>High-voltage</b>	<b>Low-voltage</b>
Capacity	12.8 kWh	2.7 kWh
Voltage	345 V	26 V
Weight	328 lbs	53 lbs

<b>Converter<sup>1</sup>/inverter<sup>2</sup></b>	<b><sup>1</sup>DC</b>	<b><sup>2</sup>DC-AC</b>
Output power	3 kW	6 kW
Weight	7 lbs	55 lbs

<b>Further components</b>	<b>Solar charge controller</b>	<b>High-voltage charger</b>
Output power	0.2 kW	3 kW
Weight	0.6 lbs	9 lbs + heat dissipation plate (13 lbs)

<b>Connection box</b>	
Weight	55 lbs
Minimum required	2 (for drive and overall system)

# Power supply



**Power 26-104**

**56**

**Solar chargers**

**60**

# Power 26-104

Installed and activated in a few simple steps, Power 26-104 is the high-performance plug and play lithium battery for your Cruise motor or on board power supply.


Choosing lithium means choosing high performance. Choosing the Power 26-104 means choosing a state-of-the-art, professionally developed safety system, unrivaled in the marketplace.

- ✓ 5-level safety system provides peace of mind
- ✓ Up to 70% lighter than AGM or gel batteries.
- ✓ Advanced battery management system for a long service life
- ✓ Minimal self-discharge during storage
- ✓ Simple plug & play handling
- ✓ Automatic hibernation mode
- ✓ Waterproof to IP67
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use







# Power 26-104

*24 V power supply - for the Cruise  
and for other electric devices on board*

# Power 26-104

The ultimate solution for powering your electric boat; the ultimate 24V energy supply for all electrical requirements on board.

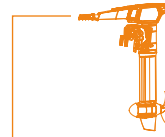


**Integrated information system** identifies the battery and communicates with the Cruise on-board computer

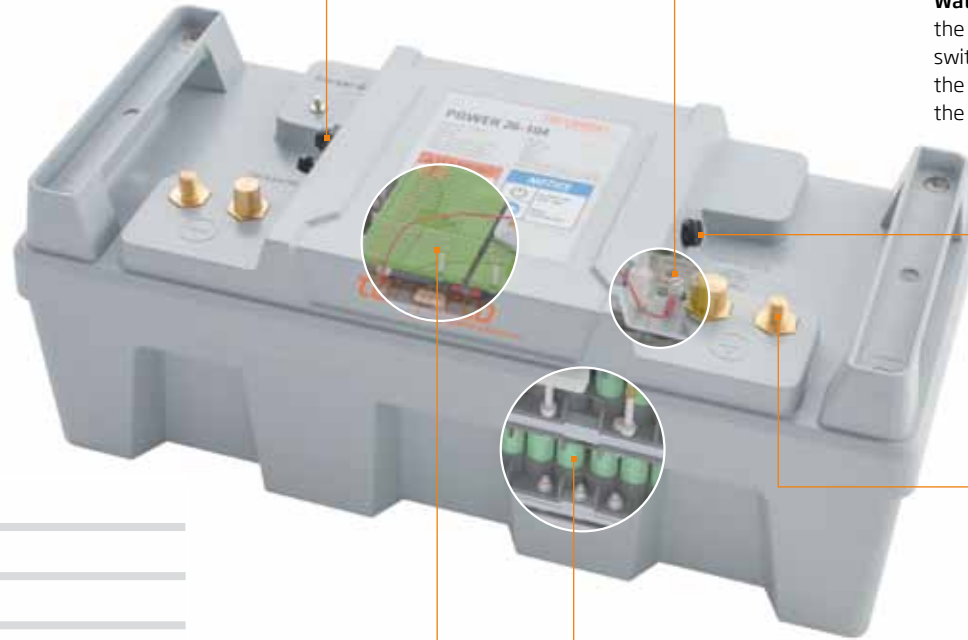
Waterproof housing and plug connections (IP67): **Connected or unplugged.**

## Technical data

Capacity	2,685 Wh
Nominal voltage	25.9 V
Nominal charge	104 Ah
Weight	53 lbs
Energy density (weight)	51 Wh/lb
Maximum discharge rate	180 A (4,500 W at nominal voltage)
Dimensions	22.7 x 8.6 x 10 in
Battery chemistry	Li NMC
Cycle lifetime	800 cycles at 100% depth of discharge at 77°F result in approx. 25% capacity loss
Annual capacity loss	4 %
Max. connections	2S8P or 1S16P
Price-performance	\$0.97 USD/Wh



**Plug & play with the Cruise on-board computer:** plug the cable in, "electronic handshake", finished.



**Water-sensor protection** recognizes when the battery is submerged and automatically switches the voltage off at the poles. Prevents the potential formation of electrolytic gas in the event that water gets into the boat.

**Waterproof venting** balances differences in temperature and pressure without compromising waterproof qualities

**Isolatable poles provide double protection** for safe transport and installation. Also prevents unintentional discharging when stored for long periods

**Highest quality lithium battery cells,** exclusively from the fully automated production of the most prestigious manufacturers.

**A sophisticated battery management system (BMS)** contributes additional protective and balancing functions for long battery life.

*Maximum performance and maximum safety*

**Safety cells with multiple protection:** The individual battery cells consist of welded steel cylinders equipped with several hardware safety mechanisms.

# Accessories



## Charger 350 W

You can recharge the Power 26-104 from 0 to 100% in a maximum of 11 hours. Charging current 10 A, waterproof to IP65.

**Part no. 2206-20**



## On/off switch

Easily activate or deactivate the Power 26-104 when using it for an on-board power supply. With LED indicator light and waterproof to IP65.

**Part no. 2304-00**

## Fast charger 1,700 W **NEW**

Recharge from 0 to 100% in 2 hours. Charging current 60 A, waterproof to IP65.

**Part no. 2210-00**



## Solar charge controller 232 W

Safely charge your Power 26-104 with 3rd party solar modules. The integrated MPPT electronics ensure an efficient, optimized energy yield. Output power up to 232 W (8 A at 29.05 V).

**Part no. 2207-00**

### Can I use the Power 26-104 to power other electric devices?

The Power 26-104 provides all the energy needed to power your 24V on-board equipment. The output may be converted to other voltage levels, if required.

### What temperatures must be taken into account during operation, when charging and for storage?

Operating temperatures can be between -4 °F and +140 °F, and for charging between 32 °F and +131 °F. Storage temperature can be between -22 °F and +131 °F, with room temperature or below a positive effect on life expectancy. Power 26-104 is equipped with temperature monitoring, preventing damage from operation outside the specified temperatures.

### I rarely use my battery and store it for long periods. Will this damage a Power 26-104?

The new Power 26-104 models (from 2015) have an automatic deactivation mode. The battery's electronics will switch off 48 hours after the last use and the battery will go into hibernation mode. The battery can remain in this mode for up to a year provided it is charged to at least 30% of capacity. Even so, a check should be made on the battery's charge status every two months when stored for long periods. The battery should be quickly recharged after every complete discharge. Avoid discharging a battery fully and then storing it for a long time (without charging it) at all costs since that damages any type of battery.

### Why does the Power 26-104 have a discharge limit?

One of the advantages of lithium batteries is that they can deliver very high currents. The flipside of this is that lithium batteries can do substantial damage in a short circuit situation, if high short circuit currents are not prevented. In Power 26-104, this important safety feature is integrated into every battery, as part of the battery management system. If higher power limits are required, batteries can be connected in parallel, this way the maximum power limit can be multiplied.

### What is the warranty on the Power 26-104?

As with all our products, we give a 2-year limited warranty from the date of purchase for recreational use.

## Ordering information

### Power 26-104

High-performance lithium battery with 2,685 Wh (25.9 V / 104 Ah)

**Part no. 2103-00**

Includes:

- Data cable for connection to a Torqeedo Cruise drive system



**Indication of battery capacity:** All Torqeedo battery capacity ratings refer to usable energy. We rate only the portion of the battery's capacity that you can really use. (Other battery manufacturers generally rate higher capacities which, if fully used, would damage the battery.) If you have a Torqeedo battery whose capacity is indicated to be 2.7 kWh, you can use the full 2.7 kWh without damaging your battery.

### Service life and aging of lithium batteries:

Life expectancy of a lithium battery is driven by both age and number of cycles. In recreational use, cycles usually play a minor role as high usage cycles (>500) are never needed. Aging plays an important role, though, because lithium batteries age naturally after the date of production. Aging accelerates when a battery is exposed to high temperatures. Lithium batteries can be used in intense heat but they should be kept cool whenever possible. On average, a capacity loss of 4% per year can be expected.

# Solar charging



## *Simply fill up with sun*

Yet another reason to get out on the water while the sun shines. You can use Torqeedo's handy solar panels to power your boat with sunlight. There's no cleaner way to enjoy time on the water.

- ✓ Fill up for free
- ✓ Environmentally friendly energy
- ✓ Freedom from charging stations and marinas
- ✓ Simple handling and transport
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use

# Sunfold 50

The Sunfold 50 solar panel delivers plentiful solar energy thanks to its high-performance solar cells made from crystalline silicon, enabling USB-equipped Travel and Ultralight batteries to recharge, even while underway. When folded for storage, the Sunfold measures just 15 x 24 in. Very practical.

**Part no. 1132-00**

For battery part numbers 1146-00, 1147-00, 1148-00 and 1416-00.  
With protective cover for transport and storage

<b>Rated output</b>	50 W under standard test conditions
<b>Cells</b>	High-performance cells made from crystalline silicon
<b>Efficiency</b>	Cell efficiency: 17.8%
<b>Dimensions</b>	14.7 x 23.8 in folded 14.7 x 47.6 in opened (4.9 sq. ft)
<b>Weight</b>	5.3 lbs
<b>Waterproof</b>	IP65, connection to battery waterproof, charge while underway without the risk of electrolytic corrosion
<b>Can be used with other 12 V devices</b>	



# Solar charger 45 W

The plug & play solution for batteries which are not USB-equipped (see part numbers below). The thin, rollable solar film is extremely weather-resistant and will even withstand complete immersion in salt water. Includes protective cover for easy transport and storage.

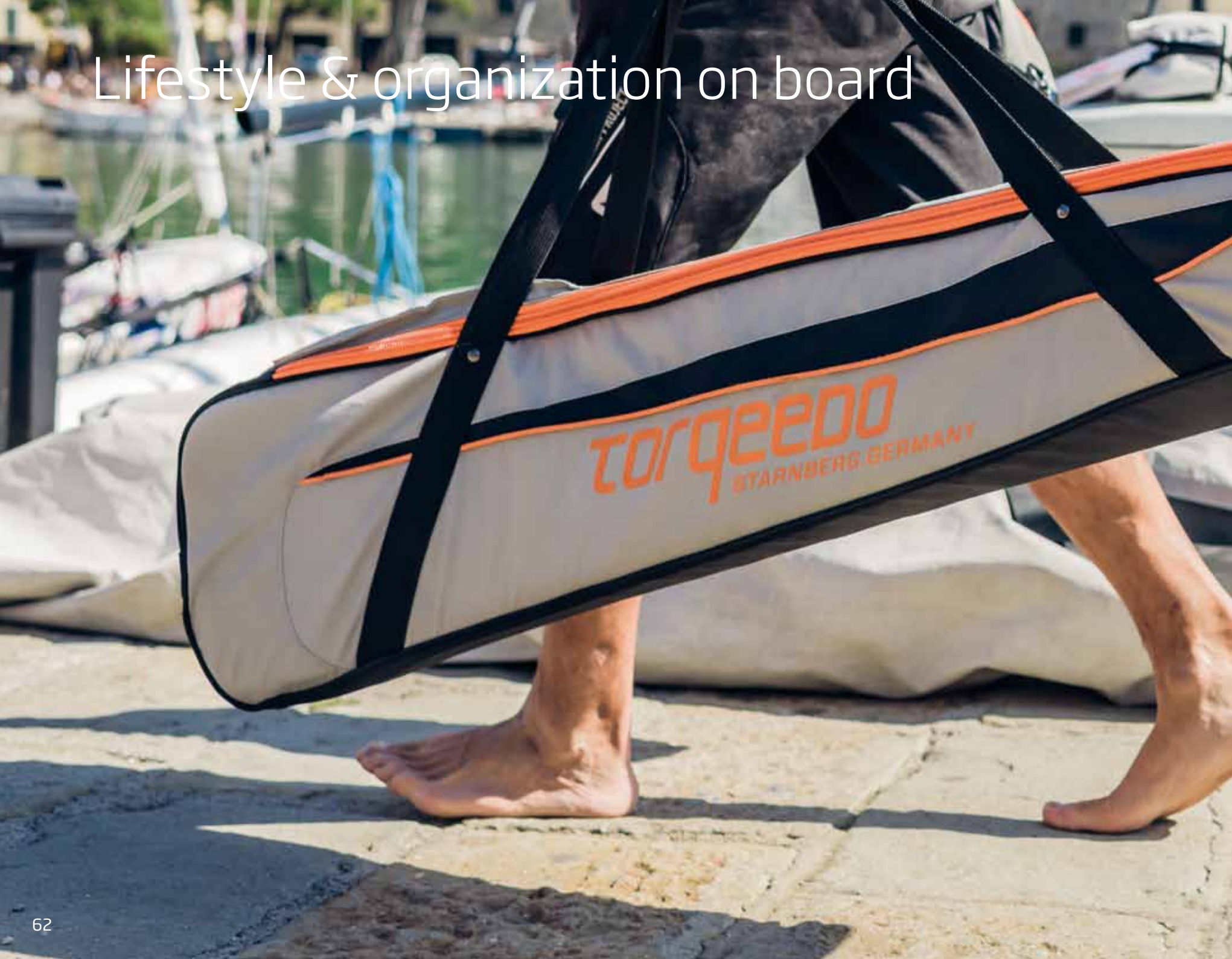
**Part no. 1130-00**

For battery part numbers 1144-00, 1145-00 and 1413-00.

<b>Rated output</b>	45 W
<b>Cells</b>	Thin-film silicon cells (amorphous)
<b>Efficiency</b>	Cell efficiency: 7%
<b>Dimensions</b>	39 x 6 in rolled up 58 x 36 in rolled out (14 sq. ft)
<b>Weight</b>	2.9 lbs
<b>Waterproof</b>	IP65, connection to battery waterproof, charge while underway without the risk of electrolytic corrosion



# Lifestyle & organization on board





**Torqueedo Wear** *NEW*

**64**

**Travel Bags**

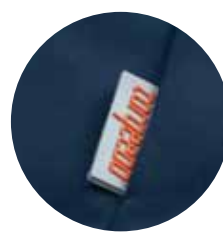
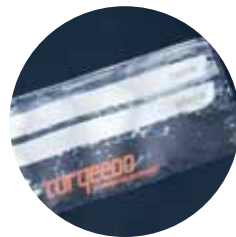
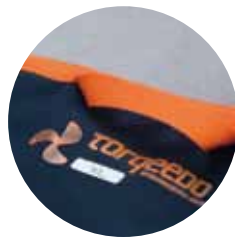
**66**

**TorqTrac**

**67**

Torqueedo Wear **NEW**

*Contemporary, practical,  
casual - on water or ashore*



### Versatile soft shell jacket

Out on the water or ashore, this versatile jacket is the ideal outer layer. Elastic soft shell jacket with hood and a high, closable collar. Dark-blue material with silver-grey fleece interior and silver-grey zip fasteners. Continuous front zipper. Zippable side and breast pockets. Breathable, wind- and water-resistant (3-layer membrane).  
Material: 100% polyester.

**Part no.**

---

Men's Softshell jacket	6503-S, 6503-M, 6503-L, 6503-XL, 6503-XXL, 6503-3XL
------------------------	--

---



**TURN THE TIDE**  
**BOAT ELECTRIC**

*Covers your back, shows your backbone*



## Men's polo shirt

Polo shirt in grey mélangé made from high-quality cotton piqué. With subtle statement for sustainable boating on chest and sleeve.

### Part no.

---

Men's Polo shirt	6502- <b>S</b> , 6502- <b>M</b> , 6502- <b>L</b> , 6502- <b>XL</b> , 6502- <b>XXL</b> , 6502- <b>3XL</b>
------------------	---

---



*Sophisticated details*



## Men's T-shirt

Torqeedo logo in waterdrop design. Classic crew neck cut. Medium-weight jersey quality made from 100% cotton. Machine-washable.

### Part no.

---

Men's T-shirt	6501- <b>S</b> , 6501- <b>M</b> , 6501- <b>L</b> , 6501- <b>XL</b> , 6501- <b>XXL</b> , 6501- <b>3XL</b>
---------------	---

---



# Travel Bags

– For Travel 503/1003 models  
and Travel spare battery

*Securely packed  
and stowed away:*

The travel bags for your Travel motor and spare battery are practical companions when traveling to the water - and they look good, too.

## Travel bags

Water-resistant carry bags in silver-grey with orange details. Black lining with padding protects your Travel motor (including tiller, battery and accessories).

**Part no. 1925-00 (2-piece)**



## Travel battery bag

Additional carry bag for an extra battery. With adjustable, removable shoulder strap and zip fasteners in orange.

**Part no. 1926-00**



# TorqTrac

\_ Ultralight 403  
\_ Travel 503/1003  
\_ All Cruise models

*The upgrade for the on-board computer  
on your smartphone.  
With convenient navigational functions and GPS data in real time.*

- ✓ Extensive navigation functions
- ✓ Simple operation
- ✓ Wireless communication with your mobile phone
- ✓ 2 years limited warranty from date of purchase\*

\* Recreational use



**Clear:** Everything is easy to read on your smartphone display, even at night



**It shows you how far you still travel and where you are** – your remaining range and your exact GPS location in real time.

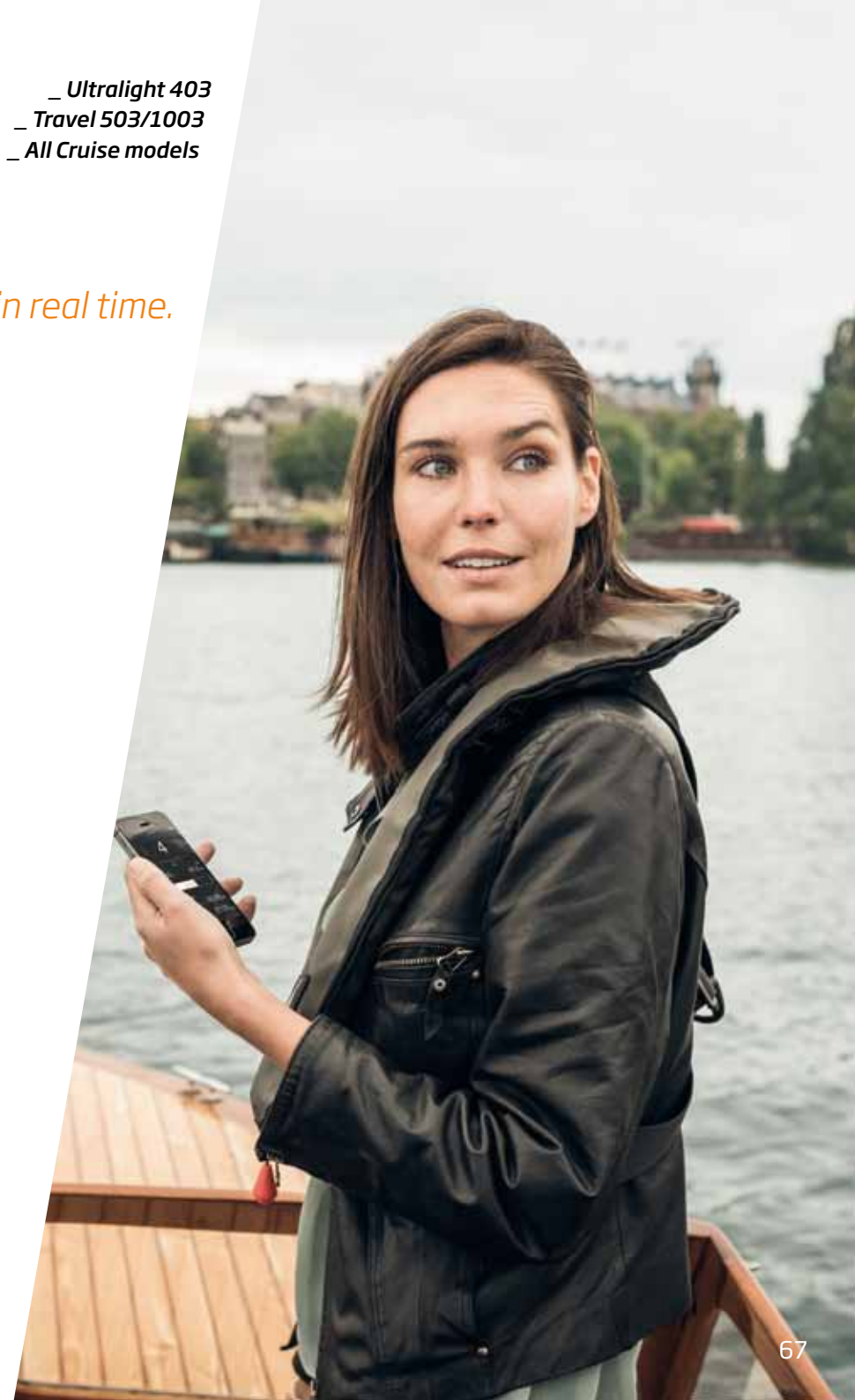


**Just like in your car.** Use waypoints for to estimate your time of arrival, zoom into the map and save your favorite places.

## Part no. 1924-00

Bluetooth® transmitter module for a wireless connection between the on-board computer and a smartphone (system requirement: Bluetooth® 4.0 LE low energy). Associated app for Apple and Android can be downloaded free from your vendor's App Store.\*

\* Microsoft apps are currently not supported.



# Ordering information

Part no.	Product	Description	MSRP in USD
----------	---------	-------------	-------------

## Drives & batteries

### ULTRALIGHT

1404-00	Ultralight 403	Ultralight outboard, 1 HP equivalent, with integrated 320 Wh high-performance lithium battery, including charger, remote throttle, on-board computer, GPS-based range calculation, emergency magnetic kill switch and bag	\$ 1,799.00
1416-00	Spare battery Ultralight 403	High-performance lithium battery with integrated GPS receiver, 320 Wh, 29.6 V, 11 Ah, with USB connector to power other electric devices	\$ 599.00

### TRAVEL

1140-20	Travel 503 S	High-efficiency outboard with integrated 320 Wh high-performance lithium battery, 1.5 HP equivalent, including on-board computer with GPS-based range calculation, charger, emergency magnetic kill switch, short shaft	\$ 1,699.00
1141-20	Travel 503 L	As part no. 1140-20, but with long shaft	\$ 1,699.00
1142-20	Travel 1003 S	High-efficiency outboard with integrated 530 Wh high-performance lithium battery, 3 HP equivalent, including on-board computer with GPS-based range calculation and charger, emergency magnetic kill switch, short shaft	\$ 1,999.00
1143-20	Travel 1003 L	As part no. 1142-20, but with long shaft	\$ 1,999.00
1147-00	Spare battery for Travel 1003/503, 530 Wh	High-performance lithium battery with integrated GPS receiver, 530 Wh, 29.6 V, 18 Ah with USB connector to power other electric devices	\$ 699.00
1148-00	Spare battery for Travel 1003/503, 915 Wh <b>NEW</b>	High-performance lithium battery with integrated GPS receiver, 915 Wh, 29.6 V, 31 Ah with USB connector to power other electric devices	\$ 999.00

### CRUISE

1234-00	Cruise 2.0 TS	High-efficiency outboard, 5-6 HP equivalent. With tiller steering, integrated on-board computer with GPS-based range calculation, 4AWG cable set (10 ft) including fuse and main switch, short shaft version	\$ 3,798.00
1235-00	Cruise 2.0 TL	As part no. 1234-00, but with long shaft	\$ 3,848.00
1236-00	Cruise 4.0 TS	High-efficiency outboard, 8-9.9 HP equivalent. With tiller steering, integrated on-board computer with GPS-based range calculation, 4AWG cable set (10 ft) including fuse and main switch, short shaft version	\$ 4,298.00
1237-00	Cruise 4.0 TL	As part no. 1236-00, but with long shaft	\$ 4,348.00
1230-00	Cruise 2.0 RS	High-efficiency outboard, 5-6 HP equivalent. Includes connection to remote steering, remote throttle, integrated on-board computer with GPS-based range calculation, 4AWG cable set (10 ft) including fuse and main switch, short shaft version	\$ 3,798.00
1231-00	Cruise 2.0 RL	As part no. 1230-00, but with long shaft	\$ 3,848.00
1232-00	Cruise 4.0 RS	High-efficiency outboard, 8-9.9 HP equivalent. Includes connection to remote steering, remote throttle, integrated on-board computer with GPS-based range calculation, 4AWG cable set (10 ft) including fuse and main switch, short shaft version	\$ 4,298.00
1233-00	Cruise 4.0 RL	As part no. 1232-00, but with long shaft	\$ 4,348.00
1240-00	Cruise 10.0 RS <b>NEW</b>	High-efficiency outboard, 20 HP equivalent. Includes connection to remote steering, remote throttle, integrated on-board computer with GPS-based range calculation, 00AWG cable set (15 ft) including fuse and main switch, plug connector, short shaft version	\$ 7,999.00
1241-00	Cruise 10.0 RL <b>NEW</b>	As part no. 1240-00, but with long shaft	\$ 7,999.00
1242-00	Cruise 10.0 RXL <b>NEW</b>	As part no. 1240-00, but with extra-long shaft	\$ 7,999.00

1250-00	Cruise 2.0 FP <b>NEW</b>	High-efficiency pod motor (fixed position), 5-6 HP equivalent. Includes remote throttle, integrated on-board computer with GPS-based range calculation, 4AWG cable set (10 ft) including fuse and main switch	\$ 4,549.00
1251-00	Cruise 4.0 FP <b>NEW</b>	High-efficiency pod motor, fixed position, 8-9.9 HP equivalent. Includes remote throttle, integrated on-board computer with GPS-based range calculation, 4AWG cable set (10 ft) including fuse and main switch	\$ 4,999.00
1252-00	Cruise 10.0 FP <b>NEW</b>	High-efficiency pod motor (fixed position), 20 HP equivalent. Includes remote throttle, integrated on-board computer with GPS-based range calculation, 00AWG cable set (15 ft) including fuse and main switch, plug connector	\$ 7,999.00
1217-00	Twin Cruise control set	For twin motors based on Cruise 2.0 R or 4.0 R models, consisting of aluminum dual throttle with dual information display and 22 in tie bar	\$ 799.00
1905-00	Galvanic anode Cruise	Sacrificial anode for Cruise 2.0/4.0	\$ 24.99

### POWER

2103-00	Power 26-104	High-performance lithium battery, 2,685 Wh, rated voltage 25.9 V, charge 104 Ah, weight 53 lbs, with innovative battery management system including numerous protective functions, waterproof to IP67; includes: cable for communication with Cruise outboard	\$ 2,599.00
2206-20	Charger 350 W for Power 26-104	Charge current 10 A, charges the Power 26-104 from 0 to 100% in a maximum of 11 hours, waterproof to IP65	\$ 599.00
2210-00	Fast charger 1,700 W for Power 26-104 <b>NEW</b>	Charge current 60 A, charges the Power 26-104 from 0 to 100% in < 2 hours, waterproof to IP65	\$ 1,999.00
2304-00	On/off switch for Power 26-104	Switch for activating/deactivating the Power 26-104, IP65, with LED indicator light; the on/off switch is required when the Power 26-104 is used without a Cruise outboard	\$ 99.00
2207-00	Solar charge controller for Power 26-104	Specially adapted to the Power 26-104 Enables the Power 26-104 to be charged with solar energy. (Solar modules not included.) Integrated MPPT maximizes the energy yield of the solar modules during charging, very high level of efficiency. Maximum output power 232 watts (8 A, 29.05 V)	\$ 499.00

### DEEP BLUE

3201-00	Deep Blue 80 RL	Outboard drive system (66 kW peak output, 80 HP equivalent) consisting of a complete outboard, connection box, charger, remote throttle, on-board computer with display, cables, long-shaft version (high-voltage batteries not included)	\$ 21,999.00
3202-00	Deep Blue 80 RXL	As part no. 3201-00, but with extra-long shaft	\$ 21,999.00
3203-00	Deep Blue 40 RL	Outboard drive system (33 kW peak output, 40 HP equivalent) consisting of a complete outboard, connection box, charger, remote throttle, on-board computer with display, cables, long-shaft version (high-voltage batteries not included)	\$ 21,999.00
3204-00	Deep Blue 40 RXL	As part no. 3203-00, but with extra-long shaft	\$ 21,999.00
3205-00	Deep Blue 80 TL	As part no. 3201-00, but with tiller steering	\$ 21,999.00
3206-00	Deep Blue 80 TXL	As part no. 3202-00, but with tiller steering	\$ 21,999.00
3207-00	Deep Blue 40 TL	As part no. 3203-00, but with tiller steering	\$ 21,999.00
3208-00	Deep Blue 40 TXL	As part no. 3204-00, but with tiller steering	\$ 21,999.00
3301-00	Deep Blue 80i 1800	Inboard drive system (66 kW peak output, 80 HP equivalent) consisting of motor including motor electronics, homokinetic, cooling pump, connection box, charger, remote throttle, on-board computer with display, cables, 1,800 rpm motor speed (high-voltage batteries, shaft and propeller not included)	\$ 21,999.00
3302-00	Deep Blue 80i 1400	As part no. 3301-00, but with 1,400 rpm	\$ 21,999.00
3303-00	Deep Blue 40i 1800	Inboard drive system (33 kW peak output, 40 HP equivalent) consisting of motor including motor electronics, homokinetic, cooling pump, connection box, charger, remote throttle, on-board computer with display, cables, 1,800 rpm motor speed (high-voltage batteries, shaft and propeller not included)	\$ 21,999.00

Part no.	Product	Description	MSRP in USD
3304-00	Deep Blue 40i 1400	As part no. 3303-00, but with 1,400 rpm	\$ 21,999.00
3401-00	Deep Blue 40 SD <b>NEW</b>	Saildrive drive system (33 kW peak output, 40 HP equivalent) complete system consisting of saildrive, connection box, charger, remote throttle, on-board computer with display, cables (high-voltage batteries not included)	\$ 23,299.00
4101-00	Deep Blue high-voltage Battery	High-performance lithium battery, 12.8 kWh useful energy, rated voltage 345 V. Type B part no 4102-00	\$ 16,499.00
4201-00	Charger for Deep Blue high-voltage battery	Additional charger to cut charging times, 3kW output power	call
3934-00	Venting Kit	High-pressure venting system for one Deep Blue high-voltage battery, includes 9 ft venting hose and fittings	call
3935-00	Venting kit Y-connector	Y-connector for venting hose including fittings. Allows connection of one additional battery to the venting system	call
3936-00	Multi Charger integration kit	Integrates up to three chargers into one Deep Blue system	call
3903-00	Remote throttle Top-mounted	When selected, replaces the remote throttle for side mounting included with the Deep Blue systems	call
3904-00	Twin remote throttle	For Deep Blue Twin installations When selected, replaces the remote throttle for side mounting included with the Deep Blue systems	call
3931-00	Mounting kit for high-voltage battery, slim	Protects your high-voltage battery from shock impacts. Contents: 2 metal brackets and 4 robust 3-axis metal shock absorbers for installation in restricted spaces	call
3932-00	Mounting kit for high-voltage battery, low	Protects your high-voltage battery from shock impacts. Contents: 2 metal brackets and 4 robust 3-axis metal shock absorbers for flat installation	call
3933-00	Shock absorber set	Contents: 4 robust 3-axis metal shock absorbers (for one battery)	call

## Accessories

### EXTRAS

1925-00	Travel bags (2-piece)	For transporting / storing Travel 503/1003 models. Includes 2 bags - one bag for the motor (including tiller and accessories) and one bag for the battery.	\$ 169.00
1926-00	Travel battery bag	For transporting and storing Travel 503/1003 replacement batteries.	\$ 79.99
1931-00	Protective cover Travel	For Travel 503/1003 Protects the motor cable from UV fading and the shaft head from dirt. Water-resistant and breathable	\$ 74.99
1924-00	TorqTrac	Smart phone app for Travel 503/1003, Cruise T/R as well as Ultralight models Allows larger display of the on-board computer showing range on map and with many other benefits. Requires a Bluetooth Low Energy®-capable smartphone	\$ 149.00
6503-00	Men's soft shell jacket	Dark blue with appliqué Hood, three zipper pockets, zip fastener at the front. Breathable, wind- and water-resistant (3-layer membrane). Material: 100% polyester. Sizes: S, M, L, XL, XXL, XXXL	\$ 149.00
6502-00	Men's polo shirt	Grey mélange with appliqué. High-quality piqué made from pure cotton. Buttons and collar Sizes: S, M, L, XL, XXL, XXXL	\$ 69.00
6501-00	Men's T-shirt	White with print. Material: 100% cotton. Sizes: S, M, L, XL, XXL, XXXL	\$ 39.00

### CHARGING EQUIPMENT

1132-00	Sunfold 50	Foldable 50W solar panel, handy format, highly efficient, plug-&-play connections for waterproof charging of the Travel 503/1003 models, only compatible with battery part no. 1146-00, 1147-00, 1148-00 and 1416-00	\$ 749.00
1130-00	Solar charger 45 W	Roll-out solar module, extremely weather-resistant and specially made for use on water. Plug-and-play connections for waterproof charging of Travel battery part no. 1144-00 and 1145-00 and Ultralight battery part no. 1413-00. Includes protective cover for easy transport and storage Discontinued model - available while stocks last	\$ 899.00

Part no.	Product	Description	MSRP in USD
1133-00	Charger 90 W for Travel and Ultralight batteries	90 watt charger for electric sockets rated 100-240 V and 50-60 Hz. For use only with Travel batteries part no. 1146-00, 1147-00, 1148-00 and Ultralight batteries part no. 1416-00	\$ 129.99
1127-00	Charger 40 W for Travel and Ultralight batteries	40 watt charger for electric sockets rated 100-240 V and 50-60 Hz. For use with battery part nos. 1144-00, 1145-00 and 1413-00	\$ 69.99
1128-00	12 V charger cable for Travel 1003/503 and Ultralight 403	Charge your Travel 503/1003 and Ultralight batteries from a 12V power source	\$ 54.99
1131-00	Fast charger for Travel and Ultralight batteries	120 watt charger for electric sockets rated 100-240 V and 50-60 Hz. For use only with Travel batteries part no. 1144-00 and 1145-00 and Ultralight batteries part no. 1413-00	\$ 129.00

### PROPELLERS & FINS

1912-00	Replacement propeller v10/p350	For Ultralight models 402 and 403 (Ø 200 mm)	\$ 99.99
1917-00	Replacement propeller v9/p790	For all Travel 1003 models and for 503 models from 2014 (Ø 292 mm)	\$ 99.99
1915-00	Replacement propeller v8/p350	For Cruise 2.0/4.0 models manufactured from 2009 onwards (serial numbers > 5000), slower speed, lower effectiveness, greater thrust (Ø 300 mm)	\$ 99.99
1916-00	Replacement propeller v19/p4000	For Cruise 2.0/4.0 models manufactured from 2009 onwards (serial numbers > 5000), faster, more efficient, weedless (Ø 300 mm)	\$ 99.99
1923-00	Replacement propeller v30/p4000	High-speed propeller for Cruise 2.0/4.0 models manufactured from 2009 onwards (serial numbers > 5000), for planing with light boats (Ø 320 mm)	\$ 219.99
1901-00	Replacement propeller v8/p350	For models Travel 401, 801 and 503, Base Travel and Cruise models (manufactured 2006-2008, serial numbers < 5000). (Ø 300 mm)	\$ 99.99
1932-00	Folding propeller v13/p4000	For Cruise FP 2.0 and 4.0 models, low drag while sailing, powerful when motoring	\$ 899.00
9145-00	Fin for Travel 503/1003	Protects the outboard from impact damage	\$ 29.99
9234-00	Fin for Cruise R/T	Protects the outboard from impact damage, for Cruise models with part no. 1209-00 to 1223-00	\$ 29.99
9258-00	Fin for Cruise R/T	Aluminum fin coated in polyurethane (PU) foam for Cruise models with part no. 1230-00 to 1237-00. Better protection from impact damage	\$ 69.99

### CABLE, CONTROL, STEERING

1918-00	Remote throttle for Travel 503/1003 (Spare part for Cruise models, Ultralight 403)	Enables operation with remote throttle instead of tillers for models Travel 503/1003, including integrated display with information on battery status, GPS-based speed and remaining range calculation, including 1.5 m and 5 m connecting cable between motor and throttle. Can also be used as a spare part for Cruise and Ultralight models	\$ 299.99
1919-00	Long tiller arm	23.6 in tiller tube extension, for Travel and Cruise T models	\$ 69.99
1920-00	Motor cable extension for Travel and Ultralight	Cable connection extension between battery and motor for the models Ultralight 403 and Travel 503/1003, allows a greater distance (6.5 ft) between battery and motor, with waterproof plug connections	\$ 69.99
1204-00	Motor cable extension Cruise	Extension for Cruise cable set (between motor and battery), 6.5 ft long, with high-voltage plug connector.	\$ 129.99
1921-00	Cable extension for remote throttle, 5 ft	Extension cable for Travel 503/1003, Ultralight and Cruise models, allows a greater distance between throttle / tiller and motor	\$ 34.99
1922-00	Cable extension for remote throttle, 16 ft	As part no. 1921-00, 16 ft length	\$ 49.99
1914-00	Emergency magnetic kill switch	Emergency kill switch and immobiliser for Travel, Cruise and Ultralight models.	\$ 29.99
1927-00	Spare parts set Travel	Set for Travel consisting of emergency magnetic kill switch, battery attachment pin and steering fixing pin	\$ 49.99

# Technical Data

## Outboards ≤ 20 HP equivalent

	ULTRALIGHT 403	TRAVEL 503 S/L	TRAVEL 1003 S/L	CRUISE 2.0 TS/TL	CRUISE 4.0 TS/TL	CRUISE 2.0 RS/RL	CRUISE 4.0 RS/RL	CRUISE 10.0 R	TWIN CRUISE 2.0 R	TWIN CRUISE 4.0 R
Input power in watts	400	500	1,000	2,000	4,000	2,000	4,000	10,000	4,000	8,000
Propulsive power in watts	180	240	480	1,120	2,240	1,120	2,240	5,600	2,240	4,480
Comparable gas outboard (shaft power)	1 HP	1.5 HP	3 HP	5 HP	8 HP	5 HP	8 HP	20 HP	8 HP	15 HP
Comparable gas outboard (thrust)	2 HP	2 HP	4 HP	6 HP	9.9 HP	6 HP	9.9 HP	25 HP	12 HP	20 HP
Maximum overall efficiency in %	45	48	48	56	56	56	56	56	56	56
Static thrust in lbs*	33	40	68	115	189	115	189	315	230	378
Integrated battery	320 Wh Li-Ion	320 Wh Li-Ion	530 Wh Li-Ion	-	-	-	-	-	-	-
Nominal voltage	29.6	29.6	29.6	24	48	24	48	48	24	48
Final charging voltage	33.6	33.6	33.6	-	-	-	-	-	-	-
Total weight in lbs	16	28.4 (S) / 29.8 (L)	29.5 (S) / 30.8 (L)	38.5 (S) / 41 (L)	40.4 (S) / 42.8 (L)	33.7 (S) / 35.7 (L)	35.5 (S) / 37.5 (L)	104(S)/107(L)/109(XL)	68.3 (S) / 73 (L)	71.7 (S) / 76.1 (L)
Motor weight without battery, in lbs	9.7	19.6 (S) / 20.9 (L)	19.6 (S) / 20.9 (L)	-	-	-	-	-	-	-
Weight of integrated battery, in lbs	6.4	8.8	9.9	-	-	-	-	-	-	-
Shaft length in inches	17.7	24.6 (S) / 29.5 (L)	24.6 (S) / 29.5 (L)	24.5 (S) / 29.4 (L)	24.5 (S) / 29.4 (L)	24.5 (S) / 29.4 (L)	24.5 (S) / 29.4 (L)	151(S)/201(L)/251(XL)	24.6 (S) / 29.7 (L)	24.6 (S) / 29.7 (L)
Standard propeller (v = speed in km/h at p = power in watts)	v10/p350	v9/p790	v9/p790	v19/p4000	v19/p4000	v19/p4000	v19/p4000	v32/p10,000	v19/p4000	v19/p4000
Alternative propeller options	-	v8/p350	-	v8/p350 v30/p4000	v8/p350 v30/p4000	v8/p350 v30/p4000	v8/p350 v30/p4000	v15/p10,000	v8/p350 v30/p4000	v8/p350 v30/p4000
Maximum propeller speed in rpm at full load	1,200	700	1,200	1,300	1,300	1,300	1,300	1,400	1,300	1,300
Control	Remote throttle	Tiller	Tiller	Tiller	Tiller	Remote throttle	Remote throttle	Remote throttle	Remote throttle	Remote throttle
Steering	Provision to connect to kayak rudder; lockable	360° lockable	360° lockable	360° lockable	360° lockable	Provision to connect to standard remote steering; lockable	Provision to connect to standard remote steering; lockable	+ -50° lockable	Provision to connect to standard remote steering; lockable	Provision to connect to standard remote steering; lockable
Tilting device	Manual, with impact protection	Manual, with impact protection	Manual, with impact protection	Manual, with impact protection	Manual, with impact protection	Manual, with impact protection	Manual, with impact protection	Power tilt, with impact protection	Manual, with impact protection	Manual, with impact protection
Trim device	-	Manual, 4-step	Manual, 4-step	Manual, 4-step	Manual, 4-step	Manual, 4-step	Manual, 4-step	Manual, 4-step	Manual, 4-step	Manual, 4-step
Stepless forward/reverse drive	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Integrated on-board computer with display	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

\* Torqeedo static thrust measurement is based on internationally accepted ISO standards. Static thrust figures for conventional trolling motors are typically measured differently, which results in higher values. To compare Torqeedo static thrust data with conventional trolling motors, add approximately 50% to the Torqeedo static thrust values.

## Outboards & inboards 40 / 80 HP equivalents

CRUISE 2.0 FP	CRUISE 4.0 FP	CRUISE 10.0 FP
2,000	4,000	10,000
1,120	2,240	5,600
5 HP	8 HP	20 HP
6 HP	9.9 HP	25 HP
56	56	56
115	189	315
-	-	-
24	48	48
-	-	-
9	9	19
-	-	-
-	-	-
-	-	-
v19/p4000	v19/p4000	-
v13/p4000 (folding)	v13/p4000 (folding)	-
1,300	1,300	1,400
Remote throttle	Remote throttle	Remote throttle
-	-	-
-	-	-
-	-	-
Yes	Yes	Yes
Yes	Yes	Yes

DEEP BLUE SYSTEM	DEEP BLUE 40 RL/RXL	DEEP BLUE 80 RL/RXL	DEEP BLUE 40 TL/TXL	DEEP BLUE 80 TL/TXL	DEEP BLUE 40i 1800/1400	DEEP BLUE 80i 1800/1400	DEEP BLUE 40 SD
Peak input power in kW	33	66	33	66	33	66	33
Input power (continuous) in kW	25	50	25	50	25	50	25
Propulsive power in kW	16.2	32.4	16.2	32.4	> 16.2	> 32.4	16.2
Comparable gas outboard (shaft power)	40 HP	80 HP	40 HP	80 HP	40 HP	80 HP	40 HP
Maximum overall efficiency in %	54	54	54	54	> 54	> 54	54
Integrated battery: usable energy in kWh	12.8	25.6 - 51.2	12.8	25.6 - 51.2	12.8	25.6 - 51.2	12.8
Nominal voltage	345 V	345 V	345 V	345 V	345 V	345 V	345 V
Final charging voltage	389 V	389 V	389 V	389 V	389 V	389 V	389 V
Motor weight including electronics (without battery) in lbs	306 (L) / 320 (XL)	306 (L) / 320 (XL)	320 (L) / 333 (XL)	320 (L) / 333 (XL)	194	194	190
Weight of 1 battery in lbs	328	328	328	328	328	328	328
Total system weight in lbs - example (long shaft version, 1 charger, connection box, display, throttle and cabling)	690 (with 1 battery)	1019 (with 2 batteries)	703 (with 1 battery)	1032 (with 2 batteries)	560 (with 1 battery)	904 (with 2 batteries)	692
Shaft length	20" / 51 cm (L) 25" / 63.5 cm (XL)	20" / 51 cm (L) 25" / 63.5 cm (XL)	20" / 51 cm (L) 25" / 63.5 cm (XL)	20" / 51 cm (L) 25" / 63.5 cm (XL)	-	-	36.2 cm
Standard propeller	v50/p50k	v50/p50k	v50/p50k	v50/p50k	-	-	-
Maximum propeller speed in rpm at full load	2,400	2,400	2,400	2,400	1,800/1,400	1,800/1,400	1,200
Control	Remote throttle	Remote throttle	Tiller with throttle	Tiller with throttle	-	-	Remote throttle
Tilting device	Power trim and tilt	Power trim and tilt	Combined trim and tilt switch (on the tiller)	Combined trim and tilt switch (on the tiller)	-	-	-
Trim device	Power trim and tilt	Power trim and tilt	Combined trim and tilt switch (on the tiller)	Combined trim and tilt switch (on the tiller)	-	-	-
Integrated on-board computer with touch-screen display	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Service centers and service partners around the world

# A global network



## Torqueedo service centers

Torqueedo Inc.  
171 Erick Street, Unit D-2  
Crystal Lake, IL 60014  
USA  
T +1 - 815 - 444 8806  
F +1 - 815 - 444 8807  
service\_usa@torqueedo.com

Torqueedo GmbH  
Friedrichshafener Str. 4a  
82205 Gilching  
Germany  
T +49 (0) 8153 - 92 15 - 126  
F +49 (0) 8153 - 92 15 - 329  
service@torqueedo.com

## Torqueedo sales organizations

### Torqueedo North America

T +1-815-444-8806  
usa@torqueedo.com

### Torqueedo United Kingdom / Ireland

T +44 (0) 1502 - 516 224  
uk@torqueedo.com

### Torqueedo Germany, Austria, Switzerland

T +49 (0) 8153 - 92 15 - 100  
info@torqueedo.com

### Torqueedo France

T +33 (0) 240 - 010 604  
france@torqueedo.com

### Torqueedo Spain / Portugal

T +34 609 38 50 44  
iberia@torqueedo.com


### All other countries


Torqueedo GmbH  
Friedrichshafener Str. 4a  
82205 Gilching  
Germany  
T +49 (0) 8153 - 92 15 - 100  
F +49 (0) 8153 - 92 15 - 319  
info@torqueedo.com





Torqeedo is committed to providing the highest standards of quality for its customers. Torqeedo's Quality Management System is ISO 9001 certified with DNV-GL.

 Torqeedo service center

 Torqeedo service partners -  
You can find a complete list at [www.torqeedo.com](http://www.torqeedo.com) > Service centers

**Imprint:**

**Editor:** Christoph Ballin, Tess Smallridge  
**Conception:** Roxana Panetta  
**Graphics design:** Eva Flamme, Roxana Panetta  
**Photography:** Christian Brecheis, Michael Amme  
Martin Stamat  
**Product Photography:** Sandra Eckhardt, Jan Ott  
**Industrial Design:** Schlagheck Design  
**Print:** K&M Printing

# TORQUEEDO

STARNBERG.GERMANY



Your Torqeedo dealer

Part number 8023-00

This catalog is printed on chlorine-free paper sourced from sustainable forestry.

Goods are delivered exclusively according to our Terms of Sale and Delivery according to Torqeedo's current Terms and Conditions of Business.

We reserve the right to make any changes including pricing at any time. Errors and omissions excepted.

[www.torqeedo.com](http://www.torqeedo.com)