July 2018



-e-motion in propulsion!



Index

| Product | Page: | |
|--|-------|--|
| Intro | 3 | pureuna a |
| Drive Master Ecoline | 4 | |
| Drive Master Cute | 5 | AL STATE OF THE ST |
| Drive Master Ultimate | 6 | |
| Torque Master Pro | 8 | |
| Drive Master Modular | 9 | |
| SailMaster EcoLine | 10 | |
| SailMaster Ultimate | 11 | |
| Outboard Master Pro | 12 | |
| | | The state of the s |
| Accessories: | | Bellmarin' |
| Display of you r choice | 13 | |
| Acuity battery monitoring system | 15 | |
| Cooling system of your choice | 16 | |
| Bellcontrol Throttle choice | 17 | |
| Motor / propeller shaft couplings | 19 | |
| Ecoline propeller shaft system | 19 | |
| Battery chargers | 20 | |
| | | |
| Solar mppt | 21 | |
| DC-DC converters | 21 | |
| Inverters 230V 50/60 Hz | 22 | -1 |
| BowAdjust, proportional Bowthruster controller | 23 | |
| Lithium Battery | 24 | |
| System configurator | 25 | 15 |







Electric Boating starts at Bellmarine.

In the world of electric propulsion systems Bellmarine is the standard. The years of experience, quality, innovation and durability are a guarantee for pure boating pleasure!

Perfection in every detail

All parts installed below decks have to be of the highest quality; moist and salt will take their toll and can have an effect on the durability of your drive system. Only the best materials are suitable and have been carefully selected by Bellmarine.

E-motion in propulsion!

The Bellmarine systems are being developed and produced in the Netherlands! With over 3000 electric propulsion systems in use Bellmarine has set the standard.

You will be assured of the best quality and service, and also the price of a complete system will be a pleasantsurprise!

-e-motion in propulsion!















DriveMaster Ecoline

Asynchronous, motor and controller Air-Cooled

Motor – Air cooled complete closed IP66 Controller Air cooled

Complete including: Motor + Controller, integrated thrust bearing, Stainless steel adjustable motor support.

- Motor + controller water resistant IP66
- Additional Power Boost 8 sec.
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Quick Install / easy connect
- NMEA2000 compatible
- · Hybridfunction available
- · Incl. Main Switch and Main fuse



| Art no: | Description | Motor | V | kW | rpm | Torque | Note |
|---------|-------------------------|-------|----|-----|------|--------|------|
| 101488 | DriveMaster EcoLine 2.0 | AC-30 | 24 | 2.0 | 1450 | 13 Nm | |
| 101489 | DriveMaster EcoLine 3.0 | AC-30 | 48 | 3.0 | 1450 | 20 Nm | |
| 101529 | DriveMaster EcoLine 6.0 | AC-50 | 48 | 6.0 | 1450 | 40 Nm | |



• Every Bellmarine system will be supplied with: Main battery Fuse and Main Switch.



 $^{\bullet}$ Display options, throttle choices and more.... you will find on page 13 / 24









DriveMaster Cute 1.2 -24V

Asynchronous, All-In-One Closed loop Cooling system

Motor – Liquid cooled IP66

Controller Air cooled with integrated heat exchanger

Complete including: Motor + Controller, integrated thrust bearing, Stainless steel adjustable motor support and motor / propeller shaft coupler \emptyset 25 mm

- Motor + controller water resistant (IP66)
- Incl. Closed loop liquid pump
- Additional Power Boost 10sec. 1.5 kW
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Quick Install / easy connect
- Integrated closed loop cooling system incl. pump
- Quick Install / easy connect / Plug and Play
- NMEA2000 compatible
- Hybrid function available
- Incl. Main Switch and Main fuse



| Art no: | Description | Motor | V | kW | rpm | Torque | Note |
|---------|----------------------|-------|----|-----|------|--------|------|
| 101528 | DriveMaster Cute 1.2 | AC-10 | 24 | 1,2 | 1450 | 9 Nm | |

• Every Bellmarine system will be supplied with: Main battery Fuse and Main Switch.





DriveMaster Ultimate 48 / 96Volt

Asynchronous, Liquid-Cooled

Motor – Liquid cooled complete closed IP66
Controller liquid cooled

Complete including: Motor + Controller, integrated thrust bearing, stainless steel motor supports and integrated DC-DC converter for onboard 12V power. (13,8V 300 watt at 48 V / 450 Watt at 96 V)

- Motor + controller water resistant (IP66)
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Integrated DC-DC converter 48/96V > 13,8 Volt
- Additional power boost 8 sec.
- Quick Install / easy connect / Plug and Play
- NMEA2000 compatible
- Hybrid function available
- Incl. Main Switch and Main fuse





Every Bellmarine system will be supplied with: Main Fuse and Main Switch
 96 Volt systems will be supplied with High Voltage Main battery fuse and Main switch



| Art no: | Description | Motor | V | kW | rpm | Torque | Note |
|---------|--|-------|----|-----|------|--------|------|
| 101607 | DriveMaster Ultimate 1.5 | AC-10 | 48 | 1,5 | 1450 | 10 Nm | |
| 101608 | DriveMaster Ultimate 3.0 | AC-30 | 48 | 3.0 | 1450 | 20 Nm | |
| 100854 | DriveMaster Ultimate 5.0 | AC-30 | 48 | 5.0 | 1450 | 33 Nm | |
| 101609 | DriveMaster Ultimate 8.0 | AC-50 | 48 | 8.0 | 1450 | 53 Nm | |
| 100808 | DriveMaster Ultimate 10 | AC-50 | 48 | 10 | 1450 | 66 Nm | |
| 100809 | DriveMaster Ultimate 15 (S2-30" / S1 12 kW) | AC-50 | 48 | 15 | 1450 | 92 Nm | |
| 100810 | DriveMaster Ultimate 15 | AC-60 | 48 | 15 | 1450 | 99 Nm | |
| 100812 | DriveMaster Ultimate 20 (S2-30" / S1 16 kW) | AC-60 | 96 | 20 | 1450 | 123 Nm | |
| 101610 | DriveMaster Ultimate 20 | AC-80 | 48 | 20 | 1450 | 123 Nm | |
| 100811 | DriveMaster Ultimate 25 | AC-80 | 96 | 25 | 1450 | 165 Nm | |

[•] Display options, throttle choices and more.... you will find on page 13 / 24









DriveMaster Ultimate 144Volt

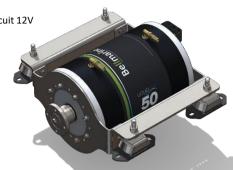
Asynchronous Liquid-Cooled

Complete including: Motor + stainless steel motor mounting bracket. Controller with isolated 12V logic, integrated precharge relais and main power relais, integrated DC-DC converter for Start up and onboard 12V power.

Motor + controller water resistant IP66

Integrated DC-DC converter 144 > 13.8Volt 450 Watt (start up circuit 12V Logic)

- Motor + controller water resistant (IP66)
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Integrated DC-DC converter 144. 13,8V 450 Watt
- Additional power boost 8 sec.
- Quick Install / easy connect / Plug and Play
- NMEA2000 compatible
- Hybridfunction available
- Incl. Main Switch and Main fuse



| | | | | _ | | | |
|---------|--|---------|-----|----|------|--------|------|
| Art no: | Description | Motor | V | kW | rpm | Torque | Note |
| 101503 | DriveMaster Ultimate 25 (S2-25" / S1 16 kW) | AC-60 | 144 | 25 | 2500 | 95 Nm | |
| 101288 | DriveMaster Ultimate 35 (S2-15" / S1 16 kW) | AC-60 | 144 | 35 | 3500 | 95 Nm | |
| 101585 | DriveMaster Ultimate 25 | AC-80 | 144 | 25 | 1450 | 164 Nm | |
| 101642 | DriveMaster Ultimate 35 | AC-80-L | 144 | 35 | 1450 | 265 Nm | |
| 101580 | DriveMaster Ultimate 50 (S2 -15" / S1 35 kW) | AC-80-L | 144 | 50 | 1850 | 265 Nm | |

• Every Bellmarine system will be delivered complete with High Voltage Main fuse and Main battery switch.







Display options, throttle choices and more.... you will find on page 13 / 24









TorqueMaster Pro

Geared propeller shaft systems Liquid Cooled

25 kW / 30 kW / 40kW



- Propeller rpm 800 / 950
- Extreme high torque
- 48 / 96 or 144 Volt versions
- · Liquid cooled
- Quiet and durable



Specifications:

| Art no: | Description | Motor | V | kW | rpm | Torque | Note |
|---------|---------------------|---------|-----|----|-----|--------|------|
| 101716 | TorqueMaster Pro 25 | AC-80 | 96 | 25 | 800 | 299 Nm | |
| 101717 | TorqueMaster Pro 30 | AC-80 | 144 | 30 | 800 | 358 Nm | |
| 101718 | TorqueMaster Pro 40 | AC-80-L | 144 | 40 | 950 | 402 Nm | |

 $^{^{\}bullet}$ Display options, throttle choices and more.... you will find on page 13 / 24













[•]Prices in Euro excl VAT, exworks Gouda Netherlands

[•]Prices subject to change and could be different in foreign countries

DriveMaster Modular 48 / 96 / 144Volt

Asynchronous Liquid-Cooled

Motor – Liquid cooled complete closed IP66 Controller liquid cooled

 $\textbf{Modular drive system Complete including: } 2 \times Motor + 2 \times Controller,$

rotation sensor IP68 and temp sensor.

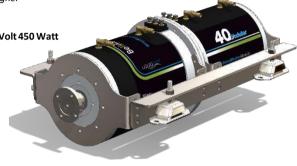
Including stainless steel motor mounting Brackett

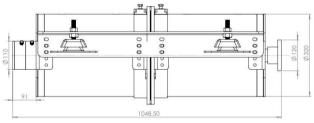
Controller and motor in Master / Slave configuration.

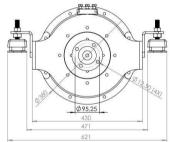
Integrated DC-DC converter 144 > 13.8Volt 450 Watt (start up circuit 12V Logic)

- Motor + 2x controller water resistant (IP66)
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Additional power Boost 8 sec.
- Integrated DC-DC converter 48 / 96 / 144 > 13.8Volt 450 Watt (start up circuit 12V Logic 144 V versions)
- Quick Install / easy connect / Plug and Play
- NMEA2000 compatible
- Hybrid function available
- Incl. 2x Main Switch and 2x Main fuse









| Art no: | Description | Motor | V | kW | rpm | Torque | Note |
|---------|--|-------|-----|--------|------|--------|------|
| 101647 | DriveMaster Modular 40 *30 kW continuously–limited by controller | N80-2 | 48 | 30 /40 | 1550 | 246 Nm | |
| 101485 | DriveMaster Modular 40 | N80-2 | 96 | 40 | 1550 | 246 Nm | |
| 101478 | DriveMaster Modular 50 | N80-2 | 144 | 50 | 1450 | 264 Nm | |

 Every Bellmarine Modular system will be delivered complete with 2x High Voltage Main battery fuse and Main switch.











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SailMaster Ecoline 48Volt

Asynchronous Air-Cooled

Motor – Air cooled complete closed IP66 Controller Air cooled

 $\textbf{Complete including:} \ Motor + Controller, Yanmar SD25 \ Sail \ drive \ leg \ with \ 2:1 \ reduction, stainless steel motor support brackets.$

Motor Complete closed IP66 and maintenance free, the plug and play motor controller is Air-cooled.

- Motor + controller water resistant (IP66)
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Additional power Boost 8 sec.
- Oil level Spyglass
- · Oil refill inlet
- Quick Install / easy connect
- NMEA2000 compatible
- Hybrid function available
- Suitable to use with Fixed or folding propellers
- Incl. Main Switch and Main fuse



| Art no: | Description | Motor | V | kW | rpm | Note |
|---------|------------------------|---------|----|-----|-----|------|
| 101492 | SailMaster Ecoline 3.5 | AC-30 | 48 | 3.5 | 690 | |
| 101611 | SailMaster Ecoline 6.0 | AC-50-S | 48 | 6.0 | 690 | |

- Supplied without propeller.
- Every Bellmarine system will be delivered with, battery Main Fuse and MainSwitch.



· Display options, throttle choices and more.... you will find on page 13 / 24





[•]Prices in Euro excl VAT, exworks Gouda Netherlands

[•]Prices subject to change and could be different in foreign countries

SailMaster Ultimate 48 / 96V

Asynchronous Liquid-Cooled

Motor – Liquid cooled complete closed IP66 Controller liquid cooled

Complete including: Motor + Controller, Yanmar SD25 Sail drive leg with 2:1 reduction, stainless steel motor support brackets.

The SailMaster Ultimate versions are standard equipped with an integrated DC-DC converter in the motor controller, to provide you with 12Volt DC onboard power.

- Motor + controller water resistant (IP66)
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Additional Power Boost 8 sec.
- Compact and Ultra Compact dimensions 7.5 / 10 kW
- · Oil level Spyglass
- Oil refill inlet
- Integrated DC-DC converter
- Quick Install / easy connect
- NMEA2000 compatible
- Hybrid/regeneration function available
- Suitable to use with Fixed or folding propellers
- Incl. Main Switch and Main fuse



| Art no: | Description | Motor | V | kW | rpm | Note |
|---------|---------------------------------|---------|----|----|------|------|
| | Liquid Cooled | | | | | |
| 100882 | SailMaster Ultimate 5.0 compact | AC-50-S | 48 | 5 | 1200 | |
| 101474 | SailMaster Ultimate 10 | AC-50-S | 48 | 10 | 1200 | |
| 101475 | SailMaster Ultimate 15 | AC-50 | 48 | 15 | 750 | |
| 101476 | SailMaster Ultimate 20 | AC-50 | 96 | 20 | 1300 | |

- Supplied without propeller.
- Every Bellmarine system will be delivered with, battery Main Fuse and Main Switch.
 96 Volt systems will be supplied with High Voltage Main fuse and Main switch set



• Display options, throttle choices and more.... you will find on page 13 / 24



- Prices in Euro excl VAT, exworks Gouda Netherlands
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OutboardMaster Pro

Asynchronous Air-Cooled or Liquid-Cooled

Motor – Liquid cooled complete closed IP66 Controller liquid cooled

Specially developed electric outboard for applications where maneuverability and robustness is crucial.

Supplied Complete Including; Electric Motor + Yanmar Sail drive leg with gear reduction of 2:1, Motor Controller, stainless steel mounting brackets and tiller arm (for use with hydraulic steering system).

• Supplied without propeller.

The OutboardMaster will be available in two versions:

- Ecoline Air Cooled
- Ultimate Liquid Cooled

The Liquid cooled Outboard Master Pro version will have an integrated DC-DC converter integrated in the motor controller for cooling pump and other 12V equipment.

Complete including: Motor + Controller, integrated thrust bearing.

- Motor + controller water resistant (IP66)
- IFO Vector Control (superior dynamic response, higher operational efficiency and maximum torque)
- Additional Power Boost 8 sec.
- Integrated DC-DC converter > Ultimate versions
- Quick Install / easy connect
- NMEA2000 compatible
- Incl. Main Switch and Main fuse



| Art no: | Description | Motor | V | kW | rpm | Note |
|---------|--|-------|----|----|------|------|
| | Air-Cooled | | | | | |
| 101500 | OutboardMaster Pro Ecoline 6 | AC-50 | 48 | 6 | 750 | |
| Art no: | Description | Motor | V | kW | rpm | Note |
| | Liquid-Cooled | | | | | |
| 101469 | OutboardMaster Pro Ultimate 10 | AC-50 | 48 | 10 | 750 | |
| 101470 | OutboardMaster Pro Ultimate 15 | AC-50 | 48 | 15 | 750 | |
| 101471 | OutboardMaster Pro Ultimate 20 | AC-50 | 96 | 20 | 1250 | |
| | Optional | | | | | |
| 101472 | Anti ventilation / cavitation plate (Stainless steel, incl. anode) | | | | | |

- Supplied without propeller.
- Display options, throttle choices and more.... you will find on page 13 / 24
- Every Bellmarine system will be delivered with, battery Main Fuse and Main Switch.
 96 Volt systems will be supplied with High Voltage Main fuse and Main switch set



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Multifunctional Displays: Bell- (Ray)marine NMEA2000

Bellmarine designed hard- and software which easily combine with the powerful range of nautical products of Raymarine.

The Axiom Multifunction displays deliver the speed and simplicity of the Lighthouse III user interface, which ensures smooth operation of the touchscreen.

Now it is possible to integrate your electric propulsion 1 or 2 Bellmarine motor system information into your complete boat system and have everything on one well-arranged screen. Including GPS speedometer and chart plotter.

By the standard integrated Wi-Fi function, you will always have an extra screen on your Tablet or Smartphone.

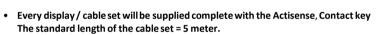




Raymarine

Raymarine display - Axiom 7 & 9

Your system will be supplied complete with special motor controller software. The display of your choice will be supplied complete with the Actisense complete NMEA 2000® backbone in a single device and will be pre assembled in the Bellmarine monitoring and control cable set.

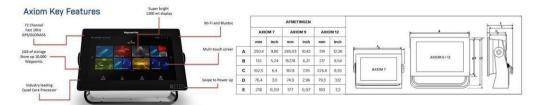






Actisens NMEA2000 A2K-SBN 4 WAY SMALL BOAT NETWORK

| Art no: | Model | Description | Note |
|---------|---------------------------------------|---|------|
| 101516 | Axiom 7 Bellmarine Incl. Nautical map | 7" Multi functional Display incl. integrated Wi-Fi Incl. Navionics Small download Chart & A2K-SBN4 | |
| 101517 | Axiom 9 Bellmarine Incl. Nautical map | 9" Multi functional Display incl. integrated Wi-Fi Incl. Navionics Small download Chart & A2K-SBN4 | |
| 101583 | Flush mount Cover-7 | Axiom 7 sun cover | |
| 101623 | Flush mount cover-9 | Axiom 9 sun cover | |



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Display's

For every DriveMaster and SailMaster system a display and cable set is needed for monitoring and control of the controller. The display options range from a simple E2 LCD display to our Multi functional display's







E7

| Display | Description |
|---------|---|
| E2 | Simple round display with battery status indication and motor rpm |
| E4 | Monochrome display with battery status indication, motor power, motor rpm, mode selection and Eco meter |
| E7 | Colour display with battery status indication, motor power, motor rpm, motor temperature, controller temperature, eco meter, battery amps, battery voltage and mode selection. With Acuity also detailed and historic battery information is visible. |

Display's

Complete set including: Cable set length 5 meter moulded 12 pin connector with gold plated contacts, including 3 position contact key.

| Art no: | Description | | Note |
|---------|--------------------------------------|---|------|
| 100831 | E2-Mini LCD | Incl. cable set for monitoring and control, Ø51mm | |
| 100794 | E4-LCD | Incl. cable set for monitoring and control | |
| 100795 | E7- Full color | Incl. cable set for monitoring and control | |
| | Extra Cable length +5m ¹ | Optional: Cable set Total length 10 meter | |
| | Extra Cable length +10m ¹ | Optional: Cable set Total length 15 meter | |
| | Extra Cable length +15m ¹ | Optional: Cable set Total length 20 meter | |

Hybrid / regeneration function

Hybrid hard and software of Drivemaster Ultimate and Ecoline systems Ideal for building a parallel hybrid system or recharge your batteries during sailing.

| Art no: | Description | Note |
|---------|--|------|
| 101527 | Hybrid - parallel hybrid function (<i>In combination with diesel engine</i>) Incl. Custom cable set and hybrid motorcontroller setup | |
| 101640 | Hybrid - Regeneration / during sailing Incl. Custom cable set and hybrid motorcontroller setup | |
| 100332 | Help and Configuration on Distance interface: Diagnose or configurate your Bellmarine system on distance: USB / PLC interface OEM 1314k-4401 v4.3.3 pc progr. Station. | |



[•]Prices in Euro excl VAT, exworks Gouda Netherlands

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ACUITY - Battery condition monitoring system

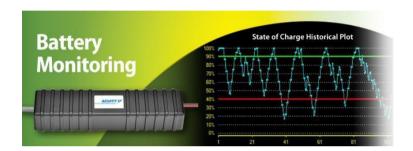
All our Ultimate and Ecoline propulsion systems can be enhanced with a "state of art" battery condition monitoring system.

ACUITY constantly measures and logs the precise condition of your battery. This detailed information will be displayed on your display, including the multifunctional displays from Raymarine.

With a E7 display it's even possible to display the historic discharge and charge information on different screens. Also the historic data can be downloaded to a PC with a USB interface.

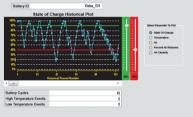
With the special Acuity E2 display all the battery data can be made visible without turning on your propulsion system.

Not available on DriveMaster Classic series











Acuity accurate battery management

| Art no: | Model | | Note |
|---------|------------------------------------|--|------|
| 101466 | Acuity 24–48 VDC | Standalone Unit | |
| 101542 | Acuity 72–144 VDC | Standalone Unit | |
| 101559 | Acuity USB Interface + Software | Configuration and monitoring PLC software and interface | |
| 101613 | E2- Acuity Display | Always- On Display, Ø52 mm. Displays the following data in a loop: Battery Voltage / Current / Temp / Total Discharged / Total Charged / Capacity in % | |

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Liquid Cooling

Water cooling accessories for all Ultimate systems.

Dependent on the location of sailing there are two version of water cooling the motor and controller. The controller and motor are not salt water resistant, so when there is a possibility you will be sailing in salt water we advise you to choose for the closed loop cooling system instead of cooling with external water.



Cooling: Fresh water

| Art no: | Description | | Note |
|---------|--------------------------|---|------|
| 100798 | Self priming pump | Incl. hose barbs and system connector | |
| 100799 | Install / Connection kit | Incl: 2 x hull fittings, 1 x ball valve, bronze water strainer, 5 meters hose, hose barbs and SS hose clamps. | |

Cooling: Salt water

| Art no: | Description | | Size | Power Advise | Note |
|---------|---------------------|--|------|--------------|------|
| 101446 | Cooling System with | Incl. 1x circulation pump, 1x self | S | Up to 5kW | |
| 101447 | heat exchanger | priming pump, 2x hull fittings, ball valve, bronze water strainer, | M | 5-10kW | |
| 101448 | | 5 meters hose, expansion | L | 15-20 kW | |
| 101449 | | vessel, hose barbs & SS hose clamps. | XL | 20+ kW | |
| | | • | | | |

Cooling: Closed loop

| Art no: | Description | | Note |
|---------|------------------|---|------|
| 101531 | Circulation pump | Circulation pump 12V 1.9A 16mm 20l/min Brushless DC, extra heavy-duty construction Motors designed for continuous operation Connection between motor and pump part magnetically driven. | |
| | Expansion vessel | 1,5 Liter, Incl. Stainless steel mounting bracket | |







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Bellcontrol Throttle

- Water resistant (IP67)
- Electronic Hall-sensor technology 0-5 Volt.

Maneuvering in Style...

Side mounting

| Art no: | Description | Type | Side Mount | Note |
|---------|----------------------------|------|---|------|
| 101422 | Bellcontrol Casual | C01 | Black delrin with stainless handle, side mount, IP66 b (contactless hall effect sensor, 0-5V output) | |
| 101551 | Bellcontrol Tangle free | C02 | Black delrin with Black delrin knop, side mount, IP66 (contactless hall effect sensor, 0-5V output) | |
| 101630 | Bellcontrol Tangle free | C03 | Stainless Steel Version, side mount, IP66 (contactless hall effect sensor, 0-5V output) tangle free. | |
| 101423 | Bellcontrol Casual – SS | S11 | Stainless Steel Version, side mount, IP66 (contactless hall effect sensor, 0-5V output) | |
| 101424 | Bellcontrol Sport | S12 | Black delrin / sport version, side mount, IP66 (contactless hall effect sensor, 0-5V output) | |
| 101425 | Bellcontrol Sport – SS | S13 | Stainless Steel / Sport version, side mount, IP66 (contactless hall effect sensor, 0-5V output) | |
| | | | Control Master Replacements | |
| 101426 | Bellcontrol | C00 | Black delrin with stainless handle, side mount, IP66 (contactless hall effect sensor, 0-5V output) Special replacement for Control Master casual | |
| 101427 | Bellcontrol | S00 | Black delrin / sport version, side mount, IP66 (contactless hall effect sensor, 0-5V output) Special replacement for Control Master Sport | |



Bellcontrol Throttle

- Water resistant (IP67)
- Electronic Hall-sensor technology 0-5 Volt





Maneuvering in Style ... Top mounting single

| Art no: | Description | Туре | Top Mount | Note |
|---------|-----------------------------|--------|---|------|
| 101428 | Bellcontrol Casual | TC1-01 | Black delrin with Stainless handle, top mount, IP66 (contactless hall effect sensor, 0-5V output) | |
| 101429 | Bellcontrol Casual - SS | TC1-11 | Stainless Steel Version with black delrin base, top mount, IP66 (contactless hall effect sensor, 0-5V output) | |
| 101430 | Bellcontrol Casual-Sport | TC1-12 | Black Delrin / sport version, top mount, IP66 (contactless hall effect sensor, 0-5V output) | |
| 101431 | Bellcontrol Sport - SS | TC1-13 | Stainless Steel / Sport version with black delrin base, top mount, IP66 (contactless hall effect sensor, 0-5V output) | |

Maneuvering in Style ... Top mounting dual



| Art no: | Description | Туре | Top Mount – Dual Control | Note |
|---------|-----------------------------|--------|--|------|
| 101432 | Bellcontrol Casual | TC2-01 | Black Delrin with Stainless handles, dual joystick top mount, IP66 (contactless hall effect sensor, 2x 0-5V output) | |
| 101433 | Bellcontrol Casual - SS | TC2-11 | Stainless Steel Version with black Delrin base, dual joystick top mount, IP66 (contactless hall effect sensor, 2x 0-5V output) | |
| 101434 | Bellcontrol Casual-Sport | TC2-12 | Black Delrin / sport version, dual joystick top mount, IP66 (contactless hall effect sensor, 2x 0-5V output) | |
| 101435 | Bellcontrol Sport – SS | TC2-13 | Stainless Steel / Sport version with black Delrin base, dual joystick top mount, IP66 (contactless hall effect sensor, 2x 0-5V output) | |

Transfluid Control Lever





| Art no: | Description | Туре | Top Mount | Note |
|---------|----------------------------------|--------|--|------|
| | Single station for single engine | TC1-01 | Stainless handle, top mount, IP66 (0-5V output – 4-20 mA – push pull cable) | |
| | Single station for twin engine | TC1-11 | Stainless handle, top mount, IP66 (0-5V output – 4-20 mA – push pull cable) | |
| | Double station for single engine | TC1-12 | Stainless handle, top mount, IP66 (0-5V output – 4-20 mA – push pull cable) | |
| | Double station for twin engine | TC1-13 | Stainless handle, top mount, IP66 (0-5V output – 4-20 mA – push pull cable) | |

Accessories

Propeller shaft

Motor – Propeller Shaft Couplings

| | • | • | |
|---------|--|---|------|
| Art no: | Description | | Note |
| 101219 | Motor - Shaft Clamping Coupler Ø 25 mm | To use in combination with Propeller shaft Ø 25 mm. (produced in Stainless Steel) | |
| 101220 | Motor - Shaft Clamping Coupler Ø 30 mm | To use in combination with Propeller shaft \emptyset 30 mm. (produced in Stainless Steel) | |

Ecoline Propeller Shaft system for electric propulsion*

| Art no: | Description | Up to Max 8 kW Motor Power | Note |
|---------|--------------------|--|------|
| 100427 | Ecoline system 1.5 | Shaft Ø 25 mm. Length 1,5 meter (can be shortened) produced in Stainless Steel 316 Including, special low friction water lubricated shaft bearings | |

[•] Ecoline Shafts systems are supplied excluding Ø 25 mm motor / shaft clamping coupler and propeller,

Battery Chargers

AXIgo & FleXis Battery chargers

The perfect charger for all battery banks.

The AxiGo charger has a special shore power selection switch to adjust for the available current of the shore power connection. There can be chosen between 16, 10 or 6A, this will make sure the battery can always be charged.

The Flexis chargers are fully programmable via USB so every type of Lead and Lithium battery can be fully charged.

- Remote Satus led connections
- Remote Stop charge connection
- Battery room ventilation control



| Art no: | Туре | Batt Voltage | Charge Current | AC Voltage | AC Current | Case | Note |
|---------|----------------|--------------|-------------------|---------------|------------|-------|------|
| 100730 | AXIgo 48E60 | 48V | 60A | 230V | 16/10/6* A | M** | |
| 101624 | Flexis 48D100 | 48V | 100A | 3 x 400V | 10A | FF130 | |
| 101625 | Flexis 48D150 | 48V | 150A | 3 x 400V | 16A | FF130 | |
| 101626 | Flexis 48D200 | 48V | 200A | 3 x 400V | 20A | FF250 | |
| 101145 | Flexis 80E25 | 96V | 25A | 230V | 16A | FF130 | |
| 101514 | Flexis 80E50 | 96V | 50A | 3 x 400V | 10A | FF130 | |
| 101627 | Flexis 80D100 | 96V | 100A | 3 x 400V | 20A | FF250 | |
| 101481 | Flexis 80D150 | 96V | 150A | 3 x 400V | 32A | FF330 | |
| 101628 | Flexis 80D200 | 96V | 200A | 3 x 400V | 40A | FF550 | |
| 101631 | Flexis 144D100 | 144V | 100A | 3 x 400V | 32A | FF250 | |
| 101605 | Flexis 144D150 | 144V | 150A | 3 x 400V | 48A | FF330 | |
| 101505 | Flexis 144D200 | 144V | 200A | 3 x 400V | 64A | FF550 | |

- Adjusted with selection switch, battery charge current will be adjusted accordingly
- · Other models, specifications and prices on request
- IP54 Case possible for Flexis series on request (IP20)

COOLMAX SR MAXIMIZER

Solar MPPT

The COOLMAX SR is a high efficiency, buck only, common positive Maximum Power Point Tracker (MPPT). It is the latest development in the MAXIMIZER range, which was pioneered by AERL in 1985. The COOLMAX SR blends the famously reliable AERL power stage with easy to use digital features such as system performance logging, fully configurable alarms and remote system monitoring and control.

The COOLMAX SR employs a maximum power point tracking strategy which has been proven to be highly robust, resistant to local extremes, and results in power losses of less than 0.5% over the whole operating temperature range of a PV Array.

Some of the device's main features and benefits include:

- Increase PV output by up to 35%
- Super high peak efficiencies > 99%
- Greater power advantage and MPPT response
- Common positive wiring configuration
- Advanced colour touch screen LCD display
- · Modbus and USB communications
- High power density -1kW/I & 1.5kW/kg





| Art no: | Туре | Nominal Batt Voltage | Charge Current | Power | Efficiency | Note |
|---------|------------------|-------------------------|-------------------|-------|------------|------|
| 101490 | Coolmax SR 48/96 | 48-96V | 45A | 4500W | 98,5% | |
| 101491 | Coolmax SR 144 | 144V | 45A | 4500W | 98,5% | |

DC-DC converters

All systems

Features

Isolated Switching Regulator: Output power 300W / 450W max. **Encapsulated IP65** Vibration resistant

Short circuit protection Connector Molex Mini-Fit Sr. 42816 Over temperature protected

Compact design On / Off Key switch input Wide input range **Contact Cooling**



| Art no: | Description | Nominal Batt Voltage | Voltage Out | Power | Note |
|---------|-------------|----------------------|-------------|-------|------|
| 100659 | DC4812300 | 36/48V | 13,8V | 300W | |
| 101632 | DC4824300 | 36/48V | 26V | 300W | |
| 100494 | DC4812450 | 36/48V | 13,8V | 450W | |
| 101633 | DC9612450 | 96V | 13,8V | 450W | |
| 101318 | DC9624450 | 96V | 26V | 450W | |
| 101634 | DC4824450 | 36/48V | 26V | 450W | |
| 101635 | DC14412450 | 144V | 13,8V | 450W | |
| 101636 | DC14424450 | 144V | 26V | 450W | |

Inverter 230Volt

Pure sinwave inverter 3500W

Pure sinewave output provides the ideal power source for modern electronics.

Short-circuit proof robust design that protects itself against AC shorts. Sophisticated circuitry provides protection against overload, short circuit and over temperature. Adjustable under volts detection also protects the battery against excessive discharge.

Auto-start circuitry automatically switches the inverter ON and OFF with applied appliances. The auto-start is an important feature as it maximizes valuable battery capacity. Sensitivity of the auto-start can be easily adjusted to either start small appliances or run continuously.



Ruggedisation

Enhanced inverter protection to withstand high vibration and movement. A must-have for all mobile and marine applications.

RCD Protection

Fit an RCD (Residual Current Device) to the inverter to protect the end users from dangerous appliance faults. An extra level of safety important in mobile applications and emergency services.

Internal Automatic Transfer Switch (optional)

Allows the inverter to be connected to a secondary power source (eg. Generator, Grid); and automatically switch the output between the inverter and secondary power source accordingly.

· Peak Efficiency 94%

| Art no: | Туре | Nominal Batt Voltage | Continuous Power | Surge 5 sec | ½ hr Rating | Note |
|---------|----------|-------------------------|---------------------|-------------|----------------|------|
| 101511 | LS-3596 | 96V | 3500W | 10.000W | 4100W | |
| 101639 | LS-35125 | 144V | 3500W | 3500W | 4100W | |



BowAdjust Control

Universal Proportional Bow Thruster Motor Controller

Bow Adjust Control is a universal Proportional motor controller for every type Bow thruster, it gives you the perfect control of your boat.

Also perfect for any 48V propulsion system since no additional battery bank and charger is needed.

Complete including.: 1x Control panel B01 + cable and connection materials



| Art no: | Descriptie | | P-Max 12V | P-Max 24V | Note |
|---------|--------------------------|---|-----------|-----------|------|
| 100855 | BowAdjust 12/24V 375A | BowAdjust motor controller. In 48V > 12V Out- 12 or 24 Volt 375A | 4,5kW | 9,0kW | |
| 100856 | BowAdjust 12/24V 750A | BowAdjust motor controller. In 48V > 12V Out- 12 or 24 Volt 750A | 9,0kW | 18,0 kW | |

[•] If 2 controllers are ordered (Bow and Stern) a dual control panel can be supplied.





Type: C-20

Each Panel is supplied with 10 meters connection cable

| Art no: | Description | Туре | | Note |
|---------|----------------------------------|------|---|------|
| 101553 | Additional Control Panel | B-01 | Single Control Panel for controlling a bow thruster from an additional location standard version (180 degrees adjustment) | |
| 101554 | Additional Control Panel | B-02 | Single Control Panel for controlling a bow thruster from an additional location finger tip version | |
| 101067 | Additional Dual Control Panel | C-20 | Dual Control panel for controlling a Bow and Stern thruster from a additional location | |
| 101068 | Switch Box Double control | | Automatic Switch Box to switch between the 2 control panels. Including 10 meters connection cables. | |



Type: B-02

Battery LiFePO4

It is based on lithium iron phosphate cells (LiFePO4), a technology that is safe and has the best performance/cost ratio, with integrated BMS to maintain the cells always equalized and efficient. Box is stainless steel IP67.

Long lifespan

• More than 3000 cycles

The lifespan is 3 times longer than traditional batteries, making the cost per cycle lower. Maintenance-free Planned service is avoided, having no need of topping up or periodical checks. The conditions of the battery can be easily verified thanks to integrated diagnosis systems. No gas emissions during charge and discharge, so no special charging rooms are required. They may be charged at any place with maximum safety.

Suited for every application

Having no gas emissions, these batteries are suited also for marine and many industrial applications.

| Art. No.: | Nominal Voltage V dc | Capacity Ah | Energy kWh | Appr. Weight kg |
|------------|-------------------------|----------------|---------------|--------------------|
| KBP0510100 | 51,3 | 100 | 5,1 | 62 |
| KBP0510200 | 51,3 | 200 | 10,2 | 125 |
| KBP0510300 | 51,3 | 300 | 15,3 | 185 |
| KBP5100400 | 51,3 | 400 | 20,5 | 246 |
| KBP5100600 | 51,3 | 600 | 30,7 | 370 |
| KBP0510800 | 51,3 | 800 | 41,0 | 492 |

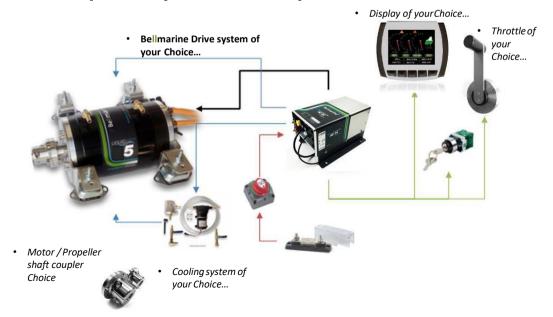
| Art. No.: | Nominal Voltage V dc | Capacity Ah | Energy kWh | Appr. Weight kg |
|------------|-------------------------|----------------|---------------|--------------------|
| KBP0960100 | 96 | 100 | 9,6 | 105 |
| KBP0960200 | 96 | 200 | 19,2 | 215 |
| KBP0960300 | 96 | 300 | 28,8 | 320 |
| KBP0960400 | 96 | 400 | 38,4 | 425 |
| KBP0960600 | 96 | 600 | 57,6 | 635 |
| KBP0960800 | 96 | 800 | 76,8 | 845 |

| Art. No.: | Nominal Voltage V dc | Capacity Ah | Energy kWh | Appr. Weight kg |
|------------|-------------------------|----------------|---------------|---------------------------|
| KBP0063015 | 153,6 | 100 | 15,3 | 155 |
| KBP0063016 | 153,6 | 200 | 30,7 | 310 |
| KBS0063001 | 153,6 | 300 | 46,0 | 460 |
| KBS0063002 | 153,6 | 400 | 61,4 | 615 |
| KBS0063003 | 153,6 | 600 | 92,1 | 920 |
| KBS0063004 | 153,6 | 800 | 122,8 | 1230 |

Example System Air-cooled:



Example System Liquid-cooled:







Electric Boating starts at Bellmarine



