

Bellmarine[®]

powered by Transfluid



TRANSFLUID[®]

industrial & marine

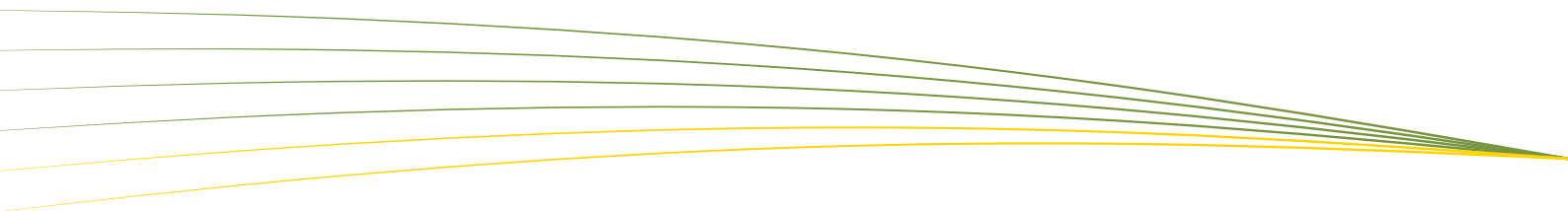
ELECTRIC PROPULSION SYSTEMS



drive with us

Notebook

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- All images are for reference only
- All data can be changed without notice





Introduction



Electric boating starts at Bellmarine.

In the world of electric propulsion systems Bellmarine is the standard. 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; Moisture and salt will take their toll and have effect on the durability of your drive system. Only the best materials are suitable and each have been carefully selected by Bellmarine.

E-motion in propulsion

The Bellmarine systems are developed and produced in Italy and in the Netherlands. With thousands of electric propulsion systems in use Bellmarine has set the standard.

You are assured the highest quality and service. Also the price of a complete system will be a pleasant surprise.

CERTIFICATES

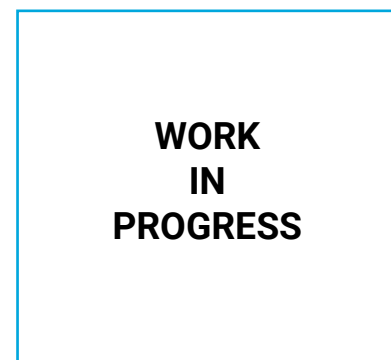
BATTERY SYSTEM



Our battery System successfully passed all the DNV-GL tests including the new 2018 forced thermal runaway and this makes it compliant with Norwegian Maritime Authority (NMA) Propagation Test 1



ELECTRIC MOTOR



APPLICATION N°: A0763150

Master Info

- 1 - All motors are Permanent Magnets AC, high efficiency, IP65
- 2 - Intermittent kW: S3 10% - 10' (1 minute at intermittent power then reduced for 9 minutes power to return to stable temperature)
- 3 - Battery: 48V, 96V and 144V can be of any chemistry and brand; 288V and 384V need to be Transfluid's battery.

BATTERY	max [Vdc]	min [Vdc]
48	61	44
96	115	82
144	169	121
288	346	247
384	462	330

To evaluate the battery characteristics in case of customer's supply please use the following formula giving the max (A) current required by Transfluid's motors:

$$I (A) = \frac{kW \times 1000}{V} \times 2$$

4 - RATINGS:

- Cruising speed: 70% of rated motor rpm
- Light Duty: air cooled motor, up to 200 hours/year, intermittent kW allowed
- Medium Duty: air cooled motor, up to 500 hours/year, only nominal kW allowed
- Medium Duty: liquid cooled motor, up to 1000 hours/year, intermittent kW allowed
- Heavy Duty: liquid cooled motor, up to 3000 hours per year, intermittent kW allowed, max 80% of time at rated rpm and load

- 5 - Separate thrust bearing is recommended above 20 kW

DriveMaster

Air Cooled

Including:

- Motor with mounting brackets and silent blocks
- Motor with integrated thrust bearing
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play



Light & Medium Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV101489A	DriveMaster 2A	180-4	1.5	2	48	1500
BV100854A	DriveMaster 5A	180-8	4	5	48	1500
BV101529A	DriveMaster 7A	180-12	5	7	48	1500
BV101808A	DriveMaster 10A	220-20	8	10	48	1500
BV102008A	DriveMaster 8A	180-12	6	8	96	1500
BV102015A	DriveMaster 15A	220-20	10	15	96	1500
BV101288A	DriveMaster 25A	220-35	20	25	144	1500
BV102035A	DriveMaster 35A	300-50	30	35	144	1500
BV102050A	DriveMaster 50A	300-75	40	50	144	1500

DriveMaster

Liquid Cooled

Including:

- Motor with mounting brackets and silent blocks
- Motor with integrated thrust bearing
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Inlet and outlet liquid connections



Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV101608W	DriveMaster 3W	180-4	2.5	3	48	1500
BV100854W	DriveMaster 7W	180-8	5	7	48	1500
BV100808W	DriveMaster 10W	180-12	8	10	48	1500
BV100810W	DriveMaster 15W	220-20	10	15	48	1500
BV101610W	DriveMaster 20W EVO	220-20 (*)	15	20	48	1500
BV100812W	DriveMaster 20W	220-20	15	20	96	1500
BV101288W	DriveMaster 30W	220-35	25	30	144	1500
BV101642W	DriveMaster 45W	300-50	35	45	144	1500
BV101580W	DriveMaster 55W	300-75	45	55	144	1500

(*) Special



• Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller

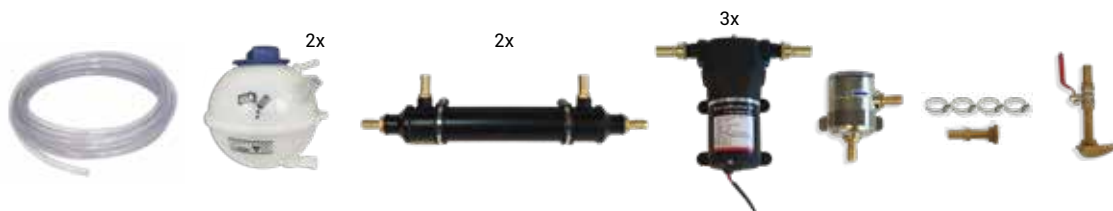
ModularMaster

Liquid Cooled

with SPD11 Split Power Drive

Including:

- True redundancy in case of one motor failure
- Aluminum made split power drive
- Mounting brackets and silent blocks
- Live PTO available
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Inlet and outlet liquid connections
- Closed loop liquid cooling size XL mounted aboard



Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV201450W	ModularMaster 40W EVO	2x220-20 (*)	30	40	48	1500
BV101485W	ModularMaster 40W	2x220-20	30	40	96	1500
BV101480W	ModularMaster 60W	2X220-35	50	60	144	1500

(*) Special



• Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller

TorqueMaster

Air Cooled

reduction ratio $i = 1.59 - 2.01 - 2.41 - 2.87 - 3.35 - 3.97 - 5.01$
Propeller rpm = motor rpm/i

Including:

- Motor with mounting brackets and silent blocks
- Drop Box with integrated thrust bearing - 225 mm offset
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Dropbox aluminum made - no cooling needed - low noise and low vibration
- Oil temperature sensor
- Elastic coupling between motor and Dropbox
- DIN120 output (SAE 1410 upon request) - "U" drive possible



PRODUCT CODE	DESCRIPTION	MOTOR SIZE	Light & Medium Duty		BATTERY Vdc	MOTOR rpm
			NOMINAL kW	INTERMITTENT kW		
BV101716A ...	TorqueMaster 20A	220-20	15	20	96	3000
BV102025A ...	TorqueMaster 25A	220-20	20	25	144	3000

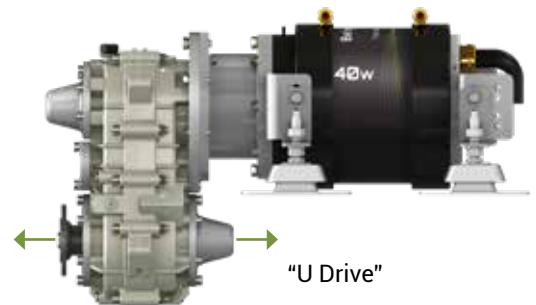
(...) According to reduction ratio

Liquid Cooled

reduction ratio $i = 1.59 - 2.01 - 2.41 - 2.87 - 3.35 - 3.97 - 5.01$
Propeller rpm = motor rpm/i

Including:

- As above
- Inlet and outlet liquid connections



PRODUCT CODE	DESCRIPTION	MOTOR SIZE	Medium & Heavy Duty		BATTERY Vdc	MOTOR rpm
			NOMINAL kW	INTERMITTENT kW		
BV101740W ...	TorqueMaster 20W EVO (*)	220-20 (*)	15	20	48	1500
BV101716W ...	TorqueMaster 25W	220-20	20	25	96	3000
BV101717W ...	TorqueMaster 35W	220-20	30	35	144	3000
BV102045W ...	TorqueMaster 45W	220-35	35	45	288	3000
BV102065W ...	TorqueMaster 65W	300-50	50	65	288	3000
BV102100W ...	TorqueMaster 100W	300-75	75	100	288	3000
BV102130W ...	TorqueMaster 130W	300-75	100	130	384	3000

(...) According to reduction ratio

(*) Special

• Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller

ShaftMaster

Liquid Cooled

Reduction ratio $i = 1.40 - 1.88 - 2.25 - 2.75$

Propeller rpm = motor rpm/i

Including:

- Motor with mounting brackets and silent blocks
- Live Pto available
- Marine gear with integrated thrust bearing (up to 130 kW)
- Oil temperature sensor
- Output offset 103 mm
- Elastic coupling between motor and transmission
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Inlet and outlet liquid connections
- Throttle lever (TFC)
- Self priming pump (mechanical) mounted aboard
- Oil-water cooler mounted aboard
- Closed loop liquid cooling size XL mounted aboard



Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV230025W ...	ShaftMaster 25W	220-20	20	25	96	3000
BV230035W ...	ShaftMaster 35W	220-20	30	35	144	3000
BV230045W ...	ShaftMaster 45W	220-35	35	45	288	3000
BV230065W ...	ShaftMaster 65W	300-50	50	65	288	3000
BV230100W ...	ShaftMaster 100W	300-75	75	100	288	3000
BV230130W ...	ShaftMaster 130W	300-75	100	130	384	3000

(•••) According to reduction ratio



- Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller

SternMaster

Air Cooled

Reduction ratio $i=2$
Propeller rpm = motor rpm/i

Including:

- Motor with mounting brackets and silent blocks
- Motor with integrated thrust bearing
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Throttle lever (TFC)
- Elastic coupling between motor and transmission
- Stern drive Mercury "Alpha One"

(Propeller not included)



Light & Medium Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	Light & Medium Duty		BATTERY Vdc	MOTOR rpm
			NOMINAL kW	INTERMITTENT kW		
BV330020A	SternMaster 20A	220-20	15	20	96	3000
BV330025A	SternMaster 25A	220-20	20	25	144	3000

Liquid Cooled

Reduction ratio $i=2$
Propeller rpm = motor rpm/i

Including:

- As above
- Inlet and outlet liquid connections



Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	Medium & Heavy Duty		BATTERY Vdc	MOTOR rpm
			NOMINAL kW	INTERMITTENT kW		
BV330025W	SternMaster 25W	220-20	20	25	96	3000
BV330035W	SternMaster 35W	220-20	30	35	144	3000
BV330045W	SternMaster 45W	220-35	35	45	288	3000
BV330065W	SternMaster 65W	300-50	50	65	288	3000
BV330097W	SternMaster 97W	300-75	75	97	288	3000



• Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller

SailMaster

Air Cooled

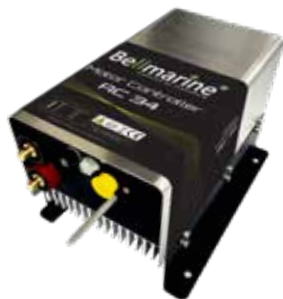
Reduction ratio $i=2$

Propeller rpm = motor rpm/i

Including:

- Motor with mounting flange
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Leg by Yanmar

(Propeller not included)



Light & Medium Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV101492A	SailMaster 2A	180-4	1.5	2	48	1500
BV101611A	SailMaster 5A	180-8	4	5	48	1500
BV101901A	SailMaster 7A	180-12	5	7	48	1500
BV101922A	SailMaster 10A	220-20	8	10	48	1500
BV101933A	SailMaster 8A	180-12	6	8	96	1500
BV101955A	SailMaster 12A	180-12	8	12	96	3000
BV101944A	SailMaster 15A	220-20	10	15	96	1500
BV101476A	SailMaster 20A	220-20	15	20	96	3000



• Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller

SailMaster

Liquid Cooled

Reduction ratio $i = 2$

Propeller rpm = motor rpm/i

Including:

- Motor with mounting flange
- Vector control inverter IP65
- NMEA2000 compatible (Apply Transfluid)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Inlet and outlet liquid connections
- Several cooling kits available
- Leg by Yanmar

(Propeller not included)



Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV100881W	SailMaster 3W	180-4	2.5	3	48	1500
BV100882W	SailMaster 7W	180-8	5	7	48	1500
BV101474W	SailMaster 10W	180-12	8	10	48	1500
BV101475W	SailMaster 15W	220-20	10	15	48	1500
BV101955W	SailMaster 18W	180-12	12	18	96	3000
BV101476W	SailMaster 25W	220-20	20	25	96	3000



• Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller

OutboardMaster

Air Cooled

Reduction ratio $i=2$
 Propeller rpm = motor rpm/i

Including:

- Motor with mounting brackets
 - Vector control inverter IP65
 - NMEA2000 compatible (Apply Transfluid)
 - Anti ventilation / cavitation plate (incl. anode)
 - Main switch and main fuse
 - DC-DC converter 12 Vdc
 - 5m cable for display, lever, key
 - Quick install / easy connect / plug and play
 - Leg by Yanmar
- (Propeller not included)



Light & Medium Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV101966A	OutboardMaster 7A	180-12	5	7	48	1500
BV101978A	OutboardMaster 10A	220-20	8	10	48	1500
BV101977A	OutboardMaster 8A	180-12	6	8	96	1500
BV101500A	OutboardMaster 12A	180-12	8	12	96	3000
BV101988A	OutboardMaster 15A	220-20	10	15	96	1500
BV101999A	OutboardMaster 20A	220-20	15	20	96	3000

Liquid Cooled

Reduction ratio $i=2$
 Propeller rpm = motor rpm/i

Including:

- As above
- Inlet and outlet liquid connectors

Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
BV101966W	OutboardMaster 10W	180-12	8	10	48	1500
BV101977W	OutboardMaster 15W	220-20	10	15	48	1500
BV101500W	OutboardMaster 18W	180-12	12	18	96	3000
BV101988W	OutboardMaster 25W	220-20	20	25	96	3000



• Complete the scope of supply by adding control throttle, display, cooling kit, coupling, shaft with propeller



Accessories

Propeller shaft assembly

Motor - Propeller Shaft Couplings

PRODUCT CODE	DESCRIPTION	
101219A ...	Motor - shaft clamping Ø 25 mm bore	To be used in combination with propeller shaft Ø 25 mm. (produced in Stainless Steel)
101220A ...	Motor - shaft clamping Ø 30 mm bore	To be used in combination with propeller shaft Ø 30 mm. (produced in Stainless Steel)
GAB3M20 ...	Motor - shaft B3M20 coupling	To be used in combination with propeller shaft Ø 35 mm or Ø 40 mm with rubber blocks (needs separate thrust bearing)

(•••) According to machined bores



Propeller Shaft

by ELICHE RADICE

PRODUCT CODE	DESCRIPTION	Ø DIA mm	MAX TORQUE Nm	LENGHT mm	CAN BE SHORTENED
100427	Ecoline 25	25 *	50	1500	
BV104429	Proline 25	25	70	1500	
BV104431	Proline 30	30	120	1700	
BV104433	Proline 35	35	190	2000	
BV104435	Proline 40	40	280	2000	

(*) Without bracket - SS316 stern tube

Including:

- Stern tube (Aluminum)
- Shaft (SS316)
- Nose with zinc (anode)
- Nut and washer (nose)
- Water lubricated axial seal (rubber)
- Bracket to be resined (Bronze)

$$Nm = \frac{kW}{rpm} \times 9550$$

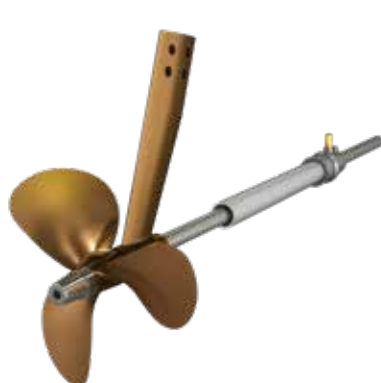
Propeller (three blades) FPP

by ELICHE RADICE

- Material: Bronze Cu2 - Dynamic balancing

PRODUCT CODE	Ø DIA inch (mm)	Ø SHAFT mm	PITCH inch
BV105001 ...	12 (305)	25	from 8 to 11
BV105003 ...	13 (330)	30	8 - 13
BV105005 ...	14 (355)	30	8 - 14
BV105007 ...	15 (380)	35	8 - 14
BV105009 ...	16 (405)	35	9 - 16
BV105011 ...	17 (430)	35	10 - 16
BV105013 ...	18 (455)	40	10 - 16

(•••) According to pitch

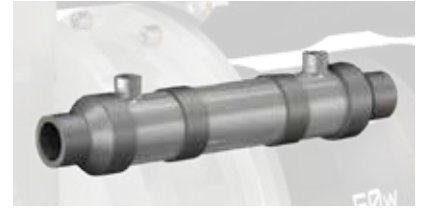


Accessories

Liquid Cooling

Water cooling accessories for all Systems.

Depending on the location of sailing there are two types of water cooling for motor and controller. The controller and motor are not salt water resistant, so when it you will be sailing in salt water, you must choose for the closed loop cooling system instead of cooling with external water.



Fresh water cooling

PRODUCT CODE	DESCRIPTION	
100798A	Self priming pump	Includes: self priming pump, 2 x hull fittings, ball valve, bronze water strainer, 5 m hose, hose barbs and SS hose clamps.



Closed loop cooling

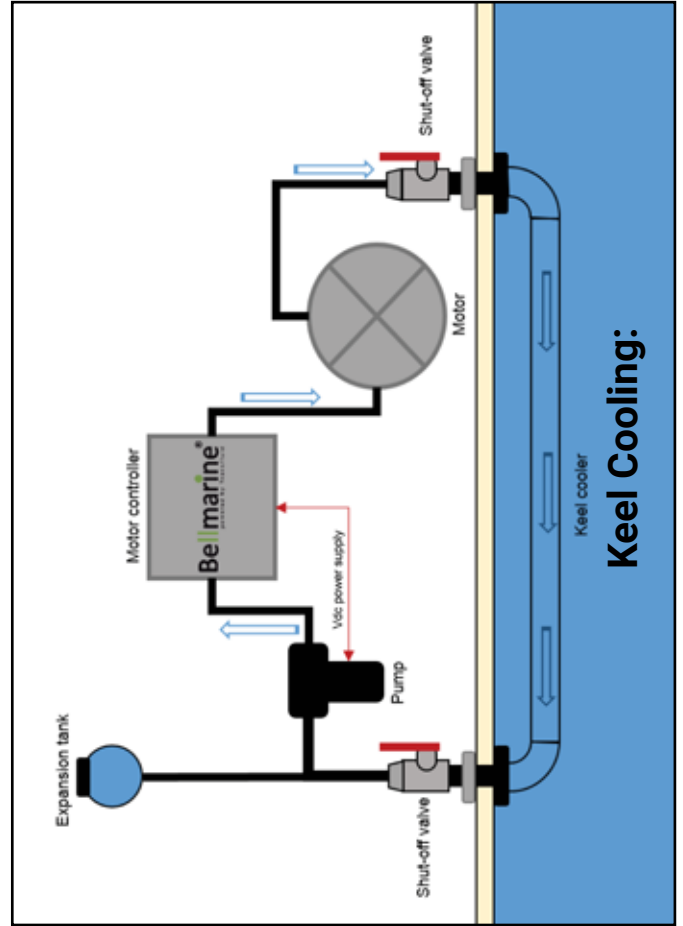
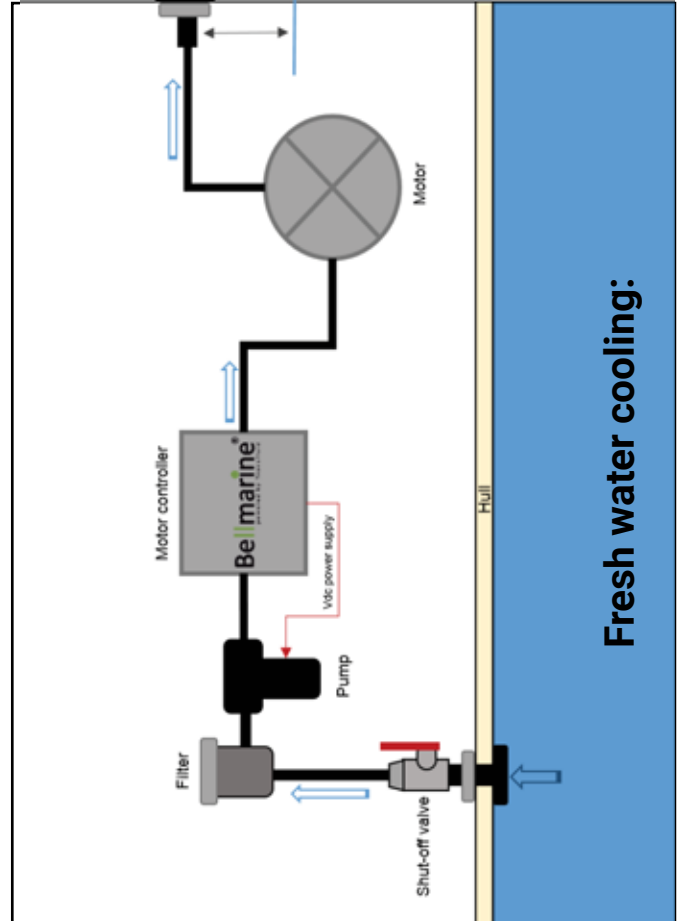
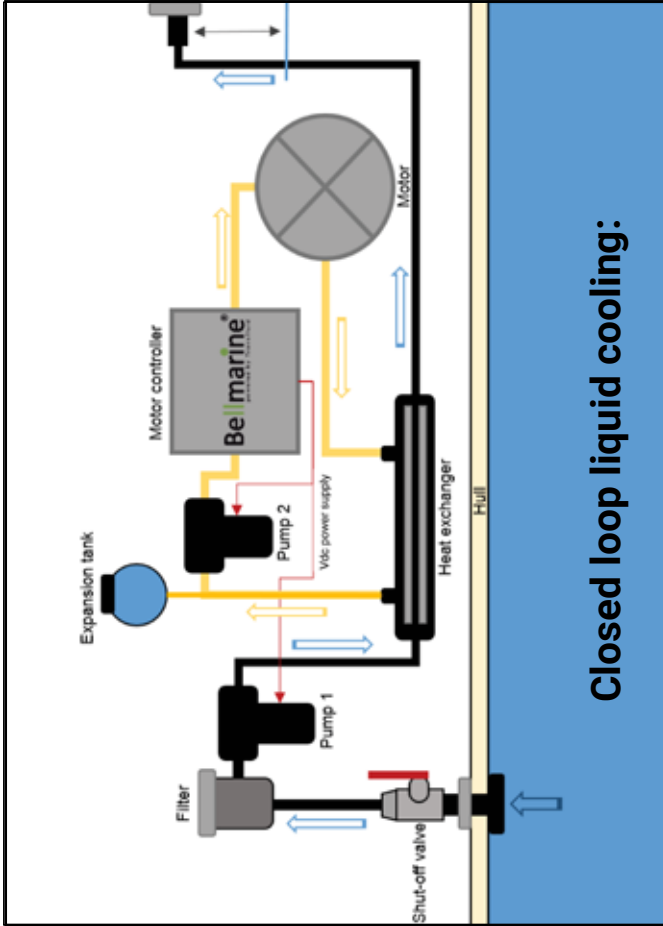
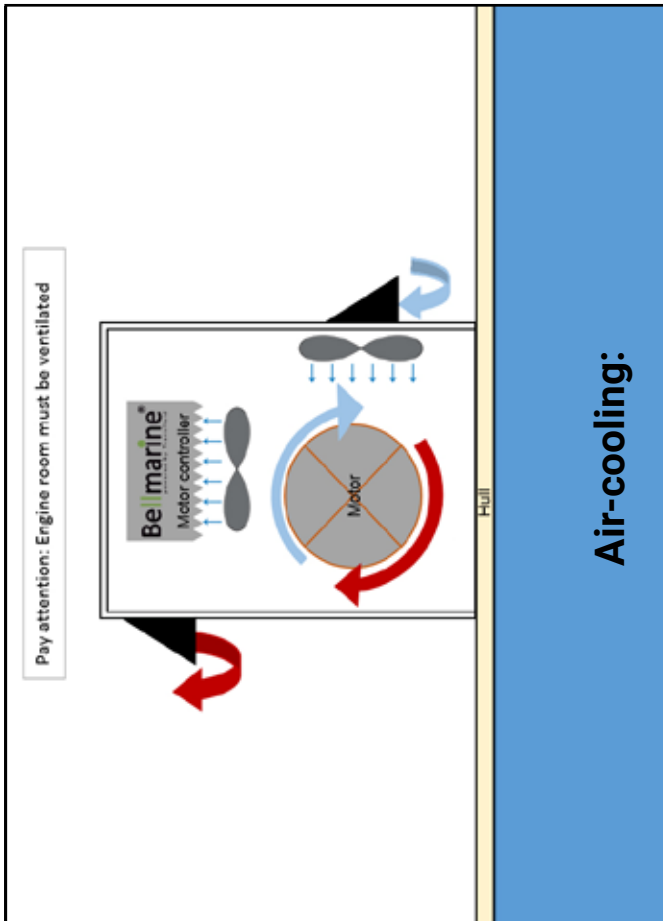
PRODUCT CODE	DESCRIPTION	SIZE	POWER ADVISE
101446	Cooling System with install connections kit	S	Up to 5 kW
101447		M	5-10 kW
101448		L	15-20 kW
101449		XL	20+ kW



Keel cooling

PRODUCT CODE	DESCRIPTION	
101531A	Cooling System with install connections kit	Includes: Circulation pump, 5 m hose, expansion vessel, 2x hull fittings, 2x ball valves, and SS brackets, hose barbs and SS hose clamps.





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.

With the standard integrated Wi-Fi function, you will always have an extra screen on your tablet or smartphone.



Raymarine display – Axiom 7 & 9

Our system is supplied complete with special motor controller software and adapter cable (apply Transfluid)

The display of your choice is supplied with the Actisense NMEA 2000® backbone in a single device and is pre assembled with the Bellmarine monitoring and control cable set.

- **Every display / cable set is supplied with the Actisense and contact key**
The standard length of the cable set = 5 meter.
- Longer cables on request, see page 15

PRODUCT CODE	MODEL	DESCRIPTION
101516	Axiom 7 Bellmarine	7" Multi functional display incl. integrated Wi-Fi incl. A2K-SBN4, cable set
101517	Axiom 9 Bellmarine	9" Multi functional display incl. integrated Wi-Fi incl. A2K-SBN4, cable set
101583	Flush mount Cover-7	Axiom 7 sun cover
101623	Flush mount Cover-9	Axiom 9 sun cover





Accessories

Display

For every System a display and cable set is highly recommended for monitoring and control.

- With cable adapter



E2



TF1



E7

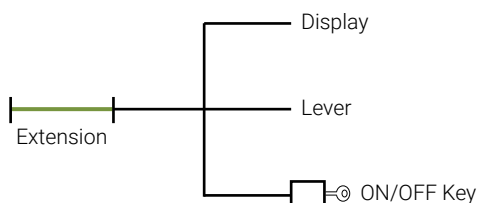


TF2

PRODUCT CODE	DESCRIPTION	
100831	E2-Mini LCD	Simple round display with battery status indication and motor rpm Incl. cable set for monitoring and control, Ø51mm
100795	E7- Full color	Color 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. For any type of battery. Incl. cable set for monitoring and control
100796	TF1 - Full color	Color display with battery status indication, motor power, motor rpm, motor temperature, controller temperature, eco meter, battery amps, battery voltage and mode selection. For any type of battery. Incl. cable set for monitoring and control
102796	TF2 - Full color	Color display for twin screw system with battery status indication, motor power, motor rpm, motor temperature, controller temperature, eco meter, battery amps, battery voltage and mode selection. For any type of battery. Incl. cable set for monitoring and control
101520	Extension cable length 5m	Total length 10 m
101581	Extension cable length 10m	Total length 15 m
101521	Extension cable length 15m	Total length 20 m



Motor controller



Accessories

ACUITY - Battery condition monitoring system

All our propulsion Systems can be enhanced with a “state of art” battery condition monitoring system.

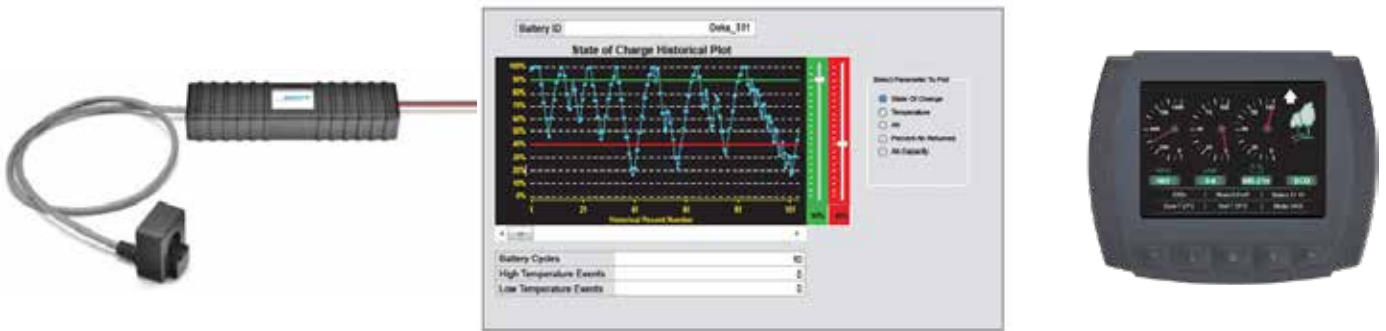
ACUITY constantly measures and logs the precise condition of your battery. This detailed information will be displayed on your display, including the multifunctional displays from Raymarine.

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.

Acuity requires special motor controller software (apply Transfluid)

Including adapter cable



Acuity accurate battery management

PRODUCT CODE	MODEL	
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 %

Regeneration function

Software for Drivemaster Systems is ideal for recharging your batteries during sailing.

PRODUCT CODE	DESCRIPTION
101640	Regeneration / during sailing Includes custom cable set and 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 program station.

Accessories

Bellcontrol Throttle

- Water resistant (IP67)
- Electronic hall-sensor technology 0-5 Volt.
- With adapter cable
- Double control station available upon request

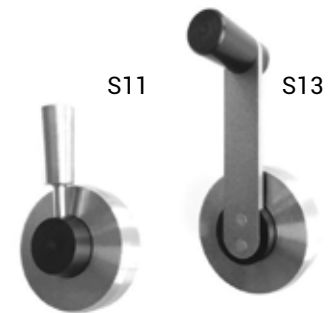
Top mounting single

P. CODE	DESCRIPTION	TYPE	TOP MOUNT
101429	Bellcontrol Casual - SS	TC1-11	Stainless Steel version with black delrin base, top mount, IP67 (contactless hall effect sensor, 0-5V output)
101431	Bellcontrol Sport - SS	TC1-13	Stainless Steel / Sport version with black delrin base, top mount, IP67 (contactless hall effect sensor, 0-5V output)



Side mounting

P. CODE	DESCRIPTION	TYPE	SIDE MOUNT
101423	Bellcontrol Casual - SS	S11	Stainless Steel version, side mount, IP67 (contactless hall effect sensor, 0-5V output)
101425	Bellcontrol Sport - SS	S13	Stainless Steel / sport version, side mount, IP67 (contactless hall effect sensor, 0-5V output)



Top mounting dual

P. CODE	DESCRIPTION	TYPE	TOP MOUNT - DUAL CONTROL
101433	Bellcontrol Casual - SS	TC2-11	Stainless Steel version with black delrin base, dual joystick top mount, IP67 (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, IP67 (contactless hall effect sensor, 2x 0-5V output)



TFcontrol Throttle

- Water resistant (IP67)
- With adapter cable
- Double control station available upon request

P. CODE	DESCRIPTION	TYPE	TOP MOUNT
NE2195AQ	Single station for single engine (Including 5mt cable)	TFC1-11	Stainless handle, top mount, IP67 (0-5V output)
NE2195AR	Single station for twin engine (Including 5mt cable)	TFC2-11	Stainless handle, top mount, IP67 (0-5V output)



Accessories

Battery charger

AXigo & Flexis Battery charger

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. Selection can be 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 status led connections
- Remote stop charge connection
- Battery room ventilation control
- CAN bus communication



PRODUCT CODE	TYPE	BATTERY VOLTAGE Vdc	CHARGE CURRENT A	AC VOLTAGE V	AC CURRENT A	FRAME
100730	AXigo 48E60	48	60	230	16/10/6*	M**
101624	Flexis 48D100	48	100	3 x 400	10	FF130
101626	Flexis 48D200	48	200	3 x 400	20	FF250
101145	Flexis 80E25	96	25	230	16	FF130
101514	Flexis 80E50	96	50	3 x 400	10	FF130
101628	Flexis 80D200	96	200	3 x 400	40	FF550
101605	Flexis 144D150	144	150	3 x 400	48	FF330
101505	Flexis 144D200	144	200	3 x 400	64	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)
- Other sizes available

TF LiFePO4 battery charger

- Battery state of charge readable from display (only TF battery)
- End of charge led
- Air cooled



PRODUCT CODE	TYPE	BATTERY VOLTAGE Vdc	CHARGE CURRENT A	AC VOLTAGE V	AC CURRENT A	MAX POWER kW
NE2194AG	DC230483K	48	40	230	22	3
NE2194AA	DC230963K	96	25	230	20	3
NE2194AB	DC115963K	96	28	115	29	3
NE2194AR	DC2301443K	144	15	230	22	3
NE2194AD	DC4002889K	288	25	400	18	9
NE2194AH	DC40028818K	288	50	400	36	18
NE2194AM	DC400388410K	384	40	400	28	10



Accessories

Solar panel

by **SOLBIAN**

Solbian solar panels SP and SX, with monocrystalline silicon cells capable to convert over 24% of sun light into electricity. Flexible, powerful and robust, they are recommended where maximum reliability is required. Aesthetically appealing, they are suitable for all situations in marine applications.



"L"



all types flexible



"Q"

PRODUCT CODE	TYPE	LENGHT mm	WIDTH mm	THICK mm	WEIGHT kg	POWER W
BVTE3218AA	SP 118 L	1236	546	2	1.6	118
BVTE3218AB	SP 118 Q	855	800	2	1.6	118
BVTE3218AC	SX 160 L	1523	683	2	2.4	160
BVTE3218AD	SX 160 Q	1046	996	2	2.4	160
BVTE3218AE	SX 216	1364	996	2	3	216

Solar charger

by **SOLBIAN**

Solar MPPT charger regulator (Boost)

- One for each panel



PRODUCT CODE	INPUT VOLTAGE V	BATTERY VOLTAGE V	MAX INPUT A	η %	OPER. TEMP. °C
BVTE3218XY	from 20 to 40	from 48 to 144	20	98	from -20 to +40

Solar MPPT charger regulator (step down)

by **oerl**

- For multiple panels installation

PRODUCT CODE	TYPE	BATTERY VOLTAGE V	CHARGE CURRENT A	POWER W	η %
101491	Coolmax SRX 96-144	96-144	45	4500	98.5

Accessories

Inverter 230 Volt AC

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.

Some of main features and benefits include:

- 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%**



PRODUCT CODE	TYPE	BATTERY VOLTAGE V	CONT. POWER W	SURGE 5 sec W
102003	Mastervolt Combi	48	3500	7000
101511	LS-3596	96	3500	10000
101639	LS-35125	144	3500	3500

DC-DC converter

- Isolated switching regulator:
- Output power 450W max.
- Encapsulated IP65 (LV) - IP20 (HV)
- Vibration resistant
- Short circuit protection
- Connector Molex Mini-Fit Sr. 42816 over temperature protected (LV)
- Compact design
- On / Off Key switch input
- Wide input range
- Contact cooling (LV)



PRODUCT CODE	TYPE	BATTERY VOLTAGE V	OUTPUT VOLTAGE V	POWER W
LOW VOLTAGE (LV)				
100494	DC4812450	36/48	13.8	450
101634	DC4824450	36/48	26	450
101633	DC9612450	96	13.8	450
101318	DC9624450	96	26	450
101635	DC14412450	144	13.8	450
101636	DC14424450	144	26	450
HIGH VOLTAGE (HV)				
NE2194AL	DC300242K	288	26	2000
NE2194AN	DC800121K	288/384	13.8	1200
NE2194AO	DC800243K	288/384	26	2800

Accessories

Bow Adjust Control

Universal Proportional Bow Thruster Motor Controller

Bow Adjust Control is a universal proportional motor controller for every type of 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 required.

Complete including.:

1x Control panel B02 + cable and connection materials

PRODUCT CODE	DESCRIPTION		P-Max 12V	P-Max 24V
100855	BowAdjust 12/24V 375A	BowAdjust motor controller. In 48V > 12V Out- 12 or 24 Volt 375A	4.5 kW	9.0 kW
100856	BowAdjust 12/24V 750A	BowAdjust motor controller. In 48V > 12V Out- 12 or 24 Volt 750A	9.0 kW	18.0 kW

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



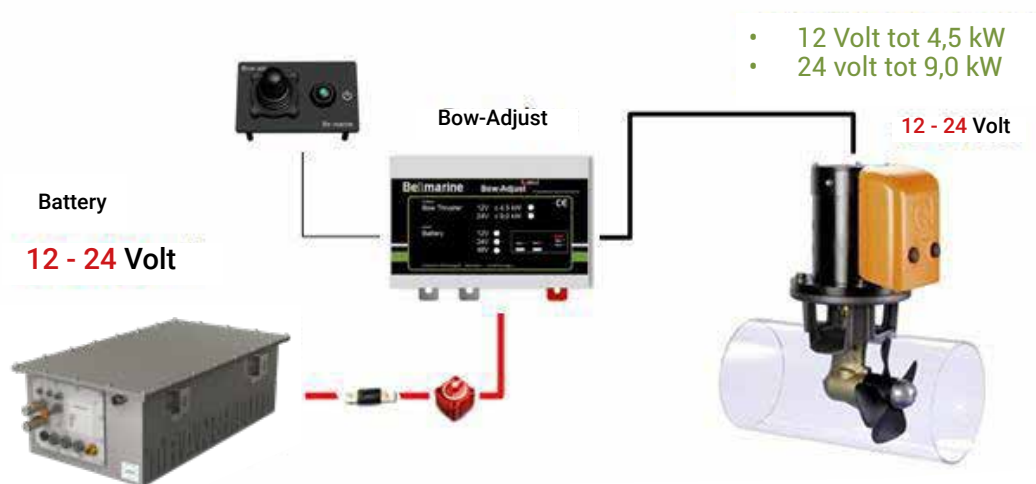
Type: B-02



Additional Control Panels

• Each panel is supplied with 10 meters connection cable

PRODUCT CODE	DESCRIPTION	TYPE	
101554	Additional control panel	B-02	Single control panel for controlling a bow thruster from an additional location finger tip version
101068	Switch box double control		Automatic switch box to switch between the 2 control panels. Including 10 meters connection cables.



Accessories

Battery LiFePO4

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 IP65.

Long lifespan

- More than 4,000 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.

Apply Transfluid-Bellmarine for CAN-bus wires kit; 2m, 5m, 10m, 15m, 20m. (for battery and battery charger)

General Specifications

Capacity Ah	Contin. discharge A	Pulse discharge A	Continuous charge A	Pulse charge A	Operating Temperature °C	Box Material	Protection Class
100	100	200	50	100	0/60 (-20/60 optional)	SS316	IP65
200	200	400	100	200			
300	300	600	150	300			
400	400	800	200	400			
600	600	1200	300	600			
800	800	1600	400	800			

48V

Energy kWh	Architecture	Dimension Single Box *	Number Of Modules	Total Weight
10.3	Single Module	620x677 h352 mm	1	130 kg
20.5	2P	620x677 h352 mm	2 + MCR	267 kg
30.8	3P	620x677 h352 mm	3 + MCR	397 kg
41.0	4P	620x677 h352 mm	4 + MCR	527 kg

96V

Energy kWh	Architecture	Dimension Single Box *	Number Of Modules	Total Weight
9.6	Single Element	506x876 h293 mm	1	130 kg
19.2	Single Element	619x955 h352 mm	1	230 kg
28.8	3P	506x876 h293 mm	3 + MCR	394 kg
38.4	2P	619x955 h352 mm	2 + MCR	467 kg
57.6	3P	619x955 h352 mm	3 + MCR	697 kg
76.8	4P	619x955 h352 mm	4 + MCR	927 kg

144V

Energy kWh	Architecture	Dimension Single Box *	Number Of Modules	Total Weight
30.8	3S	620x677 h352 mm	3	390 kg
61.4	3S - 2P	620x677 h352 mm	6 + MCR	787 kg
92.2	3S - 3P	620x677 h352 mm	9 + MCR	1177 kg
122.9	3S - 4P	620x677 h352 mm	12 +MCR	1567 kg



MCR dimensions: 300x350xh160 mm, weight: 7 kg

* Indicative dimensions. Ask for official drawing

- In case of Transfluid batteries choice, it is mandatory to install the control levers TFC and display TF1
- For 288 V and 384 V battery pack, contact Transfluid (with DNV-GL & NMA type approval)



System shopping list:

Propulsion system:

- DriveMaster
- TorqueMaster
ratio.....
- ModularMaster
- SailMaster
- SternMaster
- ShaftMaster
ratio.....
- OutboardMaster

PRODUCT
CODE

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Accessories:

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Electric Boating starts at Bellmarine



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industrial & marine

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