





ELECTRIC PROPULSION SYSTEMS



Intro



REAL PROPERTY.



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

Batteries



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





All Bellmarine
Systems are
compliant with
the European
Standard lying
down Technical
Requirements for
Inland Navigation
vessels
(ES-TRIN)



Electric Motors & Motor Controller







Index

Product	Page:
Certificates	2
Reference	5
Master Info	6
DriveMaster	6
ModularMaster	8
TorqueMaster	9
ShaftMaster	10
SternMaster	11
SailMaster	12
OutboardMaster	14
Propeller shaft assembly	15
Cooling system	16
Cooling system scheme	17
Multifunctional display	18
Display	19
Acuity battery monitoring system	20
Throttle	21
Battery charger	22
Solar panel	23
Solar charger	23
Inverter 230/400 Volt AC	24
DC-DC Converter	24
Bow Adjust control	25
Lithium battery	26
Hybrid catalogue	27







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

Reference















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
- 6 For Torque calculation use the formula: $T (Nm) = \frac{kW}{rpm} \times 9550$

DriveMaster

Permanent magnet motors for installation on shaft lines; available with air or liquid cooling. Maximum efficiency, silent and compact solution. Regeneration via trailing propeller possible.

Air Cooled

Including:

- Motor with mounting brackets and silent blocks
- Motor with integrated thrust bearing
- Vector control inverter IP65
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m cable for display, lever, key
- Quick install / easy connect / plug and play

Optional:

- NMEA2000 compatible (upon request)
- Regeneration kit



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
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Inlet and outlet liquid connections

Optional:

- NMEA2000 compatible (upon request)
- DP280 ratio i= 1.59 2.01 2.41 2.87 3.35 3.97 5.01
- Regeneration kit





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

Pair of permanent magnet motors, liquid-cooled and assembled parallel for high power with low voltage.

Ideal for anyone requiring system redundancy with flexible installation and compactness.

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
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Inlet and outlet liquid connections
- Closed loop liquid cooling

Optional:

- NMEA2000 compatible (upon request)
- DP280 i= 1.59 2.01 2.41 2.87 3.35 3.97 5.01







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

Permanent magnet motors with a mechanical reducer in various gear ratios; available with air or liquid cooling. A compact solution designed to couple to any propeller.

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
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m 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

Optional:

- NMEA2000 compatible (upon request)
- Regeneration kit



Light & Medium Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
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
- For 288/384V systems Throttle lever TFC

"U Drive"

9

Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
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, shaft with propeller

ShaftMaster

Permanent magnet motors with mechanical marine gear with various gears available for every need; liquid-cooled. Solution designed for commercial applications with a high number of reversals, PTO up to 3000rpm.

Liquid Cooled

Reduction ratio i= 1.40 - 1.88 - 2.25 - 2.75

Propeller rpm = motor rpm/i

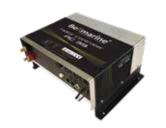
Including:

- · 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
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m 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

Optional:

- NMEA2000 compatible (upon request)
- DP280 ratio i= 1.59 2.01 2.41 2.87 3.35 3.97 5.01









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, shaft with propeller



SternMaster

Permanent magnet motors with steerable and trimmable Stern Drive transmission; available with air or liquid cooling.

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
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Throttle lever with mechanical actuator (TFC)
- Elastic coupling between motor and transmission
- Trim kit

Optional:

NMEA2000 compatible (upon request)



Light & Medium Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
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

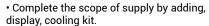




Medium & Heavy Duty

PRODUCT CODE	DESCRIPTION	MOTOR SIZE	NOMINAL kW	INTERMITTENT kW	BATTERY Vdc	MOTOR rpm
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









SailMaster

Permanent magnet motors with Sail Drive transmission; available with air or liquid cooling. Ideal for sail boats with regeneration via trailing propeller.

Air Cooled

Reduction ratio i= 2

Propeller rpm = motor rpm/i

Including:

- Motor with mounting flange
- Vector control inverter IP65
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Leg SD25 by Yanmar

Optional:

- NMEA2000 compatible (upon request)
- Regeneration kit





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,...



SailMaster

Liquid Cooled

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

Including:

- Motor with mounting flange
- Vector control inverter IP65
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Inlet and outlet liquid connections
- Leg SD25 by Yanmar

Optional:

- NMEA2000 compatible (upon request)
- Regeneration kit





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.

OutboardMaster

Permanent magnet motors in the Outboard version; available with air or liquid cooling. Long-lasting outboard designed for work boats or for frequent use. Air or liquid cooled.

Air Cooled

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

Including:

- Motor with mounting brackets
- Vector control inverter IP65
- Anti ventilation / cavitation plate (incl. anode)
- Main switch and main fuse
- DC-DC converter 12 Vdc
- 1,5m cable for display, lever, key
- Quick install / easy connect / plug and play
- Leg SD25 by Yanmar

Optional:

• NMEA2000 compatible (upon request)



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.

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

(•••) According to machined bores





Propeller Shaft

PRODUCT CODE	DESCRIPTION	Ø DIA	MAX TORQUE		IGHT _{nm}
100427	Ecoline 25	25 *	50	1500	0
BV104429	Proline 25	25	70	1500	BE ENEC
BV104431	Proline 30	30	120	1700	AN E
BV104433	Proline 35	35	190	2000	CAN
BV104435	Proline 40	40	280	2000	0,

(*) Without bracket - SS316 stern tube

Including:

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

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

Propeller (three blades) FPP

• 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





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 Fresh water cooling kit

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		Includes: circulation pump, self priming pump,	S	Up to 20 kW
101447	Cooling System with install connections kit	heat exchanger, 2x hull fittings, ball valve, bronze water strainer, 5 m hose, expansion	М	20 to 55 kW
101448	motan connections int	vessel, hose barbs and SS hose clamps.	L	55+ kW



Keel cooling

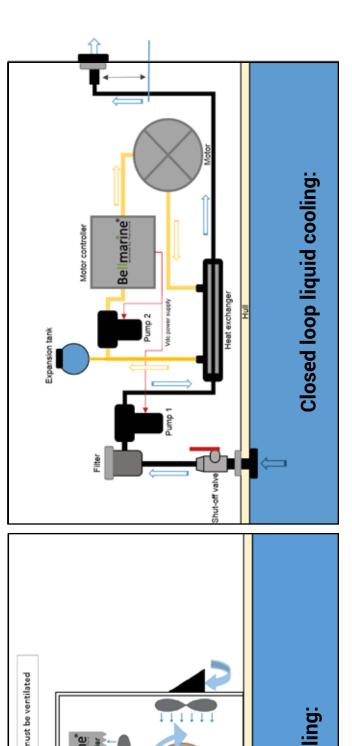
PRODUCT CODE DESCRIPTION

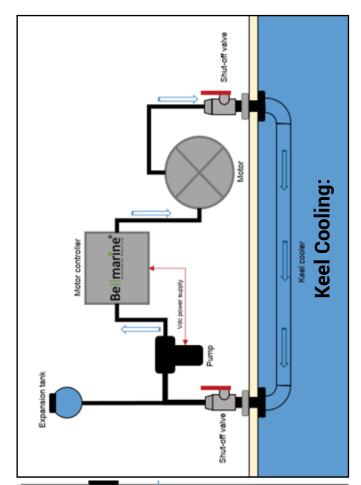
101531A Cooling System with install connections kit

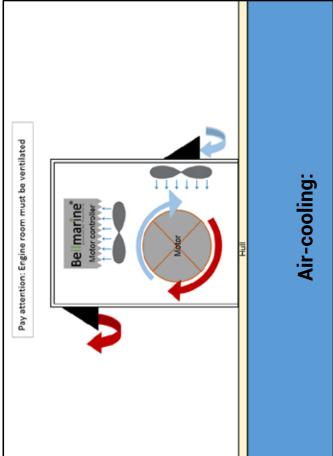
Includes: Circulation pump, 5 m hose, expansion vessel, 2x hull fittings, 2x ball valves, and SS brackets, hose barbs and SS hose clamps.

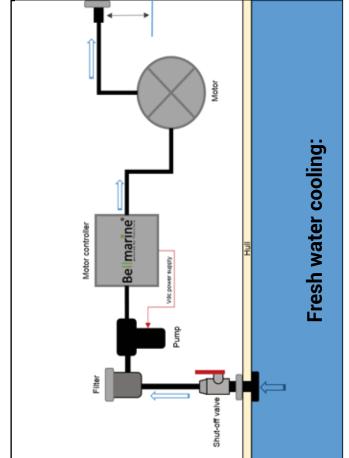












Bellmarine MFD with Axiom+

by **Raymarine**

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 & 12

Our system is supplied complete with special motor controller software and adapter cable installed

Your choice is supplied with the Actisense NMEA 2000® backbone in a single device and is pre assembled with the Bellmarine custom page.

- Every display / cable set is supplied with the Actisense NMEA2000 backbone and 2m cable
 The standard length of the cable set = 5 meter.
- Adding the 'NMEA2000 configuration kit' for visualizing all system features see on the option kits

PRODUCT CODE	MODEL	DESCRIPTION
BV101516A	Bellmarine MFD Axiom+ 7	7" Multi functional display incl. integrated Wi-Fi incl. A2K-SBN4, cable set
BV101517A	Bellmarine MFD Axiom+ 9	9" Multi functional display incl. integrated Wi-Fi incl. A2K-SBN4, cable set
BV108128	Bellmarine MFD Axiom+ 12	12" Multi functional display incl. integrated Wi-Fi incl. A2K-SBN4, cable set

• Models with integrated RealVision sonar module on request





Display

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

• With cable adapter



TF Easy



TF1

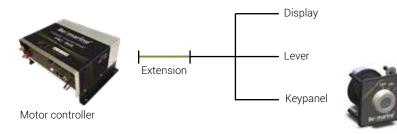






TF2

PRODUCT CODE	DESCRIPTION	
BVTE3281C	TF Easy	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
BVTE3281D	TF Pro - Full Colour	Colour 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
BVTE3281A	TF1 - Full Colour	Colour 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
BVTE3281B	TF2 - Full Colour	Colour 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
BVTE3280A	Extension cable length 2,5m	
BVTE3280B	Extension cable length 5m	
BVTE3280C	Extension cable length 10m	Signal cable between dashboard and engine room
BVTE3280D	Extension cable length 15m	
BVTE3280E	Extension cable length 20m	



ACUITY - Battery condition monitoring system

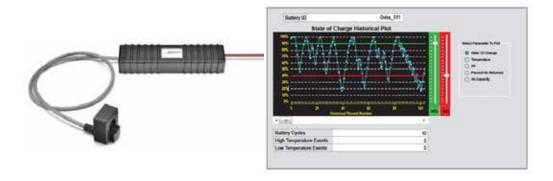
All our propulsion Systems can be enhanced with a "state of art" battery condition monitoring system.

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.

Also the historic data can be downloaded to a PC with a USB interface.

Acuity requires special motor controller software.

Only available for lead acid battery technology.



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

Option kits

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.
BVTE3281E	NMEA2000 configuration kit Includes display TF Easy for diagnostic + Software



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
- Mandatory for 288 and 384V systems

P. CODE	DESCRIPTION	TYPE	TOP MOUNT
BVTE3274A	Single station for single screw	TFC1-11	Stainless handle, top mount, IP67 (0-5V output)
BVTE3274B	Single station for twin screw	TFC2-11	Stainless handle, top mount, IP67 (0-5V output)







TFC1-11

Battery charger

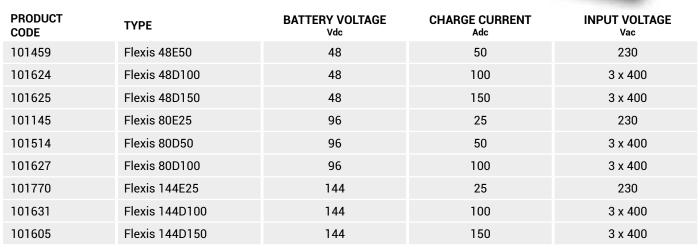
FleXis Battery charger

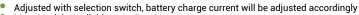
The perfect charger for all battery banks.

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
- CAN bus communication

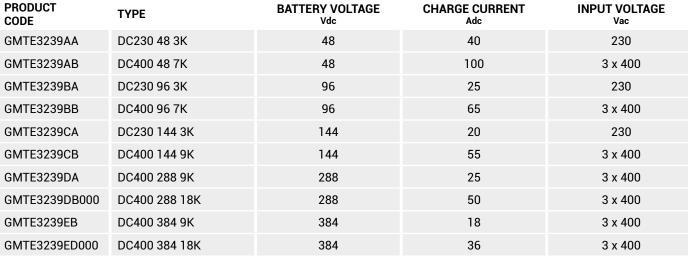




More Models Available upon Request

TF LiFePO4 battery charger

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



More Models Available upon Request (also 115Vac input)

Shore power cable 23∅∨ 16A



PRODUCT CODE	DESCRIPTION
101443	Set with: 15m cable (3x4mm2), CEE Adapter, Stainless 16A 230V inlet, 16A 30ma Earth Leakage Protection in IP65 electrical enclosure
101445	Set with: 25m cable (3x4mm2), CEE Adapter, Stainless 16A 230V inlet, 16A 30ma Earth Leakage Protection in IP65 electrical enclosure



IP54 Case possible for Flexis series on request (IP20)

Other sizes available



Solar panel

by SOLBIAN

Solbian solar panels 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	ТҮРЕ	LENGHT mm	WIDTH mm	THICK mm	WEIGHT kg	POWER W
BVTE3218AF	SX 176 L	1523	683	2	2.4	176
BVTE3218AG	SX 176 Q	1046	994	2	2.4	176
BVTE3218AH	SX 236	1364	994	2	3	236

Solar charger







PRODUCT	TYPE	BATTERY VOLTAGE	CHARGE CURRENT	POWER
CODE		V	A	W
NE2412AA	Power EN500	48-96	6	500

Solar MPPT charger regulator (step down)

• For multiple panels installation



PRODUCT	ТҮРЕ	BATTERY VOLTAGE	CHARGE CURRENT	POWER
CODE		V	A	W
101491	Coolmax SRX 96-144	96-144	45	4500

Inverter 230/400 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.

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.

- Allows the inverter to be connected to a secondary power source (eg. Generator, Grid).
- Peak efficiency 97 %.



PRODUCT CODE	ТҮРЕ	BATTERY VOLTAGE V	CONT. POWER KW	OUTPUT VOLTAGE Vac
102003	Mastervolt Combi	48	3.5	230
101511	LS-3596	96	3.5	230
101639	LS-35125	144	3.5	230
GMTE3282AA	HV inverter kit	288	60*	3x400
GMTE3282BA	HV inverter kit	384	80*	3x400

^{*} with Power Factor 0,8

DC-DC converter

- Isolated switching regulator:
- Encapsulated IP65
- 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	E(LV)			
100494	DC4812450	36/48	12	450		
101634	DC4824450	36/48	24	450		
101633	DC9612450	96	12	450		
101318	DC9624450	96	24	450		
101635	DC14412450	144	12	450		
101636	DC14424450	144	24	450		
HIGH VOLTAGE (HV)						
GMTE3277AA	DVCH-1503-400-12	288/384	12	1500		
GMTE3277AB	DVCH-1503-400-24	288/384	24	1500		



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
102005	BowAdjust Pro 12/24V 400A	BowAdjust motor controller. In (12-48V); Out 12/24V	4.8 kW	9.6 kW
102006	BowAdjust Pro 12/24V 750A	BowAdjust motor controller. In (12-48V); Out 12/24V	9.0 kW	18.0 kW

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



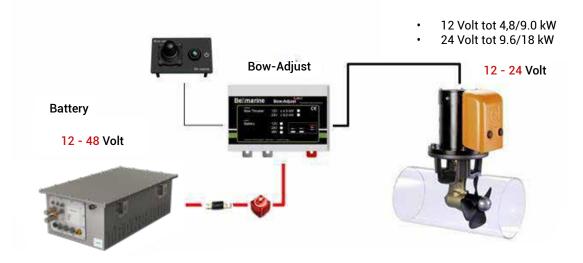
Type: B-02



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.



25

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			
200	200	400	100	200			
300	300	600	150	300	0/60 (-20/60 optional)	SS316	IP65
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	260 kg
30.8	3P	620x677 h352 mm	3 + MCR	390 kg
41.0	4P	620x677 h352 mm	4 + MCR	520 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	390 kg
38.4	2P	619x955 h352 mm	2 + MCR	460 kg
57.6	3P	619x955 h352 mm	3 + MCR	690 kg
76.8	4P	619x955 h352 mm	4 + MCR	920 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	780 kg			
92.2	3S - 3P	620x677 h352 mm	9 + MCR	1170 kg			
122.9	3S - 4P	620x677 h352 mm	12 +MCR	1560 kg			

For 288 V and 384 V battery pack, contact Transfluid (with DNV-GL & NMA type approval)



See also Transfluid Hybrid & Electric Technology catalogue















Electric Boating starts at Bellmarine





TRANSFLUID

THE NETHERLANDS TRANSFLUID NORTH EUROPE B.V. **Bellmarine**

NL- 3992 AK, Houten Ph. +31 (0)85 4868530 info@bellmarine.nl

ITALY

TRANSFLUID S.p.A. Via Guido Rossa, 4 21013 Gallarate (VA) Ph. +39.0331.28421 info@transfluid.eu

CHINA

TRANSFLUID BEIJING TRADE CO.LTD 101300 Beijing Ph. +86.1060442301-2 tbtcinfo@transfluid.cn

FRANCE

TRANSFLUID FRANCE s.a.r.l. 38110 Rochetoirin Ph. +33.9.75635310 tffrance@transfluid.eu

RUSSIA

TRANSFLUID 000 143100 Moscow Ph. +7.495.7782042 Mob. +7.926.8167357 tfrussia@transfluid.eu

U.S.A.

TRANSFLUID LLC Auburn, GA 30011 Ph. +1.770.8221.777 tfusa@transfluid.us

www.bellmarine.tech www.transfluid.eu

