



PURE ELECTRIC PROPULSION SYSTEM

NEVER STOP GO AHEAD



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with PURE ELECTRIC PROPULSIONS by **ELECTRINE**



We Exactly Know What We Can Do Best

ELECTRINE is applying integrated electric boats, excluding hulls such as hyper electric propulsion engine, battery power pack equipped with BMS, other electronic systems and digital monitoring system for Internet of Things (IoT).

ELECTRINE's End-to-End Innovation will present you a quiet, fuel-free electric boat.

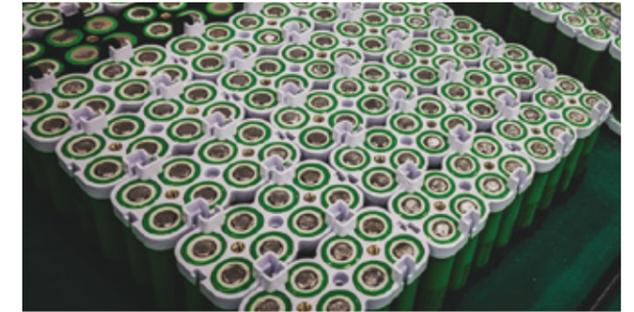
Who We Are?

Have you ever played with a paper boat when you were young? A paper boat silently floating like a could in the sky. Every kid is excited about the first boat of his or her own floating away, and so were you as well. ELECTRINE has been focusing on a boat using the energy that never hurts the environment just like the paper boat from our childhood memories. After numerous R&D and field tests, ELECTRINE was successfully able to introduce the first 100% full electric propulsion system for boats in the Korea market as well as the global market in 2016. ELECTRINE is now recognized as one of the leading companies providing the best electric propulsion systems to the global market.

**ELECTRINE never stops.
ELECTRINE will go ahead.**



All-in-one Package



All Parts Were Designed and Built in One Place

All ELECTRINE propulsion products are provided as a complete set fully manufactured by ELECTRINE. Since we build every product from the scratch, we know the whole system better than anyone else. It allows easy expandability of product lines and components with fast trouble shooting capability.



ZI 90 (Inboard 90HP)



ZO 90 (Outboard 90HP)



ZI 115 (Inboard 115HP)



ZI 350 (Inboard 350HP) x 2



ZO 115 (Outboard 115HP)

LIGHTENING Your Boat

From the consistent effort on R&D for numerous years, we succeeded in manufacturing pure electric outboard and inboard propulsions that are absolutely safe to our precious marine environment and to people as well. You just enjoy your boat ride while ELECTRINE continues to do the work for environment, for energy saving, and more importantly for your safety.



ZI 350 (Inboard 350HP) x 2

e-OUTBOARD series

ELECTRINE e-OUTBOARD series guarantees a full satisfaction without any compromise for your choice.

"BETTER PERFORMANCE WITH BETTER CHOICE"

ELECTRINE e-OUTBOARD series is the core product lineup of ELECTRINE with the cutting-edge technology.

- Zero Noise
- Zero Maintenance
- Zero Emissions



ZO 115

115 HP
84 kW
33.8 kWh (Battery)

NO COMPROMISE

There is nothing to compromise on your passion for the ocean. All fun factors are still with ELECTRINE e-OUTBOARD series.

You keep enjoying the ride. We keep working hard on making a perfect pure electric propulsion system that suits your needs.

Delivering Better Performance



Saving Fuel & Maintenance Cost



Protecting Marine Ecosystem



* All figures are subject to change for improvements.

We are Ready to Show You The Next E-boat Technology

Superior performance with reliable stability cannot be achieved by everyone. ELECTRINE started to develop what others never imagined in 2010, and its endless effort made one of the best pure electric propulsion systems available in the world.

We, ELECTRINE, continue to develop the next technology that others cannot even dream about. We believe that it is possible because we are already in the future of others.

PURE ELECTRIC

The range of your fun is **UP to 180HP**



Various lineups are available for your needs.

* All figures are subject to change for improvements.



For Your Enjoyment Lasting Longer



ELECTRINE BATTERY PACKS can be added as many as you need.*

*all the information and conditions of your boat must be provided before the maximum battery pack load is calculated.

ELECTRINE Makes an Efficient System

ELECTRINE designed all core parts from the scratch and make them all in house. That is why we proudly say that ELECTRINE products are reliable.



e-INBOARD series

ELECTRINE e-INBOARD series significantly reduces the annoying noise and vibration, while providing amazing power.



ZI 350
350 HP
246 kW
135.2 kWh (Battery)

"SMOOTH OPERATION WITH POWERFUL PERFORMANCE"

ELECTRINE e-INBOARD series will provide unforgettable experiences on water. All products are suitable for both saltwater and freshwater. You can enjoy maintenance-free and cost-saving pure electric propulsion systems.

- Zero Noise
- Zero Maintenance
- Zero Emissions



The range of your fun is **UP to 350HP**

Various lineups are available for your needs.

* All figures are subject to change for improvements.

POWERING THE FUTURE

ELECTRINE e-INBOARD Series provides stunning performance from 40HP to 350 HP with smooth delivery. Your ride finally meets the future.

ELECTRINE e-INBOARD Series are designed to perform the same or better than its engine counterparts while producing less noise and vibration.



The system includes

- Battery Pack
- Digital Cluster
- Throttle
- Charger

e-SAILDRIVE series

ELECTRINE e-SAILDRIVE series provides the perfect balance between smooth sailing and quiet cruising.

“PERFECT BALANCE WITH SILKY SMOOTH RIDING EXPERIENCE”

ELECTRINE e-SAILDRIVE series was developed for true sailing enthusiasts gliding along on water with natural wind power. Supporting the eco-friendly spirit using natural power for the ride, ELECTRINE focused on that value of environmental friendliness. ELECTRINE e-SAILDRIVE series allows you to continue your valuable mission with more efficient and silent ride.

- Zero Noise
- Zero Maintenance
- Zero Emissions



The range of your fun is **UP to 110HP**

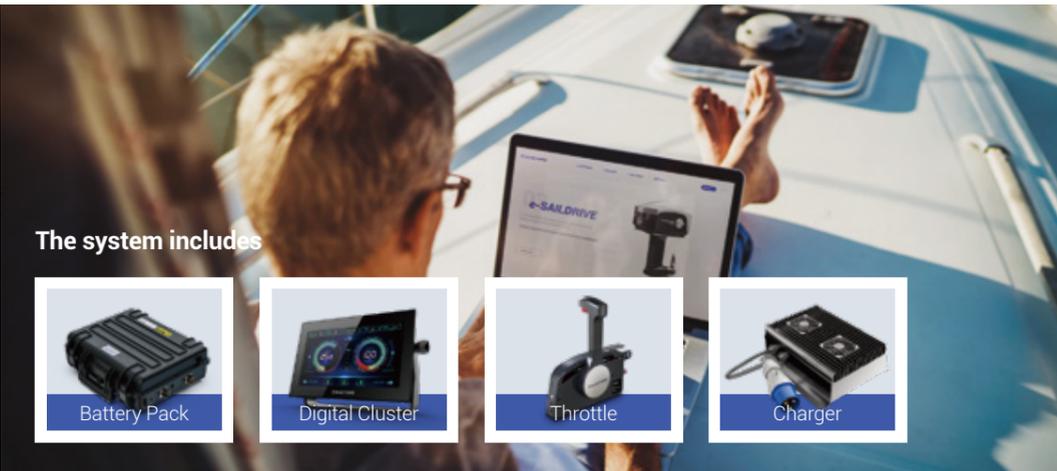
Various lineups are available for your needs.

* All figures are subject to change for improvements.

CALM MOMENT

ELECTRINE e-SAILDRIVE series guarantees silky smooth riding experiences with the ultimate balance between sailing and e-cruising to fulfill your relaxing moments on water. Now you fully enjoy your water activity while protecting beautiful marine ecosystem at the same time.

RELAXING IN THE QUIET MOMENTS



The system includes

- Battery Pack
- Digital Cluster
- Throttle
- Charger

BATTERY series

ELECTRINE BATTERY series has been designed for all different circumstances and conditions each boat and operation face. ELECTRINE BATTERY series can be applied and installed into any types of boats with various conditions.



Rack Type (15 Module)



Fixed Type (4 Module)



Portable Type

SAFE POWER

ELECTRINE seriously considers safety as priority. That is why we put our best effort on the safe design of battery modules and packs. All battery modules and packs meet the global safety standards.

The battery packs are installed after all safety checkups as well as performance tests.

Your safety and satisfaction matter to us.

BF 86



BF 345

VERSATILE



As everyone's dream is different from each other, every customer has different needs. That is why we designed and developed ELECTRINE's battery module and packs from the scratch since we understand how important it is.

All ELECTRINE battery products meet the most safety regulations and requirements to guarantee your safetiness and maximize the performance to satisfy your needs at the same time. Your safety and satisfaction matter to us.



* All figures are subject to change for improvements.

SUPER SAFE BATTERY POWERPACK TECHNOLOGY

• Battery Heat Control System

Applied the CNT (Carbon Nano Tube) heat exchange technology / Maximizing battery efficiency even in low temperature

• Battery Temperature Control System

Maintaining the optimal temperature to let the battery system operated as the best condition

Battery Control

- Efficient control and management of Li-ion battery

Optimized Battery Case for Water Resistance

- IP67-level waterproof
(Protected from immersion up to 1m in depth)

Easy Battery Replacement

- One-touch battery swapping system

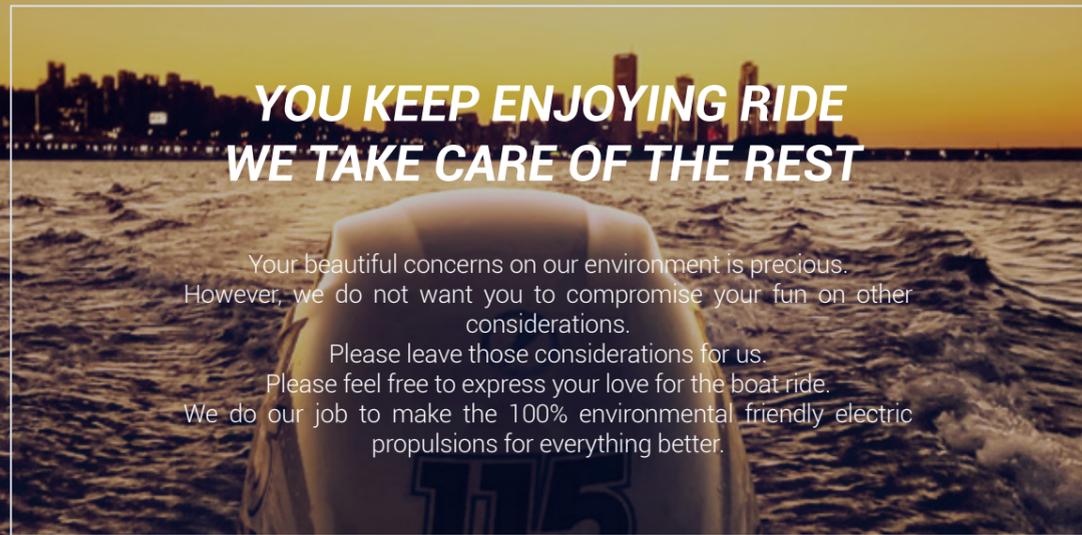
External Material

- P.P is applied to absorb shock, high elasticity, acid resistance, lightweight and scratch resistant
- The influence of external temperature and maintains internal temperature consistently with its heat fiber and cooling pipe

Cooling System

- Maintains internal temperature and heat conduction by applying the copper pipe
- Overheating prevention system by applying refrigerants

STRONG, SMOOTH, AND SAFE



YOU KEEP ENJOYING RIDE WE TAKE CARE OF THE REST

Your beautiful concerns on our environment is precious. However, we do not want you to compromise your fun on other considerations. Please leave those considerations for us. Please feel free to express your love for the boat ride. We do our job to make the 100% environmental friendly electric propulsions for everything better.

e-OUTBOARD series	ZO 8	ZO 16	ZO 40	ZO 60	ZO 90	ZO 115	ZO 180
Max / Continuous Power (kW)	-	-	43 / 23	60 / 43	110 / 65	150 / 84	173 / 133
Max / Continuous Torque (N.m)	-	-	72 / 31	167 / 78	255 / 105	251 / 142	555 / 248
Operational Speed (rpm)	-	-	0-8,000	0-7,160	0-10,250	0-8,000	0-6,204
Operating Battery Voltage (Vdc)	-	-	72~96	288~384	288~384	288~384	288~384
Efficiency at Optimal Operation (%)	-	-	90	90	92	90	90
Interface	-	-	Cooling : Heat Exchanger Type CAN 2.0b				
Communication	-	-	-	-	-	-	-
Size (mm)	-	-	575 x 410 x 1425	575 x 410 x 1425	728 x 479 x 1574	728 x 479 x 1574	-
Weight (Kg)	-	-	95	110	150	150	-
e-INBOARD series	ZI 40	ZI 60	ZI 90	ZI 115	ZI 180	ZI 270	ZI 350
Max / Continuous Power (kW)	43 / 23	60 / 43	110 / 65	150 / 84	173 / 133	200 / 200	250 / 246
Max / Continuous Torque (N.m)	72 / 31	167 / 78	255 / 105	251 / 142	555 / 248	2,100 / 1,225	2,700 / 2,230
Operational Speed (rpm)	0-8,000	0-7,160	0-10,250	0-8,000	0-6,204	0-3,500	0-3,375
Operating Battery Voltage (Vdc)	72~96	288~384	288~384	288~384	288~384	500~738	500~738
Efficiency at Optimal Operation (%)	90	90	92	90	90	94	94
Interface	Cooling : Heat Exchanger Type CAN 2.0b						
Communication	-	-	-	-	-	-	-
Size (mm)	390 x 359.4 x 322.6	390 x 359.4 x 322.6	664.2 x 468 x 475.4	664.2 x 468 x 475.4	-	902 x 1200 x 733	902 x 1200 x 733
Weight (Kg)	-	-	93.5	93.5	-	500	500
BATTERY series	BP 36 (Portable)	BF 86 (Fixed)	BF 345 (Fixed)	BR 654 (Rack)	e- SAILDRIVE series	ZS 8	ZS 16
Nominal Voltage (Vdc)	36	86.4 (43.2 x 2ea)	345.6 (86.4 x 4ea)	654.3 (43.6 x 15ea)	Max / Continuous Power (kW)	8 / 6	16 / 11
Nominal Capacity (Ah)	28	168 (84 x 2ea)	98	154	Operational Speed (rpm)	0 ~ 3,100	0 ~ 3,100
Energy (kWh)	1.008	14.52	33.87	100 (6.7 x 15ea)	Reduction Ratio	1.93 : 1	1.93 : 1
Operating Voltage (Vdc)	28.0 ~ 41.0	67.2 - 98.4	288 - 384	654.3 V	Rated Battery Voltage (Vdc)	48	48
Charging Voltage (Vdc)	41.5	98.4	393.6	736 V	Communication	CAN 2.0b	CAN 2.0b
Charging Current	Standard 14A (0.5 C-rate)	Standard 84A (0.5 C-rate)	Standard 30A (0.3 C-rate)	77A (0.5 C-RATE)	Installation Optimal to	Daysailer / Racing	Daysailer / Racing
Discharging Current / Instant	Max 80A (2.85 C-rate)	Max 240A (1.43 C-rate)	Max 280A (2.85 C-rate)	MAX. 154 (1 C-RATE)	Min. Regenerating Speed (Kn)	5.8	5.8
Communication / Master to Pack	CAN 2.0b	CAN 2.0b	CAN 2.0b	CAN 2.0	Max. Regenerating Output (kW)	3	3
Operation Temperature (Ambient)	-10℃ ~ 60℃	-10℃ ~ 60℃	-10℃ ~ 60℃	-20℃ ~ 60℃	Size (mm)	649 x 400 x 1028	
Configuration	-	4 Module	4 Module	15 Module	Weight (kg)	40.5	46.5
Size (mm)	141 x 141 x 260	485 x 830 x 298	1000 x 830 x 314	1899 x 580 x 886 ± 10			
Weight (kg)	6.2	80 (20 x 4)	188 (47 x 4)	720 ± 5 (Module : 45 x 15)			
IP Rating	-	IP67	IP67	IP55			

* Further Release : ZS 25, ZS 40, ZS 90, ZS 110

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