



RE-EQUIPMENT VESSELS

100% ELECTRIC



RE-EQUIPMENT

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Our company is engaged in the re-equipment of new and already in use vessels to electrical installations of different capacities with any type of drive

The electric motor makes it possible to quickly and smoothly change the speed and direction of rotation of the propulsion (which improves maneuverability), low noise and vibration (which is important for passenger ships).

The electric motor has a high thrust. This is due to the fact that the electric motor has a linear curve of torque depending on the engine speed. That is, it always pulls in the same way and there is no dynamic corridor, like an internal combustion engine. This also includes a wider range of operating speeds. The electric motor is not afraid of water hammer and high ambient temperatures up to +70 degrees.

All modern writings have service columns with the ability to charge. It's much easier than refueling on the water.

All modern marinas have service columns with the ability to charge. It's much easier than refueling on the water.

www.highlandsystems.me



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The electric transmission ensures the use of propellers with the best efficiency and the use of primary engines in the most economical mode, since almost any gear ratio can be selected between the primary engine and the propeller.

It is impossible not to note the environmental friendliness of such a unit – it does not emit harmful substances during operation. It is worth noting that gasoline and diesel engines are prohibited on some reservoirs for this reason.



Re-equipment of military vessels, boats and yachts to electric motors



**RE-EQUIPMENT
VESSELS**



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Drive Motor



**Motor
Controller**



**Boat
Controller**



**On-Board
Charger**



**Battery
Pack**



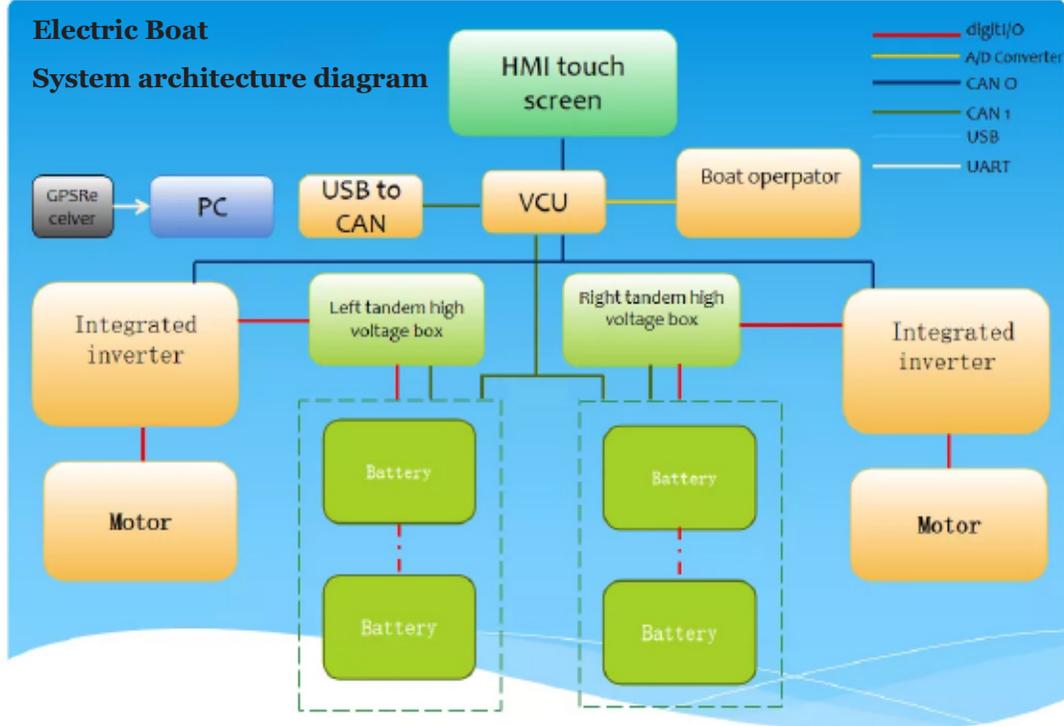
PDU



Operator



Dash Board



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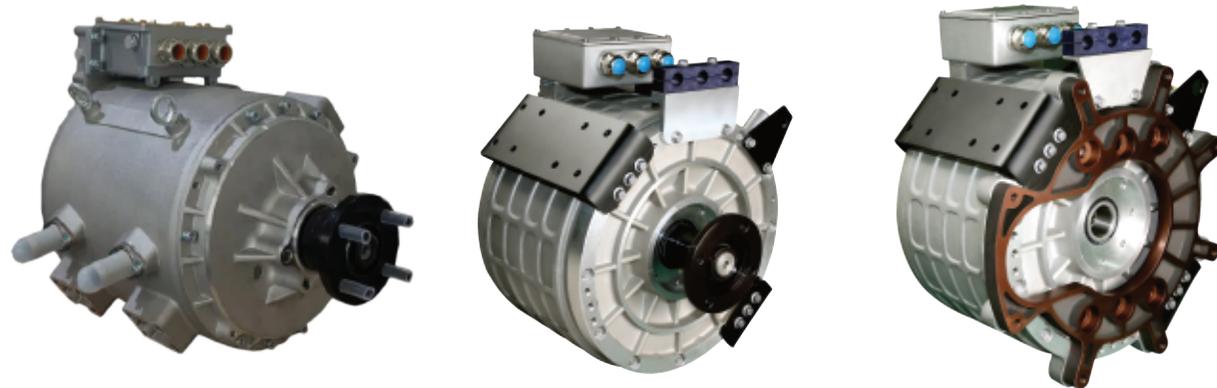
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Parameters of electric motors

We use a wide range of motors from 100 Hp to 1500 Hp



Battery Rated Voltage (VDC)	380	540	540
Motor Rated (kW)	34	92	115
Motor Peak (kW)	68	140	150
Rated Torque (Nm)	110	764	550
Peak Torque (Nm)	270	1700	1000
Rated Speed (r/mim)	3000	1150	2000
Peak Speed (r/mim)	6000	3000	4500
Efficiency (%)	95.28	96.3	97.1

The use of an electric motor allows you to increase:

x2

- Power 1.5 times
- Torque 1.5-2 times
- Power reserve 2 times

Battery Pack

We use a Battery Pack from 50 kWh to 1000 kWh.

Specially designed intelligent battery for high voltage battery electric and hybrid power system. The battery packs have good safety, high instantaneous power, long cycle life and other characteristics.

Features/specifications

1. Integrated liquid cooling - less added weight and larger cooling area
2. Integrated panel - electrified integration, integrated installation
3. Protection grade - IP68
4. Standard charging - 1 C/250Ah
5. Both passenger cars and heavy trucks can be used
6. Standard heating film, optional air fire fighting system



Major advantages

1. Box cover: the box cover is made of composite material PCM with higher stability and full integration of lightweight concept.
2. Integration panel: through the electrical integration panel, heating, communication and MSD are integrated to shorten the assembly process and reduce the production cost.
3. Liquid cooling system: matching liquid cooling system, stronger applicability in high temperature environment.
4. Energy density: >155Wh/kg, excluding high pressure box and wire harness.
5. Heating film efficiency: >0.3°C/min, increasing the power of single heating film, greatly improving the heating efficiency at low temperature.





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Advantages of replacing the internal combustion engine with an electric motor



SILENCE

The absence of noise and vibration make it possible to comfortably communicate and enjoy the surrounding views



CONVENIENCE

Lack of constant maintenance and problems with refueling on the water



ENVIRONMENTAL FRIENDLINESS

Electric vessels do not pollute the environment and are allowed in areas prohibited for vehicles with an internal combustion engine



MANEUVERABILITY

Higher maneuverability and smoothness increases by 80%



ECONOMY

Low maintenance cost of an electric motor compared to an internal combustion engine



SERVICE LIFE

The service life of an electric motor is several times longer compared to an internal combustion engine



NO OVERHEATING

No overheating in the sun in the desert. Withstands temperatures up to +70 degrees C

If we compare all the factors, then we can calculate that a vehicle using an electric motor is 3-4 times more efficient than a similar vehicle with an internal combustion engine!

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