MEC MOTORS

YOUR PROFESSIONAL BUSINESS PARTNER

Committed to Being a Green, Energy-Saving, and Intelligent Marine Motor Supplier



01 / PM PROPULSION MOTOR

OMPC Series Dual-motor Coaxial Electric Propulsion System

Definition:

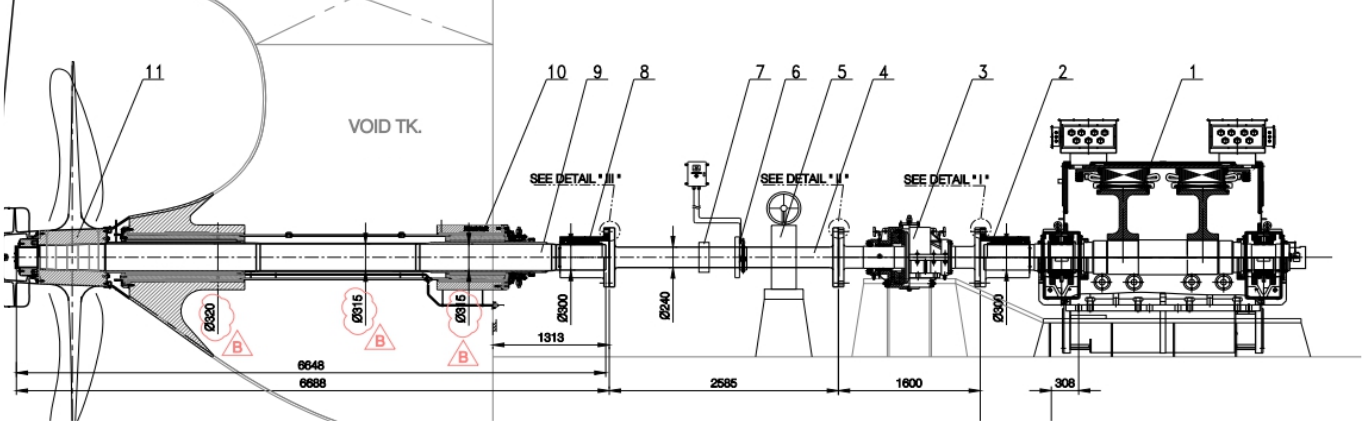
- Two electric motors share the same shaft, the same frame, and the same set of bearings to form a single electric propulsion system, which meets both the requirements of redundancy backup and double-power propulsion.

Critical Points:

- Improve reliability;
- Help shipowners significantly reduce operating costs (~20% or more);
- Meet IMO's redundancy requirements for single-machine single-propeller applications;
- Increase the efficiency of single-machine single-propeller vessel types;
- Reduce crew configuration;
- Provide basic conditions and convenience for the intelligentization of electric vessels;
- Fully comply with green ship standards and address issues related to carbon trading and carbon emissions.

Frame	H355~H1400
Power Range	2X500kW-2X5000KW
Torque Range	~10000kNm
Speed Range	40-300rpm
Voltage	220V~6000V
IP Class	IP54/IP55/IP56
Mounting	B3
Cooling	IC71W
Insulation & Temperature Rise Class	H/F;F/B





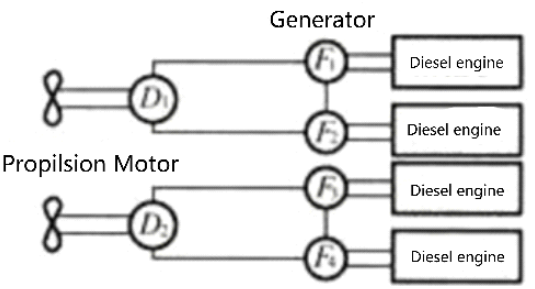
Main Application:

- Single-propeller propulsion, without a reduction gearbox, directly drives the propeller.

OMPC Series Low-Speed Variable Frequency Permanent Magnet Synchronous Propulsion Motor

Frame	132~H1400
Power Range	7.5KW~5000kW
Torque Range	0~600kNm
Speed Range	5~300rpm
Voltage	220V~6000V
IP Class	IP54/IP55/IP56
Mounting	B3, V1
Cooling	IC416 (Recommended Power＜500kW) IC71W (Recommended Power＞500kW)
Insulation & Temperature Rise Class	H/F；F/B





Main Application:

- Twin-screw propulsion, without a reduction gearbox, directly drives the propeller

OMPC Series Medium-Speed Variable Frequency Permanent Magnet Synchronous Propulsion Motor

Frame	132~H1000
Power Range	7.5KW~10000kW
Torque Range	~350kNm
Speed Range	300~3000rpm
Voltage	220V~6600V
IP Class	IP54/IP55/IP56
Mounting	B3, B5, V1, V10
Cooling	IC411/IC416 (Recommended Power＜500kW) IC71W/IC81W/IC86W (Recommended Power ＞500kW)
Insulation & Temperature Rise Class	H/F；F/B



Main Application:

- Twin-screw propulsion, gear reduction drive

02 / ASYNCHRONOUS PROPULSION MOTOR

OMKS Series Asynchronous Propulsion Motor OAW

IP Class	IP55, IP56
Cooling	IC81W, IC86W
Mounting	B3, V1
Insulation Class	F
Temperature Rise	B
Duty	S1
Voltage	220V~13800V
Frequency	50Hz, 60Hz, VSD
Power	710KW~10000kW
Speed	1500, 1000, 750, 600, 500, 375rpm



Main spare parts:

Motor frame

Rigid frame, made of robust welded steel (EN 10025 - S235 JR). Equipped with side ribs for enhanced strength. OMEC motors for continuous operation are designed to meet the vibration level requirements of IEC 60034-14.

Cooler

Mounted on top of the machine, featuring a double-tube structure made of copper-nickel alloy (CuNi 90/10), with a copper finned casing, built-in water leakage detector. Certified by shipping register authorities, compliant with ship classification rules. Coolant can be fresh water or seawater; corrosion inhibitors, pH adjusters and antifreeze may be added as appropriate based on on-site conditions.

Heat exchanger data

Design pressure 6BAR, test pressure 10BAR, maximum glycol content 30%, water type: fresh water or seawater (saline). Flange specifications include PN6, PN10 and special types (ANSI standard).

Options:

- Dual-winding or multi-winding configuration;
- flange shafts on both sides;
- Encoder, vibration sensor, earth brush/earth ring;
- Special bearings (sleeve or angular contact, insulated bearings);
- Reinforced windings.

OMT Series Asynchronous Propulsion Motor

Frame	H132~H1000
Power	7.5~1000kW
Speed	300~3000rpm
Voltage	220V~13800V
IP Class	IP54/IP55/IP56/IP23
Mounting	B3/B5/V1
Cooling	IC411/IC416 (Recommended Power＜1000kW)





Main Application:

- Provide power for the main propulsion and side thruster systems

OMD Series Asynchronous Propulsion Motor

Frame	H225~H500
Power	55~2000kW
Speed	300~3000rpm
Voltage	220V~13800V
IP Class	IP23
Mounting	B3/B5/V1
Cooling	IC01 (Recommended Power＜1000kW)

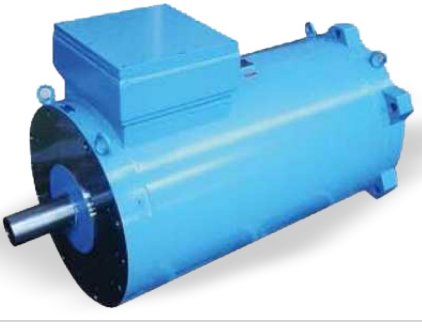


Main Application:

- Provide power for the main propulsion and side thruster systems

OMW Series Asynchronous Propulsion Motor

Frame	H280~H500
Power	90~2000kW
Poles	2~8P
Voltage	220V~690V
IP Class	IP55/IP56/IP65
Mounting	B3/B5/B35
Cooling	IC71W
Efficiency	IE2,IE2,IE4



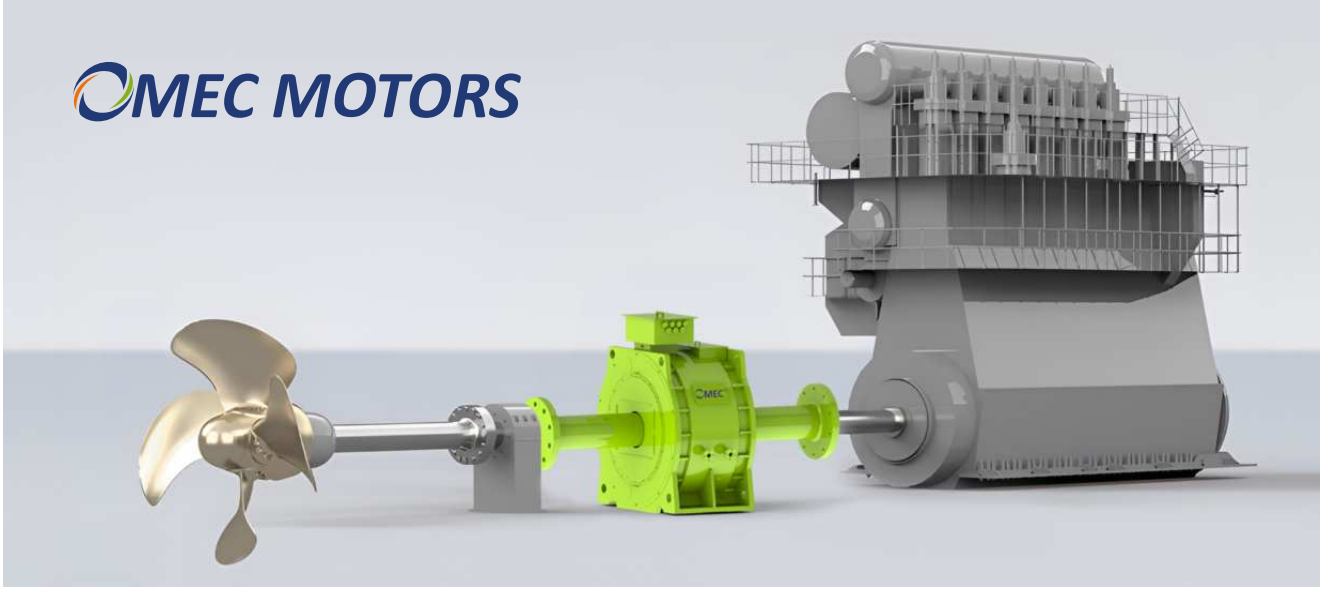
Main Application:

- Provide power for the main propulsion and side thruster systems

03 / PM SYNCHRONOUS GENERATOR

Definition:

The generator is driven by a diesel engine. After generating electricity, it is connected to the power grid via rectification and inversion through a controller; or it is powered by the power grid to drive the propeller achieving the purpose of hybrid power and realize PTO, PTI and PTH functions.



OMGC Series Low-speed Through-shaft Variable Frequency Permanent Magnet Synchronous Generator

Frame	H1120~H1400
Power	~4000kVA
Speed	~150RPM
Voltage	220V~13800V
IP Class	IP54/IP55/IP56
Mounting	B3
Cooling	IC71W
Insulation & Temperature Rise Class	H/F,F/B



Main Application:

- For matching with diesel engines of newly-built ships, power is transmitted through the flange on the main shaft. After generating electricity, it is rectified and inverted by the controller to be connected to the power grid; or it is powered by the power grid to drive the propeller, achieving the purpose of hybrid power and realizing PTO, PTI and PTH functions.

OMGC Series Medium-speed Variable Frequency Permanent Magnet Synchronous Generators

Frame	H160~H800
Power	~10000kVA
Speed	300~3000rpm
Voltage	220V~13800V
IP Class	IP54/IP55/IP56
Mounting	B3/B5
Cooling	IC411/IC416/IC71W; IC71W/IC81W/IC86W （Recommended Power＞500kW）
Insulation & Temperature Rise Class	H/F,F/B



Main Application:

- Diesel engine supporting equipment, engineering ships, offshore platforms, etc. are connected to the power grid through controller rectification and inverter, or supplied power from the power grid to drive the propeller to achieve hybrid power purposes and realize PTO, PTI, and PTH functions.

OMGC Series Low-speed Clamp-on Shaft Type Permanent Magnet Synchronous Generator

Frame	H1120~H1400
Power	~4000kVA
Speed	~150RPM
Voltage	220V~13800V
IP Class	IP54/IP55/IP56
Mounting	B3
Cooling	IC71W
Insulation & Temperature Rise Class	H/F,F/B



Main Application:

- For retrofitting of existing ships, it is installed on the main shaft of existing ships via tensioning couplings. After generating electricity, it is rectified and inverted by the controller to be connected to the power grid; or it is powered by the power grid to drive the propeller, achieving the purpose of hybrid power and realizing PTO, PTI and PTH functions.

ACCREDITATION CERTIFICATE

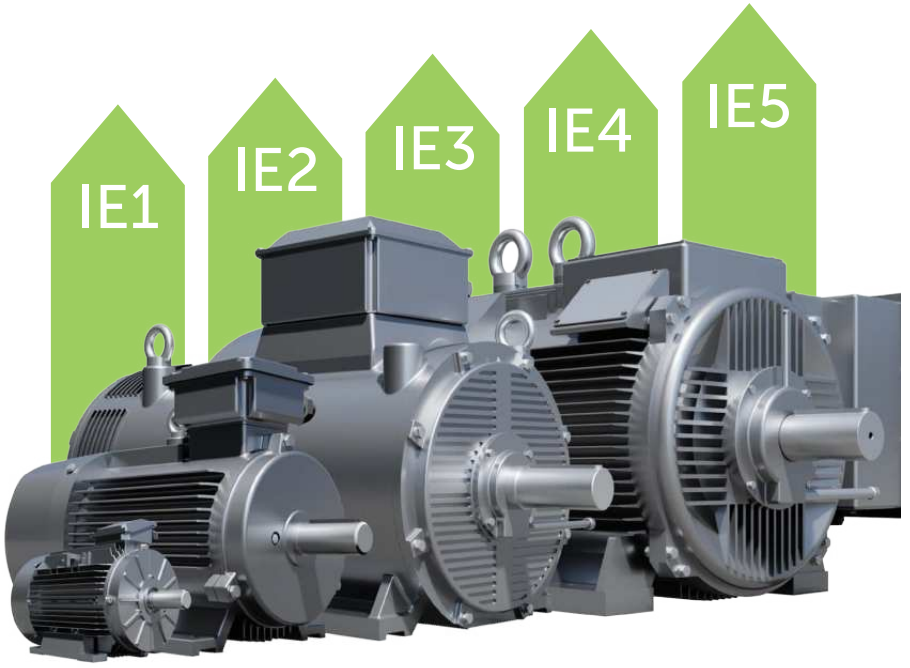
It has type approval certificates from the world's eight major classification societies and rich experience in ship inspection.

AFTER-SALES SERVICE

It has a long history and professional team in the field of ship manufacturing.
Establish central warehouses for sales and after-sales services in more than 50 countries around the world,Provide customers with a fast response speed of 7*24 hours.

WIDELY USED

Motors are widely used in electric propulsion, generators, and various auxiliary parts of ships.



OMEC MOTORS

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