

Product note

Synchronous propulsion motors



Introducing the AMZ propulsion motor

AMZ propulsion motors are synchronous motors designed for demanding VSD (variable speed drive) propulsion applications in different types of vessels.

Special attention is paid to the requirements of the classification societies as well as customer needs. These include special bearing requirements resulting from the inclination of the vessel, and requirements with regard to structure-borne noise and vibration (especially on cruise vessels).

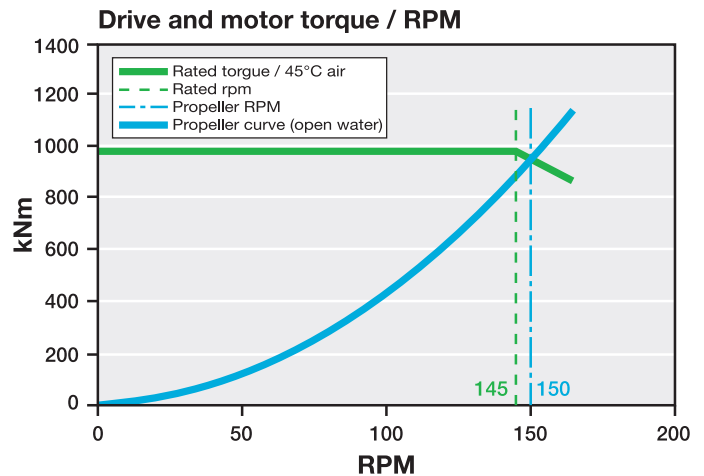
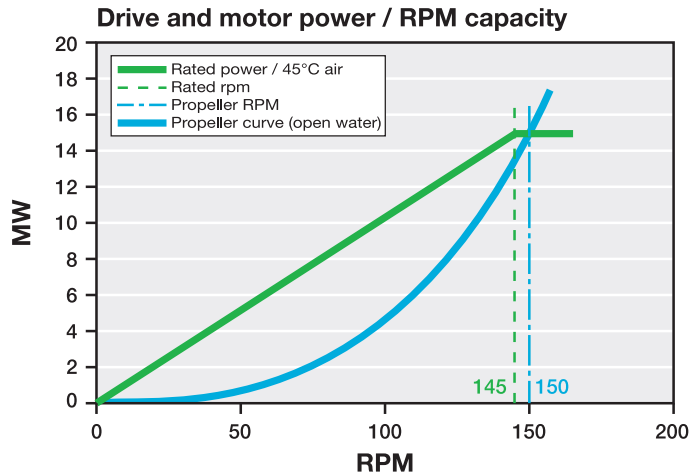
The motors are designed for the most demanding conditions found in engine rooms (high ambient temperature). They are totally enclosed with air-to-water heat exchangers incorporating cooling motors with fans. This ensures safe operation throughout the speed range. The internal cabling is halogen-free and flame-retardant. The motors have also been designed with ample space for maintenance.

Why use an electric motor for propulsion?

ABB has extensive experience as a motor manufacturer and a solid reputation for reliability.

The main benefits of ABB's electric propulsion motors are low maintenance costs and superior control dynamics.

Precise torque control with ABB frequency converters makes zero-speed, starting and even the most demanding ice-going conditions easy to handle. It is these factors that have made AMZ motors the world leaders in propulsion applications.



Typical characteristics of an electric propulsion motor (cruiser application)

Main features of the AMZ propulsion motor

- Synchronous motor with brushless excitation (excitation by brushes with sliprings also available)
- Fully compatible with ABB's ACS converter family products with DTCTM
- Also available for cyclo-converter and LCI drives
- Power range up to 50 MW
- Rated speeds 0 - 1800 rpm
- 4 - 20 poles
- Frame size up to 2500 (IEC)
- Redundancy with double winding, double armature or tandem configurations
- Temperature/insulation class F/F
- Protection classes IP44 (std) up to IP56
- Designed according to applicable IEC regulations
- Available with following certificates:
LRS, DNV, GL, BV, NK, CCS, KRS, Russian Maritime, CS, ABS, US Coast Guard, RINA
- Supplied for wide range of different vessel types:
cruisers, car and train ferries, ice-breakers, multi-purpose tankers, LNG tankers, ice-going vessels, supply vessels
- Wide range of optional, application specific accessories
- ABB patented vibration dampening system available for frame sizes 1250 - 2500.

After sales services

ABB has built a global presence through its worldwide organization and network of carefully selected partners. We aim to provide active support to all our customers at every stage of the project and beyond.

For more information please contact:

www.abb.com/motors&generators