

AC Induction marine and navy motors

DESIGNED AND MANUFACTURED IN ITALY

A ai

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REV 01 06/24

COMPLIANCE WITH DEMANDING

- Designed and built taking into account vessel inclinations (static & dynamic)
- Certified painting systems
- Deck and offshore (wet environments) and below deck (dry environments)
- Mounting configurations, speeds, protection degree and enclosures can be adapted to meet specific vessel installation constraints
- Shock capability up to 300g
- Low magnetic signature

MARINE & NAVAL APPLICATIONS

- DEF and MIL Standards
- LOW EMC
- Structural borne noise measurement
- 1/3 octave band vibrations and noise readings
- BV & LR type approval
- Functional test

Certification

Quality is endorsed by third party accreditations (ISO 9001-2015, UL (#E340019-E247839), Atex (#CESI03Atex2860), Marine, Naval, CSA (#201661) and project identified bodies. Compliance with appointed classification societies is achieved for marine and naval applications:



















Customer oriented solutions for marine and naval duties

Depending on the specific duty and location (above or below deck), the Electro Adda product portfolio is flexible in terms of protection degree and cooling as follows:

A series

Steel frame

Power 200÷2000 kW Continuous or intermittent duty (S1 or S2 30 minutes) Frame sizes 250÷560 Insulation Class F - Option H Air cooling (IC01, IC06) Protection degree IP 23 50, 60Hz and variable speed Advantages:

- Smaller overall dimensions and lighter motors
- High power density



C series

Nodular Cast Iron & Steel frame Power 0.75÷1200 kW Frame sizes 71 up to 500 Designed to withstand high shock load on all directions Insulation Class F - Option H Efficiency class IE2/IE3/IE4 2, 4, 6, 8 pole motors and multi speed motors Protection degree – cooling:
IP 55 – IC 411 self-ventilated
IP 55 – IC 416 forced ventilation
Suitable for inverter supply
IEC60034-1 MIL Standards BVNR483
LOW EMC
Marine and naval rules
LR & BV type approvals – including naval constructions

FECCL series

With DC electromagnetic disc brake Power 0.13÷280 kW Frame sizes 63÷355 Insulation Class F - Option H Protection degree IP 55 Cooling type

- IC 411 self-ventilated
- IC 416 with forced ventilation





W series



Steel frame

Power 11÷2000 kW Continuous or intermittent duty (S1 or S2 30 minutes) Frame sizes 132÷560 Insulation Class F - Option H Water cooling (IC7 A1W7) Protection degree IP 55 (IP 56 on request) 50, 60Hz and variable speed Advantages:

- Smaller overall dimensions and lighter motors
- Lower heat release into the working environment
- Lower noise
- No power reduction even at high ambient temperatures
- They can be used at a wide speed range at constant torque without derating
- Suitable for installation in harsh environments
- High power density

Suitable for inverter supply IEC 60034-1 Standards EAC Certification (on request) UL/CSA certification for USA and Canada markets Marine construction LR approved IE3 efficiency class

BV and LR Type Approval



DESIGN AND BUILT TO LAST

Electro Adda marine & navy motors are subject to a dedicated manufacturing process which will included: Detailed design which may include FEM calculations (electrical and mechanical) to confirm compliance with requirements

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 and traceable and slotting of electrical steel
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 Bespoke quality control plan which will reflect class and client's specification as far as applicable



VPI impregnation process & partial discharge readings for enhanced insulation system check



In house CNC shaft machining



Functional test in our laboratory including tests on load



FROM STANDARD MARINE TO TAILOR MADE

SERVICE: Main propulsion, Auxiliary and PTO/PTI/PTH hybrid propulsion

Starting from a clean compact design, the unit can be configured based on application to meet specific requirements with customized design and options:

- Winding and bearing temperature detectors
- Space heaters
- Class H insulation
- Insulated bearing and shaft grounding brush Cable glands
- Vibration sensors
- Special painting cycle per ISO 12944
- Special shaft and/or double shaft extension
- Encoder
- Brake
- Type test
- Compliance with major classification societies is available upon request







Thruster and positioning motors



Lifeboat and service boat lowering motors



Anchor winch motors



Winch motors



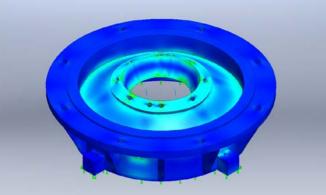
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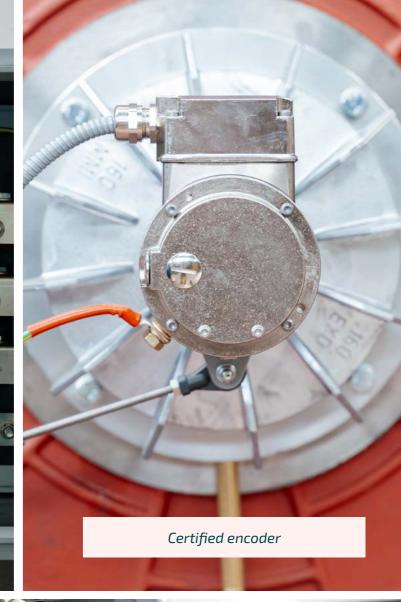
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Large ladder type marine terminal box





FEM check of motor flange under shock load





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