

KONČAR

MOTORS AND ELECTRICAL
SYSTEMS



MARINE MOTORS

Motors for shipbuilding, winches, deck machines and hoisting applications

DEVELOPING AND MANUFACTURING ELECTRIC MOTORS

For more than 75 years of proven track record developing and manufacturing electric motors for shipbuilding, winches, and use in hoisting equipment. Extensive know-how in applying and producing highly efficient motors for individually adapted drive solutions.

Winches come in many different shapes and sizes as they are used for many applications. From a simple, standard winch for wrapping rope on a drum to a complex installation on a large hoisting crane. We provide the right electric motor for the winch on your ship as well as your crane installation.

Winches are also used on a crane, for example. The various winches on a crane control all its movements.

Asynchronous cage electric motors in marine design can be used as an auxiliary drive on deck and in the lower deck of the ship, as well as in industrial drives on the shore. The temperature class of the electric motor is adjusted to higher ambient temperatures on the ship as well as lower temperature environments (up to -50°C).

Complete range of low-voltage motors, ensuring the right motor for all needs, including harsh environments and explosive

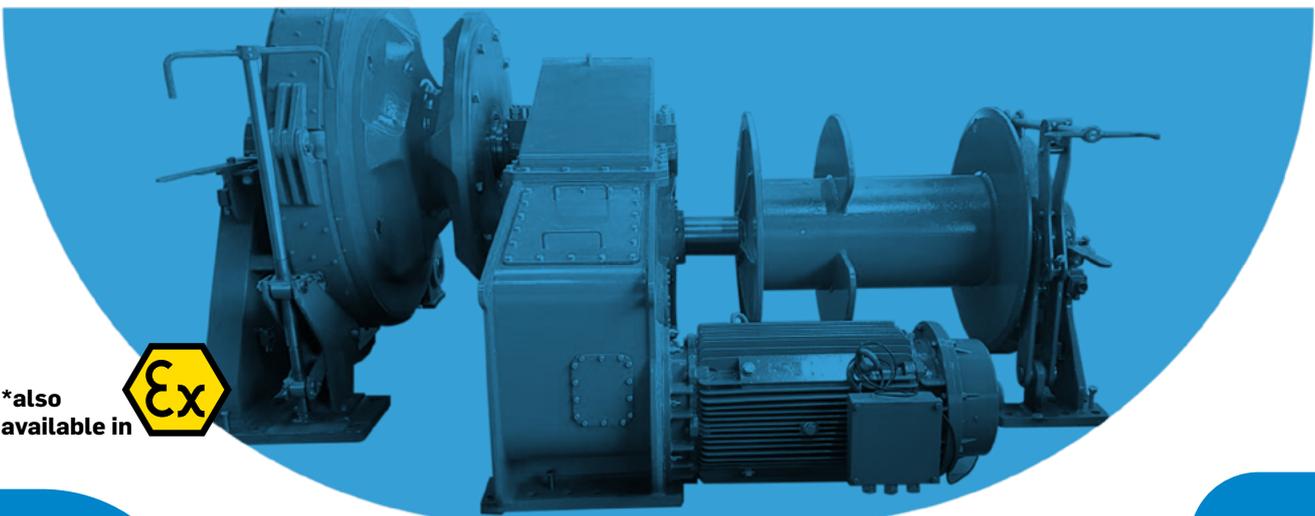
- ✓ Motors are individually manufactured **in accordance with customers' requirements**
- ✓ We apply our extensive know-how to produce highly efficient motors - **complete solutions**
- ✓ Our value-added services offer you **high quality and short delivery time**

atmospheres. Motors are available with an output range of up to 250kW. The motors are certified in all major international ship classification societies.

All our marine application motors have CRS, BV, and RMRS agencies' type approval, and the capability to provide certificate BV mode survey 2 (survey schemes for motors under and for motors above 100kW). This is available for all marine motors in ATEX, along with CESI.

Standard marine application electro motors can be supplied in sizes 63-315 according to IEC / DIN / VDE standards, having tropicalized winding, and epoxy paint as standard. The operational voltages are 440V/60Hz (400V/50Hz) with IP55 as standard (increased protection available on request).

Motors are available in high-efficiency classes from IE1 up to IE4 (and IE5 in synchronous reluctance technology).



*also available in



Our three-phase induction motors equipped with a fail-safe electromagnetic DC brake are convenient for use in cranes, lifts, winches, gantry traveling cranes, rescue boat hoisting, upper and lower deck ship equipment, and for other handling equipment. Generally at all places where stopping of mechanisms, fly-wheel masses, or stopping due to disconnection from a power supply or danger, etc. is required.

Designed to meet the highest requests of modern technology because of their modular design they are easily adapted to various customer demands.

They are distinguished by high-quality used materials, greased-for-life bearings, weather and the corrosion-resistant final coating, friction material without asbestos, and a high dielectric strength insulation system intended to be fed over a static frequency converter.

The brake motor uses DC electromagnetic brake connected to the power source over the rectifier (the rectifier is placed in the motor terminal box).

Brake motors 7ABZK 71-315 up to 250kW with brakes up to 2500Nm. The whole range is also available in EX protection (motor and brake)



*also available in



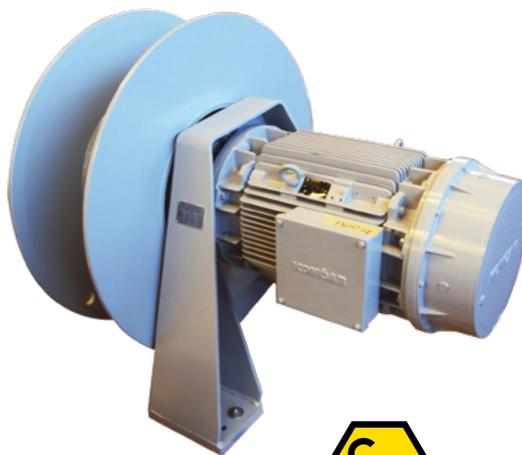
SPECIAL MARINE PRODUCTS - WINCH DRIVES

Main features of winch drives:

- Anchoring, mooring, tugger, windlass
- Motor sizes from IEC71 up to IEC315
- Bi-directional drive, built-in motor brake, frequency inverter duty
- Different overload options, increased mechanical protection
- Up to three-speed motor drive
- Automatic torque control
- Certified for marine use
- Control equipment for open deck and below deck installation
- Other various options according to the customer's request

**Atex version
(for hazardous area):**

- with **ATEX brake**
- with **ATEX encoder**
- with **ATEX forced cooling**



*also available in



Options

- Separate terminal box (for auxiliary- control terminals)
- Stainless steel shaft
- Metalisation
- Reinforced bearings
- Insulated bearings
- Regreasing nipples
- Low ambient temperature (-50°C)
- VSD (use with inverters)

Ex protection marking and usage:

- II2G Ex db IIC T3, T4, T5, T6 Gb
- II2G Ex db eb IIC T3, T4, T5, T6 Gb
- II2D Ex tb IIIC T160°C, T130°C, T100°C Db

EQUIPMENT FOR CONDITION BASE MONITORING AND SMART MOTOR 4.0 IMPLEMENTATION:

- Encoder for speed and angular measurement (only one or two encoders can be implemented - incremental and absolute)
- PT100 in each phase of winding
- PT100 in DE and NDE bearing shield
- Vibration sensor or preparation for it
- 3PTC for tripping
- Additional terminal box for all auxiliary equipment
- Motor performance monitoring using frequency inverter (motor currents, voltages, power, torque, motor insulation status)



ELECTRIC MOTORS with MARINE DESIGN which contain in their type marking an additional letter B (5ABZ, 5ABT or 7ABZ and 7ABT) are designed and constructed according to applicable rules and regulations of classification societies for marine application and have type approvals CRS, RS and BV. On request our electric motors can be certified according to the requirements of the following classification societies:

HRB/CRS - BV - DNV-GL - LR - RINA - RS - RRR - CCS - KR - ABS - IR - NKK

KONČAR - MES is a European producer of electric motors with a long successful history and high level of products' development and knowledge.

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