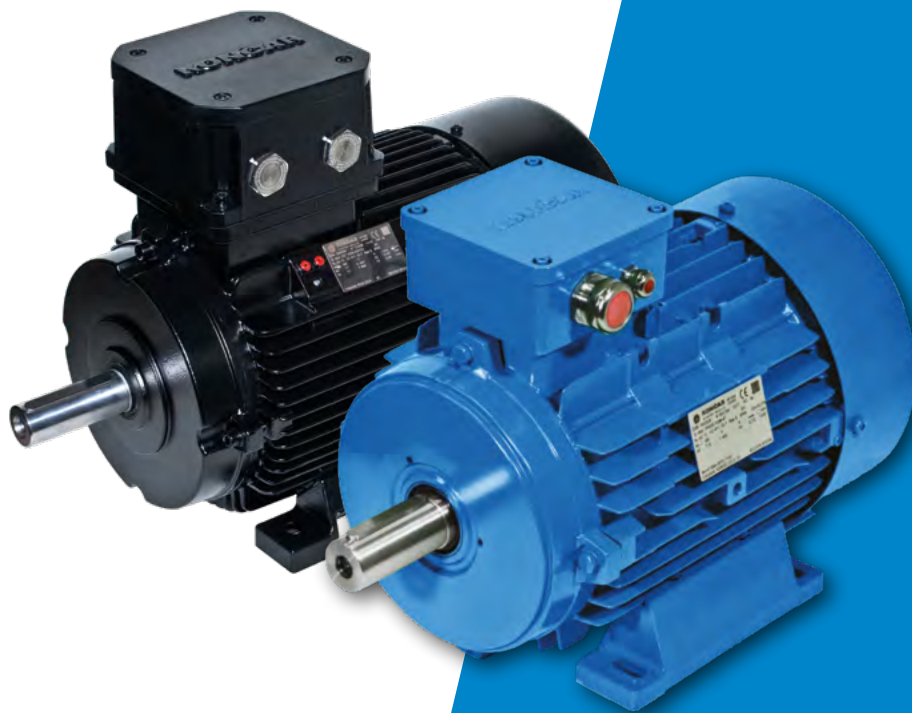


PRODUCTION OVERVIEW



KONČAR
MOTORS AND ELECTRICAL
SYSTEMS



ABOUT US

KONČAR - MES is a member of Končar group. The main business areas of the KONČAR group are the production of equipment and plants for the generation, transmission, and distribution of electrical energy, as well as equipment for use in the field of transport and industry.

KONČAR - MES aims to provide efficient, reliable, and cost-effective products that meet the requirements of our customers. Excellence in the manufacturing of electric motors is our permanent goal which we achieve through continuous progress in our technology and production processes.

The R&D department enables us to use our resources, knowledge, and innovative technologies to meet all market requirements in creating KONČAR - MES high-quality products.

The highest value of KONČAR - MES is a team of highly qualified and fully trained engineers, their knowledge and skills to incorporate ideas and apply them to various products.

By strengthening the team and experts in the fields that carry our organization, we want to maintain and improve the quality of our service and products. Our main goal is to ensure the required quality of our products through implemented quality systems and investments in technology, the development of new products through constant investment in our employees, and the preservation of our environment and community through the smart use of available resources.

SPECIAL ELECTRIC MOTORS

KONČAR - MES, as a European producer with its R&D development program, can offer custom-made designs of electric motors through close technical cooperation with our customers. Our design department employs a large team of engineers which enables the development of electric motors. This philosophy means we can respond to the most complicated market demands and requests.

Providing custom-made mechanical options such as flanges, housings, shafts, and increased protection **KONČAR - MES** is well-placed to offer the perfect solution. **KONČAR - MES** also can make motors with special voltages, and powers that suit all global areas

Special product manufacturing means we are able to design in accordance with the needs of our partners.

and working frequencies. The whole process from R&D to delivery of an end product is completed in a short time due to our long-term experience.



STANDARD MOTORS

KONČAR - MES electric motors are made according to international IEC standards and ready to meet those demands. **KONČAR - MES** developed and certified a complete product range of electric motors in IE3 and IE4 efficiency according to EN 60034-30-1. Current estimates show that 40% of electric energy worldwide is spent on electric motors. It is, therefore, a huge and important step in preserving the environment, and reduction of global pollution.

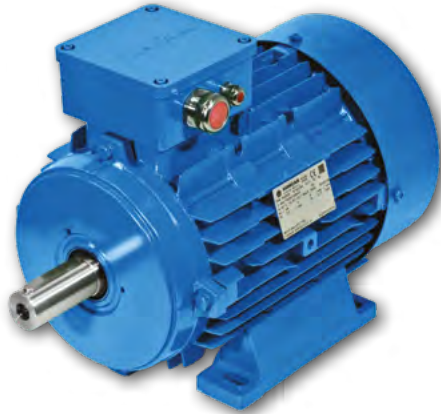


STANDARD THREE PHASE ELECTRIC MOTORS

AZ series

IEC standards

- ✓ Series 5AZ 56-160 aluminum housing
- ✓ Series 7AZ 71-315 cast iron housing
- Power range: 0,06-200 kW
- Multi-speed motors
- IE3/IE4 - efficiency
- Available in marine design and certified to the relevant standards
- Motor for special application: pumps, fans, compressors, mixers, cooling towers, crane and hoisting equipment



ADDITIONAL OPTIONS

Other voltages and frequency

- Special flanges and shafts
- Special terminal box mounting arrangements (or without terminal box)
- Special design according to customer request
- IP56, 65, 66, 67 mechanical protection index

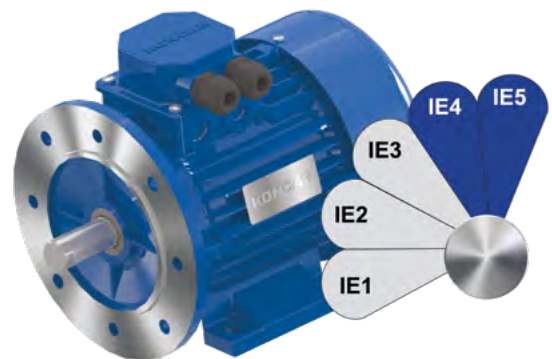
- Thermal protection
- Insulation class H (stand. F)
- Tropicalized winding
- Winding heaters
- Different types of cooling
- Other sensors and monitoring devices
- Other duty types: S2 - S10
- Additional terminal box

KSR series - PREMIUM EFFICIENCY

IE4/IE5 SYNCHRONOUS RELUCTANCE MOTOR

Motor series and frame sizes:

- ✓ 5KSR 80 - 160
- ✓ 7KSR 80 - 160
- Power range: 0.75 - 18.5kW
- KSR in short: reliable and robust as an induction motor, with performances high as of a motor with permanent magnets - motor of the future



ELECTRIC MOTORS FOR INDUSTRY 4.0

Improve product quality with intelligent and adaptable manufacturing operations from **KONČAR - MES**.

Industry 4.0 is revolutionizing the way companies manufacture, improve, and distribute their products.

KONČAR - MES offers customized goods that meet individual customers' needs more cost-effectively. By using advanced applications, new materials, and technologies, we are able to create small series of specialized items for our partners.

*also available in



EXPLOSION PROTECTED MOTORS



Explosion protected electric motors are a significant part of **KONČAR - MES** production, and with high-quality and modern technical solutions are recognized worldwide. KONČAR - MES offers various applications of ATEX-certified products in oil & gas, chemical, and other branches of industry. A long reference list shows quality and reliability over the years which confirms us as an ideal supply partner.

For applications in the EU markets our ATEX products are certified by the European Agency CESI, while for other markets, we can provide IECEX, UKEX and EAC certificates (depending on motor series).

FLAMEPROOF MOTORS EX db for Zone 1 and 21



AT series



Series 5AT 71-112 aluminium housing

Series 7AT 71-315 cast iron housing

- Power: up to 200 kW
- Protections according to ATEX (Zone 1 and 21):
 - II 2G Ex db eb IIC T3/T4/T5/T6 Gb
 - II 2G Ex db IIC T3/T4/T5/T6 Gb
(terminal box in "d" or direct cable entry)
 - II 2D Ex tb IIIC T100/130/T160°C Db IP6x
 - I M2 Ex db eb I Mb, I M2 Ex db I Mb (cast iron series for mining)
- Available with Ex brake
- High degree of mechanical protection IP67
- Available in IE3 and IE4 efficiency
- For temperatures: -20°C up to +60°C
- ATEX, IECEX, UKEX, EAC certificates



ATL series (for low temperatures)

Series 7ATL 90-250 cast iron or steel housing

- Power: up to 55 kW
- Protection according to ATEX (Zone 1):
 - II 2G Ex db eb IIB T3/T4/T5 Gb
 - II 2G Ex db IIB T3/T4/T5 Gb
(terminal box in "d" or direct cable entry)
- Available in IE3 and IE4 efficiency
- For temperatures: -50°C up to +60°C

KSRT series (synchronous reluctance motors)

Series 7KSRT 80-160 cast iron housing

- Power: up to 18,5 kW
- Available in IE4 and IE5 efficiency
- Protections according to ATEX (Zone 1 and 21):
 - II 2G Ex db eb IIC T3/T4/T5/T6 Gb
 - II 2G Ex db IIC T3/T4/T5/T6 Gb
(terminal box in "d" or direct cable entry)
 - II 2D Ex tb IIIC T100/130/T160°C Db IP6x
 - I M2 Ex db eb I Mb, I M2 Ex db I Mb (cast iron series for mining)

INCREASED SAFETY MOTORS FOR ZONE 1/21 and 2/22

AZS series

Series 5AZS 63-160 aluminium housing
Series 7AT 90-160 cast iron housing

- Power: up to 15 kW
- Protections according to ATEX:
- II 2G Ex eb IIC T3/T4 Gb
- IE2 and IE3

AZST

Series 5AZST 63-160 aluminium housing
Series 7AZST 90-315 cast iron housing

- Power: up to 200 kW
- Protection according to ATEX:
- II 2D Ex tb IIIC T90/T135/T160°C Db IP6x
- Zone 21
- IE3 and IE4

AZN series

Series 5AZN 63-160 aluminium housing
Series 7AZN 90-315 cast iron housing

- Power: up to 200 kW
- Protections according to ATEX:
- II 3G Ex ec IIC T3, T4 Gc
- II 3D Ex tc IIIC T90/T135/T160°C Dc IP6x
- For gas, dust, and vapours
- Zone 2 and 22
- IE3 and IE4

BRAKE ELECTRIC MOTORS



AZK series

Series 5AZK 63-160 aluminium housing
Series 7AZK 71-315 cast iron housing

- In-house production of electromagnetic brakes up to 1200Nm, possibility up to 2500Nm
- Anchoring, mooring, tugger, windlass, cranes
- Bi-direction drive, built in motor brake, frequency inverter duty
- Different overload options, increased mechanical protection
- Up to three speed motor drive
- Certified for marine use
- Control equipment for open deck and below deck installation
- Other various options according to customer request
- Special design for winch use
- IE2/IE3/IE4 class of efficiency

SPECIAL DESIGN - NOT IEC MOTORS

STAINLESS STEEL MOTORS

- For food, pharmaceutical and chemical industry
- Powers from 0,18 up to 1,5 kW
- 2 / 4 / 6 / 8 poles
- Type of protection IP69K
- Fully enclosed housing with a smooth surface, motor without ventilation
- Premium efficiency IE3

ORIGINAL DESIGN MANUFACTURER

- For industry applications
- Design in correlation with OEM customer needs
- Housing from steel or aluminum profile
- Special design with brake



QUALITY

An important part of the business policy for **KONČAR - MES** is to achieve total customer satisfaction by delivering quality and reliable products.

To provide high-quality products it is essential to satisfy and recognize the needs and demands of our customers.

KONČAR - MES adopts an individual approach to each customer, following the product during its research and development phase until final delivery. However, our role as a committed supplier does not stop there.

We take pride in offering comprehensive after-sales service and support. In this way, we provide confidence for our partners long after purchasing a KONČAR - MES product.

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



CESI-ATEX

KONČAR

MOTORS AND ELECTRICAL
SYSTEMS

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