elinmotoren.com

ELIN Motoren
A Voith Company

Elevating possibilities
Powering your plant solutions

Advanced drive concepts for your power plant operation

As nations strive to achieve energy security and reduce carbon emissions, a noticeable shift towards cleaner and more sustainable energy sources has emerged. Renewable energy technologies, such as solar, wind, and hydropower, have gained substantial traction, contributing to a diversification of the energy mix.

Modern power plant systems are undergoing transformative drive trends to meet evolving energy demands. Variable-speed drives for flexibility in seamless power balance like for energy storage solutions or variable-frequency drives to adjust motor speeds efficiently for pumps, fans, and more are just a few examples. Overall, the market trends reflect a global commitment to sustainable energy solutions, embracing innovation to strike a balance between energy security, environmental preservation, and technological progress.

As your trusted partner for customized low and medium voltage drive and system solutions, we understand your struggle with low efficiency which leads to loss of valuable resources as well as profitability. To avoid a reduction in your equipment´s load capacity and performance, you must avoid motor overheating through effective drive solutions. Your hassles and costs associated with replacing motors drives us to offer drop-in replacements which seamlessly fit into your existing setup without disrupting your operations. You benefit from a comprehensive solution provider which is aligned with all key stakeholders in the power station supply chain – whether you‘re an owner, planner, general contractor, or an OEM.

At ELIN Motoren we offer tailored drive and service solutions for a diverse array of power plant applications:

- Water
- Thermal
- Solar
- Nuclear
- Gas and steam turbine
- Coil fired
- District-heating
- Biomass-heating
- Geothermic

Cooling systems for electric motors and generators

The cooling system for your machine ensures the operating point in the required heating phase. One and the same active part can release more power on the shaft if cooled via air-water heat exchanger than via air-air heat exchanger. In general, primary coolants for asynchronous motors are air and water but depending on your power plant system and region various cooling methods are available for open and closed machines:

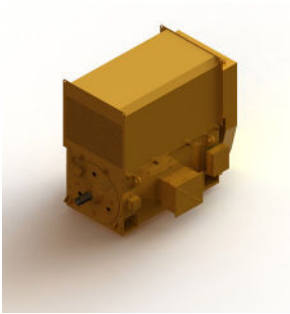
- Air-cooled
- Air-cooled with one-sided connection
- Air-cooled with two-sided connection
- Air-cooled with weather protection setup
- Air-air cooled
- Air-water cooled
- Tube-cooled
- Surface cooled
- Water-jacket cooled
- Water-cooled

Electric motors

Customized power units

The spectrum of our asynchronous motors paints power units for a diverse range of applications, encompassing pumps, blowers, and grinding mills across power plants. Spanning power ranges from 300 KW to 35 MW, with specialized solutions starting from 37 KW, our motors stand for versatility and performance excellence.

For installations in explosion-proof environments, our solutions materialize in the form of Ex-e and Ex-p protection types, ensuring safety and operational harmony.

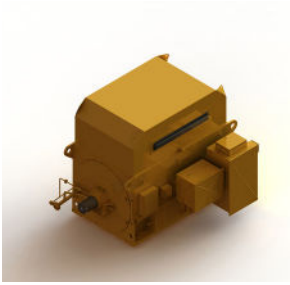


MKL/HKL - Electric motor, air-air-cooled

- Performance range up to 15,000 kW
- Voltage 0,4 - 15 kV
- Speed range up to 3,600 r/min
- Protection type up to IP 55

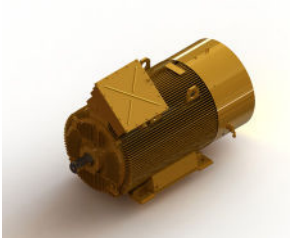
MKR/HKR - Electric motor, water-cooled

- Performance range up to 10,000 kW
- Voltage 0,4 - 15 kV
- Speed range up to 3,600 r/min
- Protection type up to IP 55



MKM/HKM - Electric motor, air-water-cooled

- Performance range up to 35,000 kW
- Voltage 0,4 - 15 kV
- Speed range up to 3,600 r/min
- Protection type up to IP 55



MKG/HKG - Electric motor, fin-cooled

- Performance range up to 2,500 kW
- Voltage 0,4 - 13,8 kV
- Speed range up to 3,600 r/min
- Protection type up to IP 55

ELIN Motoren Generators

Individual pole advantage

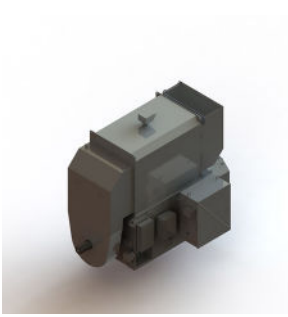
Synchronous and asynchronous generators from ELIN Motoren command the realm of electrical energy production, their efficiency and unwavering reliability setting new benchmarks. Our synchronous generators have proven themselves in a wide variety of turbine types, ranging from gas and steam turbines, hydroelectric turbines such as the well-known Pelton, Francis and Kaplan turbines, as well as for gas and diesel engines. From four-pole 1 to 65 MVA and multipole 1 to 30 MVA, operating within a nominal voltage up to 15 kV, our offerings span the spectrum. For installations in explosion-prone environments, our solutions materialize in the form of Ex-e and Ex-p protection types, ensuring safety and operational harmony.

HSV - Generator, air-cooled

- Performance range up to 25 MVA
- Voltage up to 15,000 V
- Protection type up to IP 54 (incl. air duct)
- 50 poles
- IEC 60034, IECEX, ATEX

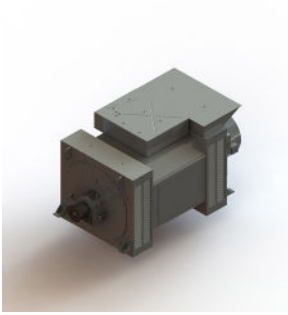
HTM - Generator, air-water-cooled

- Performance range up to 65 MVA
- Voltage up to 15,000 V
- Protection type up to IP 55
- 16 poles
- IEC 60034, IECEX, ATEX



HTL - Generator, air-air-cooled

- Performance range up to 57 MVA
- Voltage up to 15,000 V
- Protection type up to IP 55
- 4 poles
- IEC 60034, IECEX, ATEX



HTJ - Generator, air-cooled

- Performance range up to 65 MVA
- Voltage up to 15,000 V
- Protection type up to IP 23
- 16 poles
- IEC 60034, IECEX, ATEX

Service offerings beyond expectations

We offer a wide range of services to ensure that your machines operate reliably and are always in top condition. Our highly qualified technicians are well-trained and have many years of experience in maintaining and repairing electric motors and generators.

Wherever you are: We are ready to serve you around the clock. Our mobile and specially trained team of experts ensures competent support – fast, reliable, and worldwide. With a global network of certified partners, we offer service with that decisive quality edge.

Our impact across the globe

These references stand for our unwavering commitment to excellence, innovation, and the seamless integration of electric motors and generators into diverse power generation environments. They illuminate the path we've treaded as a trusted partner, providing tailored solutions that power the future of energy.

Waste to energy plant

Steam turbine

- MSM - Generator water cooled with heat exchanger
- 400 V
- 2,425 kVA
- 1,500 rpm
- Modular design

GUD - PowerPlant

Steam turbine

- HTLF - Generator air-air-cooled
- 11,000 V
- 45,320 kVA
- 1,500 rpm
- Total mass 91tonns

Hydro power plant

Pelton turbine

- HSM - Generator water cooled with heat exchanger
- 11,000 V
- 22,470 kVA
- 500 rpm

Geothermal power plant

Expansion Turbine

- pHSM - Generator water cooled with heat exchanger
- 6,300 V
- 6,470 kVA
- 1500 rpm
- EX II 3G, Ex pzc ec ic, IIA Tc GC protection

Hydro power plant

Kaplan turbine

- HSJ - Generator water cooled with heat exchanger
- 6,300 V
- 16,500 kVA
- 300 rpm
- Retrofit solution

Hydro power plant

Pelton turbine

- Generator water cooled with heat exchanger
- 10,500 V
- 15,000 kVA
- 1,000 rpm

Biomass cogeneration plant

Steam turbine

- Generator water cooled with heat exchanger
- 6,300 V
- 8,330 kVA
- 1,500 rpm
- E-Pack (Generator with direct mounted gearbox)

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