

Technology with drive

SCHORCH motors and drive systems – the answer to a multitude of drive problems



Since the foundation of the company in 1882, the name SCHORCH has stood for high-quality electrical machines. With numerous drive systems supplied worldwide SCHORCH is your competent partner for your national and international projects.

SCHORCH is a modern, market-oriented supplier of many different types of industry, e.g. oil & gas, chemical/petrochemical industry, energy generation, water supply and waste water management, shipbuilding, steel and metal processing industry, test stands, tunnel applications etc.

In all these applications, our tailor-made products and systems have, time and again, met the highest requirements in view of both quality and reliability.

It has always been our aim to design and construct innovative products to the highest possible quality standards, fully meeting our customers' requirements, with due regard to the protection of the environment.

Our tailor-made drive concepts give you the competitive edge – worldwide.

Company Profile

Employees ~500

Year of foundation 1882

Ownership – Member of ATB-Group (Austria)

Key markets

- Oil & Gas
- Petrochemicals & Chemicals
- Power Generation
- Steel & Metal
- Water Supply & Irrigation
- Shipbuilding
- Material Handling & Recycling
- Test Stands
- Tunnel Building

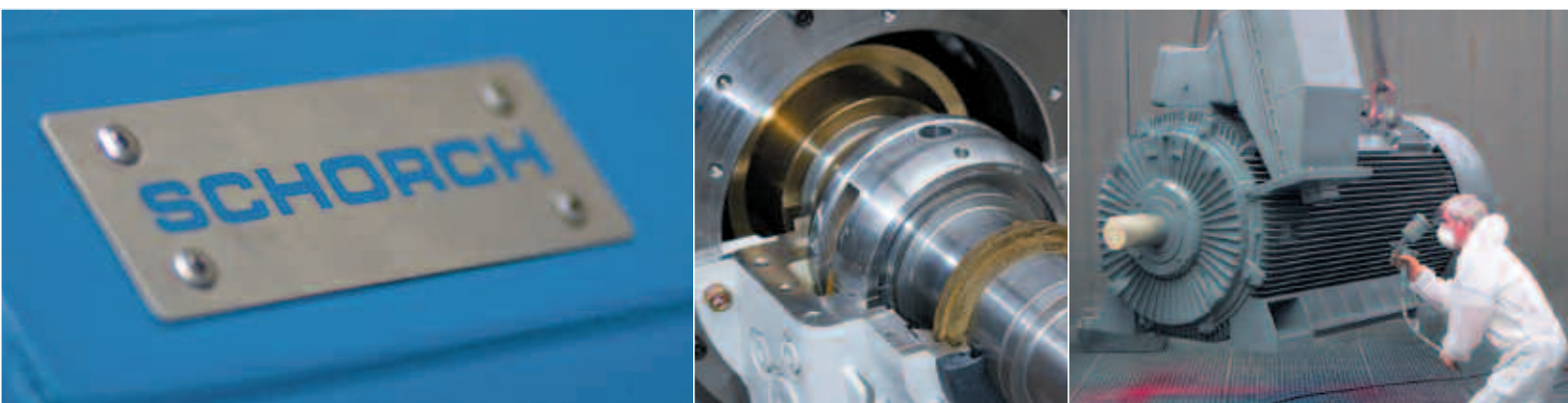
Portfolio

- Asynchronous Machines - Low voltage up to 4,800 kW
- Asynchronous Machines - High voltage up to 25,000 kW
- Drive Systems and System Engineering
- Maintenance and repair service

Worldwide engagement for more than 130 years

Progress is based on know-how, paired with courage and vision. For more than 130 years, SCHORCH has always looked forward into the future and kept abreast of the technical development in general and that of electrical machines in particular.

The result is the enduring high quality of our products.

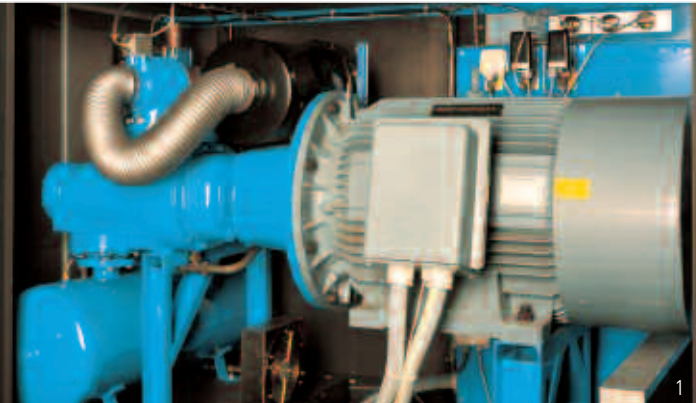


Chronology

- 1882** Foundation of the company Max Schorch & Cie, Rheydt. Manufacturing of wiring accessories, arc lamps, dynamos, planning and delivery of electrical equipment
- 1900** The company is converted into a joint stock company. SCHORCH specializes in the manufacture of electrical machines.
- 1925** Majority of shares Deutsche Continental-Gas Gesellschaft of Dessau
- 1959** SCHORCH, together with other electrical firms, is merged into the Continental Elektroindustrie AG.
- 1990** SCHORCH - a subsidiary of AEG Aktiengesellschaft, Berlin and Frankfurt
- 1995** SCHORCH GmbH is separated into AEG-Schorch Transformatoren GmbH (legal successor) and Schorch Elektrische Maschinen und Antriebe GmbH
- 1996** Schorch Elektrische Maschinen und Antriebe GmbH becomes a subsidiary of Elexis Elektroholding GmbH, Frankfurt
- 2001** Schorch Elektrische Maschinen und Antriebe GmbH is acquired by Lindeteves-Jacoberg Ltd., Singapore
- 2006** ATB Austria acquires the majority of shares in Lindeteves-Jacoberg Ltd., Singapore
- 2010** Schorch Elektrische Maschinen und Antriebe GmbH becomes a subsidiary of ATB AUSTRIA Antriebstechnik AG
- 2012** 130th anniversary of SCHORCH
- 2012** Rebranding of Schorch Elektrische Maschinen und Antriebe GmbH to: ATB Schorch GmbH



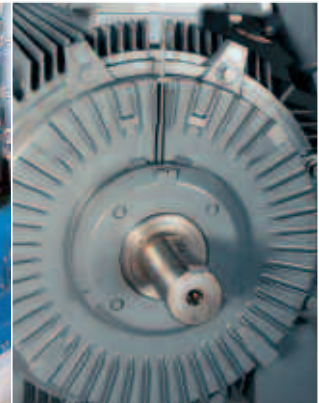
Low-voltage Asynchronous Machines up to 4,800 kW



1) Motor 90 kW, 400 V, 2,975 rpm, IP55, IM B35, compressor drive



2) Motors 160 kW, 400 V, 1,485 rpm, IP55, IM B3, driving pumps



3) Motor 885 kW, 690 V, 1,195 rpm, IP55, V1, water-cooled, converter-fed, ship propulsion

4) Motor 375 kW, 460 V, 3,972 rpm, (max. 9,000 rpm), IP23, IM B 35, converter-controlled drive of an engine test stand

5) Motor 12 – 30 – 75 kW, 440 V, IP55, driving cooling-water pumps on board ship

6) Motor 280 kW, 400 V, 759 rpm, IP55, IM V6, water-cooled, asynchronous hydro generator

7) Motor 2,500 kW, 690 V, 1,789 rpm, IP55, IM B3, converter-controlled drive of a transmission test stand

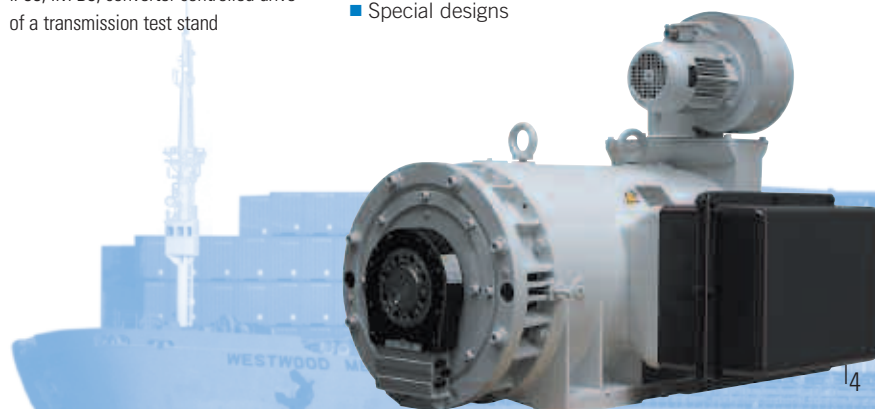
We supply surface-ventilated, water-cooled and internally ventilated low-voltage cage induction machines in standard and special designs.

Our machines are characterized by high efficiency, low noise level, reliability and ease of maintenance.

The use of paint systems with long-term corrosion protection renders these machines suitable for almost any application.

Design features

- Degree of protection from IP23 to IP65
- Single and change-pole speeds
- Types of protection Ex e, Ex n, Ex d, for ambient temperatures as low as -50°C
- Converter-controlled machines
- Energy-saving designs (optimised efficiency)
- High-speed drives up to 15,000 rpm, 1,000 kW
- Motors for various marine applications to regulations of international classification societies
- Special designs



Examples for applications

Motors:

Pumps
Compressors
Fans, Smoke and heat exhaust fans
Test stands
Presses
Crunchers
Mills
Cryo compressors
Kneaders/Agitators
Bow rudder pumps
Industrial furnaces
Cranes

Generators:

Small hydro power stations
Combined heat and power stations



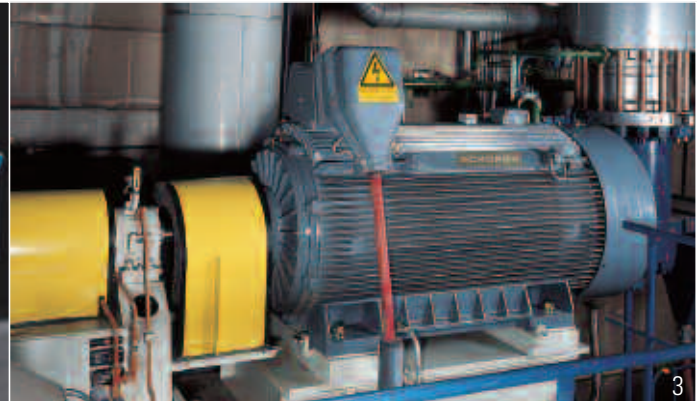
High-voltage Asynchronous Machines up to 25,000 kW



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1) Motors 200 kW to 2,000 kW, for voltages up to 11 kV, IP55

2) Motor 13,500 kW, 10 kV, 590 rpm, IP55, for an induced-draft fan

3) Motor 600 kW, 6.3 kV, 996 rpm, IP55, IM B3, driving a flue gas circulation blower in a CHP station

4) Motor 3,500 kW, 6 kV, 333 rpm, IP55, with top-mounted air/air heat exchanger

5) Motors 2,000 kW to 17,000 kW, for voltages up to 15 kV, tube-cooled

6) Motors 3,600 kW, 11 kV, 2,992 rpm, IP55, Ex d, driving centrifugal pumps

Our high-voltage asynchronous machines are available as surface-ventilated or tube-cooled machines or in a modular design which can be adapted to all customary degrees of protection and cooling methods.

These machines are characterized by high efficiency and low noise level, ease of maintenance and long service life. They are fitted with short-circuit and shatter-proof terminal boxes. The sturdy design can be adapted to a wide range of applications. Windings are insulated, using the well-known VPI method.

The design of our high-voltage asynchronous machines is the result of a long and close cooperation with manufacturers, engineering and users of all types of driven machines.

The design can be adapted to suit almost any application e.g. severe site and operating conditions, including hazardous areas.

Design features

- Ribbed frame
- Tube-cooled, internally ventilated or indirectly water-cooled
- Types of protection Ex n, Ex e, Ex p, Ex d
- Vibration- and shock resistant designs
- Low noise designs
- Degrees of protection IP23 and IP55



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Examples for applications:

Compressors
Pumps
Fans/Blowers
Shredders
Agitators



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Complete Drive Systems



1) Converter-fed pump drive
1,500 kW, 2 x 900 V, speed range 400 to 1,500 rpm

2) IGBT frequency converter with
pulsed line current converter

3) Motors 1,450 kW, 6 kV, 2-pole,
Ex d(e) II BT4 in a pipeline booster
station

4) Motors 1,200 kW, 6,6 kV, 2-pole,
driving water pumps

5) Motors 1,500 kW, 10 kV, 4-pole,
Ex d(e) IIBT4, driving crude oil pumps

Frequency converters are used for continuous, low-loss speed control of three-phase motors and form together with the motor a variable-speed system. The use of state-of-the-art digital electronics makes for precise speed control, ease of start-up, diagnosis, indication, signalling, operation, and fault memory. Communication with PLC and higher-level automation systems is possible via diverse interfaces.

Design features

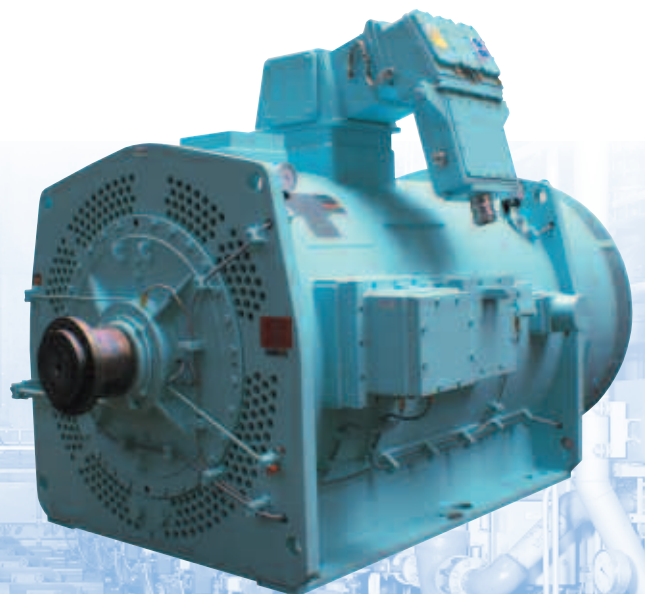
- Degree of protection IP20, IP23 and higher
- Low voltage and high voltage
- Frequency converters for the control of three-phase motors up to 20 MW
- Built-in converters or cubicle units

Tailor-made drive systems from only one supplier

SCHORCH offer tailor-made drive systems for a wide range of applications with reliable and safe speed control of almost any size and type of drive.

Examples for applications:

Compressors
Pumps
Fans
Test stands





Maintenance and Service



World-wide service network

Our international sales and service network offers to our partners fast and easy access to our support and maintenance service – no matter where, no matter when.

This expert service also extends to products of other manufacturers.



Range

- Erection and commissioning, including off-shore
- Preventive maintenance and repair
- Shut-down service
- Problem analysis and repair planning
- Machine diagnosis
- Refurbishing of older machines
- Operator training (in our company or at site)
- Supply of spare parts
- Repair workshop with 80 t crane capacity
- Service hotline

Our expertise – your advantage

Our experts are available – worldwide – to assist you in project analysis and planning and in finding the most economical solution to any given drive problem.

HSE Certification

SCC**

Health Safety & Environmental Management System

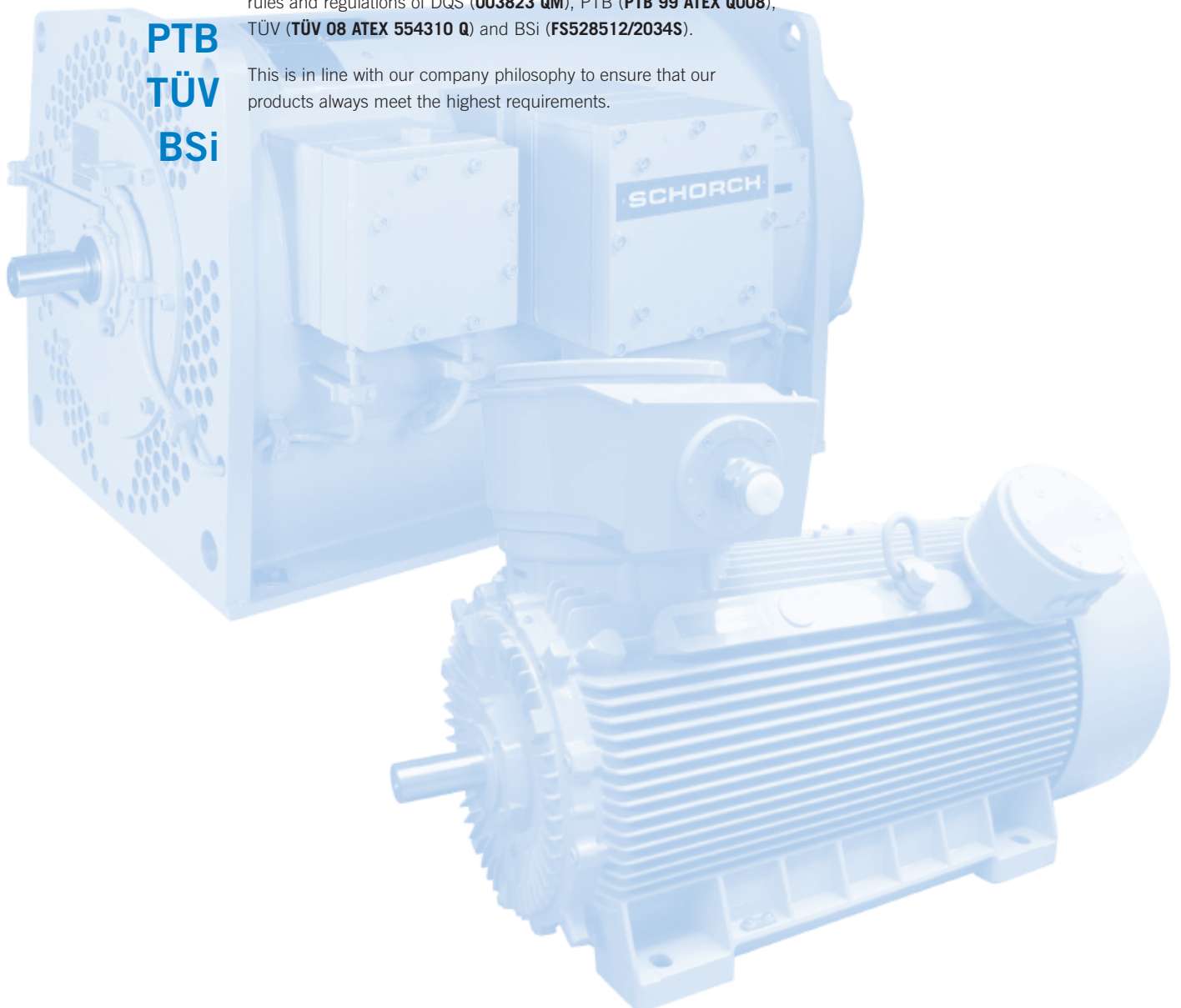
Quality – the basis of trust



DQS
PTB
TÜV
BSi

Our QA system is constantly updated to comply with the latest rules and regulations of DQS (**003823 QM**), PTB (**PTB 99 ATEX Q008**), TÜV (**TÜV 08 ATEX 554310 Q**) and BSi (**FS528512/2034S**).

This is in line with our company philosophy to ensure that our products always meet the highest requirements.





SCHORCH

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