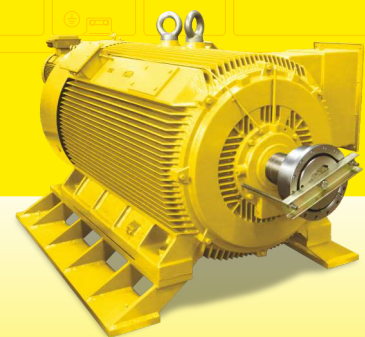


# MENZEL ELEKTROMOTOREN GMBH

Passion for Electric Motors since 1927



## **MENZEL: Industrial electric motor technology since 1927**

*We are a manufacturer and global supplier for industrial electric motors – three phase asynchronous motors with squirrel cage or slip ring motors, as well as direct current motors.*

MENZEL Elektromotoren GmbH is an independent, medium-sized, internationally active company specializing in motor technology. We look back with pride at over 90 years of experience in production and delivery of custom electric drive solutions for industrial applications. With our range of services, we are several steps ahead of the competition with regard to speed, service, and engineering.

From MENZEL, you can always expect reliable individual service, first-class product quality and competent, specialist advice. We are experts for custom motor designs and special solutions in the field of industrial motor technology in a power range of up to 25 MW.



## COMPANY HISTORY

- 1927** ..... At the age of 23, Kurt Menzel set up the company in Berlin.
- 1948** ..... Ms Gisela Menzel entered the family business.
- 1959-1962** ..... Construction and expansion of warehouses and factory.
- 1993-2001** ..... Acquisition of different external stock depots, in response to the rapid business expansion
- 2005** ..... Mathis Menzel enters the company, placed in charge of international sales.
- 2006-2008** ..... Capacities are expanded on a major scale in order to meet the rising demand: A storage facility for new high-voltage motors, a new assembly line and two new crane systems are set. A new engineering center in Hannover is set up.
- 2011** ..... A state-of-the-art paint-shop is completed to upgrade and expand the Berlin location.
- 2011** ..... Acquisition of Pawils Elektromaschinenbau GmbH in Peine, Lower Saxony.
- 2012** ..... A second load test field with a 2,300 kVA capacity has been put into operations and enables tests up to 1,800 kW under load and up to 10,000 kW at no load speed.
- 2017** ..... Extension of stock keeping to modular motors up to 15 MW



**2018** ..... Extension of the test field services (dual frequency)

**2019** ..... Digitization: MENZEL has converted to paperless order management

**2022** ..... Menzel Elektromotoren has signed the contract for the construction of a new, larger motor plant in Hennigsdorf near Berlin.

**2023** ..... Construction of the new MENZEL motor plant completed on time and on budget. Motor stock, production and offices are moving to the new headquarters.

**2024** ..... Operations officially start at the new MENZEL headquarters. The motor plant is equipped with state-of-the-art machinery, efficient logistics and increased lifting capacity to optimise production processes

## CUSTOM ELECTRIC MOTORS FOR INDUSTRIAL PLANTS ALL OVER THE WORLD





# NEW MOTOR FACTORY

The new MENZEL headquarters feature state-of-the-art machinery, efficient logistics and larger capacities for optimized production processes.

More information on our website: [www.menzel-motors.com](http://www.menzel-motors.com)

	<p><b>23,000 m<sup>2</sup></b> Total area</p>		<p><b>8,500 m<sup>2</sup></b> 2-aisle hall (assembly, tests, logistics storage)</p>		
	<p><b>4,000 m<sup>2</sup></b> Expansion area</p>		<p><b>80 tons</b> Crane capacity</p>		<p><b>2,100 m<sup>2</sup></b> 3-story office building</p>
<p><b>High-performance machines and equipment</b></p>					





# ABOUT US



MENZEL stands for quality, reliability, flexibility and speed.

Personal advice, project planning, design, production, testing, assembly and commissioning - you get everything from one source:

Standard motors for industrial applications, identical interchangeable replicas, optimized motor designs, mechanical and electrical adaptations, special designs for specific drive tasks and more.

- Founded in 1927
- Family run in the 3<sup>rd</sup> generation
- Completely independent
- Worldwide distribution
- Approx. 120 employees
- State-of-the-art calculation and testing systems
- Certified according to DIN EN ISO 9001
- Over 22,000 m<sup>2</sup> of storage space at 3 separate warehouses



# OUR STRENGTHS - YOUR ADVANTAGES



**DIN EN ISO 9001**  
Certified



**Experts for industrial motors**  
Up to 13,800 V



**24h emergency service**  
Short delivery times



**Worldwide locations**  
and excellent partners



**Custom design**  
and individual adaptations

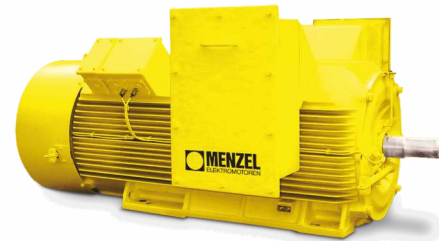
# OUR PRODUCT PORTFOLIO



- Industrial motors up to 13,800 V in all common motor cooling and protection types
- Fast delivery and response times
- Extensive service offering with our own load test field and 50 service technicians in worldwide charge

## Asynchronous squirrel cage motors

- 75 kW up to 25,000 kW
- 220 V up to 13,800 V



## Asynchronous slip ring motors

- 75 kW up to 8,000 kW
- 220 V up to 13,800 V



## DC motors

- 20 kW up to 2,000 kW
- 160 V up to 1,000 V



## Custom motor solutions

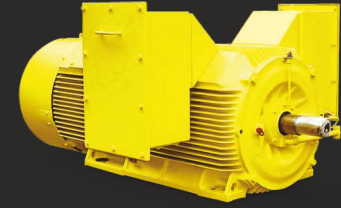
- High efficiency
- Extremely robust, durable and easy to maintain



# ASYNCHRONOUS SQUIRREL CAGE MOTORS

MENZEL squirrel cage induction motors are available in all standard motor cooling and protection types for low-voltage from 75 kW as well as medium and high voltage up to 25,000 kW (25 MW). This ensures maximum flexibility in industrial applications. Our squirrel cage motors run in industrial plants all over the world and drive eg large pumps, mills or fans.

Wherever a particularly high efficiency, compact, robust design and maximum reliability are required, MENZEL three-phase AC motors with squirrel cage rotor ensure the smooth drive of your machines and systems. The product range is versatile.



**Voltages:** 220 V up to 13,8 KV

**Frequencies:** 50 and 60 Hz

IM B3 configuration for horizontal installation

IM V1 configuration for vertical installation

IM B35 for foot & flange mounting

IM B5 / B14 / V1 for flange mounting

**Standard degrees of protection:**

IP 55 [fully enclosed]

IP 23 [open drip-proof]

**Standard types of cooling systems:**

IC 01 + IC 06 [open circuit air-cooled]

IC 411 + IC 416 [ribbed-cooled]

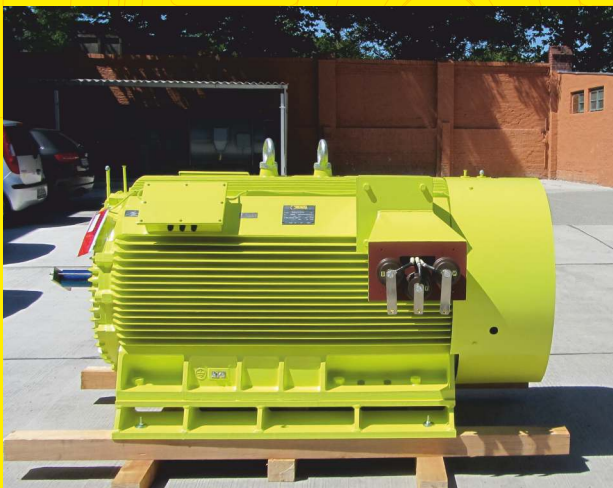
IC 611 + IC616 + IC 666 [air-air heat exchanger]

IC 81 W + IC 86 W [air-water heat exchanger]

IC 511 [tube cooling]

**Standard applications:**

Fans, pumps, compressors and more





# ASYNCHRONOUS SLIP RING MOTORS

Already since 1927, we are a global manufacturer, supplier, and distributor of large slip ring motors. We deliver complete motor solutions to the world's most demanding industries. Slip ring motors from MENZEL are extremely efficient, reliable, and robust. They are used in various industries such as cement, paper, water or steel and are employed there as drives for mills, compressors, blowers, refiners, shredders, etc.

MENZEL slip ring motors, also called wound rotor motors, are available in all current motor cooling and protection types for low-voltage from 75 kW as well as medium and high voltage up to 15,000 kW and 13,800 V. They set technical standards in terms of size, performance, economy and reliability.

**Voltages:** 220V up to 13.8 kV  
**Frequencies:** 50 and 60 Hz  
IM B3 configuration for horizontal installation  
IM V1 configuration for vertical installation

**Standard degrees of protection:**  
IP 55 [fully enclosed]  
IP 23 [open drip-proof]

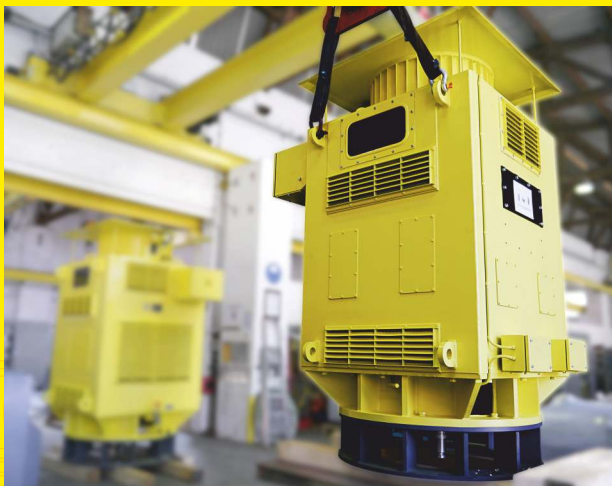


## Standard types of cooling systems:

IC 01 [open ventilated]  
IC 411 [ribbed-cooled]  
IC 611 + IC 616 + IC 666 [air-air heat exchanger]  
IC 81 W [air-water heat exchanger]  
IC 511 [tube cooling]

## Standard applications:

Mills, shredders, fans, and ventilators and more



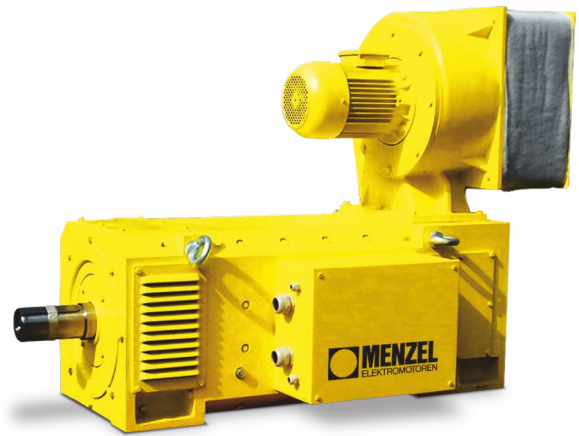
# DC MOTORS

The technology of DC motors still has its rightful place in many industrial applications. Direct current technology is still a high-quality alternative to alternating current technology because it is easy to control, compact and extremely reliable. In addition, direct current motors are particularly user-friendly and are impressive with their good start-up performance and adjustability. That is why, along with three-phase asynchronous cage motors, they have been on our production line and shipped worldwide since 1927.

Direct current motors are used where variable speed operation is necessary. They provide constant torque, both at low and high speeds. A compact and modular design enables our DC motors to be used, even in difficult installation conditions. There are therefore practically no limits to its use.

**Voltages:** up to 1000 Volts  
**Torque:** up to 200 kNm  
**Frames:** up to 900 mm  
IM B3 configuration for horizontal installation  
IM V1 configuration for vertical installation

**Standard degrees of protection:**  
IP 55 [IC 37 / IC 86 W / IC 666]  
IP 23 [IC 06 / IC 17]

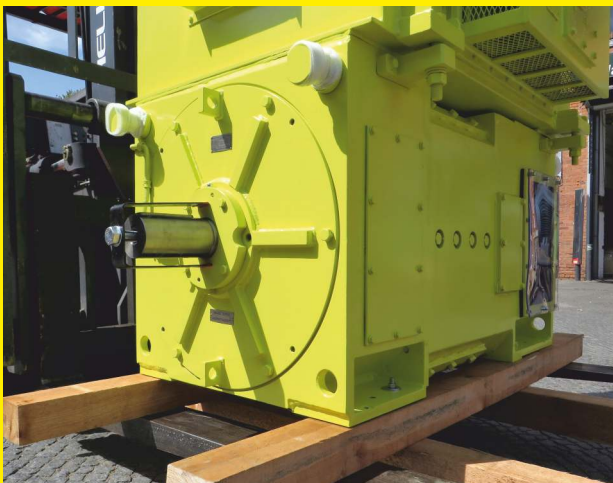


**Standard types of cooling systems:**

- IC 06 [forced ventilation]
- IC 17 [air duct in - out to local atmosphere]
- IC 37 [air duct in - air duct out]
- IC 86 W [air-water heat exchanger]
- IC 666 [air-air heat exchanger]

**Standard applications:**

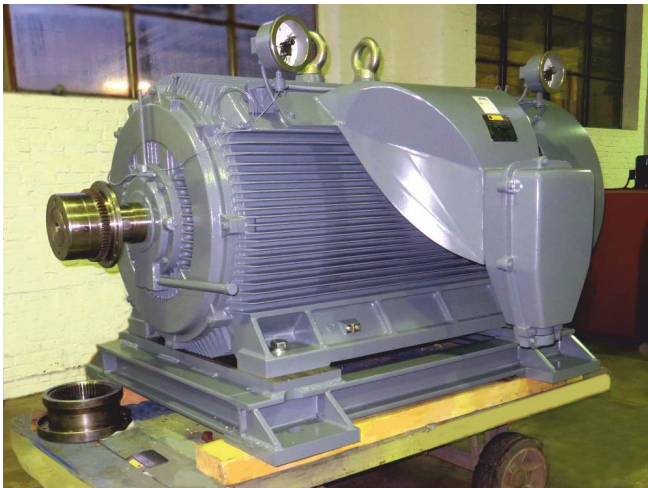
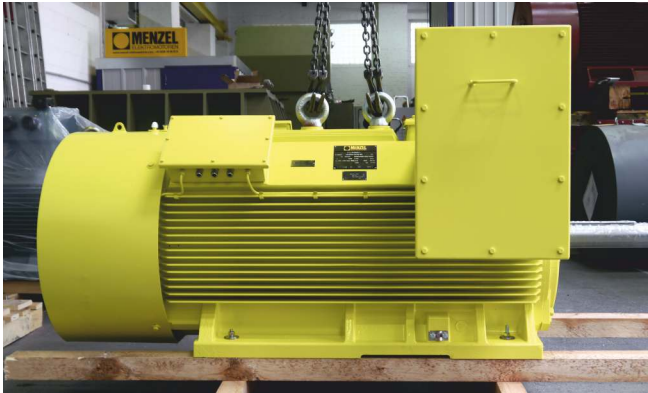
Rubber industry, steel industry, hoisting applications, test field applications



# CUSTOM DESIGN, SPECIAL SOLUTIONS AND IDENTICAL REPLICAS OF ALL KINDS



MENZEL also offers special electric motor solutions which are adapted to the needs of our customers, providing full-service capabilities for companies across a wide range of industries.





## AVAILABLE DIRECTLY FROM STOCK

*A vast inventory of more than 20,000 motors of all types stored in our warehouses*

### 24 / 7 emergency hotline

If your plant is at a standstill or if you have an emergency, every hour counts. For these special cases, we provide a 24-hour hotline for our industrial customers. MENZEL keeps numerous low-voltage, medium-voltage, and high-voltage motors as well as direct current motors ready to be delivered to you directly from stock.

- Squirrel cage motors up to 25,000 KW
- Slip ring motors up to 15,000 KW
- Flange motors up to 5,000 KW
- DC motors up to 2,000 KW
- Spare parts such as carbon brushes and bearings



# SERVICES



At MENZEL you directly speak with a project engineer who professionally supports your order from beginning to end and beyond whilst providing personal advice. For us, quality is complete fulfillment of customer expectations.

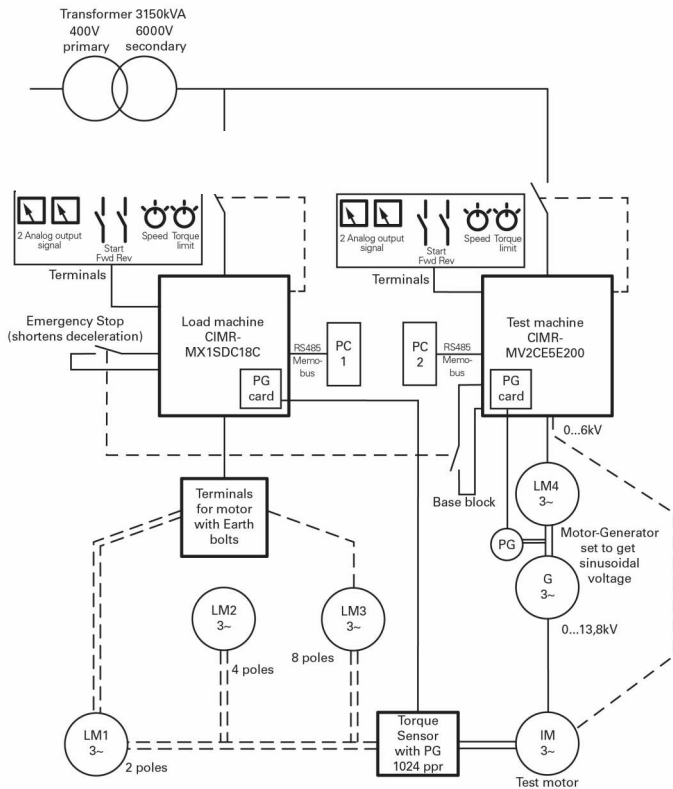
This is how we have won the trust of innumerable clients over many decades. We can support you quickly, flexibly, and actively with an international team of highly-trained specialists and experienced engineers.

Competent services and counselling from the initial inquiry to the commissioning of your MENZEL motor and more...

- Consulting, support and engineering
- Complete drive design
- Calculation and construction of all components
- Commissioning by our technical staff
- On-site service with revision, repair and maintenance
- On-site troubleshooting specialists
- Mobile testing technologies
- 50 service staff and 20 service cars available



# MENZEL LOAD TEST FIELD IN BERLIN



3 different load machines one of them will be selected on demand

The MENZEL test field offers state-of-the-art testing technology for independent motor testing

- Test voltages: up to 13,800 V
- Power supply with frequencies up to 120 Hz
- Electrical power: up to 2,300 kVA (higher capacities can be tested by partial load testing)
- Max. shaft power of 1,800 kW for network and system checks in a speed range from 500 to 3,600 rpm
- Crane capacity: 80 t
- Hook height: 7.5 m above the test facility
- Test beds: 2 clamping plates of 12x5 m and 9x3 m
- Connections for oil supply
- Direct truck access possible





# PAWILS ELEKTROMASCHINENBAU GMBH

To be able to answer your enquiries personally within the shortest time, MENZEL operates various subsidiaries in Europe, and cooperates with numerous partners worldwide.

With our subsidiary Pawils Elektromaschinenbau GmbH for example, we can offer an additional service to our customers in installation, revision, repair and maintenance work for electrical machines.



Since 1952 all-round service for electric drive technology in Peine (Lower Saxony):

- |  |   |   |  |
|--|---|---|--|
| <ul style="list-style-type: none"> <li>• Control technology</li> <li>• Control cabinet construction</li> </ul> | <ul style="list-style-type: none"> <li>• Energy management</li> <li>• Drive technology</li> <li>• Electrical engineering</li> </ul> | <ul style="list-style-type: none"> <li>• Plant revision</li> <li>• Crane services</li> <li>• Pump services</li> </ul> | <ul style="list-style-type: none"> <li>• Rental services</li> <li>• Power tools</li> <li>• On-site services</li> </ul> |
|--|---|---|--|





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Dipl.-Kfm. Dirk Achhammer

.....  
**STAY IN CONTACT WITH US**

