

# ZOLLERN

Solid metals. Fine solutions.

Drive Technology

Electric  
drive systems



# ZOLLERN gearbox with electric drive for mobile applications

The gearboxes from ZOLLERN form a compact unit together with the ZOLLERN synchronous motors.

They are especially well-suited for mobile applications, such as construction machines, mobile harbor cranes, tower cranes, tunnel boring machines, horizontal boring machines and lattice boom cranes.

## Features and advantages

- Compact design of the entire system
- High energy efficiency of the entire drive system
- High power density of the motor
- Low-noise
- Precise controllability of the motor
- Optimised for the individual application
- If desired, with integrated holding brake
- Interface reduction through the complete system
- Global after-sales service
- Can be expanded to include the ZOLLERN Drive Guard



# ZOLLERN synchronous motors

The permanent-magnet synchronous motors offer very high torques, which are available across a wide speed range. Project planning, electrical design, engineering, production and assembly as well as initial operation of the direct drives all occurs in-house at ZOLLERN. Customer-specific requirements, such as the motor design and connection geometry can be taken into consideration.

	Rated torque (S1) / Rated speed	Rated power	Speed limit
SM 300	350 Nm / 3,000 rpm to 750 Nm / 2,930 rpm	110 kW bis 230 kW	5,200 rpm
SM 500	1,700 Nm / 1,400 rpm to 3,750 Nm / 1,200 rpm	250 kW bis 400 kW	4,600 rpm
SM 720	4,000 Nm / 980 rpm to 8,800 Nm / 650 rpm	410 kW bis 600 kW	1,200 rpm

## Technical Data

- Ambient temperatures from -20°C to +50°C
- Vibration resistance < 5 g
- Impact resistance < 15 g
- Class rating IP65
- Water-cooled housing
- High overload capacity (200% of the  $T_{\text{rated}}$  in the short term)
- Customer-specific winding adjustment for optimal power and torque performance



### **Optional**

- Encoder/resolver according to customer request
- Holding brake
- Hollow shaft
- Electrically-insulated bearings
- Shaft earthing
- Stationary heater
- Customer-specific mechanical and electrical interfaces

# Electric drive systems

As a manufacturer of gearboxes and synchronous motors, ZOLLERN combines both components to form a complete drive system.



SM300  
motor with  
slewing  
gearbox



SM300  
motor with  
hoisting  
winch



SM500  
motor with  
winch  
gearbox



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