EN
ELECTRONIC
DRIVE SYSTEMS
UP TO 160 kW
NORD DRIVESYSTEMS Group

Headquarters and Technology Centre in Bargteheide, close to Hamburg

Electronic drive technology up to 160 kW

Innovative drive solutions for more than 100 branches of industry

Mechanical products
Electrical products
Electronical products

Gear units
Motors
Inverters, motors starters and field distribution systems

7 state-of-the-art production plants produce gear units, motors and inverters also for complete drive solutions from a single source.

Subsidiaries and sales partners in 98 countries on 5 continents provide local stocks, assembly, production, technical support and customer service

More than 3,600 employees throughout the world create customer oriented solutions

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NORD ELECTRONIC DRIVESYSTEMS has developed and produced electronic drive technologies at its factory in Aurich since 1984. With our extensive know-how and large production capacity, we offer our customers optimum quality and short delivery times for frequency inverters and motor starters as part of a comprehensive modular range of drive components.
WHY DRIVE SOLUTIONS FROM NORD DRIVESYSTEMS ARE YOUR BEST CHOICE

For more than 50 years we have provided our customers with extensive advice and planning security for the planning and implementation of standardised or customised drive solutions with electronic drive technology.

- NORD provides everything from a single source. All components such as gear units, motors and drive electronics are optimally matched.
- NORD provides competent local support throughout the world for the planning, design and integration of suitable drive technology.
- NORD supplies pre-assembled drive systems which are simple and easy to install and maintain.
- Satisfied customers from all over the world give you confidence in your decision for NORD.

VERSATILE – NORDAC PRO
SK 500E CONTROL CABINET INVERTERS up to 160 kW

FLEXIBLE – NORDAC FLEX
SK 200E DECENTRALISED FREQUENCY INVERTERS up to 22 kW

ECONOMICAL – NORDAC BASE
SK 180E DECENTRALISED FREQUENCY INVERTERS up to 2.2 kW

CONVENIENT – NORDAC LINK
FREQUENCY INVERTERS AND MOTOR STARTERS SK 250E/SK 155E up to 7.5 kW

ECONOMICAL – NORDAC START
SK 135E MOTOR STARTERS up to 7.5 kW
CONVENIENT – NORDAC LINK
FREQUENCY INVERTERS AND MOTOR STARTERS SK 250E/SK 155E up to 7.5 kW
VERSATILE: NORDAC PRO
SK 500E: CONTROL CABINET INVERTERS

- Power range up to 160 kW
- Protection class IP20
- Control cabinet installation
- alternative cooling concepts

DRIVE SYSTEMS
FOR ALL MOVEMENT APPLICATIONS

- high precision regulation with current vector control
- Open or closed loop operation
- 4-quadrant operation
- Functional safety e.g. STO and SS1
- integrated positioning and synchronisation mode (POSICON)
FLEXIBLE: NORDAC *FLEX*
SK 200E: DECENTRALISED FREQUENCY INVERTERS

- Power range up to 22 kW
- Protection class IP55, IP66
- Wall-mounted or motor-integrated
- Brake rectifier
- Plug-in EEPROM for easy parameter transfer

- PLC functionality for functions close to the drive unit
- Programming according to 61131-3
- Scalable functions with simple parameterisation
- Large overload reserve
- Internal brake rectifier for motor brake control

Pumps / Fans  Parcel distribution  Process engineering  Baggage handling technology
**ECONOMICAL: NORDAC BASE**
**SK 180E: DECENTRALISED FREQUENCY INVERTERS**

- Power range up to 2.2 kW
- Protection class IP55, IP66, IP69K
- Wall-mounted or motor-integrated
- Leakage current <16 mA for FI circuit breaker installation

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**ECONOMIC VARIABLE SPEED DRIVE UNIT**

- high precision current vector control
- meets the maximum EMC requirements of EN 55011 or EN 61800-3
- Energy-saving function for partial load operation
- PLC functionality for functions close to the drive unit

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Electronic drive technology up to 160 kW
ECONOMICAL: NORDAC START
SK 135E: MOTOR STARTERS

- Material Handling
- Belt conveyors
- Agitators
- Roller conveyors

- Power range up to 7.5 kW
- Protection class IP55, IP66, IP69K
- Wall-mounted or motor-integrated
- Brake rectifier

ECONOMIC FIXED SPEED DRIVE UNIT

- wear-free fully electronic starting with reversing function
- rapid commissioning via potentiometers
- internal brake rectifier for motor brake control
- internal motor protection

ATEX compliant
CONVENIENT: NORDAC LINK
SK 250E: FREQUENCY INVERTER FIELD DISTRIBUTOR

- Power range up to 7.5 kW
- Protection class IP55, IP65
- Simple commissioning and operation

FLEXIBLE DRIVE FOR FIELD INSTALLATION

- All I/Os in plug-in version for easy commissioning and maintenance
- Extensive options such as key switch/maintenance switch
- PLC functionality for functions close to the drive unit
- Function compatible with modular NORDAC FLEX

NORDAC LINK SK 250E FDS, NORDBLOC.1 bevel gear unit SK 92372.1 and NORD IE4 motor
ECONOMICAL: NORDAC *LINK*
SK 155E: MOTOR STARTER FIELD DISTRIBUTOR

- Power range up to 3.0 kW
- Protection class IP65
- simple commissioning and operation

LOW-COST DRIVE FOR FIELD INSTALLATION
- all I/Os in plug-in version for easy commissioning and maintenance
- extensive options such as key switch/maintenance switch
- PLC functionality for functions close to the drive unit
- wear-free fully electronic starting with reversing function
- Function compatible with modular NORDAC *FLEX*
ELECTRONIC DRIVE TECHNOLOGY
FOR EVERY APPLICATION

**Food and Beverage**

**Requirements:**
- Corrosion resistant and suitable for the food industry
- Easy to clean
- Harsh ambient conditions

**Baggage handling**

**Airports**

**Requirements:**
- Simple commissioning
- Maintenance-friendly
- Few versions

**Intralogistics**

**Parcel Distribution Centre**

**Requirements:**
- Direct integration of drive components into conveyor belts
- Simple integration into existing large-scale distribution centres
- High availability if servicing is required

**Theatre technology**

**Requirements:**
- Quiet drive system without external noise
- Smooth, slow lifting of stage sets
- Compliance with extensive safety regulations and legal requirements
NORD application solution:
- "nsd tupH" the unique NORD surface treatment system (complies with FDA Title 21 CFR 175.300)
- smooth surfaces (motor, gear unit and frequency inverter) simplify continuous cleaning processes
- the entire drive solution is suitable for the extended temperature range (-25 °C to +50 °C)

NORD application solution:
- complete pre-assembled and tested drive systems
- easier maintenance and commissioning through plug connectors instead of fixed wiring
- many applications can be standardised with the field distributor solutions

NORD application solution:
- decentralised drive technology with wall-mounted frequency inverters
- simple wiring with Powerbus and communication bus
- Plug-in EEPROM for easy parameter transfer for drive unit replacement

NORD application solution:
- quiet operation with frequency inverters with high pulse frequencies and noise-reduced brakes
- closed circuit speed control for high precision speed regulation
- integrated safety technology for safe control of movement and mechanical double brake
**ELECTRONIC DRIVE TECHNOLOGY**
**FOR EVERY APPLICATION**

**Lifting equipment**
**Construction hoists**

**Requirements:**
- compact lifting systems for mobile use
- Sequence and positioning control in the elevator cab
- Facilities for safe start (load take-up) and long downward movement

**Warehousing**

**Requirements:**
- rapid access to shelf areas
- Operation of several aisles with a single shelf control device
- Energy-efficient operation

**Material handling in the cement industry**

**Requirements:**
- Positioning in the loading area
- harsh ambient conditions
- Detection and elimination of mechanical blockages

**Pump operation**

**Requirements:**
- Metering
- continuous flow
- installation in existing concepts
NORD application solution:
- compact frequency inverters for control cabinet installation
- Implementation of positioning control with POSICON and integrated PLC
- safe overload reserve and powerful brake chopper and integrated brake management.

NORD application solution:
- dynamic movement and precise positioning
- curve movement facility with torque control
- integrated energy management.

NORD application solution:
- high precision positioning with POSICON and encoder feedback
- tried and tested drive technology for a wide temperature range
- the PLC integrated in the frequency inverter can detect and eliminate blockages by reversing the drive.

NORD application solution:
- integrated positioning
- closed circuit control and PI process controller
- BUS communication and sensors
The integrated PLC turns the combination of a NORD frequency inverter and a motor/gear unit combination into a complete system solution.

The NORD system solution is extended with functions for IEC 61131-3 programming (Structured Text and Instruction List) by use of the freely available NORD CON software tool.

Thanks to the PLC integrated into the frequency inverter

- Application-specific special functions close to the drive unit can be efficiently programmed and parameterised in the same way as all other frequency inverter functions.

- Direct access to the parameters as well as the analogue and digital inputs and outputs of the frequency inverter, for example for pre-processing of signals is possible.

- Complete implementation of sequence and movement control, for example positioning applications are possible without the use of a central control unit.
"NORD 4.0 READY" means that NORD drive units are networked, autonomous and scalable. The key to this is the frequency inverter with its powerful processors and comprehensive equipment, interfaces and functions. These not only monitor themselves and the motor, but also their effect on the load situation within the plant segments and beyond.
NORD CON is a software tool for:

- Parameterisation
- Programming
- Diagnosis
- Control

This tool enables the offline engineering and testing of PLC programs independently from the inverter. NORD CON is available for all SK 500E series inverters (control cabinet technology), as well as SK 180E and SK 200E series inverters (decentralised technology).
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Innovative drive solutions for more than 100 branches of industry

Mechanical products parallel shaft, helical gear, bevel gear and worm gear units

Electrical products IE2/IE3/IE4 motors

Electronic products centralised and decentralised frequency inverters, motor starters and field distribution systems

7 state-of-the-art production plants for all drive components

Subsidiaries and sales partners in 98 countries on 5 continents provide local stocks, assembly, production, technical support and customer service

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