NORD drive electronics with integrated PLC

Matured – NORDAC *PRO* SK 500P

Cabinet frequency inverter
▸ Power range up to 5,5 kW
▸ Control cabinet installation
▸ IP20

Versatile – NORDAC *FLEX* SK 200E

Decentralised frequency interter
▸ Power range up to 22 kW
▸ Wall or motor mounted
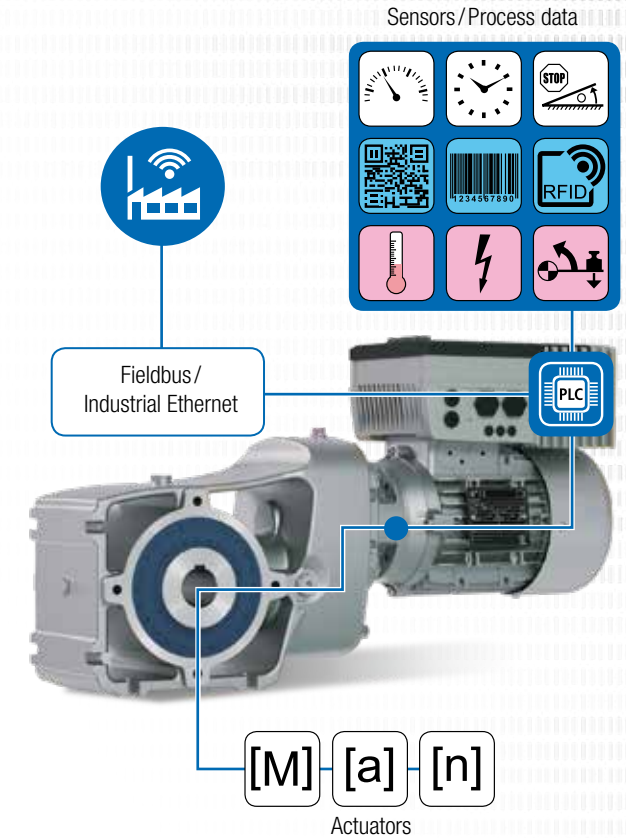▸ IP55, IP66

Economical – NORDAC *BASE* SK 180E

Decentralised frequency interter
▸ Power range up to 2,2 kW
▸ Wall or motor mounted
▸ IP55, IP66, IP69K

Convenient – NORDAC *LINK* SK 250E – FDS

Decentralised frequency interter
▸ Power range up to 7,5 kW
▸ Field installation
▸ IP55, IP65

Sensors / Process data

Fieldbus /
Industrial Ethernet

PLC

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Actuators

NORD system solutions through integrated PLC

NORD system solutions through integrated PLC

Integrated PLC converts the combination of a NORD frequency inverter and a geared motor into a complete system solution.

The software tool NORDCON with functions for IEC 61131-3 programming (Structured Text and instruction list) extends the NORD system solution.

Thanks to integration of a PLC 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 analog and digital inputs and outputs of the frequency inverter, for example for pre-processing of signals, is enabled.

▸ Complete implementation of sequence and movement control, for example positioning applications are possible without the use of a central control unit.
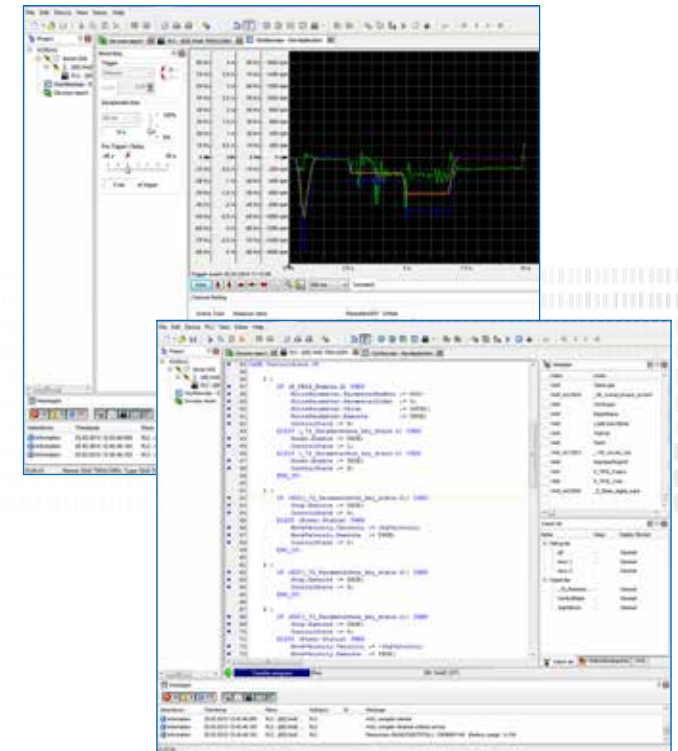
The software tool NORDCON

NORDCON follows the trend towards „high-level programming languages" in the field of automation, supporting the "Structured Text" and "Instruction list" programming languages according to IEC 61131-3.

This enables standardised programming of drive functions with PLCopen Motion Control function blocks. Use of manufacturer-independent PLCopen Motion Control (www.plcopen.org) function blocks reduces complexity and therefore reduces application development costs.

Specific NORD functions support the use of internal I/Os in the PLC program. This enables simple implementation of logical control and the control of movements, for example in positioning applications.

NORDCON is a free software tool, which was developed for the parameterisation, programming, diagnosis and control of NORD frequency inverters. This tool enables the offline production and testing of PLC programs independently from the inverter. NORDCON is available for all devices of the NORDAC family.

Centralised drive solutions (complete machine)

The integrated PLC in the frequency inverter replaces the central control unit of the machine and includes control of all sensors and actuators. (Application example: Machine for dicing, cutting and grating cheese or meat)

Decentralised drive solution (complete drive axis)

The integrated PLC in the frequency inverter performs functions close to the drive unit and includes control of all sensors and actuators. (Application example: Transfer unit with movement control and preprocessing of sensor signals for the field bus connection)

NORDCON PLC Editor and Oszilloskop function

With the integrated PLC in the NORD frequency inverter, customised solutions close to the drive unit can be implemented without an application-specific firmware or the cost-intensive verification and validation of firmware.