

ENGINEERING  
TOMORROW

*Danfoss*

# Сетевые интерфейсы для устройств VLT



# Сетевые опции для устройств VLT

Сетевой интерфейс	FC 301	FC 302	FC 202	FC 102	FC 103
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<a href="#">VLT® BACnet/IP MCA 125</a>	–	–	–	■	–
<a href="#">VLT® DeviceNet Converter MCA 194</a>	–	■	–	–	–

# VLT® PROFIBUS DP MCA 101



Operating the AC drive via a fieldbus enables you to reduce the cost of your system, communicate faster and more efficiently, and benefit from an easier user interface.

VLT® PROFIBUS DP MCA 101 provides

- Wide compatibility, a high level of availability, support for all major PLC vendors, and compatibility with future versions
- Fast, efficient communication, transparent installation, advanced diagnosis and parameterization and auto-configuration of process data via GSD-file
- Acyclic parameterization using PROFIBUS DP-V1, PROFIdrive or Danfoss FC profile state machines, PROFIBUS DP-V1, Master Class 1 and 2

## Ordering number

130B1100 standard

130B1200 coated (Class 3C3/IEC 60721-3-3)

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# VLT® DeviceNet MCA 104



VLT® DeviceNet MCA 104 offers robust, efficient data handling thanks to advanced Producer/Consumer technology.

- Support of ODVA's AC drive profile supported via I/O instance 20/70 and 21/71 secures compatibility to existing systems
- Benefit also from ODVA's strong conformance testing policies, which ensure that products are interoperable

*EtherNet/IP™ and DeviceNet™ are trademarks of ODVA, Inc.*

## **Ordering number**

130B1102 standard

130B1202 coated (Class 3C3/IEC 60721-3-3)

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# VLT® CANopen MCA 105



High flexibility and low cost are two of the “cornerstones” for CANopen.

The VLT® CANopen MCA 105 option for the VLT® AutomationDrive is fully equipped with both high-priority access to control and status of the drive (PDO Communication) and access to all parameters through acyclic data (SDO Communication).

For interoperability the option has implemented the DSP402 AC drive Profile. This all guarantees standardized handling, interoperability and low cost.

## Ordering number

130B1103 standard

130B1205 coated (Class 3C3/IEC 60721-3-3)

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# VLT® AK-LonWorks MCA 107



VLT® AK-LonWorks MCA 107 is a complete electronic refrigeration and control system for monitoring and controlling refrigeration plants.

Connecting this drive to a Danfoss ADAP-KOOL® Lon network is really simple. After entering a network address, press a service pin to start the automatic configuration procedure.

## **Ordering number**

130B1169 standard

130B1269 coated (Class 3C3/IEC 60721-3-3)

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# VLT® LonWorks MCA 108



LonWorks is a fieldbus system developed for building automation. It enables communication between individual units in the same system (peer-to-peer) and thus supports decentralizing of control.

- No need for main station (master-follower)
- Units receive signals directly
- Supports Echelon free-topology interface (flexible cabling and installation)
- Supports embedded I/O and I/O options (easy implementation of de-central I/O)
- Sensor signals can quickly be moved to another controller via bus cables
- Certified as compliant with LonMark ver. 3.4 specifications

## Ordering number

130B1106 standard

130B1206 coated (Class 3C3/IEC 60721-3-3)

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# VLT® BACnet MCA 109



The BACnet protocol is an international protocol that efficiently integrates all parts of building automation equipment from the actuator level to the building management system.

Via the BACnet option it is possible to read all analog and digital inputs and control all analog and digital outputs of the VLT® HVAC Drive.

All inputs and outputs can be operated independently of the functions of the drive, and thus work as remote I/O:

- COV (Change of Value)
- Synchronization of RTC from BACnet
- Read/write Property Multiple
- Alarm/Warning handling

## Ordering number

130B1144 standard

130B1244 coated (Class 3C3/IEC 60721-3-3)

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# VLT® PROFIBUS Converter MCA 113



The VLT® PROFIBUS Converter MCA 113 is a special version of the PROFIBUS options that emulates the VLT® 3000 commands in the VLT® AutomationDrive.

The VLT® 3000 can be replaced by the VLT® AutomationDrive, or an existing system can be expanded without costly change of the PLC program.

For upgrade to a different fieldbus, the installed converter is easily removed and replaced with a new option. This secures the investment without losing flexibility.

## Ordering number

NA standard

130B1245 coated (Class 3C3/IEC 60721-3-3)

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# VLT® PROFIBUS Converter MCA 114



The VLT® PROFIBUS Converter MCA 114 is a special version of the PROFIBUS options that emulates the VLT® 5000 commands in the VLT® AutomationDrive.

The VLT® 5000 can be replaced by the VLT® AutomationDrive, or an existing system can be expanded without costly change of the PLC program.

For upgrade to a different fieldbus, the installed converter is easily removed and replaced with a new option. This secures the investment without losing flexibility. The option supports DPV1.

## Ordering number

NA standard

130B1246 coated (Class 3C3/IEC 60721-3-3)

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# VLT® PROFINET MCA 120



## Ordering number

130B1135 standard

130B1235 coated (Class 3C3/IEC 60721-3-3)

VLT® PROFINET MCA 120 uniquely combines the highest performance with the highest degree of openness. The option is designed so that many of the features from the VLT® PROFIBUS MCA 101 can be reused, minimizing user effort to migrate PROFINET, and securing the investment in a PLC program.

- Same PPO types as the MCA 101 PROFIBUS for easy migration to PROFINET
- Built-in web server for remote diagnosis and reading out of basic drive parameters
- Support of MRP
- Support of DP-V1 Diagnostic allows easy, fast and standardized handling of warning and fault information into the PLC, improving bandwidth in the system
- Support of PROFISAFE when combined with MCB 152
- Implementation in accordance with Conformance Class B

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# VLT® EtherNet/IP MCA 121



## Ordering number

130B1119 standard

130B1219 coated

(Class 3C3/IEC 60721-3-3)

Ethernet is the future standard for communication at the factory floor. The VLT® EtherNet/IP MCA 121 is based on the newest technology available for industrial use and handles even the most demanding requirements. EtherNet/IP™ extends commercial off-the-shelf Ethernet to the Common Industrial Protocol (CIP™) – the same upper-layer protocol and object model found in DeviceNet.

The VLT® MCA 121 offers advanced features such as:

- Built-in high performance switch enabling line-topology, and eliminating the need for external switches
- DLR Ring (from October 2015)
- Advanced switch and diagnosis functions
- Built-in web server
- E-mail client for service notification
- Unicast and Multicast communication

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# VLT® Modbus TCP MCA 122



Modbus TCP is the first industrial Ethernet-based protocol for automation. The VLT® Modbus TCP MCA 122 connects to Modbus TCP-based networks. It is able to handle connection intervals down to 5 ms in both directions, positioning it among the fastest performing Modbus TCP devices in the market. For master redundancy it features hot swapping between two masters.

Other features:

- Built-in web-server for remote diagnosis and reading out basic drive parameters
- Email notification can be configured, to send an email message to one or more recipients, when certain alarms or warnings occur, or are cleared
- Dual Master PLC connection for redundancy

## Ordering number

130B1196 standard

130B1296 coated (Class 3C3/IEC 60721-3-3)

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# VLT® POWERLINK MCA 123



VLT® POWERLINK MCA 123 represents the second generation of fieldbus. The high bit rate of industrial Ethernet can now be used to make the full power of IT technologies used in the automation world available for the factory world.

POWERLINK does not only provide high performance real-time and time synchronization features. Due to its CANopen-based communication models, network management and device description model, it offers much more than just a fast communication network.

The perfect solution for:

- Dynamic motion control applications
- Material handling
- Synchronization and positioning applications

## Ordering number

130B1489 standard

130B1490 coated (Class 3C3/IEC 60721-3-3)

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# VLT® EtherCAT MCA 124



The VLT® EtherCAT MCA 124 offers connectivity to EtherCAT® based networks via the EtherCAT Protocol.

The option handles the EtherCAT line communication in full speed, and connection towards the drive with an interval down to 4 ms in both directions. This allows the MCA 124 to participate in networks ranging from low performance up to servo applications.

- EoE Ethernet over EtherCAT support
- HTTP (Hypertext Transfer Protocol) for diagnosis via built-in web server
- CoE (CAN Over Ethernet) for access to drive parameters
- SMTP (Simple Mail Transfer Protocol) for e-mail notification
- TCP/IP for easy access to drive configuration data from MCT 10

## Ordering number

130B5546 standard

130B5646 coated

(Class 3C3/IEC 60721-3-3)

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# VLT® BACnet/IP MCA 125



The VLT® BACnet/IP MCA 125 option optimizes the use of VLT® HVAC Drive together with building management systems (BMS) using the BACnet/IP protocol or running BACnet on Ethernet. The option has two Ethernet connectors, enabling daisy-chain configuration with no need for external switches. The VLT® BACnet/IP MCA 125 makes it easy to control or monitor points required in typical HVAC applications, and reduces overall cost of ownership.

Besides standard functionality, the option provides:

- COV, Change Of Value
- Read/WritePropertyMultiple
- Alarm/Warning notifications
- PID Loop object
- Segmented data transfer
- Trending

## Ordering number

134B1586 coated  
(Class 3C3/IEC 60721-3-3)

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# VLT® DeviceNet Converter MCA 194



The VLT® DeviceNet Converter MCA 194 emulates VLT® 5000 commands in the VLT® AutomationDrive.

This means that a VLT® 5000 drive can be replaced by the VLT® AutomationDrive, or a system can be expanded, without costly change of the PLC program.

For a later upgrade to a different fieldbus, the installed converter can easily be removed and replaced with a different option. This secures the investment without losing flexibility. The option emulates I/O instances and explicit messages of a VLT® 5000.

## Ordering number

NA standard

130B5601 coated (Class 3C3/IEC 60721-3-3)

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