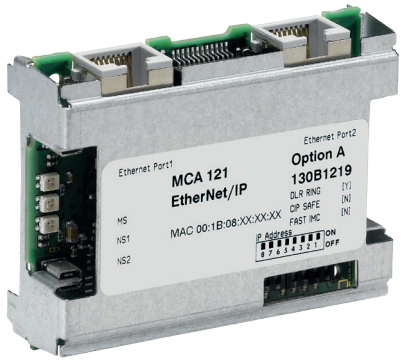
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Fact Sheet

VLT® EtherNet/IP MCA 121



ODVA CONFORMANT

Ordering number

Uncoated	130B1119
Coated	130B1219

High performance EtherNet/IP™ fieldbus option for

- VLT® HVAC Drive FC 102
- VLT® AQUA Drive FC 202
- VLT® AutomationDrive FC 302
- VLT® Lift Drive LD 302

DLR
Support for high availability

The VLT® EtherNet/IP MCA 121 option offers plug and play connectivity to EtherNet/IP based networks, such as Rockwell PLC systems, via the Common Industry Protocol (CIP™) protocol.

The option can handle a single EtherNet/IP Class 1 connection with a Requested Packet Interval (RPI) of 1 ms in both directions. This makes it one of the highest performing EtherNet/IP devices in the market.

The option features a built-in 2-port switch, facilitating traditional line network or Device Level Ring (DLR) topology. The DLR in the MCA 121 is Beacon based, to achieve the fastest fault detection with recovery time down to 3 ms. These topologies eliminate the need for the complex cabling and expensive industrial Ethernet switches, which are used in star topology.

Other features

- Built-in web-server for remote diagnosis and reading out basic drive diagnosis.
- An E-mail notificator can be configured for sending an e-mail message to one or several receivers, if certain warnings or alarms occur, or have cleared again.
- Add On Instruction (AOI) that reduces the time, effort and cost involved in development of the PLC program. The AOI contains a list of pre-defined tags used to control the drive
- Swift integration into the PLC configuration tool via an EDS file

Application protocols

- EtherNet/IP (Industrial Protocol) for controlling and parameter settings
- CIP (Common Industry Protocol) For communication to the PLC
- HTTP (Hypertext Transfer Protocol) for diagnosis via build-in web server
- SMTP (Simple Mail Transfer Protocol) for e-mail notification
- DHCP (Dynamic Host Configuration Protocol) automatic IP address configuration
- Supports connection to VLT® Motion Control Tool MCT 10 over TCP/IP
- Supports read/write Scattered of Drive parameters

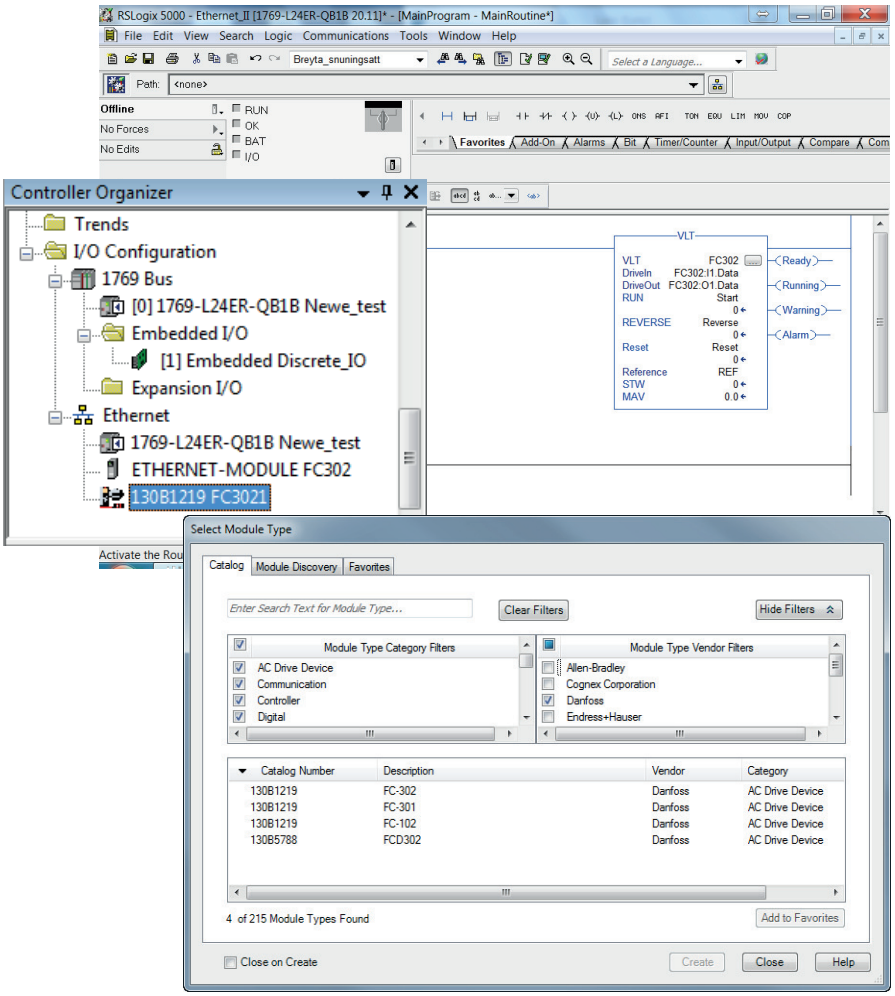
Feature	Benefit
Connectivity to EtherNet/IP based networks	Connects to Rockwell PLC-system via the Common Industry Protocol (CIP™)
Requested Packet Interval (RPI) of 1 ms	High performance
Built-in web-server	Remote diagnosis and reading out of basic drive parameters
E-mail notificator	Notifies if warnings or alarms occur
Two Ethernet ports with built-in switch	• Simple cabling • No need for expensive switches or hubs
Based on CIP Protocol	Reuse of PLC program when migrating from DeviceNet to EtherNet/IP or supporting both technologies.
Supports Device Level Ring (DLR) topology	A single fault in one of the Ethernet cables, or one of the devices in the ring, will not lead to loss of the communication to all devices.

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The VLT® EtherNet/IP MCA 121 option integrates swiftly into the PLC configuration tool, via the EDS file.

VLT® drives support the ODVA and FC profiles for I/O Assembly objects. Likewise, they also support:

- CIP objects, including I/O Assemblies for five different assembly objects (AO) to tailor the commutation for optimal performance
- AC Drive object
- Other objects to support easy configuration and integration with PLCs supporting EtherNet/IP

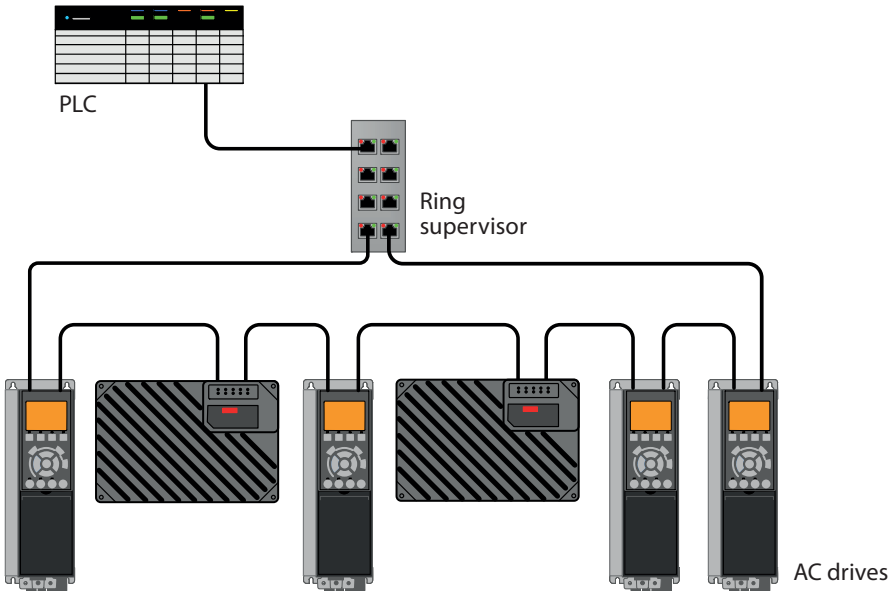


Downloads

These files are available free of charge in the software download area at **drives.danfoss.com**:

- Add-on Instruction (AOI)
- EDS file

Device Level Ring (DLR) topology



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