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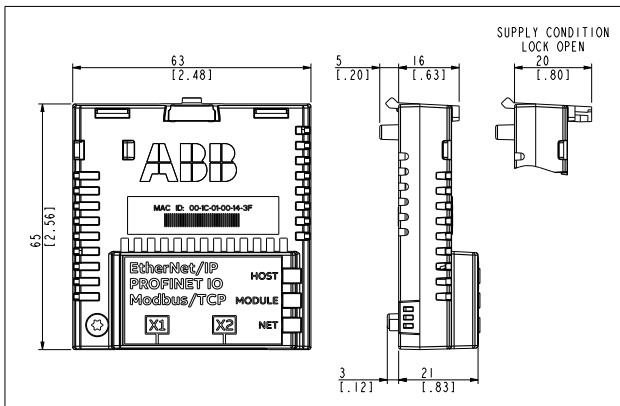
Technical data

Contents of this chapter

This chapter contains the technical specifications of the adapter module and the Ethernet link.

FENA-01/-11/-21

The figure below shows the enclosure of the adapter module from the front and side.



Installation	Into an option slot on the drive control unit
Degree of protection	IP20
Ambient conditions	The applicable ambient conditions specified for the drive in its manuals are in effect.
Package	Cardboard. Plastic wrapping: Antistatic air bubble sheet (PE).
Indicators	Three bicolor LEDs (HOST, MODULE, NETWORK/NET)
Connectors	A 20-pin connector to the drive RJ-45 connector to Ethernet (X1) <u>FENA-21 only</u> : RJ-45 connector for chaining another adapter module (X2)
Power supply	+3.3 V \pm 5% max. 400 mA (supplied by the drive)
General	Complies with EMC standard EN 61800-3:2004 Printed circuit board conformal coated

Ethernet link

Compatible devices	Ethernet Standard IEEE 802.3 and IEEE 802.3u devices
Medium	10BASE-TX or 100Base-TX with Auto-negotiation and Auto-MDIX (Auto-crossover) <ul style="list-style-type: none"> • Wiring: CAT5/6 UTP, CAT5/6 FTP, CAT5/6 STP • Connector: RJ-45 • Termination: Internal • Maximum segment length: 100 m / 328 ft
Topology	Bus or star. Max. 50 nodes allowed for FENA-21 in a daisy chain topology.
Transfer rate	10 Mbps or 100 Mbps
Serial communication type	Half or full duplex
Protocol	Modbus/TCP, EtherNet/IP, PROFINET IO

TCP and UDP service ports

There are multiple in-bound and out-bound network services running on the FENA-01/-11/-21. Some ports are protocol specific and are not used when other protocols are selected.

Port	Service	Purpose
502 (TCP/UDP)	Modbus/TCP	Communication between the drive and a PLC. Note: Used only when Modbus/TCP protocol is selected
44818 (TCP)	Ethernet/IP	Ethernet/IP, explicit messaging. Note: Used only when Ethernet/IP protocol is selected
2222 (UDP)	Ethernet/IP	Ethernet/IP, implicit messaging. Note: Used only when Ethernet/IP protocol is selected
34962 (TCP/UDP)	PROFINET	PROFINET RT Unicast. Note: Used only when PROFINET IO protocol is selected
34963 (TCP/UDP)	PROFINET	PROFINET RT Multicast. Note: Used only when PROFINET IO protocol is selected
34964 (TCP/UDP)	PROFINET	PROFINET Context Manager. Note: Used only when PROFINET IO protocol is selected
80 (TCP)	HTTP	Web server, provides the UI over the HTTP protocol. Used for Ethernet tool communication. To disable go to Service Configuration page via web interface (see page 444).
68 (UDP)	DHCP	DHCP client Note: Used only when IP configuration method is selected as "Dyn IP HFCP"

Port	Service	Purpose
24576 (UDP)	ABB Netconfig	<ul style="list-style-type: none">• Auto discovery protocol• Used by ControlBuilder plus (IP Configuration tool) and Drive composer pro and DriveWindow 2.40 PC tools• Discovers ABB specific Ethernet devices in a local network segment, by listening to and responding to UDP broadcasts. To disable go to Service Configuration page via web interface (see page 444).
123 (UDP)	SNTP	Simple Network Time protocol. This service is switched off, by default. To enable this service, go to Service Configuration page via web interface (see page 444).
161 (UDP)	SNMP	Simple Network Management Protocol. Note: Used only when PROFINET IO protocol is selected. To disable go to Service Configuration page via web interface (see page 444).