

Schneider BME Series Service Manual

BMXP3420302CL

1. Description

processor, Modicon M340, max 1024 discrete, 256 analog IO, CANopen, Ethernet, without memory card

3. Product Information

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BMXP3420302CL

Main

Range of product

Modicon M340 automation platform

Product or component type

Processor module

Condition of use

Requires a memory card to work (not supplied)

Concept

Transparent Ready

CANopen

Number of racks

4

Number of slots

11

Discrete I/O processor capacity

1024 I/O multi-rack configuration

704 I/O single-rack configuration

Analogue I/O processor capacity

256 I/O multi-rack configuration

66 I/O single-rack configuration

Number of application specific channel

36

Complementary

Control channels

Programmable loops

Motion control

Independent axis CANopen

Integrated connection type

USB port at 12 Mbit/s

CANopen master bus SUB-D 9, transmission mode: 2 twisted shielded pairs at 20 kbit/s...1 Mbit/s

Ethernet TCP/IP RJ45, transmission mode: 1 twisted pair at 10/100 Mbit/s

Communication module processor capacity

2 Ethernet communication module

4 AS-Interface module

embedded communication service

Network management (NMT) CANopen

Process Data Object (PDO) CANopen

Service Data Object (SDO) CANopen

Special functions (SYNC, EMCY, TIME) CANopen

Bandwidth management, Ethernet TCP/IP

Data Editor, Ethernet TCP/IP

Modbus TCP messaging, Ethernet TCP/IP

Rack Viewer, Ethernet TCP/IP

SNMP network administrator, Ethernet TCP/IP

Port Ethernet

10BASE-T/100BASE-TX

Transmission rate

1 Mbit/s 0...20 m 0...0.6 m

125 kbit/s 0...500 m 0...10 m

20 kbit/s 0...2500 m 0...300 m

250 kbit/s 0...250 m 0...10 m

50 kbit/s 0...1000 m 0...120 m

500 kbit/s 0...100 m 0...10 m

800 kbit/s 0...40 m 0...6 m

Bus type

CANopen M20 DS 301 V4.02 devices linked by daisy-chaining or tap junctions CSMA/CA

CANopen M20 DS 303-2 devices linked by daisy-chaining or tap junctions CSMA/CA

CANopen M20 DS 405 devices linked by daisy-chaining or tap junctions CSMA/CA

Number of server device(s)

63 CANopen

Number of devices per segment

0...16 for <205 m (CANopen)

0...32 for <185 m (CANopen)

0...64 for <160 m (CANopen)

Memory description

Internal RAM 4096 kB

Internal RAM 256 kB data

Internal RAM 3584 kB program constants and symbols

Maximum size of object areas

256 kB unlocated internal data

32634 %Mi located internal bits

Default size of object areas

1024 %MWi internal words located internal data

256 %KWi constant words located internal data

512 %Mi located internal bits

Application structure

64 event tasks

1 cyclic/periodic master task

1 periodic fast task

No auxiliary task

Execution time per instruction

0.12 µs Boolean

0.17 µs double-length words

0.25 µs single-length words

1.16 µs floating points

Number of instructions per ms

6.4 Kinst/ms 65 % Boolean + 35 % fixed arithmetic

8.1 Kinst/ms 100 % Boolean

System overhead

0.13 ms for fast task

0.7 ms for master task

Current consumption

135 mA at 24 V DC

Supply

Internal power supply via rack

Marking

CE

Status LED

1 LED (green) activity on Ethernet network (ETH ACT)

1 LED (green) integrated machine/installation bus operational (CAN RUN)

1 LED (green) processor running (RUN)

1 LED (green) status of Ethernet network (ETH STS)

1 LED (red) data rate (ETH 100)

1 LED (red) I/O module fault (I/O)

1 LED (red) integrated machine/installation bus fault (CAN ERR)

1 LED (red) memory card fault (CARD ERR)

1 LED (red) processor or system fault (ERR)

1 LED (yellow) activity on Modbus (SER COM)

Net weight

0.215 kg

Environment

Ambient air temperature for operation

0...60 °C

Relative humidity

10...95 % without condensation

IP degree of protection

IP20

Protective treatment

TC

Directives

2014/35/EU - low voltage directive

2014/30/EU - electromagnetic compatibility

Product certifications

CE

UL

CSA

RCM

EAC

Merchant Navy

Standards

IEC 61131-2

IEC 61010-2-201

UL 61010-2-201

CSA C22.2 No 61010-2-201

IACS E10

EN/IEC 61000-6-5, interface type 1 and type 2

EN/IEC 61850-3, location G

Environmental characteristic

Hazardous location class I division 2

Packing Units

Unit Type of Package 1

PCE

Number of Units in Package 1

1

Package 1 Height

5.500 cm

Package 1 Width

11.500 cm

Package 1 Length

12.000 cm

Package 1 Weight

251.000 g

Unit Type of Package 2

S02

Number of Units in Package 2

15

Package 2 Height

15.000 cm

Package 2 Width

30.000 cm

Package 2 Length

40.000 cm

Package 2 Weight

4.075 kg