

Schneider BME Series Service Manual

BMXP3420302H

1. Description

processor, Modicon M340, max 1024 discrete, 256 analog IO, CANopen, Ethernet, for severe environment

3. Product Information

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BMXP3420302H

Main

Range of Product

Modicon M340 automation platform

Product or Component Type

Processor module

Product Specific Application

For severe environments

Concept

CANopen

Transparent Ready

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 12 Mbit/s

CANopen master bus SUB-D 9 2 twisted shielded pairs 20 kbit/s...1 Mbit/s

Ethernet TCP/IP RJ45 1 twisted pair 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...65.6 ft (0...20 m) 0...2.0 ft (0...0.6 m)

125 kbit/s 0...1640.4 ft (0...500 m) 0...32.8 ft (0...10 m)

20 kbit/s 0...8202.10 ft (0...2500 m) 0...984.3 ft (0...300 m)

250 kbit/s 0...820.2 ft (0...250 m) 0...32.8 ft (0...10 m)

50 kbit/s 0...3280.8 ft (0...1000 m) 0...393.7 ft (0...120 m)

500 kbit/s 0...328.08 ft (0...100 m) 0...32.8 ft (0...10 m)

800 kbit/s 0...131.2 ft (0...40 m) 0...19.7 ft (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...16 672.6 ft (205 m) CANopen)

0...32 607.0 ft (185 m) CANopen)

0...64 524.9 ft (160 m) CANopen)

Memory description

Supplied memory card (BMXRMS008MP) backup of programs, constants, symbols and data

Internal RAM 4096 kB

Internal RAM 256 kB data

Internal RAM 3584 kB program constants and symbols

Supplied memory card (BMXRMS008MP) activation of standard web server, class B10

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 %KW_i constant words located internal data

512 %Mi located internal bits

Application structure

1 periodic fast task

No auxiliary task

1 cyclic/periodic master task

64 event tasks

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 fast task

0.7 ms master task

Current consumption

135 mA 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

0.474 lb(US) (0.215 kg)

Environment

Ambient air temperature for operation

-13...158 °F (-25...70 °C)

Relative Humidity

10...95 % without condensation

IP Degree of Protection

IP20

Protective treatment

Conformal coating

Directives

2014/35/EU - low voltage directive

2014/30/EU - electromagnetic compatibility

2014/34/EU - ATEX directive

Product certifications

CE

UL

CSA

RCM

EAC

Merchant Navy

ATEX zone 2/22

IECEx zone 2/22

Standards

EN/IEC 61131-2

EN/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

EN/IEC 60079-0

Environmental characteristic

Gas resistant class Gx ISA S71.04

Gas resistant class 3C4 IEC 60721-3-3

Dust resistant class 3S4 IEC 60721-3-3

Sand resistant class 3S4 IEC 60721-3-3

Salt resistant level 2 IEC 68252

Mold growth resistant class 3B2 IEC 60721-3-3

Fungal spore resistant class 3B2 IEC 60721-3-3

Hazardous location class I division 2

Ordering and shipping details

Category

US1PC3418160

Discount Schedule

PC34

GTIN

3595864024493

Returnability

No

Country of origin

FR

Packing Units

Unit Type of Package 1

PCE

Nbr. of units in pkg.

1

Package 1 Height

2.17 in (5.500 cm)

Package 1 Width

4.33 in (11.000 cm)

Package 1 Length

4.72 in (12.000 cm)

Package weight(Lbs)

9.136 oz (259.000 g)

Unit Type of Package 2

S02

Number of Units in Package 2

15

Package 2 Height

5.91 in (15.000 cm)

Package 2 Width

11.81 in (30.000 cm)

Package 2 Length

15.75 in (40.000 cm)

Package 2 Weight

9.359 lb(US) (4.245 kg)