



CERTIFICATE NUMBER 19-GE1808110-PDA

EFFECTIVE DATE 08 January 2019

EXPIRATION DATE 07 January 2024

ABS TECHNICAL OFFICE Genoa Engineering Department

CERTIFICATE OF

## Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**SCHNEIDER ELECTRIC FRANCE**

located at

Site Horizon, 8 EME Rue – 70 Metres ZI DE CARROS  
06516 CARROS (FRANCE)

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product **Automation, Modular I/O System**

Model **Modicon M340-M580-X80**

This Product Design Assessment (PDA) Certificate remains valid until 07 January 2024 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Giorgio Barbini, Principal Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

## SCHNEIDER ELECTRIC FRANCE

SITE HORIZON

8 EME RUE - 70 METRES

ZI DE CARROS

CARROS

France 06516

Telephone: +33 492 08 8181

Fax: +33 497 23 1509

Email: benjamin-martinez@se.com

Web: www.schneider-electric.com

### Tier: 5 - Unit Certification Required

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**Product:** Automation, Modular I/O System

**Model:** Modicon M340-M580-X80

**Intended Service:**

ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards.

#### Description:

Programmable control system for marine and offshore monitoring and control functions.

- Modicon M340: composed of one BMXP341000 standard model processors and seven (7) performance models BMXP3420xx or BMXP3420xxxCL; programmed and configured with Unity Pro small/medium/ large or extra large, X bus connection.

- Modicon M580: BMEP581020, BMEP5820xx, BMEP5830xx, BMEP5840xx, BMEP5850xx and BMEP5860xx processors with Modicon X80 I/O platform, Highway Addressable Remote Transducer (HART) analog I/O modules and Ethernet backplane capable of X-bus and Ethernet connection.

Programmed and configured with Unity Pro software (for version please refer to catalogue).

See attachment for details.

#### Rating:

24 - 125 V DC

100 - 240 V AC

Operating temperature 0°C to +60°C degrees / -25°C to +70°C degrees according to product (see attachment for details)

#### Service Restriction:

- Unit certification is not required for Category I services.

- Unit certification is required by the user to customize this equipment where it is used for Category II or III services in accordance with 4-9-3/Table 1 and Table 2 of the ABS steel Vessels Rules, as applicable.

- The tests in the presence of the Surveyor are required in accordance with 4-9-8/Table 2 of the ABS Steel Vessel Rules "Performance Tests" where it is used for control and monitoring systems of propulsion machinery, propulsion boilers vital auxiliary pumps and electrical generating plants.

- The performance tests are to be carried out at the assembled plant before installation on-board or after installation onboard.

- Tests and Approval for hardware only.

- Equipment may be installed in the bridge and deck zone except those marked with (\*) that may be installed in the general power distribution zone only with mitigation measures in accordance with the Manufacturer's Instruction Sheet No.NHA3301400 as indicated in the attachment.

- The scope of Type Approval is to comply with MSC.1/Circ.1221 dated 11 December 2006.

#### Comments:

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

#### Notes/Drawing/Documentation:

Drawing No.DIA6ED2110104EN Ed.Sep.2014 Catalogue M340

Modicon M580 automation platform Catalogue No.DIA6ED2151012EN dated July 2018 V5.0

Modicon X80 Catalogue No.DIA6ED2131203EN dated April 2018 V7.0

Instruction Sheet No.NHA3301400\_07

Products Test Synthesis for M340\_M580\_IO\_HV dated July 2018

Products Test Synthesis for M340\_M580\_L2\_G2\_HSBY dated July 2017

Products Test Synthesis for M580\_SAFETY dated August 2018

Environmental Validation Test Report No.1504S15V for Immunity to climatic variations dated 2016/05/02

Environmental Validation Test Report No.1504S17V for Immunity to mechanical stress dated 2016/05/27

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Environmental Validation Test Report No.1504S18V for Immunity to mechanical stress dated 2016/05/27  
Environmental Validation Test Report No.1504S24V for Immunity to L.F. interferences dated 2016/11/08  
Environmental Validation Test Report No.1504S25V for Immunity to H.F. interferences dated 2016/12/01  
Environmental Test Configuration Report No.1603S01C dated 2017/08/08  
Environmental Test Configuration Report No.1603S02C dated 2017/09/05  
Environmental Validation Test Report No.1603S03V for Immunity to H.F. interferences dated 2017/07/24  
Environmental Validation Test Report No.1603S04V for Immunity to climatic variations dated 2017/08/09  
Environmental Evaluation Test Report No.1603S08E for Electromagnetic Emissions dated 2017/08/31  
Environmental Validation Test Report No.1603S09V for Immunity to mechanical stress dated 2017/08/31  
Environmental Validation Test Report No.1603S10V for Immunity to L.F. interferences dated 2017/07/26  
Environmental Validation Test Report No.1603S11V for Immunity to H.F. interferences dated 2017/08/22  
Environmental Validation Test Report No.1603S12V for Electromagnetic Emissions dated 2017/09/06  
Environmental Evaluation Test Report No.1603S13E for Electromagnetic Emissions dated 2017/09/06  
Environmental Validation Test Report No.1603S14V for Immunity to climatic variations dated 2017/09/03  
Environmental Validation Test Report No.1603S16V for Immunity to mechanical stress dated 2017/09/07  
Environmental Test Configuration Report No.1701S02C dated 2017/08/17  
Environmental Validation Test Report No.1701S04V for Immunity to L.F. interferences dated 2017/07/04  
Environmental Validation Test Report No.1701S05V for Immunity to H.F. interferences dated 2017/07/06  
Environmental Validation Test Report No.1701S06V for Immunity to climatic variations dated 2017/07/12  
Environmental Validation Test Report No.1701S08V for Electromagnetic emissions dated 2017/07/06  
Environmental Evaluation Test Report No.1701S10E for Electromagnetic emissions dated 2017/07/06  
Environmental Validation Test Report No.1701S11V for Immunity to mechanical stress dated 2017/07/04  
Environmental Test Configuration Report No.1708S01C dated 2017/11/01  
Environmental Validation Test Report No.1708S10V for Immunity to L.F. interferences dated 2018/01/11  
Environmental Validation Test Report No.1708S11V for Immunity to H.F. interferences dated 2018/01/11  
Environmental Validation Test Report No.1708S12V for Electromagnetic Emissions dated 2018/01/12  
Environmental Validation Test Report No.1708S13V for Immunity to climatic variations dated 2018/01/12  
Environmental Validation Test Report No.1803S02V for Immunity to H.F. interferences dated 2018/05/15  
Environmental Validation Test Report No.1803S03V for Electromagnetic Emissions dated 2018/07/02  
Environmental Validation Test Report No.1803S04V for Immunity to Climatic Variations dated 2018/05/15  
Environmental Test Configuration Report No.1806S01C dated 2018/06/08  
Environmental Test Configuration Report No.1806S01V for Immunity to L.F. interferences dated 2018/07/02  
Environmental Validation Test Report No.1806S02V for Immunity to H.F. interferences dated 2018/07/02  
Environmental Validation Test Report No.1806S03V for Electromagnetic Emissions dated 2018/06/08  
Environmental Test Configuration Report No.1806S04V for Electromagnetic Emissions dated 2018/06/20  
Environmental Validation Test Report No.1806S05V for Immunity to climatic variations dated 2018/07/02  
Environmental Validation Test Report No.1806S06V for Withstand to climatic variations dated 2018/07/30  
Environmental Validation Test Report No.1806S07V for Immunity to mechanical stress dated 2018/06/08  
Environmental Evaluation Test Report No.1806S10E for Electromagnetic Emissions dated 2018/06/08  
---All above listed Testing was conducted by Schneider Electric---  
Volta Labs Test Report No.201508084\_001 dated 2016/01/27  
Volta Labs Test Report No.201600743\_001 dated 2016/02/17  
Volta Labs Test Report No.201705296\_001 dated 2017/09/14  
Volta Labs Test Report No.201705297\_001 dated 2017/09/14  
Volta Labs Test Report No.201705298\_001 dated 2017/09/14  
Volta Labs Test Report No.201803215\_001 dated 2018/07/10  
AEMC Lab EMC Test Report No.R1702071C11-E-C for Main 580 Safety C1 Rack IACS dated 2017/09/25  
AEMC Lab EMC Test Report No.R1702071C14-E-C for Main 580 Safety C1 BMECRA IACS dated 2017/09/20  
AEMC Lab EMC Test Report No.R1702071C17-E-C for Main 580 Safety C1 BMXXBE IACS dated 2017/09/20  
AEMC Lab EMC Test Report No.R1702071C2-E-C for BME CRA dated 2017/09/20  
AEMC Lab EMC Test Report No.R1702071C5-E-C for BMXCRA dated 2017/09/20

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AEMC Lab EMC Test Report No.R1702071C8-E-C for Main 580 Rack IACS dated 2017/09/25

AEMC Lab EMC Test Report No.R1803137C3-E-C for MAIN 580 Safety 2.1 dated 2018/07/04

AEMC Lab EMC Test Report No.R1803137C6-E-C for ECRA 580 Safety 2.1 dated 2018/07/04

AEMC Lab EMC Test Report No.R1803137C9-E-C for M580 Safety Step 2.1 BMXDAO1615 dated 2018/08/07

#### **Terms of Validity:**

This Product Design Assessment (PDA) Certificate 19-GE1808110-PDA, dated 08/Jan/2019 remains valid until 07/Jan/2024 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

#### **STANDARDS**

##### **ABS Rules:**

2018 Rules for Conditions of Classification, 1-1-4/7.7, 1-1-A3, 1-1-A4, which covers the following:

2018 Steel Vessel Rules, 4-9-8/13

2018 Offshore Support Vessels, 4-9-8/13

2018 Steel Vessels Under 90 Meters (295 Feet) in Length Rules, 4-7-4/3.9 (4-7-2/Table 1)

2018 Rules for Conditions of Classification – Offshore Units and Structures 1-1-4/9.7, 1-1-A2, 1-1-A3, which covers the following:

2018 Mobile Offshore Drilling Unit Rules

2018 Facilities on Offshore Installations

##### **National:**

NA

##### **International:**

IEC 61131-2 Ed 3.0 (2007-07)

IEC 60947-5-2 Ed 3.1 (2012-09)

IEC 60870-5-101 Ed 2.1 (2015-11)

IEC 60870-5-104 Ed 2.1 (2016-06)

IEC 61000-6-2 Ed 3.0 (2016-08)

IEC 60945 Ed.4.0 (2002-08)

IACS UR E10 Rev.6 (Oct. 2014)

##### **Government:**

NA

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**Tier: 5 - Unit Certification Required**

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**EUMED:**

NA

**OTHERS:**

NA



PRODUCT Reference	DESCRIPTION
<b>CPU</b>	
BMX P34 1000	Processor, 1 channel Modbus
BMX P34 1000 H	Processor, 1 channel Modbus
BMX P34 2000	Processor, 2 channel Modbus
BMX P34 2010	Processor, Modbus CANopen
BMX P34 20102	Processor, Modbus CANopen and Ethernet
BMX P34 20102 CL	Processor, Modbus CANopen and Ethernet
BMX P34 2020	Processor, Modbus Ethernet
BMX P34 2020 H	Processor, Modbus Ethernet
BMX P34 2030	Processor, Ethernet CANopen
BMX P34 20302	Processor, Ethernet CANopen
BMX P34 20302 H	Processor, Ethernet CANopen
BMX P34 20302 CL	Processor, Ethernet CANopen
BMX PRA 0100	Peripheral Remote IO Adaptor
BMX P34 20 ITRB	Processor, 2 channels dedicated to IT business
(*) BME P58 6040	Control Processor Unit
(*) BME P58 6040 C	Control Processor Unit
(*) BME P58 5040	Control Processor Unit
(*) BME P58 5040 C	Control Processor Unit
(*) BME P58 4040	Control Processor Unit
(*) BME P58 4020	Control Processor Unit
(*) BME P58 3040	Control Processor Unit
(*) BME P58 3020	Control Processor Unit
(*) BME P58 2040	Control Processor Unit

(\*) Products may be installed in the general power distribution zone only with mitigation measures inside a metallic cabinet in accordance with the Manufacturer's Instruction Sheet No.NHA3301400 in order to obtain the necessary attenuation to comply with the limits for the frequency range 156-165 MHz.



**PRODUCT Reference**

**DESCRIPTION**

**CPU**

(*)	BME P58 2040 H	Control Processor Unit
(*)	BME P58 2020	Control Processor Unit
(*)	BME P58 2020 H	Control Processor Unit
(*)	BME P58 1020	Control Processor Unit
(*)	BME P58 1020 H	Control Processor Unit
(*)	BME H58 6040	Control Processor Unit Hot-Standby
(*)	BME H58 6040 C	Control Processor Unit Hot-Standby
(*)	BME H58 4040	Control Processor Unit Hot-Standby
(*)	BME H58 4040 K	Control Processor Unit Hot-Standby
(*)	BME H58 4040 C	Control Processor Unit Hot-Standby
(*)	BME H58 2040	Control Processor Unit Hot-Standby
(*)	BME H58 2040 K	Control Processor Unit Hot-Standby
(*)	BME H58 2040 C	Control Processor Unit Hot-Standby

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**PRODUCT Reference**

**DESCRIPTION**

**Power Supply**

BMX CPS 2000	Power Supply, standard AC
BMX CPS 2010	Power Supply, standard isolated DC
BMX CPS 3020	Power Supply, high power isolated 24VDC to 48VDC
BMX CPS 3020 H	Power Supply, high power isolated 24VDC to 48VDC
BMX CPS 3500	Power Supply, high power AC
BMX CPS 3500 H	Power Supply, high power AC
(*) BMX CPS 3540 T	Power Supply, high power AC
(*) BMX CPS 4002	Power Supply, redundant, high power AC
(*) BMX CPS 4002 H	Power Supply, redundant, high power AC
(*) BMX CPS 4022	Redundant HP 24-48 VDC Power Supply
(*) BMX CPS 4022 H	Redundant HP 24-48 VDC Power Supply
(*) BMX CPS 3522	Redundant HP 125 VDC Power Supply
(*) BMX CPS 3522 H	Redundant HP 125 VDC Power Supply

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**PRODUCT Reference**

**DESCRIPTION**

**Digital I / O**

(*)	BMX DAI 0814	Digital input module, 08I, 100...120 Vac
(*)	BMX DAI 0805	Digital input module, 08I, 220 Vac
(*)	BMX DAI 1602	Digital input module, 16I 24VAC/24VDC source
(*)	BMX DAI 1602 H	Digital input module, 16I 24VAC/24VDC source
(*)	BMX DAI 1603	Digital input module, 16I 48VAC
(*)	BMX DAI 1603 H	Digital input module, 16I 48VAC
	BMX DAI 1604	Digital input module, 16I, 100VAC to 120VAC
	BMX DAI 1604 H	Digital input module, 16I, 100VAC to 120VAC
(*)	BMX DAO 1605	Digital output module, 16Q triacs
(*)	BMX DAO 1605 H	Digital output module, 16Q triacs
	BMX DDI 1602	Digital input module, 16I 24VDC sink
	BMX DDI 1602 H	Digital input module, 16I 24VDC sink
(*)	BMX DDI 1603	Digital input module, 16I 48VDC sink
(*)	BMX DDI 1603 H	Digital input module, 16I 48VDC sink
	BMX DDI 1604 T	Digital input module, 16I 125 V DC sink
	BMX DDI 3202 K	Digital input module, 32I 24VDC sink
	BMX DDI 3202 KH	Digital input module, 32I 24VDC sink
	BMX DDI 6402 K	Digital input module, 64I 24VDC sink
	BMX DDI 6402 KH	Digital input module, 64I 24VDC sink
	BMX DDM 16022	Digital mixed I/O module, 8I 24VDC 8Q transistors source
	BMX DDM 16022 H	Digital mixed I/O module, 8I 24VDC 8Q transistors source
	BMX DDM 16025	Digital mixed I/O module, 8I 24VDC 8Q relays
	BMX DDM 16025 H	Digital mixed I/O module, 8I 24VDC 8Q relays

(\*) Products may be installed in the general power distribution zone only with mitigation measures inside a metallic cabinet in accordance with the Manufacturer's Instruction Sheet No.NHA3301400 in order to obtain the necessary attenuation to comply with the limits for the frequency range 156-165 MHz.



PRODUCT Reference	DESCRIPTION
<b>Digital I / O</b>	
(*) BMX DDM 3202 K	Digital mixed I/O module, 16I 24VDC 16Q transistors source
(*) BMX DDO 1602	Digital output module, 16Q transistors source 0.5A
(*) BMX DDO 1602 H	Digital output module, 16Q transistors source 0.5A
(*) BMX DDO 1612	Digital output module, 16Q sink transistors
(*) BMX DDO 1612 H	Digital output module, 16Q sink transistors
BMX DDO 3202 K	Digital output module, 32Q transistors source 0.1A
BMX DDO 3202 KC	Digital output module, 32Q transistors source 0.1A
BMX DDO 6402 K	Digital output module, 64Q transistors source 0.1A
BMX DDO 6402 KC	Digital output module, 64Q transistors source 0.1A
BMX DRA 0805	Digital relay output module, 8Q isolated relays
BMX DRA 0805 H	Digital relay output module, 8Q isolated relays
BMX DRA 1605	Digital relay output module, 16Q relays
BMX DRA 1605 H	Digital relay output module, 16Q relays
BMX DRA 0804 T	Digital relay output module, 8Q isolated relays
BMX DAI 1614	DIG 16X1 SUPERVISED IN 100 TO 120 VAC
BMX DAI 1614H	H DIG 16X1 SUPERVISED IN 100 TO 120 VAC
BMX DAI 1615	DIG 16X1 SUPERVISED IN 200 TO 240 VAC
BMX DAI 1615H	H DIG 16X1 SUPERVISED IN 200 TO 240 VAC
BMX DAO 1615	DIG 16X1 TRIAC OUT 24 TO 240 VAC
BMX DAO 1615H	H DIG 16X1 TRIAC OUT 24 TO 240 VAC
BMX DRA 0815	DIG 8Q 125VDC/250VAC ISOLATED RELAYS
BMX DRA 0815H	H DIG 8Q 125VDC/250VAC ISOLATED RELAYS
BMX DRC 0805	DIG 8NO/NC 125VDC/250VAC ISOLATED RELAYS
BMX DRC 0805H	H DIG 8NO/NC 125VDC/250VAC ISOLATED RELAYS
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PRODUCT Reference	DESCRIPTION
<b>Analog I / O</b>	
BMX AMI 0410	Analog input module, 4 U/I In isolated high speed
BMX AMI 0410 H	Analog input module, 4 U/I In isolated high speed
BMX AMI 0800	Analog input module, 8 U/I In No Isolated Fast
BMX AMI 0810	Analog input module, 8 U/I In Isolated Fast
BMX AMI 0810 H	Analog input module, 8 U/I In Isolated Fast
(*) BMX AMM 0600	Analog mixed I/O module, 4 In U/I, 2 Out U/I
(*) BMX AMM 0600 H	Analog mixed I/O module, 4 In U/I, 2 Out U/I
BMX AMO 0210	Analog output module, 2 U/I isolated Out
BMX AMO 0210 H	Analog output module, 2 U/I isolated Out
BMX AMO 0410	Analog output module, 4 U/I Isolated out
BMX AMO 0410 H	Analog output module, 4 U/I Isolated out
(*) BMX AMO 0802	Analog output module, 8 Current No Isolated out
(*) BMX AMO 0802 H	Analog output module, 8 Current No Isolated out
BMX ART 0414	Analog input module, 4 TC/RTD isolated Inputs
BMX ART 0414 H	Analog input module, 4 TC/RTD isolated Inputs
(*) BMX ART 0814	Analog input module, 8 TC/RTD isolated Inputs
(*) BMX ART 0814 H	Analog input module, 8 TC/RTD isolated Inputs
(*) BME AHI 0812	Analog input module 8 current channels (HART)
(*) BME AHI 0812 H	Analog input module 8 current channels (HART)
(*) BME AHO 0412	Analog output module 4 current channels (HART)
(*) BME AHO 0412 C	Analog output module 4 current channels (HART)

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PRODUCT Reference	DESCRIPTION
<b>Communication device</b>	
BMX NOE 0100	Communication module Ethernet 10/100 RJ45
BMX NOE 0100 H	Communication module Ethernet 10/100 RJ45
BMX NOE 0110	M340 Factorycast module
BMX NOE 0110 H	M340 Factorycast module
BMX NOC 0401	Communication module Ethernet 10/100 RJ45
BMX NOC 0402	Communication module Ethernet 10/100 RJ45
(*) BME NOC 0301	Full Communication Ethernet
(*) BME NOC 0301 C	Full Communication Ethernet
(*) BME NOC 0311	Full FactoryCast Ethernet
(*) BME NOC 0311 C	Full FactoryCast Ethernet
(*) BME NOC 0321	NOC Control
(*) BME NOC 0321 C	NOC Control
(*) BMX NOM 0200	2 serial link ports
(*) BMX NOM 0200 H	2 serial link ports
(*) BMX NGD 0100	Global Data module
(*) BME NOS 0300	Ethernet embedded switch
(*) BME NOS 0300 C	Ethernet embedded switch
(*) BME NOP 0300	M580 IEC 61850 Communication Module
(*) BME NOP 0300 C	M580 IEC 61850 Communication Module
(*) BME CXM 0100	CANopen module
(*) BME CXM 0100 H	CANopen module
(*) BMX XBE 1000	Extension rack module
(*) BMX XBE 1000 H	Extension rack module
(*) BMX EIA 0100	AS-interface module

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PRODUCT Reference	DESCRIPTION
<b>Communication device</b>	
(*) BMX NOR 0200	RTU communication module
(*) BMX NOR 0200 H	RTU communication module
(*) BMX NRP 0200	Communication with optic fiber
(*) BMX NRP 0200 C	Communication with optic fiber
(*) BMX NRP 0201	Communication with optic fiber
(*) BMX NRP 0201 C	Communication with optic fiber
(*) BMX CRA 31200	Communication module IO adapter
(*) BMX CRA 31210	Communication module IO adapter
(*) BMX CRA 31210 C	Communication module IO adapter
(*) BME CRA 31210	Communication module remote IO adapter
(*) BME CRA 31210 C	Communication module remote IO adapter

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PRODUCT Reference	DESCRIPTION
<b>Counting &amp; Positioning</b>	
BMX EHC 0200	Counting module, high speed 2Ch
BMX EHC 0200 H	Counting module, high speed 2Ch
BMX EHC 0800	Counting module, high speed 8Ch
BMX EHC 0800 H	Counting module, high speed 8Ch
BMX ETM 0200	Frequency module
BMX ETM 0200 H	Frequency module
BMX MSP 0200	Positioning module (Pulse Output Train)
(*) BMX EAE 0300	SSI encoder interface
(*) BMX EAE 0300 H	SSI encoder interface
(*) BMX ERT 1604 T	Time stamping

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**PRODUCT Reference**

**DESCRIPTION**

**Backplanes**

BMX XBP 0400	Backplane, 4 slots
BMX XBP 0400 H	Backplane, 4 slots
BMX XBP 0600	Backplane, 6 slots
BMX XBP 0600 H	Backplane, 6 slots
BMX XBP 0800	Backplane, 8 slots
BMX XBP 0800 H	Backplane, 8 slots
BMX XBP 1200	Backplane, 12 slots
BMX XBP 1200 H	Backplane, 12 slots
(*) BME XBP 0400	Backplane Ethernet, 4 slots
(*) BME XBP 0400 H	Backplane Ethernet, 4 slots
(*) BME XBP 0800	Backplane Ethernet, 8 slots
(*) BME XBP 0800 H	Backplane Ethernet, 8 slots
(*) BME XBP 1200	Backplane Ethernet, 12 slots
(*) BME XBP 1200 H	Backplane Ethernet, 12 slots
(*) BME XBP 0602	Backplane, 6 slots, dual power supplies
(*) BME XBP 0602 H	Backplane, 6 slots, dual power supplies
(*) BME XBP 1002	Backplane, 10 slots, dual power supplies
(*) BME XBP 1002 H	Backplane, 10 slots, dual power supplies

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PRODUCT Reference	DESCRIPTION
<b>Accessories</b>	
ABE7 CPA xxx	Wiring block for analog inputs
BMX FC...	Associated Cables
BMX FT...	Associated Cables
BMX FTB 2000	Terminal block kit, screw 20 std. points
BMX FTB 2010	Terminal block kit, screw 20 cir. points
BMX FTB 2020	Terminal block kit, spring 20 points
BMX FTB 2820	Terminal block kit, spring 28 points
BMX RMS 004GPF	4 Go Memory Card for M580 CPU
BMX RMS 008MP	Memory card 8Mo
BMX RMS 008MPF	Memory card 8Mo / 8Mo Files
BMX RMS 128MPF	Memory card 8Mb / 128Mo files
BMX RMS 8ITRB	Memory card 8Mo for Data Center Application
BMX RWS B000M	Memory card NOE Web B
BMX RWS C016M	Memory card NOE Web C 16Mo
BMX RWS FC032M	Memory Card 16Mo
BMX XBC xxxK	BusX Cord (xxx = length)
BMX XCA USB Hxx	USB cable (x = length)
BMX XEM 010	Protective cover
BMX XSP xx00	Shield bar kit , xx slots
BMX XTS CPSxx	Connector kit
BMX XTS HSC20	Connector kit
TCS CCN...	Associated Cables
TCS MCN 3M4...	Modbus communication cables
(*) 490 NAC 0100	RJ45 Dongle for M580 Hot Standby CPU
(*) 490 NAC 0201	LC Dongle for M580 Hot Standby CPU

(\*) Products may be installed in the general power distribution zone only with mitigation measures inside a metallic cabinet in accordance with the Manufacturer's Instruction Sheet No.NHA3301400 in order to obtain the necessary attenuation to comply with the limits for the frequency range 156-165 MHz.





	PRODUCT Reference	DESCRIPTION
	<b>Accessories</b>	
(*)	BMX FTB 4000	CAGED TERMINAL STRIP 40 POINTS
(*)	BMX FTB 4020	SPRING TERMINAL STRIP 40 POINTS
(*)	BMX FTW 305	FTB 40 WIRE 3M CABLE
(*)	BMX FTW 505	FTB 40 WIRE 5M CABLE

(\*) Products may be installed in the general power distribution zone only with mitigation measures inside a metallic cabinet in accordance with the Manufacturer's Instruction Sheet No.NHA3301400 in order to obtain the necessary attenuation to comply with the limits for the frequency range 156-165 MHz.



PRODUCT Reference	DESCRIPTION
<b>PACK &amp; KIT</b>	
(*) BMX XBE 2005	Extension Rack KIT (2 BMX XBE 1000 ; Cable BMX XBC 008K ; TSX TLY EX)

(\*) Products may be installed in the general power distribution zone only with mitigation measures inside a metallic cabinet in accordance with the Manufacturer's Instruction Sheet No.NHA3301400 in order to obtain the necessary attenuation to comply with the limits for the frequency range 156-165 MHz.



**PRODUCT Reference**

**DESCRIPTION**

**Safety**

(*)	BME P58 4040S	Safety processor
(*)	BME P58 2040S	Safety processor
(*)	BME P58 CPROS3	Safety coprocessor
(*)	BMX CPS 4002S	Safety power supply 100...240 Vac
(*)	BMX CPS 3522S	Redundant HP 125 VDC Power Supply
(*)	BMX CPS 4022S	Redundant HP 24-48 VDC Power Supply
(*)	BMX SAI 0410	Safety analogic inputs, 4 ch 4-20mA
(*)	BMX SDI 1602	Safety digital inputs, 16 ch 24 Vdc
(*)	BMX SDO 0802	Safety digital outputs, 8 ch 0,5 A, 24 Vdc
(*)	BMX SRA 0405	Safety digital outputs, 4 ch, 5 A, 24Vdc/230Vac
(*)	BME H58 4040S	Control Processor Unit Hot-Standby
(*)	BME H58 2040S	Control Processor Unit Hot-Standby
(*)	BME H58 6040S	Control Processor Unit Hot-Standby

(\*) Products may be installed in the general power distribution zone only with mitigation measures inside a metallic cabinet in accordance with the Manufacturer's Instruction Sheet No.NHA3301400 in order to obtain the necessary attenuation to comply with the limits for the frequency range 156-165 MHz.



#### Notes

(C) : models n° may be followed by "C" when coated boards

(CL) : models n° may be followed by "CL" when without SD memory Card

(H): Model No. may be followed by "H" for Harsh Environment.

The Harsh offer allows Modicon M340 use in severe environment :

- Chemical aggressive substances ; products are tested according to :
  - IEC/EN 60721-3-3 flowing mixed gas 3C3 and 3C4
  - ISA S71.04 flowing mixed gas classe Gx
  - IEC/EN 60068-2-52 salt mist test Kb level 2
  - IEC/EN 60721-3-3 dust and sand class 3S4
  - IEC/EN 60721-3-3 mould growth, fungal spore class 3B2
- Exposed at climatic aggressive environment :
  - Temperature: -25°C up to 70°C
  - Relative humidity: 5-95% up to 55°C without condensation
  - Icing
  - Altitude up to 2000m

Note: Able to start in the temperature interval [-25°C, 70°C], a monorack configuration can work at -40°C if it incorporated in an appropriated enclosure.