

Product datasheet

Specifications



Redundant HSBY processor module M580 Safety SIL3 - Level 4

BMEH584040S

Main

Range of product	Modicon M580
Product or component type	Redundant processor module
Impregnation material	Conformal coated

Complementary

Number of racks	1
Application specific I/O	Counter Motion control SSI encoder Accurate time stamping Serial link HART
Checks	Process control Safety control
Control channels	Programmable loops
Integrated connection type	1 Ethernet TCP/IP for service port 2 Ethernet TCP/IP for device network USB type mini B 1 Ethernet for HSBY port
Number of remote I/O station	16.0 - 2 rack(s) per X80 and Quantum drops
Number of distributed equipment	61.0
Communication module processor capacity	4.0 Ethernet communication module 16.0 AS-Interface module
Communication service	DIO scanner RIO scanner
Memory description	Expandable flash, 4 GB for data storage Integrated RAM, 10 kB for system memory Integrated RAM, 16 MB for program process Integrated RAM, 2048 kB for data process Integrated RAM, 4 MB for program safety Integrated RAM, 1024 kB for data safety
Application structure	1 master task 1 periodic fast task 1 periodic safe task
Number of instructions per ms	40 Kinst/ms 100 % Boolean 30 Kinst/ms 65 % Boolean + 35 % fixed arithmetic
Current consumption	360 mA at 24 V DC
MTBF reliability	650000 H
Marking	CE

Environment

Vibration resistance	3 gn
Shock resistance	15 gn
Ambient air temperature for operation	-25...60 °C
Ambient air temperature for storage	-40...85 °C
Operating altitude	0...2000 m 2000...5000 m with derating factor
Relative humidity	5...95 % at 55 °C without condensation
IP degree of protection	IP20
Directives	2014/30/EU - electromagnetic compatibility 2006/42/EC - machinery 2014/34/EU - ATEX directive
Product certifications	CE UL CSA RCM EAC Merchant Navy ATEX zone 2/22 IECEx zone 2/22 TÜV
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 EN 50155 EN 50121-3-2 EN 50121-4 EN 50121-5 EN 45545-2 IEC 60571 IEC 62236-3-2 IEC 62234-4 IEC 62234-5
Environmental characteristic	Hazardous location class I division 2 Gas resistant class Gx conforming to ISA S71.04 Gas resistant class 3C4 conforming to IEC 60721-3-3 Dust resistant class 3S4 conforming to IEC 60721-3-3 Sand resistant class 3S4 conforming to IEC 60721-3-3 Salt resistant level 2 conforming to IEC 68252 Mold growth resistant class 3B2 conforming to IEC 60721-3-3 Fungal spore resistant class 3B2 conforming to IEC 60721-3-3
Protective treatment	Conformal coating
Safety level	SIL 3 conforming to IEC 61508 SIL 3 conforming to IEC 61511 SILCL 3 conforming to IEC 62061 PL = e conforming to ISO 13849-1 category 4 SIL 4 conforming to EN 50126 SIL 4 conforming to EN 50128 SIL 4 conforming to EN 50129
Supply	Internal power supply via rack
Status LED	1 LED (green) processor running (RUN) 1 LED (red) processor or system fault (ERR) 1 LED (red) I/O module fault (I/O) 1 LED (green) download in progress (DL) 1 LED (red) memory card or CPU flash fault (BACKUP) 1 LED (green/red) ETH MS (Ethernet port configuration status) 1 LED (green/red) Eth NS (Ethernet network status) 1 LED (green) peer processor running (REMOTE RUN) 1 LED (green) processor ID set to A (A) 1 LED (green) processor ID set to B (B) 1 LED (green) processor acting as Primary (PRIM) 1 LED (green) processor acting as Standby (STBY) 1 LED (red) I/O values overridden by user (FORCED IO) 1 LED (green) processor in safety mode (SRUN) 1 LED (green) processor in maintenance mode (SMOD) 1 LED (green) Hot standby link status (Hsby Diag)

Net weight	0.849 kg
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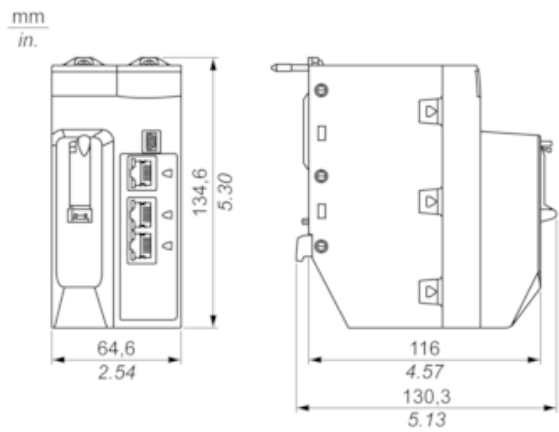
Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.800 cm
Package 1 Width	18.000 cm
Package 1 Length	25.100 cm
Package 1 Weight	894.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	6
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	5.846 kg

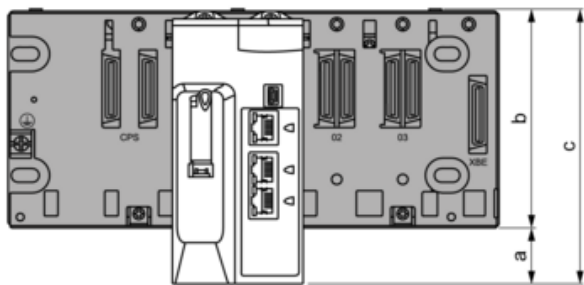
Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

CPU Module Only

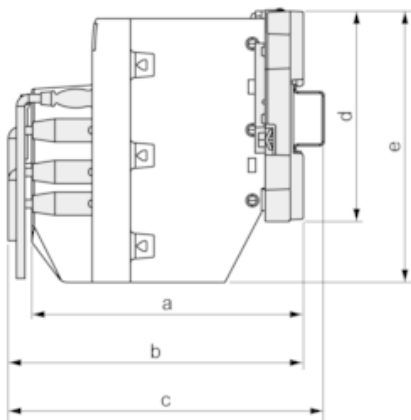


Modules Mounted on Racks



- a: additional space below the rack to accommodate the height of the CPU. For an X Bus rack, the value is 30.9 mm (1.217 in.); for an Ethernet rack, the value is 29.49 mm (1.161 in.).
- b: the height of the rack. For an X Bus rack, the height is 103.7 mm (4.083 in.); for an Ethernet rack, the height is 105.11 mm (4.138 in.).
- c: the height of the main local rack, 134.6 mm (5.299 in.)

Modules and Cables Mounted in an Enclosure



- a: enclosure depth: 135 mm (5.315 in.)
- b: wiring + module depth: > 146 mm (5.748 in.)
- c: wiring + module + DIN rail depth: > 156 mm (6.142 in.)
- d: rack height: for an X Bus rack 103.7 mm (4.083 in.); for an Ethernet rack, 105.11 mm (4.138 in.)
- e: module height: 134.6 mm (5.299 in.)

Recommended replacement(s)