# Product data sheet

Specifications

## standalone processor, Modicon M580, 12MB, 61 Ethernet devices, 16 remote IO racks

BMEP583040

## Main

| | |
|---|---|
| **Range of product** | Modicon M580 |
| **Product or component type** | Processor module |

## Complementary

| | |
|---|---|
| **Number of racks** | 8 |
| **Local I/O processor capacity (discrete)** | 3072 I/O |
| **Local I/O processor capacity (analog)** | 768 I/O |
| **Number of application specific channel (local rack)** | 108 |
| **Application specific I/O** | Serial link<br>Motion control<br>Counter<br>SSI encoder<br>HART<br>Accurate time stamping |
| **Checks** | Process control |
| **Control channels** | Programmable loops |
| **Integrated connection type** | 1 Ethernet TCP/IP for service port<br>2 Ethernet TCP/IP for device network<br>USB type mini B |
| **Number of remote I/O station** | 16 - 2 rack(s) per remote drop |
| **Number of distributed equipment** | 64 |
| **Communication module processor capacity** | 16 AS-Interface module<br>3 Ethernet communication module |
| **Communication service** | RIO scanner<br>DIO scanner |
| **Memory description** | Expandable flash, 4 GB for data storage<br>Integrated RAM, 10 kB for system memory<br>Integrated RAM, 12 MB for program<br>Integrated RAM, 1024 kB for data |
| **Application structure** | 2 auxiliary tasks<br>1 cyclic/periodic master task<br>128 event tasks<br>1 periodic fast task |

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| | |
|---|---|
| **Cybersecurity** | Achilles certified |
| | DoS prevention |
| | IPSec |
| | SNMP logging |
| | Syslog protocol support |
| | Transport layer security |
| | Audit trail |
| | Embedded firewall |
| | Firmware signature |
| | Password protection |
| | Port hardening |
| | Secure communication (HTTPS) |
| | Security log |
| **Number of instructions per ms** | 30 Kinst/ms 65 % Boolean + 35 % fixed arithmetic |
| | 40 Kinst/ms 100 % Boolean |
| **Current consumption** | 295 mA at 24 V DC |
| **MTBF reliability** | 775000 H |
| **Marking** | CE |

# Environment

| | |
|---|---|
| **Vibration resistance** | 3 gn |
| **Shock resistance** | 30 gn |
| **Ambient air temperature for operation** | 0…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** | 2014/35/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 |
| **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) |
| **Net weight** | 0.849 kg |

# Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |

| | |
|---|---|
| **Package 1 Height** | 8.500 cm |
| **Package 1 Width** | 18.000 cm |
| **Package 1 Length** | 25.000 cm |
| **Package 1 Weight** | 875.000 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** | 5.640 kg |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing "Use Better, Use Longer, Use Again" campaign to extend product lifetimes and recyclability.

Environmental Data explained ›

How we assess product sustainability ›

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **245** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **No** |
| **EU RoHS Directive** | **Pro-active compliance (Product out of EU RoHS legal scope)** |
| SCIP Number | **4eb70ab0-978b-4773-a441-0cc20d6144a1** |
| REACh Regulation | **REACh Declaration** |
| California proposition 65 | **WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov** |

## Use Again

### Repack and remanufacture

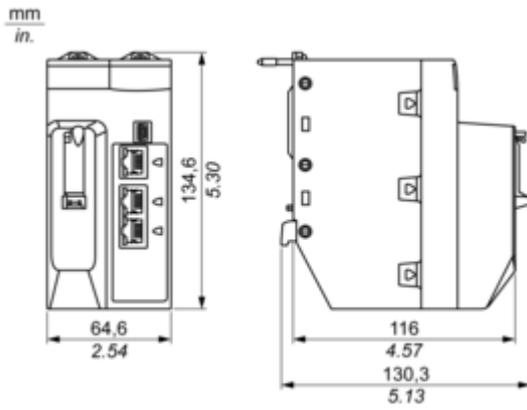| | |
|---|---|
| End of life manual availability | **End of Life Information** |
| Take-back | **No** |

Dimensions Drawings

**CPU Module Only**

$$\frac{mm}{in.}$$

134,6 / 5.30

64,6 / 2.54

116 / 4.57

130,3 / 5.13
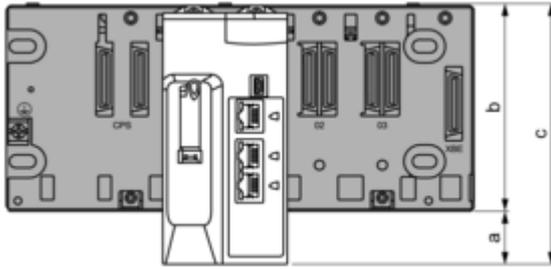
**Modules Mounted on Racks**



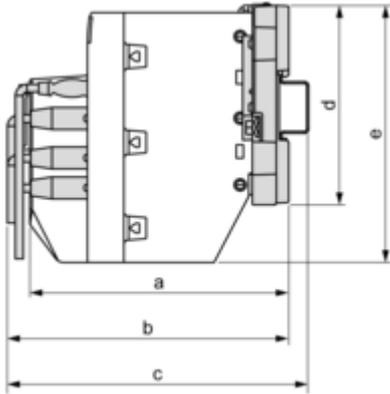**a:** additional space below the rack to accommodate the height of the CPU. For an X Bus rack, the value is 30.9 mm (1.217 in.); for an Ethernet rack, the value is 29.49 mm (1.161 in.).
**b:** the height of the rack. For an X Bus rack, the height is 103.7 mm (4.083 in.); for an Ethernet rack, the height 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.)

Image of product / Alternate images

**Alternative**