# Product data sheet

Specifications




## standalone processor, Modicon M580, 8MB, 125 Ethernet devices, 4 local IO racks of 2045 digital, 512 analog [TAA]

BMEP582020

**Product availability: Stock - Normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range of Product** | Modicon M580 |
| **Product or Component Type** | Processor module |

## Complementary

| | |
|---|---|
| **Number of racks** | 4 |
| **Local I/O processor capacity (discrete)** | 2048 I/O |
| **Local I/O processor capacity (analog)** | 512 I/O |
| **Number of application specific channel (local rack)** | 72 |
| **Application specific I/O** | HART<br>SSI encoder<br>Motion control<br>Serial link<br>Accurate time stamping<br>Counter |
| **Checks** | Process control |
| **Control channels** | Programmable loops |
| **Integrated connection type** | 1 Ethernet TCP/IP service port<br>2 Ethernet TCP/IP device network<br>USB type mini B |
| **Number of distributed equipment** | 128 |
| **Communication module processor capacity** | 2 Ethernet communication module<br>4 AS-Interface module |
| **Communication Service** | DIO scanner |
| **Memory description** | Expandable flash, 4 GB data storage<br>Integrated RAM, 10 kB system memory<br>Integrated RAM, 8 MB program<br>Integrated RAM, 768 kB data |
| **Application structure** | 1 cyclic/periodic master task<br>64 event tasks<br>2 auxiliary tasks<br>1 periodic fast task |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| | |
|---|---|
| **Cybersecurity** | DoS prevention<br>IPSec<br>SNMP logging<br>Syslog protocol support<br>Transport layer security<br>Audit trail<br>Embedded firewall<br>Firmware signature<br>Password protection<br>Port hardening<br>Secure communication (HTTPS)<br>Security log<br>RBAC user management<br>PKI digital certificate authentication<br>Modbus TLS (Modbus Secure Explicit)<br>Centralised certificate management<br>NIS2.0 compliance<br>EU CRA compliance |
| **Number of instructions per ms** | 30 Kinst/ms 65 % Boolean + 35 % fixed arithmetic<br>40 Kinst/ms 100 % Boolean |
| **Current consumption** | 270 mA 24 V DC |
| **MTBF reliability** | 775000 H |
| **Marking** | CE |

## Environment

| | |
|---|---|
| **Vibration resistance** | 3 gn |
| **Shock resistance** | 30 gn |
| **Ambient Air Temperature for Operation** | 32…140 °F (0…60 °C) |
| **Ambient Air Temperature for Storage** | -40…185 °F (-40…85 °C) |
| **Operating altitude** | 0...6561.68 ft (0...2000 m)<br>2000...5000 m with derating factor |
| **Relative humidity** | 5…95 % 131 °F (55 °C) without condensation |
| **IP Degree of Protection** | IP20 |
| **Directives** | 2014/35/EU - low voltage directive<br>2014/30/EU - electromagnetic compatibility |
| **Product certifications** | CE<br>UL<br>CSA<br>RCM<br>EAC<br>Merchant Navy<br>UKCA |
| **Standards** | IEC 61131-2<br>IEC 61010-2-201<br>UL 61010-2-201<br>CSA C22.2 No 61010-2-201<br>IACS E10<br>EN/IEC 61000-6-5, interface type 1 and type 2<br>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)<br>1 LED (Red) processor or system fault (ERR)<br>1 LED (Red) I/O module fault (I/O)<br>1 LED (Green) download in progress (DL)<br>1 LED (Red) memory card or CPU flash fault (BACKUP)<br>1 LED (green/red) ETH MS (Ethernet port configuration status)<br>1 LED (green/red) Eth NS (Ethernet network status) |
| **Net Weight** | 1.872 lb(US) (0.849 kg) |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US1PC3418161 |
| **Discount Schedule** | PC34 |
| **GTIN** | 3595864174419 |
| **Returnability** | Yes |
| **Country of origin** | US |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |
| **Package 1 Height** | 3.543 in (9.000 cm) |
| **Package 1 Width** | 6.969 in (17.700 cm) |
| **Package 1 Length** | 9.843 in (25.000 cm) |
| **Package weight(Lbs)** | 30.899 oz (876.000 g) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 6 |
| **Package 2 Height** | 11.811 in (30.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 12.743 lb(US) (5.780 kg) |

## Compliance

| | |
|---|---|
| **Compliance** | TAA Compliant<br>BAA Compliant via COTS |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## 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 | **230 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **64 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.1 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **166 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.4 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| SCIP Number | **4eb70ab0-978b-4773-a441-0cc20d6144a1** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| 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** |

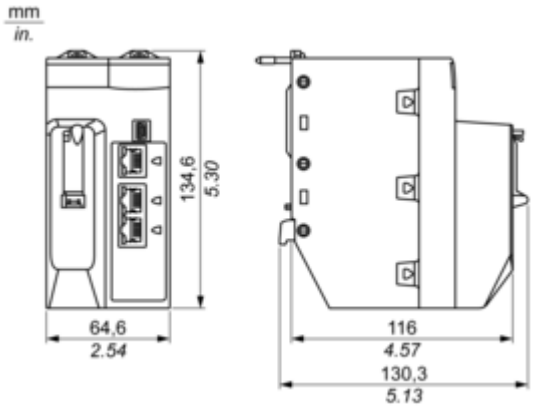
## Use Again

### Repack and remanufacture

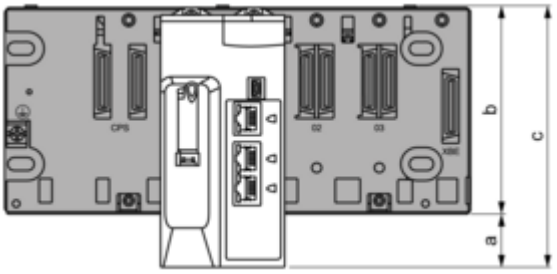
| | |
|---|---|
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |

Dimensions Drawings

**CPU Module Only**

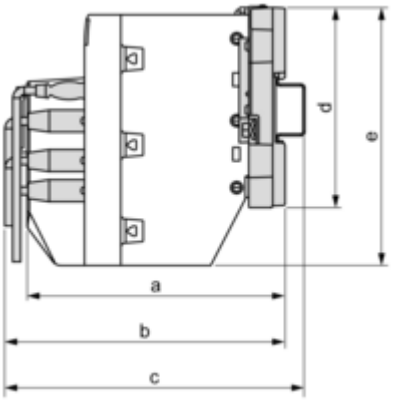


## Modules Mounted on Racks




**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.)

Image of product / Alternate images

**Alternative**










M580

