



### Main

|                           |                  |
|---------------------------|------------------|
| Range of Product          | Modicon M580     |
| Product or Component Type | Processor module |
| Impregnation material     | Conformal coated |

### 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                            | Counter<br>Motion control<br>SSI encoder<br>Accurate time stamping<br>Serial link<br>HART  |
| Checks  | Process control<br>Safety 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 remote I/O station                        | 8 - 2 remote drop  |
| Number of distributed equipment                     | 64   |
| Number of CIP safety IO devices                     | 16   |
| Communication module processor capacity             | 2 Ethernet communication module<br>8 AS-Interface module   |
| Communication service                               | DIO scanner<br>RIO scanner   |
| Memory description                                  | Expandable flash, 4 GB data storage<br>Integrated RAM, 10 kB system memory<br>Integrated RAM, 8 MB program process<br>Integrated RAM, 768 kB data process<br>Integrated RAM, 2 MB program safety<br>Integrated RAM, 512 kB data safety |
| Application structure                               | 128 event tasks<br>2 auxiliary tasks<br>1 cyclic/periodic master task<br>1 periodic fast task<br>1 periodic safe task  |
| Number of instructions per ms                       | 7.5 Kinst/ms 65 % Boolean + 35 % fixed arithmetic<br>10 Kinst/ms 100 % Boolean   |
| Current consumption                                 | 295 mA 24 V DC   |
| MTBF reliability                                    | 767500 H   |
| Marking   | CE   |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Environment

|                                       |   |
|---------------------------------------|---|
| Vibration resistance                  | 3 gn  |
| Shock resistance                      | 15 gn   |
| Ambient Air Temperature for Operation | -13...140 °F (-25...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                            | 2014/30/EU - electromagnetic compatibility<br>2006/42/EC - machinery<br>2014/34/EU - ATEX directive   |
| Product certifications                | CE<br>UL<br>CSA<br>RCM<br>EAC<br>Merchant Navy<br>ATEX zone 2/22<br>IECEx zone 2/22<br>TÜV  |
| Standards                             | EN/IEC 61131-2<br>EN/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<br>EN/IEC 61850-3<br>EN/IEC 60079-0  |
| Environmental characteristic          | Hazardous location class I division 2<br>Gas resistant class Gx ISA S71.04<br>Gas resistant class 3C4 IEC 60721-3-3<br>Dust resistant class 3S4 IEC 60721-3-3<br>Sand resistant class 3S4 IEC 60721-3-3<br>Salt resistant level 2 IEC 68252<br>Mold growth resistant class 3B2 IEC 60721-3-3<br>Fungal spore resistant class 3B2 IEC 60721-3-3  |
| Protective treatment                  | Conformal coating   |
| Safety level                          | SIL 3 IEC 61508<br>SIL 3 IEC 61511<br>SILCL 3 IEC 62061<br>SILCL 3 ISO 13849-1 category 4<br>SIL 4 EN 50126<br>SIL 4 EN 50128<br>SIL 4 EN 50129   |
| Supply                                | Internal power supply via rack  |
| Status LED                            | Processor running (RUN) 1 LED Green)<br>Processor or system fault (ERR) 1 LED Red)<br>I/O module fault (I/O) 1 LED Red)<br>Download in progress (DL) 1 LED Green)<br>Memory card or CPU flash fault (BACKUP) 1 LED Red)<br>ETH MS (Ethernet port configuration status) 1 LED green/red)<br>Eth NS (Ethernet network status) 1 LED green/red)<br>Processor in safety mode (SRUN) 1 LED Green)<br>Processor in maintenance mode (SMOD) 1 LED Green)<br>I/O values overridden by user (FORCED IO) 1 LED Red) |
| Net Weight                            | 1.87 lb(US) (0.849 kg)  |

## Ordering and shipping details

|                       |                                     |
|-----------------------|-------------------------------------|
| Category              | 18161-MODICON M580 CONTROLLERS HSBY |
| Discount Schedule     | PC34                                |
| GTIN                  | 3606489705480                       |
| Nbr. of units in pkg. | 1                                   |
| Package weight(Lbs)   | 31.08 oz (881 g)                    |
| Returnability         | Yes                                 |
| Country of origin     | FR                                  |

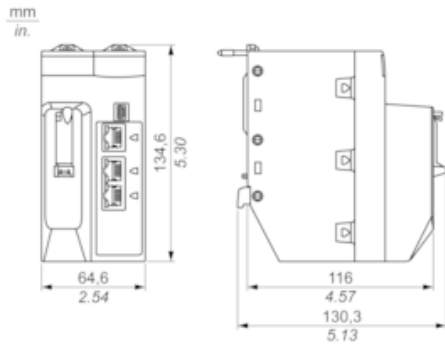
## Packing Units

|                              |                       |
|------------------------------|-----------------------|
| Unit Type of Package 1       | PCE                   |
| Package 1 Height             | 3.50 in (8.9 cm)      |
| Package 1 width              | 7.09 in (18 cm)       |
| Package 1 Length             | 9.84 in (25 cm)       |
| Unit Type of Package 2       | S03                   |
| Number of Units in Package 2 | 6                     |
| Package 2 Weight             | 12.79 lb(US) (5.8 kg) |
| Package 2 Height             | 11.81 in (30 cm)      |
| Package 2 width              | 11.81 in (30 cm)      |
| Package 2 Length             | 15.75 in (40 cm)      |

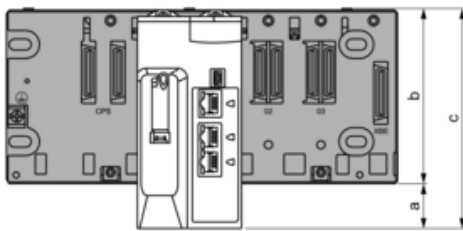
## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>  |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| Circularity Profile        | <a href="#">End Of Life Information</a>   |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |

### CPU Module Only

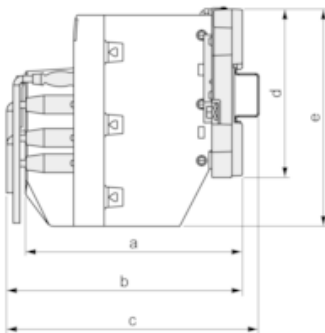


### Modules Mounted on Racks



- 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.)