



### Main

|                           |                                |
|---------------------------|--------------------------------|
| Range of product          | Modicon M580                   |
| Product or component type | Processor module               |
| Supply                    | Internal power supply via rack |

### Complementary

|                                                     |                                                                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Number of racks                                     | 8                                                                                                                                       |
| Local I/O processor capacity (discrete)             | 5120 I/O                                                                                                                                |
| Local I/O processor capacity (analog)               | 1280 I/O                                                                                                                                |
| Number of application specific channel (local rack) | 180                                                                                                                                     |
| Application specific I/O                            | Accurate time stamping<br>Counter<br>Serial link<br>Motion control<br>HART<br>SSI encoder                                               |
| 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 remote I/O station                        | 31 - 2 rack(s) per remote drop                                                                                                          |
| Number of distributed equipment                     | 64                                                                                                                                      |
| Communication module processor                      | 8 AS-Interface module<br>6 Ethernet communication 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 24 MB program<br>Integrated RAM 4096 kB data |
| Application structure                               | 1 cyclic/periodic master task<br>1 periodic fast task<br>128 event tasks<br>2 auxiliary tasks                                           |
| Number of instructions per ms                       | 40 Kinst/ms 100 % Boolean<br>60 Kinst/ms 65 % Boolean + 35 % fixed arithmetic                                                           |
| Current consumption                                 | 295 mA 24 V DC                                                                                                                          |
| MTBF reliability                                    | 600000 H                                                                                                                                |
| Marking                                             | CE                                                                                                                                      |

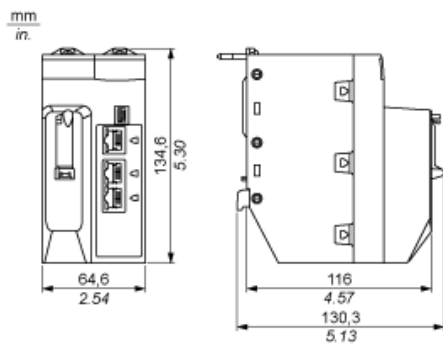
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|                |                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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)<br>1 LED green I/O values overridden by user (FORCED IO) |
| Product weight | 0.849 kg                                                                                                                                                                                                                                                                                                                                                                                       |

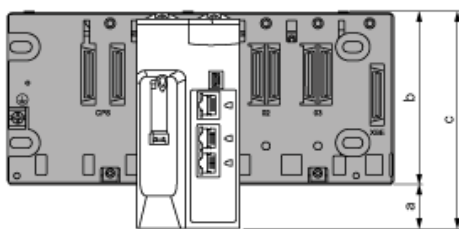
## Environment

|                                       |                                                                                                                                                                                  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient air temperature for operation | 0...60 °C                                                                                                                                                                        |
| Ambient air temperature for storage   | -40...85 °C                                                                                                                                                                      |
| Operating altitude                    | 0...2000 m                                                                                                                                                                       |
| Relative humidity                     | 5...95 %                                                                                                                                                                         |
| IP degree of protection               | IP20                                                                                                                                                                             |
| Standards                             | CSA C22.2 No 142<br>EN/IEC 61131-2<br>UL 508<br>LWD 2006/95/EC<br>EMC 2004/108/EC<br>CSA C22.2 No 213 Class I Division 2<br>EN/IEC 60079-0<br>EN/IEC 60079-31<br>EN/IEC 60079-15 |
| Product certifications                | GOST<br>RCM<br>WEEE directive 2002/96/EC<br>Merchant Navy<br>EAC<br>REACH directive 1907/2006/EC<br>RoHS directive 2011/65/EU<br>ATEX II 3 Gas & Dust zone 2/22                  |

## CPU MODULE ONLY

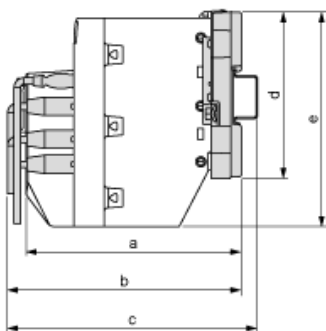


## Modules Mounted on Racks



- 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.)