

# Processor modules



## Processor modules ME203 series

The processor modules of the ME203 series extend the range of the M1 controller family in terms of reduced power consumption and moderate cycle times. With an extremely slim design of only one module width, ME203 CPUs offer all the essential features of larger type series but with a lower power consumption.

Several networking and power supply options scale the module ideally for smaller applications. As fully-fledged M1 CPUs, ME203 processor modules are not only configured with the same tools as the high-end families MX and MPC, but are also fully code and application compatible, although they have less memory and fewer interfaces.

All modules have two serial interfaces and a front slot for one PC card. The optional Ethernet interface allows integration in 10 / 100 Mbit / s networks at full data rate. With the retentive program and data storage devices, also larger projects can be handled without the need for external media. In addition to the supply of the processor module, an integrated optional power supply provides 17 W for extra I/O modules.

- 80386 EX processor
- 2 serial interfaces
- Optional integrated power supply, 17 W / 24 V DC
- Optional CAN bus interface or Ethernet 100 Mbit 100 Mbit / s interface
- RAM 8 MB DRAM
- Data memory 512 kB SRAM, (battery backed)
- Integrated program memory
- Removable memory:
  - PC cards with 8 / 16 / 32 / 64 MB
- Battery backed real-time clock (RTC)
- Status displays for RUN, INIT and ERROR
- Watchdog

| Item      | Item no.    |
|-----------|-------------|
| ME203/EN  | 00013177-00 |
| ME203/EN* | 00015985-00 |
| ME203/CN  | 00013176-00 |
| ME203/CNW | 00013191-00 |
| ME203/CN* | 00016336-00 |

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| ME203 series                                       |                                                                                                                             |                                                                                                                                                                     |                             |                             |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|-----------------------------|
| Processor + memory                                 |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| CPU                                                | Intel 80386 EX, 33 MHz                                                                                                      |                                                                                                                                                                     |                             |                             |
| SRAM (data memory)                                 | 512 kB (battery backed)                                                                                                     |                                                                                                                                                                     |                             |                             |
| DRAM (working memory)                              | 8 MB                                                                                                                        |                                                                                                                                                                     |                             |                             |
| PC card **                                         | PCC201 / xx with 16 / 32 / 64 MB                                                                                            |                                                                                                                                                                     |                             |                             |
| Boot FLASH                                         | 2 MB (reserved by system software)                                                                                          |                                                                                                                                                                     |                             |                             |
| Program FLASH ***                                  | 8 MB                                                                                                                        |                                                                                                                                                                     |                             |                             |
| Interfaces                                         |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| Serial (standard)                                  | 1x RS232 + 1x RS232 / 422 / 485, 64 byte FIFO                                                                               |                                                                                                                                                                     |                             |                             |
| Ethernet (optional)                                | 1x 10/100 Mbit / s                                                                                                          |                                                                                                                                                                     |                             |                             |
| CAN (optional)                                     | 1x 10 k .. 1 MBaud*                                                                                                         |                                                                                                                                                                     |                             |                             |
| Power supply                                       |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| External power supply module**                     | 5 V, ±15 V via backplane                                                                                                    |                                                                                                                                                                     |                             |                             |
| Internal power supply module (optional)            | Own supply and 17 W for I/Os<br>modules: +5 V / 2 A, +15 V / 250 mA, -15 V / 200 mA<br>supply voltage: 24 V DC (18 .. 34 V) |                                                                                                                                                                     |                             |                             |
| Galvanic isolation                                 | Supply to the system 500 V                                                                                                  |                                                                                                                                                                     |                             |                             |
| Additional features                                |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| Watchdog                                           |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| Real-time clock with battery                       |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| Status indication via 3 LEDs                       |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| CPU-ID selectable with rotary hexadecimal switches |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| Ambient conditions                                 |                                                                                                                             | Standard                                                                                                                                                            | Cold Weather (W)            | ColdClimate (❄)             |
| Operating temperature                              |                                                                                                                             | -30 .. +60 °C fanless                                                                                                                                               |                             |                             |
| Rel. humidity operation                            |                                                                                                                             | 5 .. 95 % without condensation                                                                                                                                      |                             | 5 .. 95 % with condensation |
| Storage temperature                                |                                                                                                                             | -40 .. +85 °C                                                                                                                                                       |                             |                             |
| Rel. humidity storage                              |                                                                                                                             | 5 .. 95 % without condensation                                                                                                                                      | 5 .. 95 % with condensation |                             |
| Execution variants                                 |                                                                                                                             |                                                                                                                                                                     |                             |                             |
| ME203/EN                                           |                                                                                                                             | CPU module 386EX (33MHz); 8MB DRAM; 512kB SRAM; 8MB file-flash; 1x Eth100; 1x RS232; 1x RS232/422/485; integrated power supply 17W; PCC slot                        |                             |                             |
| ME203/EN❄                                          |                                                                                                                             | Like ME203/EN; ColdClimate (❄)                                                                                                                                      |                             |                             |
| ME203/CN                                           |                                                                                                                             | CPU module 386EX (33MHz); 8MB DRAM; 512kB SRAM; 8MB file-flash; 1x CAN/CANopen; 1x RS232; 1x RS232/422/485; integrated power supply 17W; PCC slot                   |                             |                             |
| ME203/CNW                                          |                                                                                                                             | CPU module 386EX (33MHz); 8MB DRAM; 512kB SRAM; 8MB file-flash; 1x CAN/CANopen; 1x RS232; 1x RS232/422/485; integrated power supply 17W; PCC slot; Cold Weather (W) |                             |                             |
| ME203/CN❄                                          |                                                                                                                             | Like ME203/CN; ColdClimate (❄)                                                                                                                                      |                             |                             |

\* TCP / IP protocol can also be run via CAN

\*\* not included in delivery

\*\*\* depending on the configuration, a part of the program memory is reserved for the system software