

# Motor controller CMMP-AS-C2-3A-M0

Part number: 1622901

**FESTO**



## Data sheet

| Feature                                      | Value                                                                                                        |
|----------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Type of mounting                             | On sub-base<br>Screwed tightly                                                                               |
| Product weight                               | 2100 g                                                                                                       |
| Display                                      | Seven-segment display                                                                                        |
| Certification                                | RCM compliance mark<br>c UL us - Listed (OL)                                                                 |
| CE marking (see declaration of conformity)   | As per EU EMC directive<br>as per EU machinery directive<br>As per EU RoHS directive                         |
| UKCA marking (see declaration of conformity) | To UK instructions for EMC<br>To UK instructions for machines<br>To UK RoHS instructions                     |
| Certificate issuing authority                | German Technical Control Board (TÜV) Rheinland 01/205/5262.02/19<br>TÜV Rheinland UK Ltd. 01/205U/5262.00/22 |
| Storage temperature                          | -25 °C...70 °C                                                                                               |
| Ambient temperature                          | 0 °C...40 °C                                                                                                 |
| Relative air humidity                        | 0 - 90 %                                                                                                     |
| Degree of protection                         | IP10<br>IP20                                                                                                 |
| Contamination level                          | 2                                                                                                            |
| Note on materials                            | RoHS-compliant                                                                                               |
| LABS (PWIS) conformity                       | VDMA24364 zone III                                                                                           |
| Nominal operating voltage phases             | 1-phase                                                                                                      |
| Nominal operating voltage AC                 | 230 V                                                                                                        |
| Permissible voltage fluctuations             | +/- 10 %                                                                                                     |
| Input voltage range AC                       | 100 V...230 V                                                                                                |
| Mains frequency                              | 50 Hz...60 Hz                                                                                                |
| Nominal current                              | 2 A...3 A                                                                                                    |
| Active PFC                                   | yes                                                                                                          |
| Line filter                                  | Integrated                                                                                                   |
| Max. DC link voltage                         | 320 V                                                                                                        |
| Braking resistor                             | 60 Ohm                                                                                                       |
| Pulse power of braking resistor              | 2.8 kVA                                                                                                      |
| Nominal voltage, logic supply DC             | 24 V                                                                                                         |

| Feature                                                          | Value                                                                                                                     |
|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Permissible range of logic voltage                               | ± 20 %                                                                                                                    |
| Max. current consumption for logic supply without clamping brake | 0.55 A                                                                                                                    |
| Output voltage range AC                                          | 3x 0 - 270 V                                                                                                              |
| Nominal output current                                           | 2.5 A                                                                                                                     |
| Nominal current per phase, effective                             | 2.5 A                                                                                                                     |
| Peak current per phase, effective                                | 5 A                                                                                                                       |
| Max. peak current duration                                       | 5 s                                                                                                                       |
| Controller nominal power                                         | 500 VA                                                                                                                    |
| Peak power                                                       | 1000 VA                                                                                                                   |
| Output frequency                                                 | 0 Hz...1000 Hz                                                                                                            |
| Parameterization interface                                       | Parameterization and commissioning<br>USB<br>Ethernet                                                                     |
| Fieldbus coupling                                                | CANopen<br>Modbus®/TCP                                                                                                    |
| Communication profile                                            | DS301/DSP402                                                                                                              |
| Process interfacing                                              | I/O coupling<br>For 256 positioning blocks                                                                                |
| Max. fieldbus transmission rate                                  | 1 Mbit/s                                                                                                                  |
| Bus connection                                                   | 9-pin<br>Sub-D<br>Socket                                                                                                  |
| Encoder interface output, characteristics                        | Resolution 16384 ppr                                                                                                      |
| Output encoder interface, function                               | Actual value feedback via encoder signals in speed control mode.<br>Setpoint specification for downstream slave actuator. |
| Encoder interface input, characteristics                         | 3-phase encoder signals<br>EnDat®<br>HIPERFACE<br>RS422<br>SINCOS                                                         |
| Input encoder interface, function                                | Encoder signal speed setpoint value.<br>As speed setting of the slave actuator in synchronous mode.                       |
| Number of digital logic inputs                                   | 10                                                                                                                        |
| Characteristics of logic input                                   | Galvanically isolated<br>Freely configurable                                                                              |
| Work range of logic input                                        | 8 V...30 V                                                                                                                |
| Number of digital logic outputs 24 V DC                          | 5                                                                                                                         |
| Characteristics of digital logic outputs                         | Galvanically isolated<br>Freely configurable in some cases                                                                |
| Max. current of digital logic outputs                            | 100 mA                                                                                                                    |
| Number of analog setpoint inputs                                 | 2                                                                                                                         |
| Characteristics of setpoint inputs                               | Differential inputs<br>Configurable for rotational speed<br>Configurable for current                                      |
| Work range of setpoint input                                     | ± 10 V                                                                                                                    |
| Impedance of setpoint input                                      | 20 kOhm                                                                                                                   |
| Number of analog monitor outputs                                 | 2                                                                                                                         |
| Working range of monitor outputs                                 | ± 10 V                                                                                                                    |
| Resolution of monitor outputs                                    | 9 bit                                                                                                                     |
| Characteristics of monitor outputs                               | Short circuit-proof                                                                                                       |
| Safety function                                                  | Safe torque off (STO)<br>Safe stop 1 (SS1)                                                                                |
| Safety integrity level (SIL)                                     | Safe torque off (STO)/SIL 3/SILCL 3                                                                                       |
| Performance Level (PL)                                           | Safe torque off (STO)/category 4, performance level e                                                                     |
| Diagnostic coverage                                              | 97 %                                                                                                                      |
| SFF safe failure fraction                                        | 99.17 %                                                                                                                   |
| Hardware fault tolerance                                         | 1                                                                                                                         |
| Proof test interval                                              | 20 y                                                                                                                      |

