

# Product datasheet

Specifications



## motion servo drive LXM05B - 0.75kW - 200..240 V - 3-phase - with EMC filter

LXM05BD10M3X

 **Discontinued on:** 12 Sept 2025

 **Discontinued**

### Main

|                           |                                                         |
|---------------------------|---------------------------------------------------------|
| Range of product          | Lexium 05                                               |
| Product or component type | Motion servo drive                                      |
| Component name            | LXM05B                                                  |
| Network number of phases  | Three phase                                             |
| power supply voltage      | 200...240 V - 15...10 %                                 |
| Continuous output current | 4 A at 4 kHz<br>3.2 A at 8 kHz                          |
| Nominal power             | 0.75 kW at 4 kHz                                        |
| Discrete input number     | 2 safety discrete input(s)<br>4 logic discrete input(s) |
| Type of polarization      | No polarization impedances for Modbus                   |

### Complementary

|                                                        |                                                                                                                                     |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| power supply voltage limits                            | 170...264 V                                                                                                                         |
| Supply frequency                                       | 50/60 Hz - 5...5 %                                                                                                                  |
| power supply frequency limits                          | 47.5...63 Hz                                                                                                                        |
| transient RMS output current                           | 6 A at 8 kHz for 3 s<br>7 A at 4 kHz for 3 s                                                                                        |
| Line current                                           | 4.3 A at 240 V<br>5.2 A at 200 V                                                                                                    |
| maximum prospective line Isc                           | 5 kA                                                                                                                                |
| Switching frequency                                    | 4 kHz<br>8 kHz                                                                                                                      |
| Overvoltage category                                   | III                                                                                                                                 |
| Inrush current                                         | 60 A                                                                                                                                |
| Maximum leakage current                                | 30 mA                                                                                                                               |
| Output voltage                                         | <= power supply voltage                                                                                                             |
| Insulation                                             | Electrical between power and control                                                                                                |
| recommended type of cable for mounting in an enclosure | Single-strand IEC cable (temperature: 45 °C) copper 70 °C PVC<br>Single-strand IEC cable (temperature: 45 °C) copper 90 °C XLPE/EPR |
| Electrical connection                                  | Terminal, clamping capacity: 2.5 mm², AWG 14 (PA/+, PBI, PBe)<br>Terminal, clamping capacity: 2.5 mm², AWG 14 (R/L1, S/L2, T/L3)    |
| Tightening torque                                      | PA/+, PBI, PBe: 0.8 N.m<br>R/L1, S/L2, T/L3: 0.8 N.m                                                                                |

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

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Discrete input type         | Logic (LI1, LI2, LI3, LI4 terminals)<br>Safety (PWRR_A, PWRR_B terminals)                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Sampling duration           | ANA1+/ANA1-, ANA2+/ANA2-: 0.25 ms analog<br>LI1, LI2, LI3, LI4: 0.25 ms discrete                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Discrete input voltage      | 24 V DC for logic<br>24 V DC for safety                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Discrete input logic        | Negative (LI1, LI2, LI3, LI4) at State 0: > 19 V at State 1: < 9 V conforming to EN/IEC 61131-2 type 1<br>Positive logic (compliment of PWRR_A, compliment of PWRR_B) at State 0: < 5 V at State 1: > 15 V conforming to EN/IEC 61131-2 type 1<br>Positive logic (LI1, LI2, LI3, LI4) at State 0: < 5 V at State 1: > 15 V conforming to EN/IEC 61131-2 type 1                                                                                                                                                                       |
| Response time               | <= 10 ms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Discrete output number      | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Discrete output type        | Logic output(s) (LO1, LO2)24 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Discrete output voltage     | <= 30 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Discrete output logic       | Negative (LO1, LO2) conforming to EN/IEC 61131-2<br>Positive (LO1, LO2) conforming to EN/IEC 61131-2                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Contact bounce time         | 1 ms for LI1...LI4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Braking current             | 50 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Response time on output     | 1 ms (LO1, LO2) for discrete output(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Absolute accuracy error     | < +/- 1 % 25 °C<br>< +/- 2 % over operating temperature range                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Linearity error             | < +/- 0.5 %                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Analogue input type         | ANA1+/ANA1-, ANA2+/ANA2- analog input: differential +/- 10 V, impedance: >= 10000 Ohm, resolution: 14 bits                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protection type             | Inputs signal: against reverse polarity<br>Outputs signal: against short-circuits                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Safety function             | PWR protection of the machine stop and/or prevent unintended operation of the servo motor conforming to IEC/EN 61800-5-2<br>PWR protection of the machine stop and/or prevent unintended operation of the servo motor conforming to ISO 13849-1 level d<br>PWR protection of the system process stop and/or prevent unintended operation of the servo motor conforming to EN/IEC 61508 level SIL2<br>PWR protection of the system process stop and/or prevent unintended operation of the servo motor conforming to IEC/EN 61800-5-2 |
| Communication port protocol | Modbus<br>Profibus DP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Connector type              | RJ45 (labelled CN4) for Modbus<br>Spring terminals (labelled CN1) for Profibus DP                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Physical interface          | 2-wire RS485 multidrop Modbus<br>2-wire RS485 multidrop Profibus DP<br>RS422 for 1 A/B input(s), <= 400 kHz<br>RS422 for 1 ESIM output input(s), <= 400 kHz<br>RS422 for 1 P/D input(s), <= 400 kHz                                                                                                                                                                                                                                                                                                                                  |
| Transmission rate           | 9600 bps, 19.2, 45.45, 93.75, 187.5, 500 kbps, 1.5, 3, 6, 12 Mbps for Profibus DP<br>9600, 19200, 38400 bps for Modbus                                                                                                                                                                                                                                                                                                                                                                                                               |
| Data format                 | 8 bits, no parity, 1 or 2 stop for Modbus<br>8 bits, odd or even parity, 1 stop for Modbus                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Number of addresses         | 1...126 for Profibus DP<br>1...247 for Modbus                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Communication service | 12 Process Data bytes for Profibus DP<br>8 PKW bytes for Profibus DP<br>Communication monitoring for Modbus<br>Communication monitoring for Profibus DP<br>Diagnostics (08) for Modbus<br>PPO type 2 for Profibus DP<br>Read device identification (43) for Modbus<br>Read holding registers (03) for Modbus<br>Read/write multiple registers (23) for Modbus<br>Write multiple registers (16) for Modbus<br>Write single register (06) for Modbus |
| diagnostics           | Drive voltage: 1 LED (red)<br>ERR: 1 LED (Profibus DP)<br>RUN: 1 LED (Profibus DP)                                                                                                                                                                                                                                                                                                                                                                 |
| Signalling function   | Display of faults integrated 7-segment display terminal                                                                                                                                                                                                                                                                                                                                                                                            |
| max nodes number      | 31 for Modbus                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Input resistance      | 5 kOhm                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Marking               | CE                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Type of cooling       | Natural convection                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Operating position    | Vertical +/- 10 degree                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Net weight            | 1.1 kg                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMC filter                            | Integrated                                                                                                                                                                                                                                                                                                                                        |
| Electromagnetic compatibility         | 1.2/50 µs - 8/20 µs surge immunity test level 3 conforming to IEC 61000-4-5<br>Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4<br>Electrostatic discharge immunity test level 3 conforming to IEC 61000-4-2<br>Radiated radio-frequency electromagnetic field immunity test level 3 conforming to IEC 61000-4-3 |
| Standards                             | EN/IEC 61800-5-1<br>EN/IEC 50178<br>EN/IEC 61800-3                                                                                                                                                                                                                                                                                                |
| Product certifications                | UL<br>cUL                                                                                                                                                                                                                                                                                                                                         |
| IP degree of protection               | IP20 on upper part with protective cover removed conforming to EN/IEC 60529<br>IP20 on upper part with protective cover removed conforming to EN/IEC 61800-5-1<br>IP41 on upper part with protective cover in place conforming to EN/IEC 60529<br>IP41 on upper part with protective cover in place conforming to EN/IEC 61800-5-1                |
| Vibration resistance                  | 1 gn (f= 13...150 Hz) conforming to EN/IEC 60068-2-6<br>1.5 mm peak to peak (f= 3...13 Hz) conforming to EN/IEC 60068-2-6                                                                                                                                                                                                                         |
| Shock resistance                      | 15 gn for 11 ms conforming to EN/IEC 60028-2-27                                                                                                                                                                                                                                                                                                   |
| Pollution degree                      | 2 conforming to EN/IEC 61800-5-1                                                                                                                                                                                                                                                                                                                  |
| Environmental characteristic          | Classes 3C1 conforming to IEC 60721-3-3                                                                                                                                                                                                                                                                                                           |
| Relative humidity                     | Class 3K3 (5 to 93 %) without condensation conforming to IEC 60721-3-3                                                                                                                                                                                                                                                                            |
| Ambient air temperature for operation | 0...50 °C                                                                                                                                                                                                                                                                                                                                         |
| Ambient air temperature for storage   | -25...70 °C                                                                                                                                                                                                                                                                                                                                       |
| Operating altitude                    | <= 1000 m without derating<br>> 1000...2000 m with conditions                                                                                                                                                                                                                                                                                     |



## 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 >](#)

### Use Longer

| Lifetime extension |    |
|--------------------|----|
| Repair             | No |