Product datasheet

Specifications

motion servo drive LXM05C - 2.5 kW - 200..240 V - 1-phase - with EMC filter

LXM05CD28M2

Discontinued on: 12 Sept 2025

Discontinued

Main

Range of product	Lexium 05
Product or component type	Motion servo drive
Component name	LXM05C
Network number of phases	Single phase
power supply voltage	200...240 V - 15...10 %
Continuous output current	13 A at 8 kHz 15 A at 4 kHz
Nominal power	2.5 kW at 4 kHz
Discrete input number	6 logic discrete input(s)
Analogue input number	1
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	20 A at 4 kHz for 3 s 20 A at 8 kHz for 3 s
Line current	23 A at 200 V 19.2 A at 240 V
maximum prospective line Isc	1 kA
Switching frequency	8 kHz 4 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 Single-strand IEC cable (temperature: 45 °C) copper 90 °C XLPE/EPR
Electrical connection	Terminal, clamping capacity: 6 mm², AWG 10 (PA/+, PBI, PBe) Terminal, clamping capacity: 6 mm², AWG 10 (R/L1, S/L2, T/L3)
Tightening torque	PA/+, PBI, PBe: 1.2 N.m R/L1, S/L2, T/L3: 1.2 N.m

Discrete input type	Logic (LI1, LI2, LI3, LI4 terminals)
Sampling duration	ANA1+/ANA1-, ANA2+/ANA2-: 0.25 ms analog LI1, LI2, LI3, LI4: 0.25 ms discrete
Discrete input voltage	24 V DC for logic
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 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	3
Discrete output type	Logic output(s) (LO1, LO2, LO3)24 V DC
Discrete output voltage	<= 30 V DC
Discrete output logic	Negative (LO1, LO2, LO3) conforming to EN/IEC 61131-2 Positive (LO1, LO2, LO3) 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 < +/- 2 % over operating temperature range
Linearity error	< +/- 0.5 %
Analogue input type	ANA1+/ANA1- analog input: differential +/- 10 V, impedance: >= 10000 Ohm, resolution: 14 bits
Protection type	Inputs signal: against reverse polarity 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 PWR protection of the machine stop and/or prevent unintended operation of the servo motor conforming to ISO 13849-1 level d PWR protection of the system process stop and/or prevent unintended operation of the servo motor conforming to EN/IEC 61508 level SIL2 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
Connector type	RJ45 (labelled CN4) for Modbus
Physical interface	2-wire RS485 multidrop Modbus RS422 for 2 A/B input(s), <= 400 kHz RS422 for 2 CW/CCW input(s), <= 400 kHz RS422 for 2 ESIM output input(s), <= 400 kHz RS422 for 2 P/D input(s), <= 400 kHz
Transmission rate	9600, 19200, 38400 bps for Modbus
Data format	8 bits, no parity, 1 or 2 stop for Modbus 8 bits, odd or even parity, 1 stop for Modbus
Number of addresses	1…247 for Modbus
Communication service	Communication monitoring for Modbus Diagnostics (08) for Modbus Read device identification (43) for Modbus Read holding registers (03) for Modbus Read/write multiple registers (23) for Modbus Write multiple registers (16) for Modbus Write single register (06) for Modbus
diagnostics	Drive voltage: 1 LED (red)
Signalling function	Display of faults integrated 7-segment display terminal
max nodes number	31 for Modbus

Input resistance	2 kOhm
Marking	CE
Type of cooling	Natural convection
Operating position	Vertical +/- 10 degree
Net weight	2 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 Electrical fast transient/burst immunity test level 4 conforming to IEC 61000-4-4 Electrostatic discharge immunity test level 3 conforming to IEC 61000-4-2 Radiated radio-frequency electromagnetic field immunity test level 3 conforming to IEC 61000-4-3
Standards	EN/IEC 61800-3 EN/IEC 61800-5-1 EN/IEC 50178
Product certifications	UL cUL
IP degree of protection	IP20 on upper part with protective cover removed conforming to EN/IEC 60529 IP20 on upper part with protective cover removed conforming to EN/IEC 61800-5-1 IP41 on upper part with protective cover in place conforming to EN/IEC 60529 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 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 > 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