Product data sheet

Specifications

Discontinued - Service only

motion servo drive LXM05B - 0.75kW - 200..240 V - 1-phase - with EMC filter

LXM05BD10M2

Discontinued on: Nov 1, 2011

End-of-service on: Dec 31, 2022

Main

Range Of Product	Lexium 05
Product Or Component Type	Motion servo drive
Component Name	LXM05B
Network Number Of Phases	Single phase
Power Supply Voltage	200...240 V - 15...10 %
Continuous Output Current	4 A at 4 kHz 3.2 A at 8 kHz
Nominal Power	0.75 kW at 4 kHz
Discrete Input Number	2 safety discrete input(s) 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 7 A at 4 kHz for 3 s
Line Current	6.7 A at 240 V 8.1 A at 200 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: 2.5 mm², AWG 14 (PA/+, PBI, PBe) Terminal, clamping capacity: 2.5 mm², AWG 14 (R/L1, S/L2, T/L3)

Tightening Torque	PA/+, PBI, PBe: 0.8 N.m R/L1, S/L2, T/L3: 0.8 N.m
Discrete Input Type	Logic (LI1, LI2, LI3, LI4 terminals) Safety (PWRR_A, PWRR_B 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 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 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 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 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 < +/- 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 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	Profibus DP Modbus
Connector Type	RJ45 (labelled CN4) for Modbus Spring terminals (labelled CN1) for Profibus DP
Physical Interface	2-wire RS485 multidrop Modbus 2-wire RS485 multidrop Profibus DP RS422 for 1 A/B input(s), <= 400 kHz RS422 for 1 ESIM output input(s), <= 400 kHz 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 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…126 for Profibus DP 1…247 for Modbus

Communication Service	12 Process Data bytes for Profibus DP 8 PKW bytes for Profibus DP Communication monitoring for Modbus Communication monitoring for Profibus DP Diagnostics (08) for Modbus PPO type 2 for Profibus DP 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) ERR: 1 LED (Profibus DP) 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 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

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	1.35 dm

Package 1 Width	1.87 dm
Package 1 Length	1.7 dm
Package 1 Weight	1.498 kg
Unit Type Of Package 2	S06
Number Of Units In Package 2	46
Package 2 Height	74.0 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	81.908 kg

Contractual warranty

Warranty	18 months