

# Product data sheet

Specifications



## motion servo drive LXM05C - 6 kW - 380..480 V - 3-phase - with EMC filter

LXM05CD57N4

⚠ Discontinued - Service only

⚠ Discontinued on: Dec 31, 2013

⚠ End-of-service on: Dec 31, 2019

### Main

Range Of Product	Lexium 05
Product Or Component Type	Motion servo drive
Component Name	LXM05C
Network Number Of Phases	Three phase
Power Supply Voltage	380...480 V - 15...10 %
Continuous Output Current	20 A at 8 kHz 25 A at 4 kHz
Nominal Power	6 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	323...528 V
Supply Frequency	50/60 Hz - 5...5 %
Power Supply Frequency Limits	47.5...63 Hz
Transient Rms Output Current	30 A at 8 kHz for 3 s 40 A at 4 kHz for 3 s
Line Current	14 A at 480 V 17.7 A at 380 V
Maximum Prospective Line Isc	22 kA
Switching Frequency	4 kHz 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 Single-strand IEC cable (temperature: 45 °C) copper 90 °C XLPE/EPR
Electrical Connection	Terminal, clamping capacity: 16 mm², AWG 6 (PA/+, PBI, PBe) Terminal, clamping capacity: 16 mm², AWG 6 (R/L1, S/L2, T/L3)

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

<b>Tightening Torque</b>	PA/+, PBI, PBe: 2.2 N.m R/L1, S/L2, T/L3: 2.2 N.m
<b>Discrete Input Type</b>	Logic (LI1, LI2, LI3, LI4 terminals)
<b>Sampling Duration</b>	ANA1+/ANA1-, ANA2+/ANA2-: 0.25 ms analog LI1, LI2, LI3, LI4: 0.25 ms discrete
<b>Discrete Input Voltage</b>	24 V DC for logic
<b>Discrete Input Logic</b>	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
<b>Response Time</b>	<= 10 ms
<b>Discrete Output Number</b>	3
<b>Discrete Output Type</b>	Logic output(s) (LO1, LO2, LO3)24 V DC
<b>Discrete Output Voltage</b>	<= 30 V DC
<b>Discrete Output Logic</b>	Negative (LO1, LO2, LO3) conforming to EN/IEC 61131-2 Positive (LO1, LO2, LO3) conforming to EN/IEC 61131-2
<b>Contact Bounce Time</b>	1 ms for LI1...LI4
<b>Braking Current</b>	50 mA
<b>Response Time On Output</b>	1 ms (LO1, LO2) for discrete output(s)
<b>Absolute Accuracy Error</b>	< +/- 1 % 25 °C < +/- 2 % over operating temperature range
<b>Linearity Error</b>	< +/- 0.5 %
<b>Analogue Input Type</b>	ANA1+/ANA1- analog input: differential +/- 10 V, impedance: >= 10000 Ohm, resolution: 14 bits
<b>Protection Type</b>	Inputs signal: against reverse polarity Outputs signal: against short-circuits
<b>Safety Function</b>	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
<b>Communication Port Protocol</b>	Modbus
<b>Connector Type</b>	RJ45 (labelled CN4) for Modbus
<b>Physical Interface</b>	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
<b>Transmission Rate</b>	9600, 19200, 38400 bps for Modbus
<b>Data Format</b>	8 bits, no parity, 1 or 2 stop for Modbus 8 bits, odd or even parity, 1 stop for Modbus
<b>Number Of Addresses</b>	1...247 for Modbus
<b>Communication Service</b>	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
<b>Diagnostics</b>	Drive voltage: 1 LED (red)
<b>Signalling Function</b>	Display of faults integrated 7-segment display terminal

Max Nodes Number	31 for Modbus
Input Resistance	2 kOhm
Marking	CE
Type Of Cooling	Fan
Operating Position	Vertical +/- 10 degree
Net Weight	4.8 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 50178 EN/IEC 61800-5-1 EN/IEC 61800-3
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

## Contractual warranty

Warranty	18 months
----------	-----------