Product datasheet

Specification





motion servo drive, Lexium 32, 72A, three phase, supply voltage 208 to 480V, 7kW

LXM32MD72N4

Main

IVIAIII		
Range of product	Lexium 32	
Device short name	LXM32M	
Product or component type	Motion servo drive	
Format of the drive	Book	
Network number of phases	Three phase	
[Us] rated supply voltage	200240 V - 1510 % 380480 V - 1510 %	
Supply voltage limits	170264 V 323528 V	
Supply frequency	50/60 Hz - 55 %	
Network frequency	47.563 Hz	
EMC filter	Integrated	
Continuous output current	24 A at 8 kHz	
Output current 3s peak	72 A at 208 V for 5 s 72 A at 480 V for 5 s	
maximum continuous power 6500 W at 208 V 13000 W at 400 V 13000 W at 480 V		
Nominal power	5 kW at 208 V 8 kHz 7 kW at 400 V 7 kW at 480 V 8 kHz	
Line current	21.1 A 34 % at 208 V, with external line choke of 1 mH 22.5 A 45 % at 400 V, with external line choke of 1 mH 19.5 A 55 % at 480 V, with external line choke of 1 mH 21.9 A 106 % at 208 V, without line choke 17.3 A 126 % at 400 V, without line choke 14.6 A 129 % at 480 V, without line choke	

Complementary

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switching frequency	8 kHz	
Overvoltage category	III	
Maximum leakage current	30 mA	
Output voltage	<= power supply voltage	
Electrical isolation	Between power and control	
Type of cable	Single-strand IEC cable (temperature: 50 °C) copper 90 °C XLPE/EPR	
Electrical connection	Terminal, clamping capacity: 3 mm², AWG 12 (CN8)	
Tightening torque	CN8: 0.5 N.m	

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Discrete input number	2 capture discrete input(s)	
Discrete input type	Capture (CAP terminals)	
Sampling duration	0.25 ms	
Discrete input voltage	24 V DC for capture	
Discrete input logic	Positive (compliment of STO_A, compliment of STO_B) at State 0: < 5 V at State 1: > 15 V conforming to EN/IEC 61131-2 type 1	
Response time	<= 5 ms compliment of STO_A, compliment of STO_B	
Discrete output number	3	
Discrete output type	Logic output(s) (DO)24 V DC	
Discrete output voltage	<= 30 V DC	
Discrete output logic	Positive or negative (DO) conforming to EN/IEC 61131-2	
Contact bounce time	<= 1 ms for compliment of STO_A, compliment of STO_B	
Braking current	50 mA	
Response time on output	250 μs (DO) for discrete output(s)	
Control signal type	Pulse train output (PTO) RS422 <500 kHz <100 m	
Protection type	Against reverse polarity: inputs signal	
Safety function	STO (safe torque off), integrated	
Safety level	SIL 3 conforming to EN/IEC 61508	
Communication interface	Modbus, integrated Profinet, with separated communication card	
Connector type	RJ45 (labelled CN7) for Modbus	
commissioning port	2-wire RS485 multidrop for Modbus	
Transmission rate	9600, 19200, 38400 bps for bus length of 40 m for Modbus	
Number of addresses	1247 for Modbus	
Status LED	1 LED (red) servo drive voltage	
Signalling function	Display of faults 7 segments	
Marking	CE	
Operating position	Vertical +/- 10 degree	
Product compatibility	Servo motor BMH (140 mm, 2 motor stacks)	
Width	108 mm	
Height	270 mm	
Depth	237 mm	
Net weight	4.8 kg	

Environment

Electromagnetic compatibility	Conducted EMC, class A group 1 conforming to EN 55011	
Standards	EN/IEC 61800-3	
Product certifications	CSA	
IP degree of protection	IP20 conforming to EN/IEC 60529	
Vibration resistance	1 gn (f= 13150 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 85 %) without condensation conforming to IEC 60721-3-3	
Ambient air temperature for operation	050 °C conforming to UL	
Ambient air temperature for storage	-2570 °C	
Type of cooling	Integrated fan	
Operating altitude	<= 1000 m without derating	

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	14.2 cm
Package 1 Width	27.6 cm
Package 1 Length	32.5 cm
Package 1 Weight	5.506 kg
Unit Type of Package 2	S03
Number of Units in Package 2	2
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	11.869 kg
Unit Type of Package 3	P06
Number of Units in Package 3	16
Package 3 Height	80 cm
Package 3 Width	80 cm
Package 3 Length	60 cm
Package 3 Weight	102.3 kg

Contractual warranty

Jul 25, 2024 AD

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

	Mercury Free	
②	Rohs Exemption Information	Yes
	Pvc Free	

Certifications & Standards

Reach Regulation	REACh Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
Circularity Profile	End of Life Information	

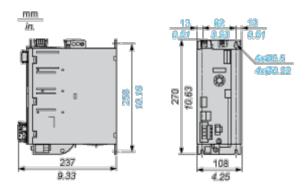
Product datasheet

LXM32MD72N4

Dimensions Drawings

Lexium 32 Servo Drive

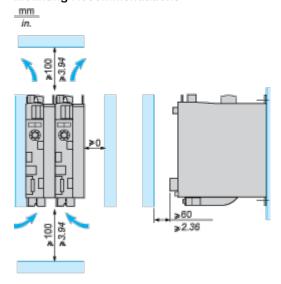
Dimensions



Mounting and Clearance

Lexium 32 Motion Control Servo Drives

Mounting Recommendations



LXM32•U45M2, •U90M2 and LXM32•U60N4 servo drives are cooled by natural convection. LXM32•D18M2, •D30M2, LXM32 •D12N4, •D18N4, •D30N4 and •D72N4servo drives have an integrated fan.

When installing the servo drive in the enclosure, follow the instructions below with regard to the temperature and protection index:

- Provide sufficient cooling of the servo drive
- Do not mount the servo drive near heat sources
- . Do not mount the servo drive on flammable materials
- Do not heat the servo drive cooling air by currents of hot air from other equipment and components, for example from an external braking resistor
- Mount the servo drive vertically (± 10%)
- If the servo drive is used above its thermal limits, control stops due to overtemperature

NOTE: For cables that are connected via the underside of the servo drive, a free space ≥ 200 mm/7.87 in. is required under the unit to comply with the bending radius of the connection cables.

Ambient temperature	Mounting distances	Instructions to be followed
0°C+ 50°C	d ≥ 0 mm	-
+ 50°C+ 60°C	d ≥ 0 mm	Reduce the output current by 2.2% per °C above 50°C

NOTE: Do not use insulated enclosures, as they have a poor level of conductivity.

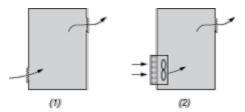
Recommendations for Mounting in an Enclosure

To ensure good air circulation in the servo drive:

- Fit ventilation grilles on the enclosure.
- Ensure that ventilation is adequate, otherwise install a forced ventilation unit with a filter.

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- (1) Natural convection
- (2) Forced ventilation
 - Any apertures and/or fans must provide a flow rate at least equal to that of the servo drive fans (refer to characteristics).
 - Use special filters with IP 54 protection.

Mounting in Metal Enclosure (IP 54 Degree of Protection)

The servo drive must be mounted in a dust and damp proof enclosure in certain environmental conditions, such as dust, corrosive gases, high humidity with risk of condensation and dripping water, splashing liquid, etc. In these cases, Lexium 32 servo drives can be installed in an enclosure where the internal temperature must not exceed 60°C.