

## Main

Range of product	Lexium 32
Product or component type	Motion servo drive
Component name	LXM32M
Type of polarization	No polarization impedances Modbus

## Complementary

Network number of phases	3 phases
[Us] rated supply voltage	380...480 V - 15...10 %
Supply frequency	50/60 Hz - 5...5 %
Network frequency limits	47.5...63 Hz
Continuous output current	1.5 A 8 kHz
Output current 3s peak	6 A 8 kHz 1 s
Nominal power	0.4 kW 8 kHz
Line current	1.4 A 380...480 V
Prospective line I <sub>sc</sub>	5 kA
Switching frequency	8 kHz
Overvoltage category	III
Inrush current	< 60 A
Leakage current	< 30 mA
Output voltage	<= power supply voltage
Insulation	Electrical between power and control
Type of cable	Single-strand IEC cable 50 °C copper 90 °C XLPE/EPR
Electrical connection	Terminal 3 mm <sup>2</sup> AWG 12 CN8 Terminal 5 mm <sup>2</sup> AWG 10 CN1 Terminal 5 mm <sup>2</sup> AWG 10 CN10
Tightening torque	0.5 N.m CN8 0.7 N.m CN1 0.7 N.m CN10
Discrete input number	2 capture 2 safety 4 logic
Discrete input type	Capture CAP Logic DI Safety compliment of STO_A, compliment of STO_B
Sampling duration	0.25 ms 0.25 ms DI discrete
Discrete input voltage	24 V DC capture 24 V DC logic 24 V DC safety
Discrete input logic	Positive compliment of STO_A, compliment of STO_B < 5 V > 15 V EN/IEC 61131-2 type 1 Positive DI > 19 V < 9 V EN/IEC 61131-2 type 1 Positive or negative DI < 5 V > 15 V EN/IEC 61131-2 type 1
Response time	<= 5 ms compliment of STO_A, compliment of STO_B
Discrete output number	3

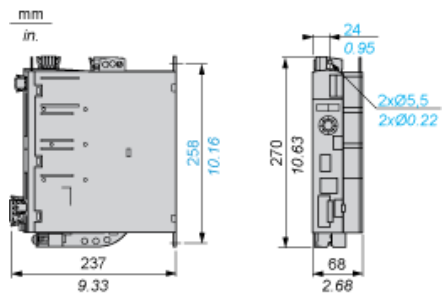
Discrete output type	Logic DI 24 V DC
Discrete output voltage	<= 30 V DC
Discrete output logic	Positive or negative DI EN/IEC 61131-2
Contact bounce time	<= 1 ms compliment of STO_A, compliment of STO_B 2 µs CAP 0.25 µs...1.5 ms DI
Braking current	50 mA
Response time on output	250 µs DI discrete
Control signal type	Pulse train output (PTO) RS422 <= 500 kHz 100 m Pulse/Dir (P/D), A/B, CW/CCW 5 V, 24 V link (open collector) <= 10 kHz 1 m Pulse/Dir (P/D), A/B, CW/CCW 5 V, 24 V link (push-pull) <= 200 kHz 10 m Pulse/Dir (P/D), A/B, CW/CCW RS422 <= 1000 kHz 100 m Servo motor encoder feedback
	120 Ohm 10 V 100 mA
Safety function	Safe torque off safety function stop and/or prevent unintended operation of the servo motor IEC/EN 61800-5-2 Safe torque off safety function stop and/or prevent unintended operation of the servo motor ISO 13849-1 level e
Communication port protocol	Modbus
Type of connector	RJ45 (labelled CN7) Modbus
Physical interface	2-wire RS485 multidrop Modbus
Transmission rate	9600, 19200, 38400 bps <= 40 m Modbus
Number of addresses	1...247 Modbus
Status LED	1 LED red servo drive voltage
Signalling function	Display of faults 7 segments
Installed device	31 Modbus
Marking	CE
Type of cooling	Natural convection
Operating position	Vertical +/- 10 degree
Product weight	1.8 kg

## Environment

EMC filter	Integrated
Electromagnetic compatibility	Conducted EMC EN 55011 class A group 1 Conducted EMC EN 55011 class A group 2 Conducted EMC EN/IEC 61800-3 environment 2 category C3 Conducted EMC IEC/EN 61800-3 category C2 EMC immunity IEC/EN 61800-3 environments 1 and 2 EMC immunity level 3 EN/IEC 61000-4-2 EMC immunity level 3 EN/IEC 61000-4-3 EMC immunity level 3 EN/IEC 61000-4-5 EMC immunity level 4 EN/IEC 61000-4-4 Radiated EMC EN 55011 class A group 2 Radiated EMC IEC/EN 61800-3 category C3
Standards	EN/IEC 61800-3 EN/IEC 61800-5-1
Product certifications	CSA RoHS TÜV UL
IP degree of protection	IP20 EN/IEC 60529 IP20 EN/IEC 61800-5-1
Vibration resistance	1 gn 13...150 Hz EN/IEC 60068-2-6 1.5 mm peak to peak 3...13 Hz EN/IEC 60068-2-6
Shock resistance	15 gn 11 ms EN/IEC 60028-2-27
Pollution degree	2 EN/IEC 61800-5-1
Environmental characteristic	Classes 3C1 IEC 60721-3-3
Relative humidity	Class 3K3 (5 to 85 %) without condensation 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...3000 m with conditions

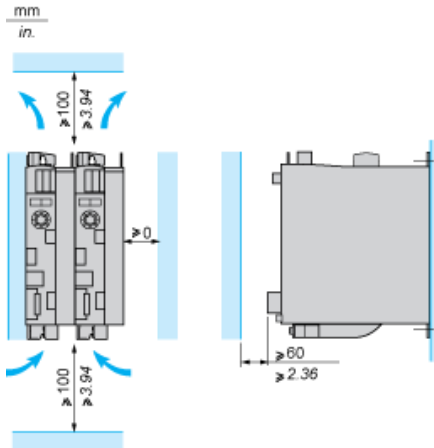
Lexium 32 Servo Drive

Dimensions



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 •D72N4 servo 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 ( $\pm 10\%$ )
- 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  $\geq 200$  mm/7.87 in. is required under the unit to comply with the bending radius of the connection cables.

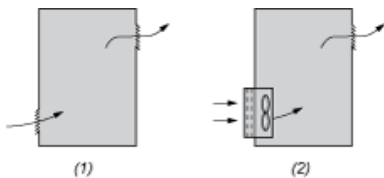
Ambient temperature	Mounting distances	Instructions to be followed
0°C...+ 50°C	$d \geq 0$ mm	–
+ 50°C...+ 60°C	$d \geq 0$ mm	Reduce the output current by 2.2% per °C above 50°C

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.



- (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.