# Product data sheet

Specifications



## motion servo drive, Lexium 32, 10A, single phase, supply voltage 115 to 230V, 0.5 to 1kW

LXM32MD18M2

**Product availability: Stock - Normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range of Product** | Lexium 32 |
| **Device short name** | LXM32M |
| **Product or Component Type** | Motion servo drive |
| **Format of the drive** | Book |
| **Phase** | Single phase |
| **[Us] rated supply voltage** | 100...120 V - 15...10 %<br>200...240 V - 15...10 % |
| **Supply voltage limits** | 85…132 V<br>170…264 V |
| **Supply frequency** | 50/60 Hz - 5...5 % |
| **Network Frequency** | 47.5...63 Hz |
| **EMC filter** | Integrated |
| **Continuous output current** | 6 A 8 kHz |
| **Output current 3s peak** | 10 A 115 V 5 s<br>18 A 230 V 5 s |
| **Continuous power** | 800 W 115 V<br>1600 W 230 V |
| **Nominal power** | 0.5 kW 115 V 8 kHz<br>1 kW 230 V 8 kHz |
| **Line current** | 9.9 A 74 % 115 V, with external line choke 2 mH<br>10.6 A 93 % 230 V, with external line choke 2 mH<br>8.5 A 147 % 115 V, without line choke<br>8.4 A 148 % 230 V, without line choke |

## Complementary

| | |
|---|---|
| **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 122 °F (50 °C)) copper 90 °C XLPE/EPR |
| **Electrical connection** | Terminal 3 mm², AWG 12 PA/+, PBI, PBe)<br>Terminal 5 mm², AWG 10 CN1)<br>Terminal 5 mm², AWG 10 CN10) |
| **Tightening torque** | PA/+, PBI, PBe 4.4 lbf.in (0.5 N.m)<br>CN1 6.2 lbf.in (0.7 N.m)<br>CN10 6.2 lbf.in (0.7 N.m) |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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

| | |
|---|---|
| **Discrete input number** | 2 capture<br>2 safety<br>4 logic |
| **Discrete input type** | Capture CAP<br>Logic DI<br>Safety compliment of STO_A, compliment of STO_B |
| **Sampling duration** | DI 0.25 ms discrete<br>0.25 ms |
| **Discrete input voltage** | 24 V DC capture<br>24 V DC logic<br>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<br>Positive DI)> 19 V < 9 V EN/IEC 61131-2 type 1<br>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 DO)24 V DC |
| **Discrete output voltage** | <= 30 V DC |
| **Discrete output logic** | Positive or negative DO)EN/IEC 61131-2 |
| **Contact bounce time** | <= 1 ms compliment of STO_A, compliment of STO_B<br>2 µs CAP<br>0.25 µs...1.5 ms DI |
| **Braking current** | 50 mA |
| **Response time on output** | 250 µs DO)discrete |
| **Control signal type** | Servo motor encoder feedback<br>Pulse train output (PTO) RS422 <500 kHz <328.08 ft (100 m)<br>Pulse/direction (P/D), A/B, CW/CCW 5 V, 24 V link (open collector) <10 kHz <3.3 ft (1 m)<br>Pulse/direction (P/D), A/B, CW/CCW 5 V, 24 V link (push-pull) <200 kHz <32.8 ft (10 m)<br>Pulse/direction (P/D), A/B, CW/CCW RS422 <1000 kHz <328.08 ft (100 m) |
| **Protection type** | Against reverse polarity inputs signal<br>Against short-circuits outputs signal |
| **Safety function** | STO (safe torque off), Integrated<br>SS1 (safe stop 1), with separated eSM safety card<br>SS2 (safe stop 2), with separated eSM safety card<br>SLS (safe limited speed), with separated eSM safety card<br>SOS (safe operating stop), with separated eSM safety card |
| **Safety level** | SIL 3 EN/IEC 61508<br>PL = e ISO 13849-1 |
| **Communication interface** | Modbus TCP, with separated communication card<br>CANopen, with separated communication card<br>CANmotion, with separated communication card<br>Ethernet/IP, with separated communication card<br>EtherCAT, with separated communication card<br>Profibus, with separated communication card<br>Profinet, with separated communication card<br>Analog I/O, with separated communication card<br>Digital I/O, Integrated |
| **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 2.8 in (70 mm), 1<br>Servo motor BMH 2.8 in (70 mm), 3<br>Servo motor BSH 2.8 in (70 mm), 3<br>Servo motor BSH 3.9 in (100 mm), 1<br>Servo motor BMH 3.9 in (100 mm), 2<br>Servo motor BSH 3.9 in (100 mm), 2 |
| **Width** | 2.7 in (68 mm) |
| **Height** | 10.6 in (270 mm) |
| **Depth** | 9.3 in (237 mm) |
| **Product Weight** | 4.2 lb(US) (1.9 kg) |

## Environment

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|---|---|
| **Electromagnetic compatibility** | Conducted EMC, class A group 1 EN 55011<br>Conducted EMC, class A group 2 EN 55011<br>Conducted EMC, environment 2 category C3 EN/IEC 61800-3<br>Conducted EMC, category C2 EN/IEC 61800-3<br>Conducted EMC, environments 1 and 2 EN/IEC 61800-3<br>Electrostatic discharge immunity test, level 3 EN/IEC 61000-4-2<br>Susceptibility to electromagnetic fields, level 3 EN/IEC 61000-4-3<br>1.2/50 µs shock waves immunity test, level 3 EN/IEC 61000-4-5<br>Electrical fast transient/burst immunity test, level 4 EN/IEC 61000-4-4<br>Radiated EMC, class A group 2 EN 55011<br>Radiated EMC, category C3 EN/IEC 61800-3 |
| **Standards** | EN/IEC 61800-5-1<br>EN/IEC 61800-3 |
| **Product Certifications** | TÜV<br>UL<br>CSA |
| **IP degree of protection** | IP20 conforming to EN/IEC 60529<br>IP20 conforming to EN/IEC 61800-5-1 |
| **Vibration resistance** | 1 gn (f= 13…150 Hz) conforming to EN/IEC 60068-2-6<br>1.5 mm peak to peak (f= 3…13 Hz) conforming to 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 conforming to IEC 60721-3-3 |
| **Relative humidity** | Class 3K3 (5 to 85 %) without condensation IEC 60721-3-3 |
| **Ambient air temperature for operation** | 32…122 °F (0…50 °C) UL |
| **Ambient Air Temperature for Storage** | -13…158 °F (-25…70 °C) |
| **Type of cooling** | Integrated fan |
| **Operating altitude** | <= 3280.84 ft (1000 m) without derating<br>> 3280.84...9842.52 ft (> 1000...3000 m) with conditions |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US1PC5118261 |
| **Discount Schedule** | PC51 |
| **GTIN** | 3606480076848 |
| **Returnability** | Yes |
| **Country of origin** | ID |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |

| | |
|---|---|
| **Package 1 Height** | 4.252 in (10.800 cm) |
| **Package 1 Width** | 10.906 in (27.700 cm) |
| **Package 1 Length** | 12.913 in (32.800 cm) |
| **Package weight(Lbs)** | 5.318 lb(US) (2.412 kg) |
| **Unit Type of Package 2** | S03 |
| **Number of Units in Package 2** | 2 |
| **Package 2 Height** | 11.811 in (30.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 12.253 lb(US) (5.558 kg) |
| **Unit Type of Package 3** | P06 |
| **Number of Units in Package 3** | 16 |
| **Package 3 Height** | 29.528 in (75.000 cm) |
| **Package 3 Width** | 23.622 in (60.000 cm) |
| **Package 3 Length** | 31.496 in (80.000 cm) |
| **Package 3 Weight** | 119.050 lb(US) (54.000 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## 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 >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **1 483 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **22 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.3 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **1 459 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **1 kg CO2 eq.** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| SCIP Number | **C0961927-b9e6-4f64-bd63-334df07b6de6** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| California proposition 65 | **WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov** |
| PVC free | **Yes** |

## Use Longer

### Lifetime extension

| | |
|---|---|
| Repair | **No** |

## Use Again

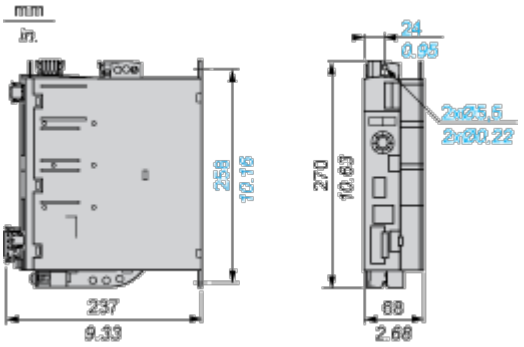
### Repack and remanufacture

| | |
|---|---|
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.** |

Dimensions Drawings

## Lexium 32 Servo Drive

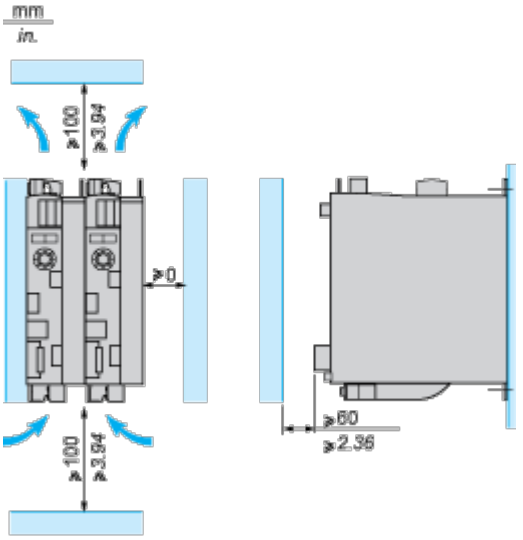
### Dimensions



## 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.

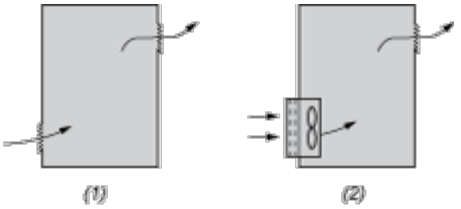
| Ambient temperature | Mounting distances | Instructions to be followed |
|---|---|---|
| 0°C…+ 50°C | d ≥ 0 mm | – |
| + 50°C…+ 60°C | d ≥ 0 mm | Reduce the output current by 2.2% per °C above 50°C |

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.



(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.