

Product datasheet

Specifications



servo motor BSH, Lexium 32,
14.4N.m, 3000rpm, 140mm, keyed
shaft, Sincos single turn, with brake,
IP50, straight

BSH1402T11F1P

! Discontinued

! Discontinued on: 18 Apr 2024

! To be end-of-service on: 18 Apr 2026

Main

| | |
|---------------------------|---|
| Device short name | BSH |
| Product or component type | Servo motor |
| Maximum mechanical speed | 4000 rpm |
| Continuous stall torque | 19.5 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 19.5 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 14.4 N.m for LXM05AD42M3X, 200...240 V, three phase 14.4 N.m for LXM05BD42M3X, 200...240 V, three phase 14.4 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Peak stall torque | 59.3 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 59.3 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 24.56 N.m for LXM05AD42M3X, 200...240 V, three phase 24.56 N.m for LXM05BD42M3X, 200...240 V, three phase |
| Nominal output power | 3900 W for LXM32.D72N4 at 24 A, 400 V, three phase 3900 W for LXM32.D72N4 at 24 A, 480 V, three phase 2900 W for LXM05AD42M3X, 200...240 V, three phase 2900 W for LXM05BD42M3X, 200...240 V, three phase 2900 W for LXM05CD42M3X, 200...240 V, three phase |
| Nominal torque | 12.3 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 12.3 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 9.2 N.m for LXM05AD42M3X, 200...240 V, three phase 9.2 N.m for LXM05BD42M3X, 200...240 V, three phase 9.2 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Nominal speed | 3000 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 3000 rpm for LXM32.D72N4 at 24 A, 480 V, three phase 3000 rpm for LXM05AD42M3X, 200...240 V, three phase 3000 rpm for LXM05BD42M3X, 200...240 V, three phase 3000 rpm for LXM05CD42M3X, 200...240 V, three phase |
| Product compatibility | LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase |
| Shaft end | Keyed |
| IP degree of protection | IP50 standard |
| Speed feedback resolution | 131072 points/turn |
| Holding brake | With |
| Mounting support | International standard flange |
| Electrical connection | Straight connectors |

Complementary

| | |
|---------------------|------------------------|
| Range compatibility | Lexium 05 Lexium 32 |
|---------------------|------------------------|

| | |
|---------------------------------------|---|
| supply voltage max | 480 V |
| Network number of phases | Three phase |
| Continuous stall current | 22.5 A |
| maximum continuous power | 4.2 W |
| Maximum current Irms | 72 A for LXM32.D72N4 75.2 A for LXM05AD42M3X 75.2 A for LXM05BD42M3X 75.2 A for LXM05CD42M3X |
| Maximum permanent current | 75.2 A |
| Switching frequency | 8 kHz |
| Second shaft | Without second shaft end |
| Shaft diameter | 24 mm |
| Shaft length | 50 mm |
| Key width | 40 mm |
| Feedback type | Single turn SinCos Hiperface |
| Holding torque | 23 N.m holding brake |
| Motor flange size | 140 mm |
| Number of motor stacks | 2 |
| Torque constant | 0.87 N.m/A at 120 °C |
| Back emf constant | 101 V/krpm at 120 °C |
| Rotor inertia | 14.48 kg.cm ² |
| Stator resistance | 0.6 Ohm at 20 °C |
| Stator inductance | 7.4 mH at 20 °C |
| Stator electrical time constant | 12.1 ms at 20 °C |
| Maximum radial force Fr | 1680 N at 3000 rpm 1930 N at 2000 rpm 2430 N at 1000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Brake pull-in power | 24 W |
| Type of cooling | Natural convection |
| Length | 310.5 mm |
| Centring collar diameter | 130 mm |
| Centring collar depth | 3.5 mm |
| Number of mounting holes | 4 |
| Mounting holes diameter | 11 mm |
| Circle diameter of the mounting holes | 165 mm |
| Net weight | 17.7 kg |
| Sizing reference | BSH1402T |
| Network number of phases | 3 |
| Accuracy error [angular] | 1.4 ° |
| Temperature copper hot | 120 °C |
| Temperature magnet hot | 100 °C |
| Temperature magnet rt | 20 °C |

Packing Units

| | |
|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 27.0 cm |
| Package 1 Width | 27.0 cm |
| Package 1 Length | 48.2 cm |
| Package 1 Weight | 13.29 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 >](#)

Use Better



Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

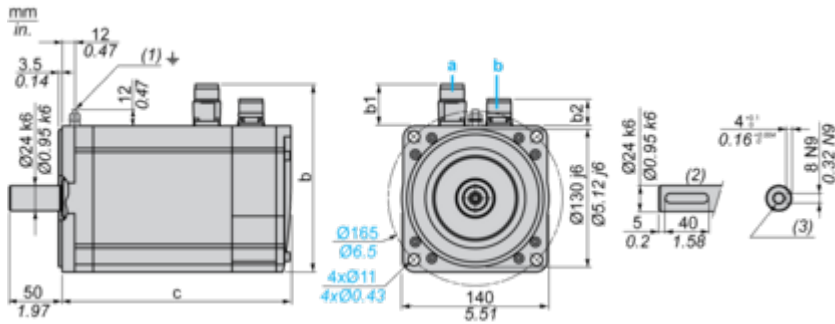
End of life manual availability

No need of specific recycling operations

Dimensions Drawings

Servo Motors Dimensions

Example with Straight Connectors



- a: Power supply for servo motor brake
- b: Power supply for servo motor encoder
- (1) M4 screw
- (2) Shaft end, keyed slot (optional)
- (3) For screws M8 x 19 mm/M8 x 0.75 in.

Dimensions in mm

| Straight connectors | | | Rotatable angled connectors | | | c (without brake) | c (with brake) |
|---------------------|----|------|-----------------------------|----|------|-------------------|----------------|
| b | b1 | b2 | b | b1 | b2 | | |
| 192.5 | 54 | 25.5 | 198.5 | 60 | 39.5 | 273 | 311 |

Dimensions in in.

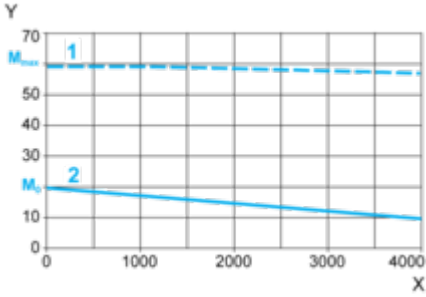
| Straight connectors | | | Rotatable angled connectors | | | c (without brake) | c (with brake) |
|---------------------|------|------|-----------------------------|------|------|-------------------|----------------|
| b | b1 | b2 | b | b1 | b2 | | |
| 7.57 | 2.12 | 1.00 | 7.81 | 2.36 | 1.55 | 10.74 | 12.24 |

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32-D72N4 servo drive



X Speed in rpm

Y Torque in Nm

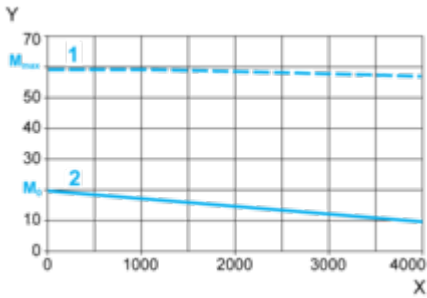
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque