

Product datasheet

Specifications



AC servo motor BSH - 32.1 N.m - 3000 rpm - untapped shaft - with brake - IP50

BSH1404P01F2P

EAN Code: 3389118361423

Main

| | |
|---------------------------|---|
| Device short name | BSH |
| Product or component type | Servo motor |
| Maximum mechanical speed | 4000 rpm |
| Continuous stall torque | 33.4 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 33.4 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 32.1 N.m for LXM05AD57N4, 380...480 V, three phase 32.1 N.m for LXM05BD57N4, 380...480 V, three phase 32.1 N.m for LXM05CD57N4, 380...480 V, three phase |
| Peak stall torque | 103.6 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 103.6 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 63.09 N.m for LXM05AD57N4, 380...480 V, three phase 63.09 N.m for LXM05BD57N4, 380...480 V, three phase 63.09 N.m for LXM05CD57N4, 380...480 V, three phase |
| Nominal output power | 5000 W for LXM32.D72N4 at 24 A, 400 V, three phase 5000 W for LXM32.D72N4 at 24 A, 480 V, three phase 3400 W for LXM05AD57N4, 380...480 V, three phase 3400 W for LXM05BD57N4, 380...480 V, three phase 3400 W for LXM05CD57N4, 380...480 V, three phase |
| Nominal torque | 19 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 19 N.m for LXM32.D72N4 at 24 A, 480 V, three phase 10.8 N.m for LXM05AD57N4, 380...480 V, three phase 10.8 N.m for LXM05BD57N4, 380...480 V, three phase 10.8 N.m for LXM05CD57N4, 380...480 V, three phase |
| Nominal speed | 2500 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 2500 rpm for LXM32.D72N4 at 24 A, 480 V, three phase 3000 rpm for LXM05AD57N4, 380...480 V, three phase 3000 rpm for LXM05BD57N4, 380...480 V, three phase 3000 rpm for LXM05CD57N4, 380...480 V, three phase |
| Product compatibility | LXM05AD57N4 at 380...480 V three phase LXM05BD57N4 at 380...480 V three phase LXM05CD57N4 at 380...480 V three phase LXM32.D72N4 at 400 V three phase LXM32.D72N4 at 480 V three phase |
| Shaft end | Untapped |
| IP degree of protection | IP50 standard |
| Speed feedback resolution | 131072 points/turn |
| Holding brake | With |
| Mounting support | International standard flange |
| Electrical connection | Rotatable right-angled connectors |

Complementary

| | |
|---------------------|------------------------|
| Range compatibility | Lexium 05 Lexium 32 |
| supply voltage max | 480 V |

| | |
|---------------------------------------|--|
| Network number of phases | Three phase |
| Continuous stall current | 21.3 A |
| maximum continuous power | 4.33 W |
| Maximum current Irms | 72 A for LXM32.D72N4 95.6 A for LXM05AD57N4 95.6 A for LXM05BD57N4 95.6 A for LXM05CD57N4 |
| Maximum permanent current | 95.6 A |
| Switching frequency | 8 kHz |
| Second shaft | Without second shaft end |
| Shaft diameter | 24 mm |
| Shaft length | 50 mm |
| Feedback type | Single turn SinCos Hiperface |
| Holding torque | 36 N.m holding brake |
| Motor flange size | 140 mm |
| Number of motor stacks | 4 |
| Torque constant | 1.57 N.m/A at 120 °C |
| Back emf constant | 104 V/krpm at 120 °C |
| Number of motor poles | 5.0 |
| Rotor inertia | 29.2 kg.cm ² |
| Stator resistance | 0.28 Ohm at 20 °C |
| Stator inductance | 2.035 mH at 20 °C |
| Stator electrical time constant | 13.93 ms at 20 °C |
| Maximum radial force Fr | 1840 N at 3000 rpm 2110 N at 2000 rpm 2660 N at 1000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Brake pull-in power | 26 W |
| Type of cooling | Natural convection |
| Length | 420.5 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 | 27.8 kg |
| Sizing reference | BSH1404P |
| 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 |
| Output current 3s peak | 95.6 A |

| | |
|---------|---|
| Inertia | 5.5 kg.cm ² of brake 23.7 kg.cm ² of motor |
|---------|---|

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 | 60.6 cm |
|------------------|---------|

| | |
|------------------|---------|
| Package 1 Weight | 20.6 kg |
|------------------|---------|

Logistical informations

| | |
|-------------------|----|
| Country of origin | DE |
|-------------------|----|

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 | 5 477 kg CO2 eq. |
| Carbon footprint of the manufacturing phase [A1 to A3] | 90 kg CO2 eq. |
| Carbon footprint of the distribution phase [A4] | 3 kg CO2 eq. |
| Carbon footprint of the installation phase [A5] | 0.2 kg CO2 eq. |
| Carbon footprint of the use phase [B2, B3, B4, B6] | 5 382 kg CO2 eq. |
| Carbon footprint of the end-of-life phase [C1 to C4] | 2 kg CO2 eq. |

Use Better



Materials and Substances

| | |
|--|--|
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | No |
| EU RoHS Directive | Compliant By Exemption |
| REACH Regulation | Reference contains Substances of Very High Concern above the threshold |
| PVC free | Yes |

Use Longer



Lifetime extension

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

Use Again



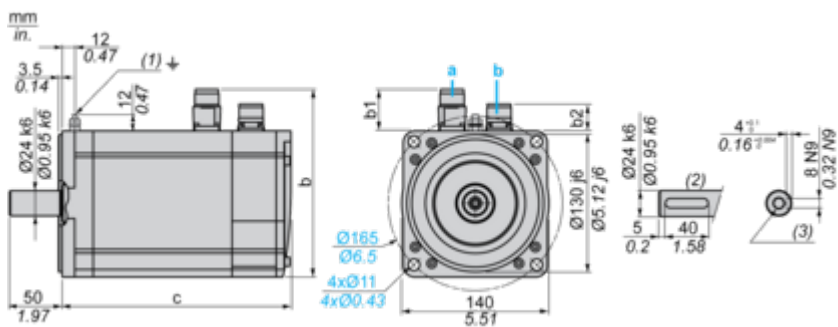
Repack and remanufacture

| | |
|---------------------------------|---|
| End of life manual availability | No need of specific recycling operations |
| 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

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 | 383 | 421 |

Dimensions in in.

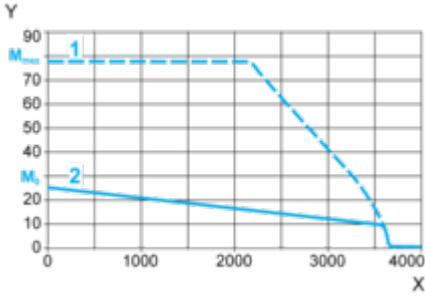
| Straight connectors | | | Rotatable angled connectors | | | c (without brake) | c (with brake) |
|---------------------|------|------|-----------------------------|------|------|-------------------|----------------|
| b | b1 | b2 | b | b1 | b2 | | |
| 7.57 | 2.12 | 1.00 | 7.81 | 2.36 | 1.55 | 15.07 | 16.57 |

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

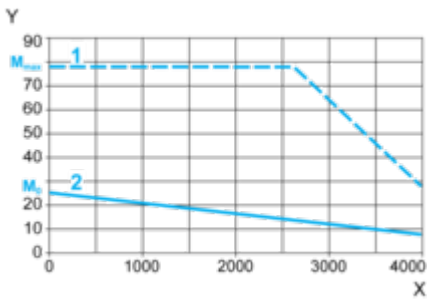
1 Peak torque

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