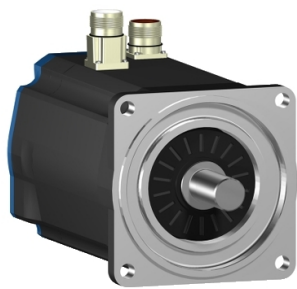


Product data sheet

Specifications



AC servo motor BSH, Lexium 05, 3.39N.m, 4000rpm, untapped shaft, without brake, IP65

BSH1001T22A1A

⚠ Discontinued on: Jun 30, 2023

⚠ Discontinued

Main

| | |
|---------------------------|---|
| Product Or Component Type | Servo motor |
| Device Short Name | BSH |
| Maximum Mechanical Speed | 6000 rpm |
| Continuous Stall Torque | 3.3 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 3.39 N.m for LXM15LD28M3, 230 V, three phase 3.4 N.m for LXM05AD28F1, 110...120 V, single phase 3.4 N.m for LXM05AD28M2, 200...240 V, single phase 3.4 N.m for LXM05AD42M3X, 200...240 V, three phase 3.4 N.m for LXM05BD28F1, 110...120 V, single phase 3.4 N.m for LXM05BD28M2, 200...240 V, single phase 3.4 N.m for LXM05BD42M3X, 200...240 V, three phase 3.4 N.m for LXM05CD28F1, 110...120 V, single phase 3.4 N.m for LXM05CD28M2, 200...240 V, single phase 3.4 N.m for LXM05CD42M3X, 200...240 V, three phase 2.7 N.m for LXM32.D18M2 at 6 A, 230 V, single phase |
| Peak Stall Torque | 6.3 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 8.5 N.m for LXM05AD28F1, 110...120 V, single phase 8.5 N.m for LXM05AD28M2, 200...240 V, single phase 8.5 N.m for LXM05BD28F1, 110...120 V, single phase 8.5 N.m for LXM05BD28M2, 200...240 V, single phase 8.5 N.m for LXM05CD28F1, 110...120 V, single phase 8.5 N.m for LXM05CD28M2, 200...240 V, single phase 7.5 N.m for LXM32.D18M2 at 6 A, 230 V, single phase 8.5 N.m for LXM15LD28M3, 230 V, three phase 8.5 N.m for LXM05AD42M3X, 200...240 V, three phase 8.5 N.m for LXM05BD42M3X, 200...240 V, three phase 8.5 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Nominal Output Power | 700 W for LXM32.D30M2 at 10 A, 115 V, single phase 900 W for LXM32.D18M2 at 6 A, 230 V, single phase 500 W for LXM05AD28F1, 110...120 V, single phase 500 W for LXM05BD28F1, 110...120 V, single phase 500 W for LXM05CD28F1, 110...120 V, single phase 900 W for LXM05AD28M2, 200...240 V, single phase 900 W for LXM05BD28M2, 200...240 V, single phase 900 W for LXM05CD28M2, 200...240 V, single phase 1150 W for LXM15LD28M3, 230 V, three phase 900 W for LXM05AD42M3X, 200...240 V, three phase 900 W for LXM05BD42M3X, 200...240 V, three phase 900 W for LXM05CD42M3X, 200...240 V, three phase |
| Nominal Torque | 2.75 N.m for LXM32.D30M2 at 10 A, 115 V, single phase 2.9 N.m for LXM05AD28M2, 200...240 V, single phase 2.9 N.m for LXM05BD28M2, 200...240 V, single phase 2.9 N.m for LXM05CD28M2, 200...240 V, single phase 3.16 N.m for LXM05AD28F1, 110...120 V, single phase 3.16 N.m for LXM05BD28F1, 110...120 V, single phase 3.16 N.m for LXM05CD28F1, 110...120 V, single phase 2.2 N.m for LXM32.D18M2 at 6 A, 230 V, single phase 2.75 N.m for LXM15LD28M3, 230 V, three phase 2.9 N.m for LXM05AD42M3X, 200...240 V, three phase 2.9 N.m for LXM05BD42M3X, 200...240 V, three phase 2.9 N.m for LXM05CD42M3X, 200...240 V, three phase |

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

| | |
|---------------------------|--|
| Nominal Speed | 2500 rpm for LXM32.D30M2 at 10 A, 115 V, single phase 3000 rpm for LXM05AD28M2, 200...240 V, single phase 3000 rpm for LXM05BD28M2, 200...240 V, single phase 3000 rpm for LXM05CD28M2, 200...240 V, single 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 4000 rpm for LXM32.D18M2 at 6 A, 230 V, single phase 1500 rpm for LXM05AD28F1, 110...120 V, single phase 1500 rpm for LXM05BD28F1, 110...120 V, single phase 1500 rpm for LXM05CD28F1, 110...120 V, single phase 4000 rpm for LXM15LD28M3, 230 V, three phase |
| Product Compatibility | LXM05AD28F1 at 110...120 V single phase LXM05AD28M2 at 200...240 V single phase LXM05BD28F1 at 110...120 V single phase LXM05BD28M2 at 200...240 V single phase LXM05CD28F1 at 110...120 V single phase LXM05CD28M2 at 200...240 V single phase LXM32.D30M2 at 115 V single phase LXM32.D18M2 at 230 V single phase LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase LXM15LD28M3 at 230 V three phase |
| Shaft End | Untapped |
| Ip Degree Of Protection | IP65 standard IP67 with IP67 kit |
| Speed Feedback Resolution | 131072 points/turn x 4096 turns |
| Holding Brake | Without |
| Mounting Support | International standard flange |
| Electrical Connection | Straight connectors |

Complementary

| | |
|---------------------------|---|
| Range Compatibility | Lexium 15 Lexium 32 Lexium 05 |
| Supply Voltage Max | 480 V |
| Network Number Of Phases | Three phase |
| Continuous Stall Current | 7.3 A |
| Maximum Continuous Power | 1.6 W |
| Maximum Current Irms | 18 A for LXM32.D18M2 at 230 V 15 A for LXM32.D30M2 at 115 V 23 A for LXM15LD28M3 25.1 A for LXM05AD28F1 25.1 A for LXM05AD28M2 25.1 A for LXM05AD42M3X 25.1 A for LXM05BD28F1 25.1 A for LXM05BD28M2 25.1 A for LXM05BD42M3X 25.1 A for LXM05CD28F1 25.1 A for LXM05CD28M2 25.1 A for LXM05CD42M3X |
| Maximum Permanent Current | 25.1 A |
| Switching Frequency | 8 kHz |
| Second Shaft | Without second shaft end |
| Shaft Diameter | 19 mm |
| Shaft Length | 40 mm |
| Feedback Type | Multiturn SinCos Hiperface |
| Motor Flange Size | 100 mm |

| | |
|---------------------------------------|---|
| Number Of Motor Stacks | 1 |
| Torque Constant | 0.45 N.m/A at 120 °C |
| Back Emf Constant | 29 V/krpm at 120 °C |
| Number Of Motor Poles | 8 |
| Rotor Inertia | 1.4 kg.cm ² |
| Stator Resistance | 0.87 Ohm at 20 °C |
| Stator Inductance | 4 mH at 20 °C |
| Stator Electrical Time Constant | 4.6 ms at 20 °C |
| Maximum Radial Force Fr | 530 N at 5000 rpm 570 N at 4000 rpm 630 N at 3000 rpm 720 N at 2000 rpm 900 N at 1000 rpm |
| Maximum Axial Force Fa | 0.2 x Fr |
| Type Of Cooling | Natural convection |
| Length | 168.5 mm |
| Centring Collar Diameter | 95 mm |
| Centring Collar Depth | 3.5 mm |
| Number Of Mounting Holes | 4 |
| Mounting Holes Diameter | 9 mm |
| Circle Diameter Of The Mounting Holes | 115 mm |
| Net Weight | 4.2 kg |

Packing Units

| | |
|------------------------------|---------|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 15.4 cm |
| Package 1 Width | 16.3 cm |
| Package 1 Length | 40.7 cm |
| Package 1 Weight | 4.3 kg |

Contractual warranty

| | |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

Well-being performance

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

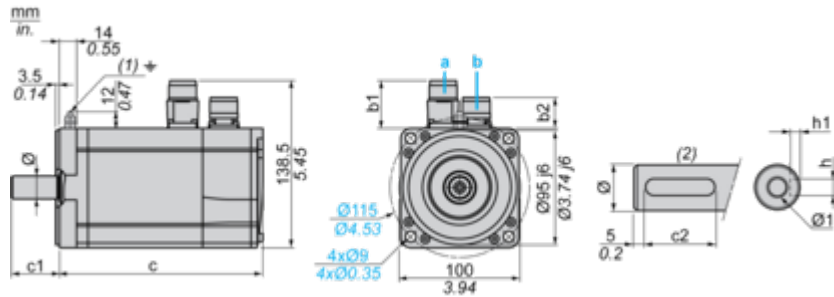
Certifications & Standards

| | |
|---------------------------|---|
| 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 | No need of specific recycling operations |
| 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 |

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)

Dimensions in mm

| Straight connectors | | Rotatable angled connectors | | c (without brake) | c (with brake) | c1 | c2 | h | h1 | Ø | Ø1 for screws |
|---------------------|------|-----------------------------|------|-------------------|----------------|----|----|---------|----------------------------------|----------|---------------|
| b1 | b2 | b1 | b2 | | | | | | | | |
| 39.5 | 25.5 | 39.5 | 39.5 | 169 | 200 | 40 | 30 | 6 N9 | 3.5 ^{+0.1} ₀ | 19 k6 | M6 x 16 |

Dimensions in in.

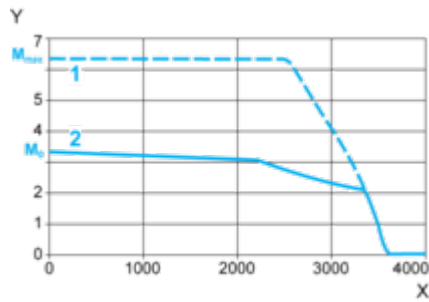
| Straight connectors | | Rotatable angled connectors | | c (without brake) | c (with brake) | c1 | c2 | h | h1 | Ø | Ø1 for screws |
|---------------------|------|-----------------------------|------|-------------------|----------------|------|------|------------|-----------------------------------|------------|---------------|
| b1 | b2 | b1 | b2 | | | | | | | | |
| 1.55 | 1.00 | 1.55 | 1.55 | 6.65 | 7.87 | 1.57 | 1.18 | 0.24 N9 | 0.14 ^{+0.1} ₀ | 0.75 k6 | M6 x 0.63 |

Performance Curves

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive

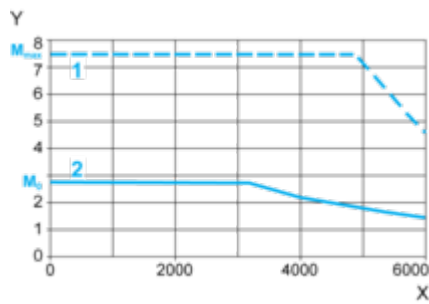


- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



- X Speed in rpm
- Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque