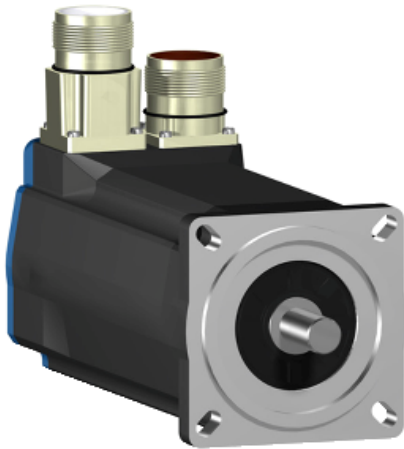


BSH0703T32A1A

AC servo motor BSH - 2.83 N.m - 6000 rpm -
keyed shaft - without brake - IP65



Main

| | |
|---------------------------|---|
| Product or component type | Servo motor |
| Device short name | BSH |
| Maximum mechanical speed | 8000 rpm |
| Continuous stall torque | 2.8 N.m for LXM05AD28M2, 200...240 V, single phase 2.8 N.m for LXM05BD28M2, 200...240 V, single phase 2.8 N.m for LXM05CD28M2, 200...240 V, single phase 2.6 N.m for LXM32.D18M2 at 6 A, 230 V, single phase 2.83 N.m for LXM15LD28M3, 230 V, three phase 2.8 N.m for LXM05AD28F1, 110...120 V, single phase 2.8 N.m for LXM05AD42M3X, 200...240 V, three phase 2.8 N.m for LXM05BD28F1, 110...120 V, single phase 2.8 N.m for LXM05BD42M3X, 200...240 V, three phase 2.8 N.m for LXM05CD28F1, 110...120 V, single phase 2.8 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Peak stall torque | 7.38 N.m for LXM05AD28F1, 110...120 V, single phase 7.38 N.m for LXM05AD28M2, 200...240 V, single phase 7.38 N.m for LXM05BD28F1, 110...120 V, single phase 7.38 N.m for LXM05BD28M2, 200...240 V, single phase 7.38 N.m for LXM05CD28F1, 110...120 V, single phase 7.38 N.m for LXM05CD28M2, 200...240 V, single phase 7.4 N.m for LXM32.D18M2 at 6 A, 230 V, single phase 7.38 N.m for LXM15LD28M3, 230 V, three phase 10.25 N.m for LXM05AD42M3X, 200...240 V, three phase 10.25 N.m for LXM05BD42M3X, 200...240 V, three phase 10.25 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Nominal output power | 750 W for LXM05AD28M2, 200...240 V, single phase 750 W for LXM05BD28M2, 200...240 V, single phase 750 W for LXM05CD28M2, 200...240 V, single phase 750 W for LXM05AD28F1, 110...120 V, single phase 750 W for LXM05BD28F1, 110...120 V, single phase 750 W for LXM05CD28F1, 110...120 V, single phase 900 W for LXM32.D18M2 at 6 A, 230 V, single phase 1250 W for LXM15LD28M3, 230 V, three phase 750 W for LXM05AD42M3X, 200...240 V, three phase 750 W for LXM05BD42M3X, 200...240 V, three phase 750 W for LXM05CD42M3X, 200...240 V, three phase |
| Nominal torque | 2.4 N.m for LXM05AD28M2, 200...240 V, single phase 2.4 N.m for LXM05BD28M2, 200...240 V, single phase 2.4 N.m for LXM05CD28M2, 200...240 V, single phase 2.4 N.m for LXM05AD28F1, 110...120 V, single phase 2.4 N.m for LXM05BD28F1, 110...120 V, single phase 2.4 N.m for LXM05CD28F1, 110...120 V, single phase 2.1 N.m for LXM32.D18M2 at 6 A, 230 V, single 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

| | |
|---------------------------|---|
| | 2 N.m for LXM15LD28M3, 230 V, three phase 2.4 N.m for LXM05AD42M3X, 200...240 V, three phase 2.4 N.m for LXM05BD42M3X, 200...240 V, three phase 2.4 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Nominal speed | 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 3000 rpm for LXM05AD28F1, 110...120 V, single phase 3000 rpm for LXM05BD28F1, 110...120 V, single phase 3000 rpm for LXM05CD28F1, 110...120 V, single phase 4000 rpm for LXM32.D18M2 at 6 A, 230 V, single phase 6000 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.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 | Keyed |
| 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 05 Lexium 32 Lexium 15 |
| Supply voltage max | 480 V |
| Network number of phases | Three phase |
| Continuous stall current | 7 A |
| Maximum continuous power | 1.7 W |
| Maximum current Irms | 18 A for LXM32.D18M2 30.9 A for LXM15LD28M3 29.2 A for LXM05AD28F1 29.2 A for LXM05AD28M2 29.2 A for LXM05AD42M3X 29.2 A for LXM05BD28F1 29.2 A for LXM05BD28M2 29.2 A for LXM05BD42M3X 29.2 A for LXM05CD28F1 29.2 A for LXM05CD28M2 29.2 A for LXM05CD42M3X |
| Maximum permanent current | 29.2 A |
| Switching frequency | 8 kHz |
| Second shaft | Without second shaft end |
| Shaft diameter | 14 mm |
| Shaft length | 30 mm |
| Key width | 20 mm |
| Feedback type | Multiturn SinCos Hiperface |
| Motor flange size | 70 mm |
| Number of motor stacks | 3 |
| Torque constant | 0.44 N.m/A at 120 °C |

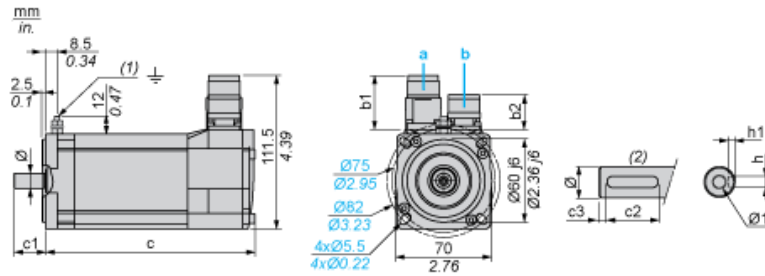
| | |
|---------------------------------------|--|
| Back emf constant | 29 V/krpm at 120 °C |
| Number of motor poles | 6 |
| Rotor inertia | 0.58 kg.cm ² |
| Stator resistance | 0.91 Ohm at 20 °C |
| Stator inductance | 4.4 mH at 20 °C |
| Stator electrical time constant | 4.84 ms at 20 °C |
| Maximum radial force Fr | 400 N at 6000 rpm 430 N at 5000 rpm 460 N at 4000 rpm 510 N at 3000 rpm 580 N at 2000 rpm 730 N at 1000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Type of cooling | Natural convection |
| Length | 220 mm |
| Centring collar diameter | 60 mm |
| Centring collar depth | 2.5 mm |
| Number of mounting holes | 4 |
| Mounting holes diameter | 5.5 mm |
| Circle diameter of the mounting holes | 82 mm |
| Product weight | 3.62 kg |

Contractual warranty

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

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 | c3 | h | h1 | Ø | Ø1 for screws |
|---------------------|------|-----------------------------|------|-------------------|----------------|----|----|----|------|--------------|-------|---------------|
| b1 | b2 | b1 | b2 | | | | | | | | | |
| 39.5 | 25.5 | 39.5 | 39.5 | 220 | 254 | 30 | 20 | 5 | 5 N9 | $3^{+0.1}_0$ | 14 k6 | M5 x 12.5 |

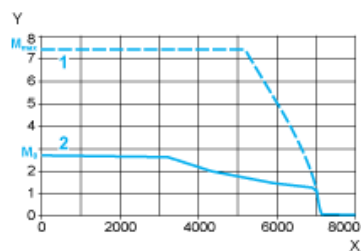
Dimensions in in.

| Straight connectors | | Rotatable angled connectors | | c (without brake) | c (with brake) | c1 | c2 | c3 | h | h1 | Ø | Ø1 for screws |
|---------------------|------|-----------------------------|------|-------------------|----------------|------|------|------|---------|-------------------|---------|---------------|
| b1 | b2 | b1 | b2 | | | | | | | | | |
| 1.55 | 1.00 | 1.55 | 1.55 | 8.66 | 10.00 | 1.18 | 0.78 | 0.19 | 0.20 N9 | $0.12^{+0.004}_0$ | 0.55 k6 | M5 x 0.49 |

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