

Product datasheet

Specifications



servo motor BSH, Lexium 05,
5.5N.m, 4000rpm, 100mm, keyed
shaft, Sincos multi turn, without
brake, IP50, straight

BSH1002T12A1A

! Discontinued

! Discontinued on: 30 Jun 2023

EAN Code: 3389118139398

Main

| | |
|---------------------------|--|
| Device short name | BSH |
| Product or component type | Servo motor |
| Maximum mechanical speed | 6000 rpm |
| Continuous stall torque | 5.8 N.m for LXM32.D30M2 at 10 A, 230 V, single phase 5.5 N.m for LXM15LD28M3, 230 V, three phase 5.5 N.m for LXM05AD42M3X, 200...240 V, three phase 5.5 N.m for LXM05BD42M3X, 200...240 V, three phase 5.5 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Peak stall torque | 16.4 N.m for LXM32.D30M2 at 10 A, 230 V, single phase 11.59 N.m for LXM15LD28M3, 230 V, three phase 16 N.m for LXM05AD42M3X, 200...240 V, three phase 16 N.m for LXM05BD42M3X, 200...240 V, three phase 16 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Nominal output power | 1500 W for LXM32.D30M2 at 10 A, 230 V, single phase 1400 W for LXM05AD42M3X, 200...240 V, three phase 1400 W for LXM05BD42M3X, 200...240 V, three phase 1400 W for LXM05CD42M3X, 200...240 V, three phase 1700 W for LXM15LD28M3, 230 V, three phase |
| Nominal torque | 3.7 N.m for LXM32.D30M2 at 10 A, 230 V, single phase 4 N.m for LXM15LD28M3, 230 V, three phase 4.4 N.m for LXM05AD42M3X, 200...240 V, three phase 4.4 N.m for LXM05BD42M3X, 200...240 V, three phase 4.4 N.m for LXM05CD42M3X, 200...240 V, three phase |
| Nominal speed | 4000 rpm for LXM32.D30M2 at 10 A, 230 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 LXM15LD28M3, 230 V, three phase |
| Product compatibility | LXM32.D30M2 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 | IP50 standard |
| 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 05 Lexium 32 |
| supply voltage max | 480 V |
| Network number of phases | Three phase |
| Continuous stall current | 9.9 A |
| maximum continuous power | 2.51 W |
| Maximum current Irms | 31.2 A for LXM15LD28M3 35.4 A for LXM05AD42M3X 35.4 A for LXM05BD42M3X 35.4 A for LXM05CD42M3X 30 A for LXM32.D30M2 |
| Maximum permanent current | 35.4 A |
| Switching frequency | 8 kHz |
| Second shaft | Without second shaft end |
| Shaft diameter | 19 mm |
| Shaft length | 40 mm |
| Key width | 30 mm |
| Feedback type | Multiturn SinCos Hiperface |
| Motor flange size | 100 mm |
| Number of motor stacks | 2 |
| Torque constant | 0.59 N.m/A at 120 °C |
| Back emf constant | 37 V/krpm at 120 °C |
| Number of motor poles | 8 |
| Rotor inertia | 2.31 kg.cm ² |
| Stator resistance | 0.56 Ohm at 20 °C |
| Stator inductance | 3 mH at 20 °C |
| Stator electrical time constant | 5.36 ms at 20 °C |
| Maximum radial force Fr | 620 N at 4000 rpm 690 N at 3000 rpm 790 N at 2000 rpm 990 N at 1000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Type of cooling | Natural convection |
| Length | 204.5 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 | 5.9 kg |
| Sizing reference | BSH1002T |
| 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 | 15.4 cm |
|------------------|---------|

| | |
|-----------------|---------|
| Package 1 Width | 16.3 cm |
|-----------------|---------|

| | |
|------------------|---------|
| Package 1 Length | 40.7 cm |
|------------------|---------|

| | |
|------------------|--------|
| Package 1 Weight | 5.8 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

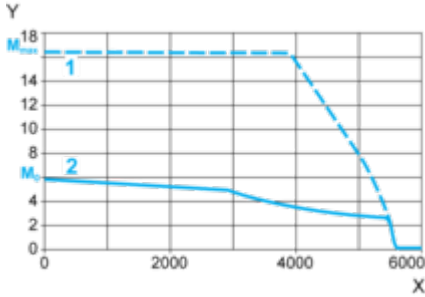
No need of specific recycling operations

Performance Curves

230 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