



Main

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|---------------------------|---|
| Product or component type | Servo motor |
| Device short name | BSH |
| Maximum mechanical speed | 9000 rpm |
| Continuous stall torque | 0.5 N.m for LXM32.U90M2 at 3 A, 115 V, single phase 0.5 N.m for LXM32.U45M2 at 1.5 A, 230 V, single phase 0.5 N.m for LXM05CU70M2, 200...240 V, single phase 0.5 N.m for LXM05AD10F1, 110...120 V, single phase 0.5 N.m for LXM05AD10M2, 200...240 V, single phase 0.5 N.m for LXM05BD10F1, 110...120 V, single phase 0.5 N.m for LXM05BD10M2, 200...240 V, single phase 0.5 N.m for LXM05CD10F1, 110...120 V, single phase 0.5 N.m for LXM05CD10M2, 200...240 V, single phase 0.5 N.m for LXM15LD13M3, 230 V, three phase 0.5 N.m for LXM05AD10M3X, 200...240 V, three phase 0.5 N.m for LXM05BD10M3X, 200...240 V, three phase 0.5 N.m for LXM05CD10M3X, 200...240 V, three phase |
| Peak stall torque | 1.5 N.m for LXM32.U90M2 at 3 A, 115 V, single phase 1.4 N.m for LXM32.U45M2 at 1.5 A, 230 V, single phase 1.08 N.m for LXM05CU70M2, 200...240 V, single phase 1.4 N.m for LXM05AD10F1, 110...120 V, single phase 1.4 N.m for LXM05AD10M2, 200...240 V, single phase 1.4 N.m for LXM05BD10F1, 110...120 V, single phase 1.4 N.m for LXM05BD10M2, 200...240 V, single phase 1.4 N.m for LXM05CD10F1, 110...120 V, single phase 1.4 N.m for LXM05CD10M2, 200...240 V, single phase 1.24 N.m for LXM15LD13M3, 230 V, three phase 1.4 N.m for LXM05AD10M3X, 200...240 V, three phase 1.4 N.m for LXM05BD10M3X, 200...240 V, three phase 1.4 N.m for LXM05CD10M3X, 200...240 V, three phase |
| Nominal output power | 150 W for LXM32.U90M2 at 3 A, 115 V, single phase 300 W for LXM32.U45M2 at 1.5 A, 230 V, single phase 150 W for LXM05AD10F1, 110...120 V, single phase 150 W for LXM05BD10F1, 110...120 V, single phase 150 W for LXM05CD10F1, 110...120 V, single phase 150 W for LXM05CU70M2, 200...240 V, single phase 270 W for LXM05AD10M2, 200...240 V, single phase |

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| | 270 W for LXM05BD10M2, 200...240 V, single phase 270 W for LXM05CD10M2, 200...240 V, single phase 270 W for LXM05AD10M3X, 200...240 V, three phase 270 W for LXM05BD10M3X, 200...240 V, three phase 270 W for LXM05CD10M3X, 200...240 V, three phase 340 W for LXM15LD13M3, 230 V, three phase |
| Nominal torque | 0.49 N.m for LXM32.U90M2 at 3 A, 115 V, single phase 0.45 N.m for LXM32.U45M2 at 1.5 A, 230 V, single phase 0.43 N.m for LXM05AD10M2, 200...240 V, single phase 0.43 N.m for LXM05BD10M2, 200...240 V, single phase 0.43 N.m for LXM05CD10M2, 200...240 V, single phase 0.46 N.m for LXM05AD10F1, 110...120 V, single phase 0.46 N.m for LXM05BD10F1, 110...120 V, single phase 0.46 N.m for LXM05CD10F1, 110...120 V, single phase 0.46 N.m for LXM05CU70M2, 200...240 V, single phase 0.41 N.m for LXM15LD13M3, 230 V, three phase 0.43 N.m for LXM05AD10M3X, 200...240 V, three phase 0.43 N.m for LXM05BD10M3X, 200...240 V, three phase 0.43 N.m for LXM05CD10M3X, 200...240 V, three phase |
| Nominal speed | 3000 rpm for LXM32.U90M2 at 3 A, 115 V, single phase 6000 rpm for LXM32.U45M2 at 1.5 A, 230 V, single phase 3000 rpm for LXM05AD10F1, 110...120 V, single phase 3000 rpm for LXM05BD10F1, 110...120 V, single phase 3000 rpm for LXM05CD10F1, 110...120 V, single phase 3000 rpm for LXM05CU70M2, 200...240 V, single phase 6000 rpm for LXM05AD10M2, 200...240 V, single phase 6000 rpm for LXM05BD10M2, 200...240 V, single phase 6000 rpm for LXM05CD10M2, 200...240 V, single phase 6000 rpm for LXM05AD10M3X, 200...240 V, three phase 6000 rpm for LXM05BD10M3X, 200...240 V, three phase 6000 rpm for LXM05CD10M3X, 200...240 V, three phase 8000 rpm for LXM15LD13M3, 230 V, three phase |
| Product compatibility | LXM05AD10F1 at 110...120 V single phase LXM05AD10M2 at 200...240 V single phase LXM05BD10F1 at 110...120 V single phase LXM05BD10M2 at 200...240 V single phase LXM05CD10F1 at 110...120 V single phase LXM05CD10M2 at 200...240 V single phase LXM05CU70M2 at 200...240 V single phase LXM32.U90M2 at 115 V single phase LXM32.U45M2 at 230 V single phase LXM05AD10M3X at 200...240 V three phase LXM05BD10M3X at 200...240 V three phase LXM05CD10M3X at 200...240 V three phase LXM15LD13M3 at 230 V three phase |
| Shaft end | Untapped |
| 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 | Rotatable right-angled connectors |

Complementary

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|--------------------------|--|
| Range compatibility | Lexium 05 Lexium 15 Lexium 32 |
| Supply voltage max | 480 V |
| Network number of phases | Three phase |
| Continuous stall current | 1.4 A |
| Maximum continuous power | 0.45 W |
| Maximum current Irms | 6.2 A for LXM15LD13M3 5.4 A for LXM05AD10F1 5.4 A for LXM05CU70M2 5.4 A for LXM05AD10M2 5.4 A for LXM05AD10M3X 5.4 A for LXM05BD10F1 5.4 A for LXM05BD10M2 5.4 A for LXM05BD10M3X |

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|---------------------------------------|--|
| | 5.4 A for LXM05CD10F1 5.4 A for LXM05CD10M2 5.4 A for LXM05CD10M3X 5.4 A for LXM32.U90M2 4.5 A for LXM32.U45M2 |
| Maximum permanent current | 5.4 A |
| Switching frequency | 8 kHz |
| Second shaft | Without second shaft end |
| Shaft diameter | 9 mm |
| Shaft length | 20 mm |
| Feedback type | Multiturn SinCos Hiperface |
| Motor flange size | 55 mm |
| Number of motor stacks | 1 |
| Torque constant | 0.36 N.m/A at 120 °C |
| Back emf constant | 22 V/krpm at 120 °C |
| Number of motor poles | 6 |
| Rotor inertia | 0.059 kg.cm ² |
| Stator resistance | 12.2 Ohm at 20 °C |
| Stator inductance | 20.8 mH at 20 °C |
| Stator electrical time constant | 1.7 ms at 20 °C |
| Maximum radial force Fr | 170 N at 8000 rpm 180 N at 7000 rpm 190 N at 6000 rpm 200 N at 5000 rpm 220 N at 4000 rpm 240 N at 3000 rpm 270 N at 2000 rpm 340 N at 1000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Type of cooling | Natural convection |
| Length | 132.5 mm |
| Centring collar diameter | 40 mm |
| Centring collar depth | 2 mm |
| Number of mounting holes | 4 |
| Mounting holes diameter | 5.5 mm |
| Circle diameter of the mounting holes | 63 mm |
| Net weight | 1.2 kg |

Packing Units

| | |
|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 1.646 kg |
| Package 1 Height | 11.5 cm |
| Package 1 width | 19 cm |
| Package 1 Length | 39.5 cm |

Offer Sustainability

| | |
|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |

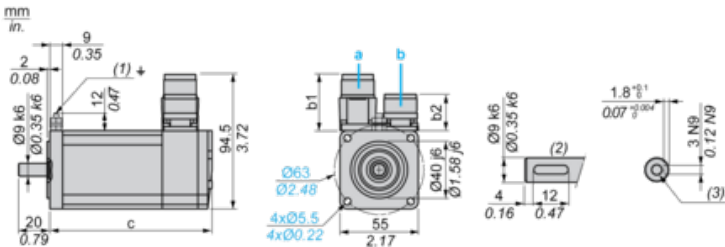
| | |
|----------|---|
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free | Yes |

Contractual warranty

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|----------|-----------|
| Warranty | 18 months |
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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 screw M3 x 9 mm/M3 x 0.35 in.

Dimensions in mm

| Straight connectors | | Rotatable angled connectors | | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b | b1 | b | b1 | | |
| 39.5 | 25.5 | 39.5 | 39.5 | 132.5 | 159 |

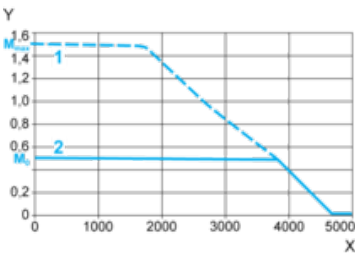
Dimensions in in.

| Straight connectors | | Rotatable angled connectors | | c (without brake) | c (with brake) |
|---------------------|------|-----------------------------|------|-------------------|----------------|
| b | b1 | b | b1 | | |
| 1.55 | 1.00 | 1.55 | 1.55 | 5.21 | 6.25 |

115 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U90M2 servo drive

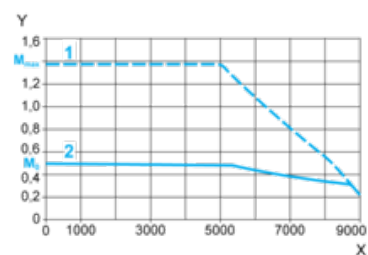


X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U45M2 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque