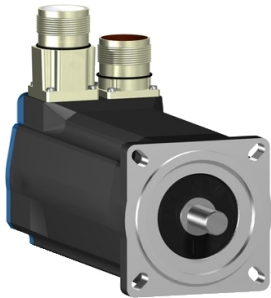


# Product data sheet

Specifications



## AC servo motor BSH, Lexium 05, 2.83N.m, 6000rpm, untapped shaft, without brake, IP50

BSH0703T02A1A

! Discontinued on: Jun 30, 2023

! Discontinued

Product availability: Stock - Normally stocked in distribution facility

### Main

|                           |   |
|---------------------------|---|
| Product Or Component Type | Servo motor   |
| Device Short Name         | BSH   |
| Maximum Mechanical Speed  | 8000 rpm  |
| Continuous Stall Torque   | 24.78 lbf.in (2.8 N.m) LXM05AD28M2, 200...240 V, single phase<br>24.78 lbf.in (2.8 N.m) LXM05BD28M2, 200...240 V, single phase<br>24.78 lbf.in (2.8 N.m) LXM05CD28M2, 200...240 V, single phase<br>23.01 lbf.in (2.6 N.m) LXM32.D18M2 6 A, 230 V, single phase<br>25.05 lbf.in (2.83 N.m) LXM15LD28M3, 230 V, three phase<br>24.78 lbf.in (2.8 N.m) LXM05AD28F1, 110...120 V, single phase<br>24.78 lbf.in (2.8 N.m) LXM05AD42M3X, 200...240 V, three phase<br>24.78 lbf.in (2.8 N.m) LXM05BD28F1, 110...120 V, single phase<br>24.78 lbf.in (2.8 N.m) LXM05BD42M3X, 200...240 V, three phase<br>24.78 lbf.in (2.8 N.m) LXM05CD28F1, 110...120 V, single phase<br>24.78 lbf.in (2.8 N.m) LXM05CD42M3X, 200...240 V, three phase             |
| Peak Stall Torque         | 65.32 lbf.in (7.38 N.m) LXM05AD28F1, 110...120 V, single phase<br>65.32 lbf.in (7.38 N.m) LXM05AD28M2, 200...240 V, single phase<br>65.32 lbf.in (7.38 N.m) LXM05BD28F1, 110...120 V, single phase<br>65.32 lbf.in (7.38 N.m) LXM05BD28M2, 200...240 V, single phase<br>65.32 lbf.in (7.38 N.m) LXM05CD28F1, 110...120 V, single phase<br>65.32 lbf.in (7.38 N.m) LXM05CD28M2, 200...240 V, single phase<br>65.50 lbf.in (7.4 N.m) LXM32.D18M2 6 A, 230 V, single phase<br>65.32 lbf.in (7.38 N.m) LXM15LD28M3, 230 V, three phase<br>90.72 lbf.in (10.25 N.m) LXM05AD42M3X, 200...240 V, three phase<br>90.72 lbf.in (10.25 N.m) LXM05BD42M3X, 200...240 V, three phase<br>90.72 lbf.in (10.25 N.m) LXM05CD42M3X, 200...240 V, three phase |
| Nominal Output Power      | 750 W LXM05AD28M2, 200...240 V, single phase<br>750 W LXM05BD28M2, 200...240 V, single phase<br>750 W LXM05CD28M2, 200...240 V, single phase<br>750 W LXM05AD28F1, 110...120 V, single phase<br>750 W LXM05BD28F1, 110...120 V, single phase<br>750 W LXM05CD28F1, 110...120 V, single phase<br>900 W LXM32.D18M2 6 A, 230 V, single phase<br>1250 W LXM15LD28M3, 230 V, three phase<br>750 W LXM05AD42M3X, 200...240 V, three phase<br>750 W LXM05BD42M3X, 200...240 V, three phase<br>750 W LXM05CD42M3X, 200...240 V, three phase  |
| Nominal Torque            | 21.24 lbf.in (2.4 N.m) LXM05AD28M2, 200...240 V, single phase<br>21.24 lbf.in (2.4 N.m) LXM05BD28M2, 200...240 V, single phase<br>21.24 lbf.in (2.4 N.m) LXM05CD28M2, 200...240 V, single phase<br>21.24 lbf.in (2.4 N.m) LXM05AD28F1, 110...120 V, single phase<br>21.24 lbf.in (2.4 N.m) LXM05BD28F1, 110...120 V, single phase<br>21.24 lbf.in (2.4 N.m) LXM05CD28F1, 110...120 V, single phase<br>18.59 lbf.in (2.1 N.m) LXM32.D18M2 6 A, 230 V, single phase<br>17.70 lbf.in (2 N.m) LXM15LD28M3, 230 V, three phase<br>21.24 lbf.in (2.4 N.m) LXM05AD42M3X, 200...240 V, three phase<br>21.24 lbf.in (2.4 N.m) LXM05BD42M3X, 200...240 V, three phase<br>21.24 lbf.in (2.4 N.m) LXM05CD42M3X, 200...240 V, three phase                |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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             | 3000 rpm LXM05AD28M2, 200...240 V, single phase<br>3000 rpm LXM05BD28M2, 200...240 V, single phase<br>3000 rpm LXM05CD28M2, 200...240 V, single phase<br>3000 rpm LXM05AD42M3X, 200...240 V, three phase<br>3000 rpm LXM05BD42M3X, 200...240 V, three phase<br>3000 rpm LXM05CD42M3X, 200...240 V, three phase<br>3000 rpm LXM05AD28F1, 110...120 V, single phase<br>3000 rpm LXM05BD28F1, 110...120 V, single phase<br>3000 rpm LXM05CD28F1, 110...120 V, single phase<br>4000 rpm LXM32.D18M2 6 A, 230 V, single phase<br>6000 rpm LXM15LD28M3, 230 V, three phase |
| Product Compatibility     | LXM05AD28F1 110...120 V single phase<br>LXM05AD28M2 200...240 V single phase<br>LXM05BD28F1 110...120 V single phase<br>LXM05BD28M2 200...240 V single phase<br>LXM05CD28F1 110...120 V single phase<br>LXM05CD28M2 200...240 V single phase<br>LXM32.D18M2 230 V single phase<br>LXM05AD42M3X 200...240 V three phase<br>LXM05BD42M3X 200...240 V three phase<br>LXM05CD42M3X 200...240 V three phase<br>LXM15LD28M3 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     | Straight connectors  |

## Complementary

|                           |   |
|---------------------------|---|
| Range Compatibility       | Lexium 15<br>Lexium 32<br>Lexium 05   |
| Supply Voltage Max        | 480 V   |
| Phase                     | Three phase   |
| Continuous Stall Current  | 7 A   |
| Maximum Continuous Power  | 1.7 W   |
| Maximum Current Irms      | 18 A LXM32.D18M2<br>30.9 A LXM15LD28M3<br>29.2 A LXM05AD28F1<br>29.2 A LXM05AD28M2<br>29.2 A LXM05AD42M3X<br>29.2 A LXM05BD28F1<br>29.2 A LXM05BD28M2<br>29.2 A LXM05BD42M3X<br>29.2 A LXM05CD28F1<br>29.2 A LXM05CD28M2<br>29.2 A LXM05CD42M3X |
| Maximum Permanent Current | 29.2 A  |
| Switching Frequency       | 8 kHz   |
| Second Shaft              | Without second shaft end  |
| Shaft Diameter            | 0.55 in (14 mm)   |
| Shaft Length              | 1.18 in (30 mm)   |
| Feedback Type             | Multiturn SinCos Hiperface  |
| Motor Flange Size         | 2.76 in (70 mm)   |
| Number Of Motor Stacks    | 3   |
| Torque Constant           | 0.44 N.m/A 248 °F (120 °C)  |

|                                       |  |
|---------------------------------------|--|
| Back Emf Constant                     | 29 V/krpm 248 °F (120 °C)  |
| Number Of Motor Poles                 | 6  |
| Rotor Inertia                         | 0.58 kg.cm²  |
| Stator Resistance                     | 0.91 Ohm 68 °F (20 °C)   |
| Stator Inductance                     | 4.4 mH 68 °F (20 °C)   |
| Stator Electrical Time Constant       | 4.84 ms 68 °F (20 °C)  |
| Maximum Radial Force Fr               | 400 N 6000 rpm<br>430 N 5000 rpm<br>460 N 4000 rpm<br>510 N 3000 rpm<br>580 N 2000 rpm<br>730 N 1000 rpm |
| Maximum Axial Force Fa                | 0.2 x Fr   |
| Type Of Cooling                       | Natural convection   |
| Length                                | 8.66 in (220 mm)   |
| Centring Collar Diameter              | 2.36 in (60 mm)  |
| Centring Collar Depth                 | 0.10 in (2.5 mm)   |
| Number Of Mounting Holes              | 4  |
| Mounting Holes Diameter               | 0.22 in (5.5 mm)   |
| Circle Diameter Of The Mounting Holes | 3.23 in (82 mm)  |
| Net Weight                            | 7.98 lb(US) (3.62 kg)  |

## Ordering and shipping details

|                   |                        |
|-------------------|------------------------|
| Category          | 18282-LEXIUM 32 MOTORS |
| Discount Schedule | PC53                   |
| Gtin              | 3389118137486          |
| Returnability     | No                     |
| Country Of Origin | DE                     |

## Packing Units

|                              |                      |
|------------------------------|----------------------|
| Unit Type Of Package 1       | PCE                  |
| Number Of Units In Package 1 | 1                    |
| Package 1 Height             | 4.84 in (12.3 cm)    |
| Package 1 Width              | 5.04 in (12.8 cm)    |
| Package 1 Length             | 14.84 in (37.7 cm)   |
| Package 1 Weight             | 7.94 lb(US) (3.6 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-CO<sub>2</sub> 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 |
| ✓ | Pvc Free                   |     |

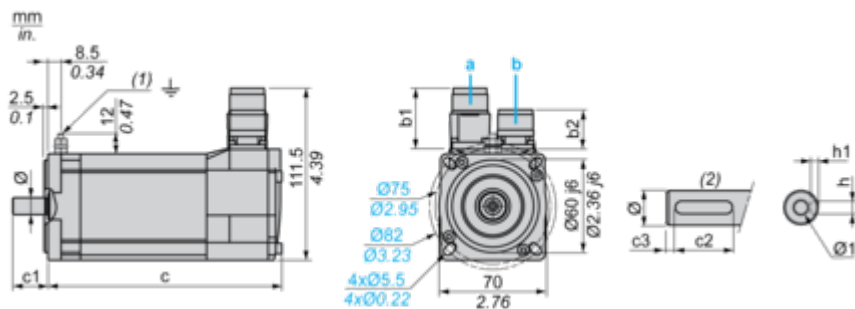
Certifications & Standards

|                           |   |
|---------------------------|---|
| Reach Regulation          | <a href="#">REACH Declaration</a>   |
| Eu Rohs Directive         | Pro-active compliance (Product out of EU RoHS legal scope)  |
| China Rohs Regulation     | <a href="#">China RoHS declaration</a>  |
| Environmental Disclosure  | <a href="#">Product Environmental Profile</a>   |
| 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 <a href="#">www.P65Warnings.ca.gov</a> |

## 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      | 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<br>N9 | 3 <sup>+0.1</sup> <sub>0</sub> | 14<br>k6 | M5 x<br>12.5 |   |               |

Dimensions in in.

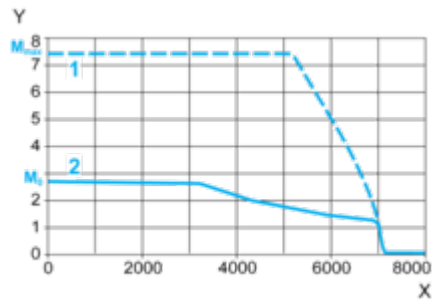
| Straight connectors |      | Rotatable angled connectors |      | c (without brake) | c (with brake) | c1   | c2   | c3   | h          | h1                                  | Ø          | Ø1 for screws |
|---------------------|------|-----------------------------|------|-------------------|----------------|------|------|------|------------|-------------------------------------|------------|---------------|
| b1                  | b2   | b1                          | b2   |                   |                |      |      |      |            |                                     |            |               |
| 1.55                | 1.00 | 1.55                        | 1.55 | 8.66              | 10.00          | 1.18 | 0.78 | 0.19 | 0.20<br>N9 | 0.12 <sup>+0.004</sup> <sub>0</sub> | 0.55<br>k6 | M5 x<br>0.49  |

Performance Curves

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