

Product data sheet

Specifications



servo motor BCH, Lexium 28,
40mm, 50W, 0.054kg.cm², without
oil seal, with key, leads connection

BCH2MBA531CA5C

⚠ Discontinued on: Oct 9, 2023

⚠ Discontinued

Product availability: Non-Stock - Not normally stocked in
distribution facility

Main

| | |
|---------------------------|-------------|
| Range Compatibility | Lexium 28 |
| Device short name | BCH2 |
| Product or Component Type | Servo motor |

Complementary

| | |
|---------------------------|---|
| Maximum mechanical speed | 5000 rpm |
| [Us] rated supply voltage | 220 V 110 V |
| Phase | Three phase Single phase |
| Continuous stall current | 0.54 A |
| Continuous stall torque | 1.42 lbf.in (0.16 N.m) LXM28... 0.64 A, 220 V, single phase 1.42 lbf.in (0.16 N.m) LXM28... 0.64 A, 220 V, three phase 1.42 lbf.in (0.16 N.m) LXM28... 1.2 A, 110 V, single phase |
| Continuous power | 50 W |
| Peak stall torque | 4.25 lbf.in (0.48 N.m) LXM28... 0.64 A, 220 V, single phase 4.25 lbf.in (0.48 N.m) LXM28... 0.64 A, 220 V, three phase 4.25 lbf.in (0.48 N.m) LXM28... 1.2 A, 110 V, single phase |
| Nominal output power | 50 W LXM28... 0.64 A, 220 V, single phase 50 W LXM28... 0.64 A, 220 V, three phase 50 W LXM28... 1.2 A, 110 V, single phase |
| Nominal torque | 1.42 lbf.in (0.16 N.m) LXM28... 0.64 A, 220 V, single phase 1.42 lbf.in (0.16 N.m) LXM28... 0.64 A, 220 V, three phase 1.42 lbf.in (0.16 N.m) LXM28... 1.2 A, 110 V, single phase |
| Nominal speed | 3000 rpm LXM28... 0.64 A, 220 V, single phase 3000 rpm LXM28... 0.64 A, 220 V, three phase 3000 rpm LXM28... 1.2 A, 110 V, single phase |
| Maximum current Irms | 1.77 A LXM28... 0.05 kW, 220 V 1.77 A LXM28... 0.05 kW, 110 V |
| Maximum permanent current | 0.59 A |
| Product compatibility | LXM28... servo drive 0.05 kW, 220 V, single phase LXM28... servo drive 0.05 kW, 220 V, three phase LXM28... servo drive 0.05 kW, 110 V, single phase |
| Shaft end | Keyed |
| Shaft diameter | 0.3 in (8 mm) |
| Shaft length | 1.0 in (25 mm) |
| Key width | 0.1 in (3 mm) |

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

| | |
|---------------------------------------|--------------------------------------|
| Feedback type | 20 bits single turn absolute encoder |
| Holding brake | Without |
| Mounting Support | Asian standard flange |
| Motor flange size | 1.6 in (40 mm) |
| Electrical connection | Free lead |
| Torque constant | 0.3 N.m/A 68 °F (20 °C) |
| Back emf constant | 18 V/krpm 68 °F (20 °C) |
| Rotor inertia | 0.054 kg.cm² |
| Stator resistance | 31 Ohm 68 °F (20 °C) |
| Stator inductance | 24.7 mH 68 °F (20 °C) |
| Stator electrical time constant | 0.8 ms 68 °F (20 °C) |
| Maximum radial force Fr | 85 N 3000 rpm |
| Maximum axial force Fa | 40 N |
| Brake pull-in power | 4.35 W |
| Type of cooling | Natural convection |
| Length | 3.2 in (82 mm) |
| Number of motor stacks | 1 |
| Centring collar diameter | 1.2 in (30 mm) |
| Centring collar depth | 0.1 in (3 mm) |
| Number of mounting holes | 4 |
| Mounting holes diameter | 0.2 in (4.5 mm) |
| Circle diameter of the mounting holes | 1.8 in (46 mm) |
| Distance shaft shoulder-flange | 0.1 in (3 mm) |
| Net Weight | 0.9 lb(US) (0.4 kg) |

Environment

| | |
|---------------------------------------|---------------------------------|
| IP Degree of Protection | IP54 IM B5, IM V1 IP50 IM V3 |
| Ambient Air Temperature for Operation | -4...104 °F (-20...40 °C) |

Ordering and shipping details

| | |
|-------------------|---------------|
| Category | US1PC5318281 |
| Discount Schedule | PC53 |
| GTIN | 3606480733345 |
| Returnability | No |
| Country of origin | CN |

Packing Units

| | |
|------------------------------|------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 3.1 in (8.0 cm) |
| Package 1 Width | 5.1 in (13.0 cm) |

| | |
|------------------|-------------------|
| Package 1 Length | 9.4 in (24.0 cm) |
| Package 1 Weight | 22.7 oz (643.0 g) |

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

| | | |
|---|----------------------------|-----|
| ✓ | Reach Free Of Svhc | |
| ✓ | Mercury Free | |
| ✓ | Rohs Exemption Information | Yes |
| ✓ | Pvc Free | |

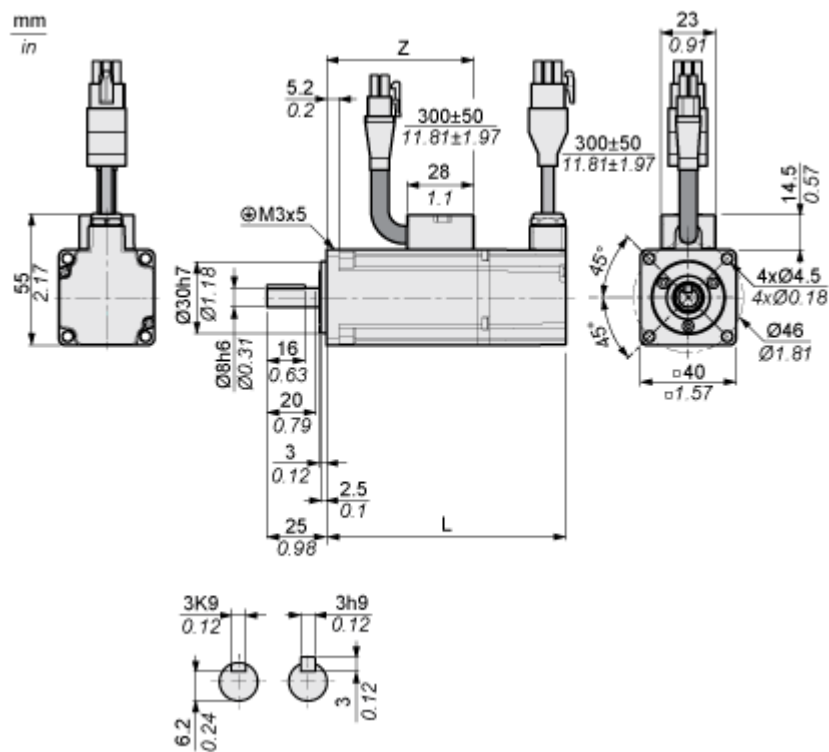
Certifications & Standards

| | |
|---------------------------|---|
| 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 | End of Life Information |
| 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

Dimensions

Dimensions of Motor

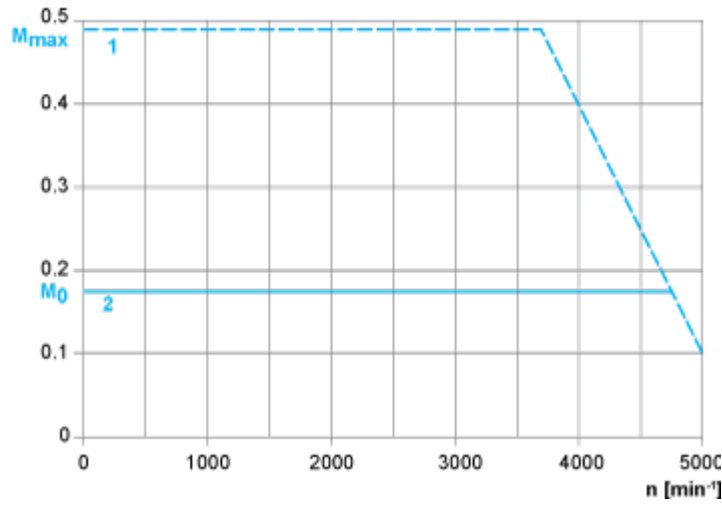


| | mm | in. |
|---------------------------|------|------|
| L (without holding brake) | 82 | 3.23 |
| L (with holding brake) | 112 | 4.41 |
| Z | 43.5 | 1.71 |

Performance Curves

Torque/Speed Curves with 230 V Single/Three Phase Supply Voltage

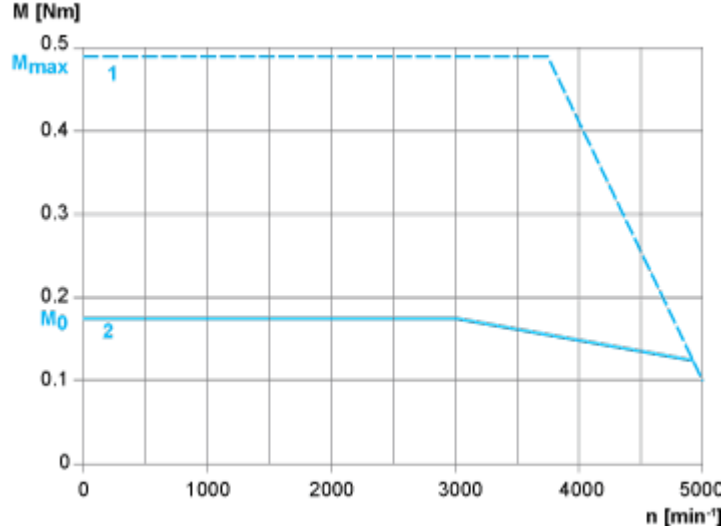
Servo Motor Without Shaft Sealing Ring and LXM28AUA5 Servo Drive



- 1 : Peak torque
- 2 : Continuous torque

Torque/Speed Curves with 230 V Single/Three Phase Supply Voltage

Servo Motor with shaft sealing ring and LXM28AUA5 Servo Drive



- 1 : Peak torque
- 2 : Continuous torque