## **Product datasheet** Characteristics

## BCH2MBA531CA5C

servo motor BCH - 40mm - 50W - no oil seal - w key - leads con





#### Main

|                           |             | į |
|---------------------------|-------------|---|
| Range compatibility       | Lexium 28   |   |
| Product or component type | Servo motor | 7 |
| Device short name         | BCH2        |   |

### Complementary

| Maximum mechanical speed  | 5000 rpm  |     |
|---------------------------|---|-----|
| [Us] rated supply voltage | 220 V   |     |
| Network number of phases  | Three phase Single phase  |     |
| Continuous stall current  | 0.54 A  |     |
| Continuous stall torque   | 0.16 N.m for LXM28 at 0.64 A, 220 V, single phase<br>0.16 N.m for LXM28 at 0.64 A, 220 V, three phase<br>0.16 N.m for LXM28 at 1.2 A, 110 V, single phase | 200 |
| Continuous power          | 50 W  |     |
| Peak stall torque         | 0.48 N.m for LXM28 at 0.64 A, 220 V, single phase<br>0.48 N.m for LXM28 at 0.64 A, 220 V, three phase<br>0.48 N.m for LXM28 at 1.2 A, 110 V, single phase |     |
| Nominal output power      | 50 W for LXM28 at 0.64 A, 220 V, single phase<br>50 W for LXM28 at 0.64 A, 220 V, three phase<br>50 W for LXM28 at 1.2 A, 110 V, single phase             |     |
| Nominal torque            | 0.16 N.m for LXM28 at 0.64 A, 220 V, single phase<br>0.16 N.m for LXM28 at 0.64 A, 220 V, three phase<br>0.16 N.m for LXM28 at 1.2 A, 110 V, single phase | 7 C |
| Nominal speed             | 3000 rpm for LXM28 at 0.64 A, 220 V, single phase<br>3000 rpm for LXM28 at 0.64 A, 220 V, three phase<br>3000 rpm for LXM28 at 1.2 A, 110 V, single phase |     |
| Maximum current Irms      | 1.77 A for LXM28 at 0.05 kW, 220 V<br>1.77 A for LXM28 at 0.05 kW, 110 V  |     |
| Maximum permanent current | 0.59 A  |     |
| Product compatibility     | LXM28 servo drive motor at 0.05 kW, 220 V, single phase LXM28 servo drive motor at 0.05 kW, 220 V, three phase  |     |

|                                       | , |
|---------------------------------------|---|
| Shaft end                             | Keyed                                   |
| Shaft diameter                        | 8 mm                                    |
| Shaft length                          | 25 mm                                   |
| Key width                             | 3 mm                                    |
| Feedback type                         | 20 bits single turn absolute encoder    |
| Holding brake                         | Without                                 |
| Mounting support                      | Asian standard flange                   |
| Motor flange size                     | 40 mm                                   |
| Electrical connection                 | Free lead                               |
| Torque constant                       | 0.3 N.m/A at 20 °C                      |
| Back emf constant                     | 18 V/krpm at 20 °C                      |
| Rotor inertia                         | 0.054 kg.cm²                            |
| Stator resistance                     | 31 Ohm at 20 °C                         |
| Stator inductance                     | 24.7 mH at 20 °C                        |
| Stator electrical time constant       | 0.8 ms at 20 °C                         |
| Maximum radial force Fr               | 85 N at 3000 rpm                        |
| Maximum axial force Fa                | 40 N                                    |
| Brake pull-in power                   | 4.35 W                                  |
| Type of cooling                       | Natural convection                      |
| Length                                | 82 mm                                   |
| Number of motor stacks                | 1                                       |
| Centring collar diameter              | 30 mm                                   |
| Centring collar depth                 | 3 mm                                    |
| Number of mounting holes              | 4                                       |
| Mounting holes diameter               | 4.5 mm                                  |
| Circle diameter of the mounting holes | 46 mm                                   |
| Distance shaft shoulder-flange        | 3 mm                                    |
| Product weight                        | 0.4 kg                                  |

### Environment

| IP degree of protection               | IP54 IM B5, IM V1<br>IP50 IM V3 |
|---------------------------------------|---------------------------------|
| Ambient air temperature for operation | -2040 °C                        |

## Offer Sustainability

| Sustainable offer status   | Green Premium product   |  |
|----------------------------|---|--|
| REACh Regulation           | REACh Declaration   |  |
| REACh free of SVHC         | Yes   |  |
| 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   |  |
| Circularity Profile        | No need of specific recycling operations  |  |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |  |

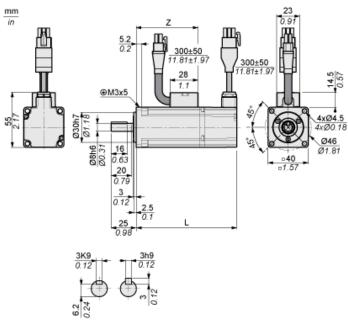
### Contractual warranty

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

# BCH2MBA531CA5C

### **Dimensions**

### **Dimensions of Motor**

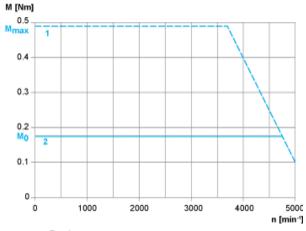


|                           | mm   | in.  |
|---------------------------|------|------|
| L (without holding brake) | 82   | 3.23 |
| L (with holding brake)    | 112  | 4.41 |
| Z                         | 43.5 | 1.71 |

# BCH2MBA531CA5C

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

Servo Motor Without Shaft Sealing Ring and LXM28AUA5●●● Servo Drive

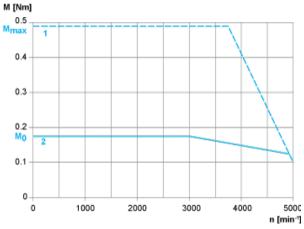


1: Peak torque2: Continuous torque

# BCH2MBA531CA5C

## 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