

# Product data sheet

Specifications



servo motor BCH, Lexium 28,  
180mm, 3500W, without oil seal,  
with key, brake, straight connection

BCH2MR3521CF6C

⚠ Discontinued on: Jun 30, 2023

⚠ Discontinued

## Main

|                           |             |
|---------------------------|-------------|
| Range Compatibility       | Lexium 28   |
| Product Or Component Type | Servo motor |
| Device Short Name         | BCH2        |

## Complementary

|                           |  |
|---------------------------|--|
| Maximum Mechanical Speed  | 3000 rpm   |
| [Us] Rated Supply Voltage | 220 V  |
| Network Number Of Phases  | Three phase  |
| Continuous Stall Current  | 16.55 A  |
| Continuous Stall Torque   | 16.7 N.m for LXM28... at 22.9 A, 220 V, three phase      |
| Continuous Power          | 3500 W   |
| Peak Stall Torque         | 50.3 N.m for LXM28... at 22.9 A, 220 V, three phase      |
| Nominal Output Power      | 3500 W for LXM28... at 22.9 A, 220 V, three phase        |
| Nominal Torque            | 16.7 N.m for LXM28... at 22.9 A, 220 V, three phase      |
| Nominal Speed             | 2000 rpm for LXM28... at 22.9 A, 220 V, three phase      |
| Maximum Current Irms      | 57.8 A for LXM28... at 3.5 kW, 220 V                     |
| Maximum Permanent Current | 19 A   |
| Product Compatibility     | LXM28... servo drive motor at 3.5 kW, 220 V, three phase |
| Shaft End                 | Keyed  |
| Shaft Diameter            | 35 mm  |
| Shaft Length              | 79 mm  |
| Key Width                 | 10 mm  |
| Feedback Type             | 20 bits single turn absolute encoder                     |
| Holding Brake             | With   |
| Holding Torque            | 48 N.m built-in  |
| Mounting Support          | Asian standard flange                                    |
| Motor Flange Size         | 180 mm   |
| Electrical Connection     | Connector MIL  |
| Torque Constant           | 1.01 N.m/A at 20 °C                                      |
| Back Emf Constant         | 61 V/krpm at 20 °C                                       |

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

|                                       |                    |
|---------------------------------------|--------------------|
| Rotor Inertia                         | 54.1 kg.cm²        |
| Stator Resistance                     | 0.157 Ohm at 20 °C |
| Stator Inductance                     | 2.93 mH at 20 °C   |
| Stator Electrical Time Constant       | 18.66 ms at 20 °C  |
| Maximum Radial Force Fr               | 1200 N at 2000 rpm |
| Maximum Axial Force Fa                | 497 N              |
| Brake Pull-In Power                   | 49.6 W             |
| Type Of Cooling                       | Natural convection |
| Length                                | 235 mm             |
| Number Of Motor Stacks                | 2                  |
| Centring Collar Diameter              | 114.3 mm           |
| Centring Collar Depth                 | 4 mm               |
| Number Of Mounting Holes              | 4                  |
| Mounting Holes Diameter               | 13.5 mm            |
| Circle Diameter Of The Mounting Holes | 200 mm             |
| Distance Shaft Shoulder-Flange        | 4 mm               |
| Net Weight                            | 23 kg              |

## Environment

|                                       |                                 |
|---------------------------------------|---------------------------------|
| Ip Degree Of Protection               | IP54 IM B5, IM V1<br>IP50 IM V3 |
| Ambient Air Temperature For Operation | 0...40 °C                       |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type Of Package 1       | PCE      |
| Number Of Units In Package 1 | 1        |
| Package 1 Height             | 24.5 cm  |
| Package 1 Width              | 29.0 cm  |
| Package 1 Length             | 58.5 cm  |
| Package 1 Weight             | 24.63 kg |

## 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

✓ Reach Free Of Svhc

✓ Mercury Free

✓ Rohs Exemption Information   [Yes](#)

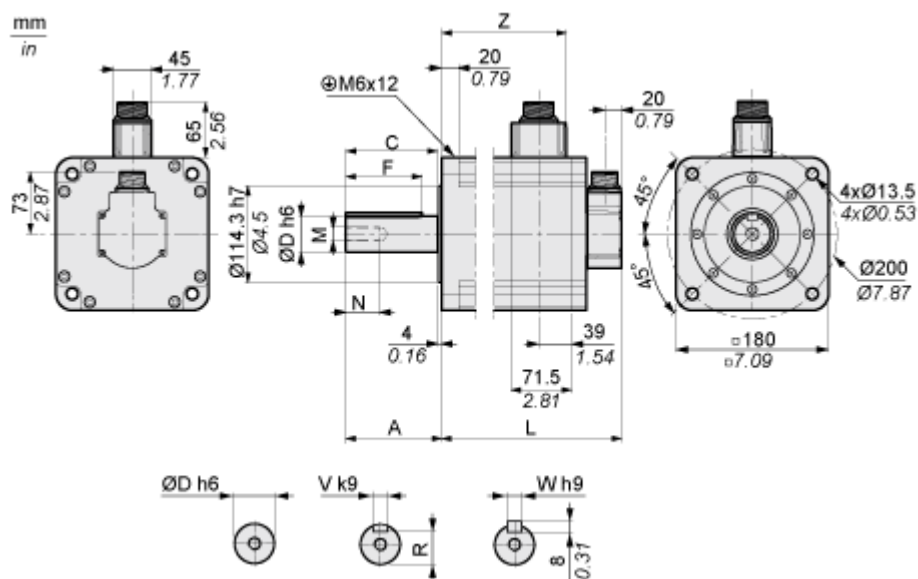
## Certifications & Standards

|                           |   |
|---------------------------|---|
| 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       | <a href="#">End of Life Information</a>   |
| 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="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Dimensions Drawings

## Dimensions

### Dimensions of Motor

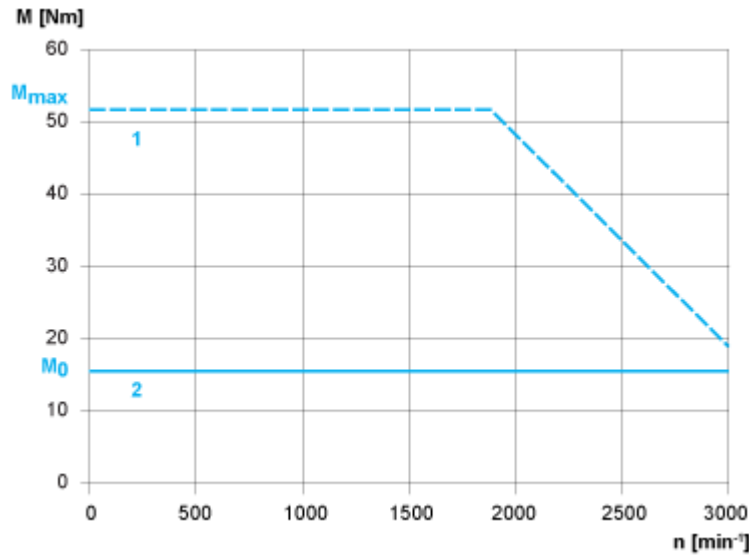


|                           | mm  | in.  |
|---------------------------|-----|------|
| L (without holding brake) | 202 | 7.95 |
| L (with holding brake)    | 235 | 9.25 |
| A                         | 79  | 3.11 |
| C                         | 73  | 2.87 |
| D                         | 35  | 1.38 |
| F                         | 63  | 2.48 |
| N                         | 28  | 1.10 |
| M                         | M12 |      |
| R                         | 30  | 1.18 |
| V                         | 10  | 0.39 |
| W                         | 10  | 0.39 |
| Z                         | 136 | 5.35 |

Performance Curves

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

Servo Motor with LXM28AU45 Servo Drive



- 1 : Peak torque
- 2 : Continuous torque