

# Product data sheet

Specifications



servo motor BCH, Lexium 28,  
100mm, 1000W, 2.45kg.cm<sup>2</sup>, with oil  
seal, smooth, brake, straight  
connection

BCH2LH1032CF6C

! Discontinued

! Discontinued on: Jun 30, 2023

## 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                                                                                                                 |
| Network number of phases  | Three phase<br>Single phase                                                                                           |
| Continuous stall current  | 5.83 A                                                                                                                |
| Continuous stall torque   | 28.15 lbf.in (3.18 N.m) LXM28 7 A, 220 V, single phase<br>28.15 lbf.in (3.18 N.m) LXM28 7 A, 220 V, three phase       |
| Continuous power          | 1000 W                                                                                                                |
| Peak stall torque         | 84.44 lbf.in (9.54 N.m) LXM28... 7 A, 220 V, single phase<br>84.44 lbf.in (9.54 N.m) LXM28... 7 A, 220 V, three phase |
| Nominal output power      | 1000 W LXM28... 7 A, 220 V, single phase<br>1000 W LXM28... 7 A, 220 V, three phase                                   |
| Nominal torque            | 28.15 lbf.in (3.18 N.m) LXM28... 7 A, 220 V, single phase<br>28.15 lbf.in (3.18 N.m) LXM28... 7 A, 220 V, three phase |
| Nominal speed             | 3000 rpm LXM28... 7 A, 220 V, single phase<br>3000 rpm LXM28... 7 A, 220 V, three phase                               |
| Maximum current Irms      | 18.9 A LXM28... 1 kW, 220 V                                                                                           |
| Maximum permanent current | 6.64 A                                                                                                                |
| Product compatibility     | LXM28... servo drive 1 kW, 220 V, single phase<br>LXM28... servo drive 1 kW, 220 V, three phase                       |
| Shaft end                 | Smooth shaft                                                                                                          |
| Shaft diameter            | 0.9 in (22 mm)                                                                                                        |
| Shaft length              | 1.8 in (45 mm)                                                                                                        |
| Feedback type             | 20 bits single turn absolute encoder                                                                                  |
| Holding brake             | With                                                                                                                  |
| Holding torque            | 57.5 lbf.in (6.5 N.m) built-in                                                                                        |
| Mounting support          | Asian standard flange                                                                                                 |
| Motor flange size         | 3.9 in (100 mm)                                                                                                       |

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

|                                       |                                              |
|---------------------------------------|----------------------------------------------|
| Electrical connection                 | Connector MIL                                |
| Torque constant                       | 0.55 N.m/A 68 °F (20 °C)                     |
| Back emf constant                     | 33 V/krpm 68 °F (20 °C)                      |
| Number of motor poles                 | 5.0                                          |
| Rotor inertia                         | 2.45 kg.cm²                                  |
| Stator resistance                     | 0.67 Ohm 68 °F (20 °C)                       |
| Stator inductance                     | 4.2 mH 68 °F (20 °C)                         |
| Stator electrical time constant       | 6.27 ms 68 °F (20 °C)                        |
| Maximum radial force Fr               | 570 N 3000 rpm                               |
| Maximum axial force Fa                | 200 N                                        |
| Brake pull-in power                   | 10.4 W                                       |
| Type of cooling                       | Natural convection                           |
| Length                                | 7.1 in (180.5 mm)                            |
| Number of motor stacks                | 1                                            |
| Centring collar diameter              | 3.7 in (95 mm)                               |
| Centring collar depth                 | 0.3 in (7 mm)                                |
| Number of mounting holes              | 4                                            |
| Mounting holes diameter               | 0.4 in (9.2 mm)                              |
| Circle diameter of the mounting holes | 4.5 in (115 mm)                              |
| Distance shaft shoulder-flange        | 0.3 in (7 mm)                                |
| Net weight                            | 11.2 lb(US) (5.1 kg)                         |
| Sizing reference                      | BCH2                                         |
| Network number of phases              | 1                                            |
| Accuracy error [angular]              | 0.044 °                                      |
| Temperature copper hot                | 275 °F (135 °C)                              |
| Temperature magnet hot                | 212 °F (100 °C)                              |
| Temperature magnet rt                 | 68 °F (20 °C)                                |
| Inertia                               | 2.44 kg.cm² of brake<br>2.45 kg.cm² of motor |

## Environment

|                                       |                                 |
|---------------------------------------|---------------------------------|
| IP degree of protection               | IP50 IM V3<br>IP65 IM B5, IM V1 |
| Ambient air temperature for operation | 32...104 °F (0...40 °C)         |

## Packing Units

|                              |                        |
|------------------------------|------------------------|
| Unit Type of Package 1       | PCE                    |
| Number of Units in Package 1 | 1                      |
| Package 1 Height             | 7.1 in (18.1 cm)       |
| Package 1 Width              | 9.06 in (23.0 cm)      |
| Package 1 Length             | 14.2 in (36.0 cm)      |
| Package 1 Weight             | 15.94 lb(US) (7.23 kg) |

# Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

|                                                        |                                               |
|--------------------------------------------------------|-----------------------------------------------|
| Total lifecycle Carbon footprint                       | 4 076 kg CO2 eq.                              |
| Environmental Disclosure                               | <a href="#">Product Environmental Profile</a> |
| Carbon footprint of the manufacturing phase [A1 to A3] | 41 kg CO2 eq.                                 |
| Carbon footprint of the distribution phase [A4]        | 0.9 kg CO2 eq.                                |
| Carbon footprint of the installation phase [A5]        | 0 kg CO2 eq.                                  |
| Carbon footprint of the use phase [B2, B3, B4, B6]     | 4 032 kg CO2 eq.                              |
| Carbon footprint of the end-of-life phase [C1 to C4]   | 0.8 kg CO2 eq.                                |

## Use Better



### Materials and Substances

|                                        |                                                            |
|----------------------------------------|------------------------------------------------------------|
| Packaging made with recycled cardboard | No                                                         |
| Packaging without single use plastic   | No                                                         |
| <a href="#">EU RoHS Directive</a>      | Pro-active compliance (Product out of EU RoHS legal scope) |
| REACH Regulation                       | <a href="#">REACH Declaration</a>                          |
| PVC free                               | Yes                                                        |

## Use Longer



### Lifetime extension

|        |    |
|--------|----|
| Repair | No |
|--------|----|

## Use Again



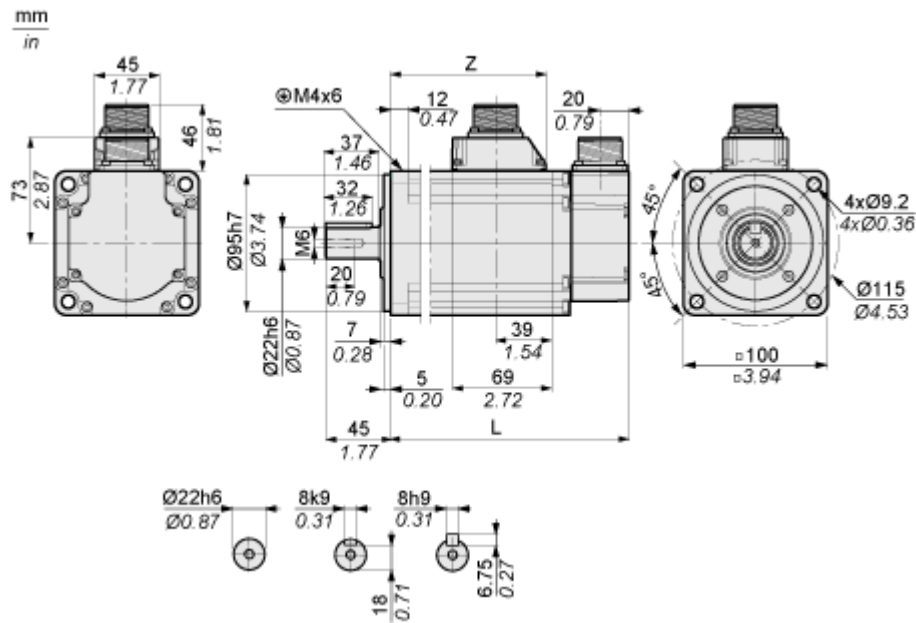
### Repack and remanufacture

|                     |                                         |
|---------------------|-----------------------------------------|
| Circularity Profile | <a href="#">End of Life Information</a> |
| Take-back           | No                                      |

Dimensions Drawings

Dimensions

Dimensions of Motor

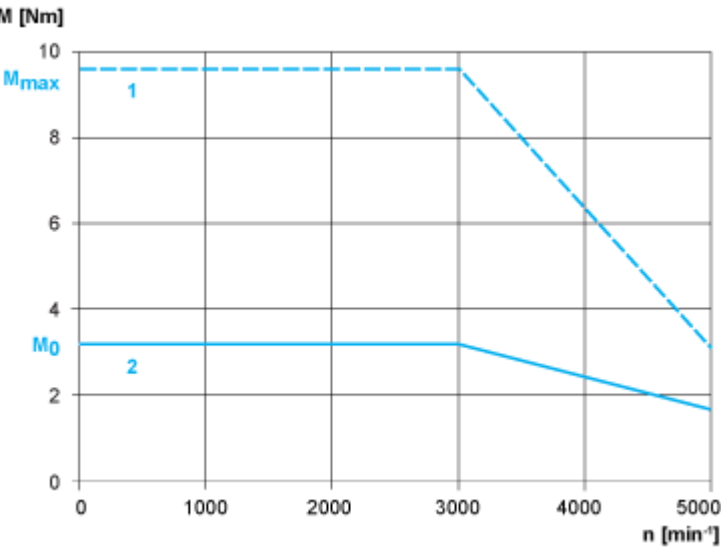


|                           | mm    | in.  |
|---------------------------|-------|------|
| L (without holding brake) | 153.5 | 6.04 |
| L (with holding brake)    | 180.5 | 7.11 |
| Z                         | 96    | 3.78 |

Performance Curves

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

Servo Motor with LXM28AU10 Servo Drive



- 1 : Peak torque
- 2 : Continuous torque