

# Product datasheet

Specifications



servo motor BCH; Lexium 28;  
100mm; 2000W; 4.28kg.cm<sup>2</sup>; with oil  
seal; with key; straight connection

BCH2LH2033CA6C

⚠ Discontinued on: 27 Aug 2020

⚠ Discontinued

## 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                                                                                                    |
| Continuous stall current  | 9.87 A                                                                                                         |
| Continuous stall torque   | 6.37 N.m for LXM26D at 12 A, 220 V, three phase<br>6.37 N.m for LXM28 at 12 A, 220 V, three phase              |
| Continuous power          | 2000 W                                                                                                         |
| Peak stall torque         | 19.11 N.m for LXM26D at 12 A, 220 V, three phase<br>19.11 N.m for LXM28... at 12 A, 220 V, three phase         |
| Nominal output power      | 2000 W for LXM26D at 12 A, 220 V, three phase<br>2000 W for LXM28... at 12 A, 220 V, three phase               |
| Nominal torque            | 6.37 N.m for LXM26D at 12 A, 220 V, three phase<br>6.37 N.m for LXM28... at 12 A, 220 V, three phase           |
| Nominal speed             | 3000 rpm for LXM26D at 12 A, 220 V, three phase<br>3000 rpm for LXM28... at 12 A, 220 V, three phase           |
| Maximum current Irms      | 32.3 A for LXM26D at 2 kW, 220 V<br>32.3 A for LXM28... at 2 kW, 220 V                                         |
| Maximum permanent current | 10.27 A                                                                                                        |
| Product compatibility     | LXM26D servo drive motor at 2 kW, 220 V, three phase<br>LXM28... servo drive motor at 2 kW, 220 V, three phase |
| Shaft end                 | Keyed                                                                                                          |
| Shaft diameter            | 22 mm                                                                                                          |
| Shaft length              | 45 mm                                                                                                          |
| Key width                 | 8 mm                                                                                                           |
| Feedback type             | 20 bits single turn absolute encoder                                                                           |
| Holding brake             | Without                                                                                                        |
| Mounting support          | Asian standard flange                                                                                          |
| Motor flange size         | 100 mm                                                                                                         |
| Electrical connection     | Connector MIL                                                                                                  |

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

|                                       |                                             |
|---------------------------------------|---------------------------------------------|
| Torque constant                       | 0.65 N.m/A at 20 °C                         |
| Back emf constant                     | 39 V/krpm at 20 °C                          |
| Number of motor poles                 | 5.0                                         |
| Rotor inertia                         | 4.28 kg.cm²                                 |
| Stator resistance                     | 0.36 Ohm at 20 °C                           |
| Stator inductance                     | 2.59 mH at 20 °C                            |
| Stator electrical time constant       | 7.19 ms at 20 °C                            |
| Maximum radial force Fr               | 570 N at 3000 rpm                           |
| Maximum axial force Fa                | 200 N                                       |
| Brake pull-in power                   | 10.4 W                                      |
| Type of cooling                       | Natural convection                          |
| Length                                | 198.5 mm                                    |
| Number of motor stacks                | 2                                           |
| Centring collar diameter              | 95 mm                                       |
| Centring collar depth                 | 7 mm                                        |
| Number of mounting holes              | 4                                           |
| Mounting holes diameter               | 9.2 mm                                      |
| Circle diameter of the mounting holes | 115 mm                                      |
| Distance shaft shoulder-flange        | 7 mm                                        |
| Net weight                            | 6.7 kg                                      |
| Sizing reference                      | BCH2                                        |
| Network number of phases              | 3                                           |
| Accuracy error [angular]              | 0.044 °                                     |
| Temperature copper hot                | 135 °C                                      |
| Temperature magnet hot                | 100 °C                                      |
| Temperature magnet rt                 | 20 °C                                       |
| Inertia                               | 0.0 kg.cm² of brake<br>4.27 kg.cm² of motor |

## Environment

|                                       |                                 |
|---------------------------------------|---------------------------------|
| IP degree of protection               | IP50 IM V3<br>IP65 IM B5, IM V1 |
| Ambient air temperature for operation | -20...40 °C                     |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 30.000 cm |
| Package 1 Width              | 30.000 cm |
| Package 1 Length             | 40.000 cm |
| Package 1 Weight             | 8.049 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                                                                          | 7 516 kg CO2 eq.                              |
| Environmental Disclosure                                                                                  | <a href="#">Product Environmental Profile</a> |
| Carbon footprint of the manufacturing phase [A1 to A3]                                                    | 49 kg CO2 eq.                                 |
| Carbon footprint of the distribution phase [A4]                                                           | 1 kg CO2 eq.                                  |
| Carbon footprint of the installation phase [A5]                                                           | 0.1 kg CO2 eq.                                |
| Carbon footprint of the use phase [B2, B3, B4, B6]                                                        | 7 465 kg CO2 eq.                              |
| Carbon footprint of the end-of-life phase [C1 to C4]                                                      | 0.9 kg CO2 eq.                                |

Use Better

|  Materials and Packaging |     |
|------------------------------------------------------------------------------------------------------------|-----|
| Packaging made with recycled cardboard                                                                     | Yes |
| Packaging without single use plastic                                                                       | No  |
| PVC free                                                                                                   | Yes |

Use Longer

|  Lifetime extension |    |
|--------------------------------------------------------------------------------------------------------|----|
| Repair                                                                                                 | No |

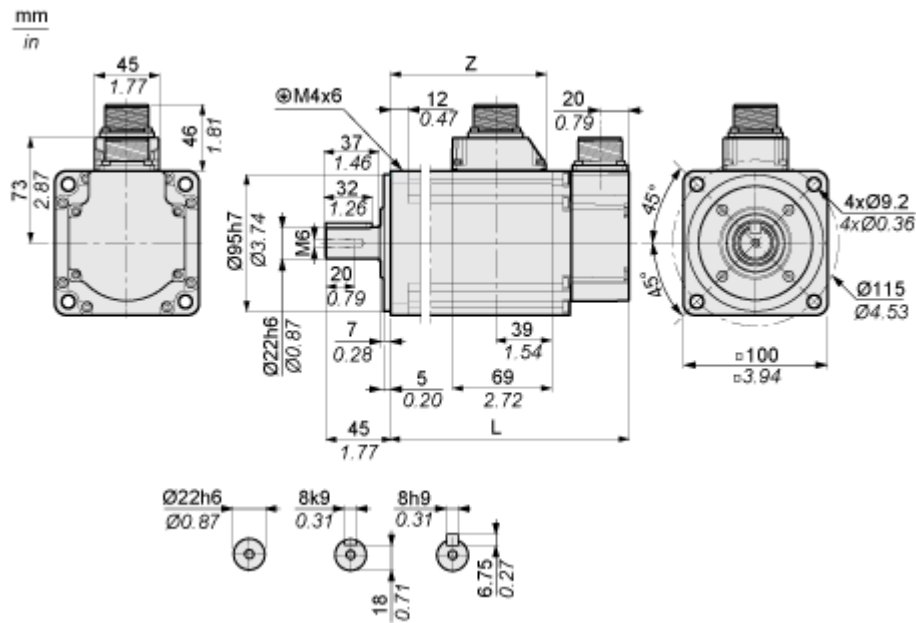
Use Again

|  Repack and remanufacture |                                         |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| End of life manual availability                                                                              | <a href="#">End of Life Information</a> |
| Take-back                                                                                                    | No                                      |

Dimensions Drawings

Dimensions

Dimensions of Motor

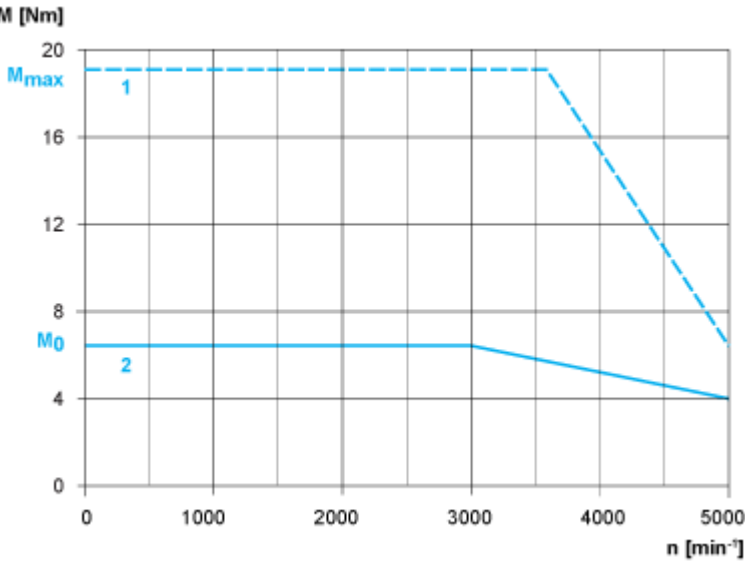


|                           | mm    | in.  |
|---------------------------|-------|------|
| L (without holding brake) | 198.5 | 7.81 |
| L (with holding brake)    | 225.5 | 8.88 |
| Z                         | 141   | 5.55 |

Performance Curves

Torque/Speed Curves with 230 V Three Phase Supply Voltage

Servo Motor with LXM28AU20 Servo Drive



- 1 : Peak torque
- 2 : Continuous torque