# Product datasheet

Specifications

Discontinued

## servo motor BCH, no oil seal, smooth, 20-bit encoder, w brake-straight con

BCH1303M02F1C

Discontinued on: Dec 31, 2018 AD

End-of-service on: Dec 15, 2025 AD

## Main

| | |
|---|---|
| **Range compatibility** | Lexium 23 Plus |
| **Device short name** | BCH |
| **Product or component type** | Servo motor |

## Complementary

| | |
|---|---|
| **Maximum mechanical speed** | 2000 rpm |
| **[Us] rated supply voltage** | 220 V |
| **Network number of phases** | Single phase |
| **Continuous stall current** | 7.5 A |
| **Continuous power** | 0.9 kW |
| **Shaft end** | Smooth shaft |
| **Second shaft** | Without second shaft end |
| **Shaft diameter** | 22 mm |
| **Shaft length** | 47 mm |
| **Feedback type** | 20 bits incremental encoder |
| **Holding brake** | With |
| **Holding torque** | 10 N.m |
| **Mounting support** | Asian standard flange |
| **Motor flange size** | 130 mm |
| **Torque constant** | 1.15 N.m/A |
| **Back emf constant** | 41.6 V/krpm at 20 °C |
| **Rotor inertia** | 11.9 kg.cm² |
| **Stator resistance** | 0.86 Ohm at 20 °C |
| **Stator inductance** | 13.94 mH at 20 °C |
| **Stator electrical time constant** | 16.06 ms at 20 °C |
| **Maximum radial force Fr** | 490 N |
| **Maximum axial force Fa** | 98 N |
| **Brake pull-in power** | 19 W |
| **Type of cooling** | Natural convection |
| **Length** | 198 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

| | |
|---|---|
| **Number of motor stacks** | 3 |
| **Centring collar diameter** | 110 mm |
| **Centring collar depth** | 6 mm |
| **Number of mounting holes** | 4 |
| **Mounting holes diameter** | 9 mm |
| **Circle diameter of the mounting holes** | 145 mm |
| **Distance shaft shoulder-flange** | 47 mm |
| **Net weight** | 8.9 kg |

## Environment

| | |
|---|---|
| **IP degree of protection** | IP40 |
| **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** | 23.8 cm |
| **Package 1 Width** | 29.2 cm |
| **Package 1 Length** | 36.6 cm |
| **Package 1 Weight** | 9.2 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

| | |
|---|---|
| Environmental Disclosure | Product Environmental Profile |

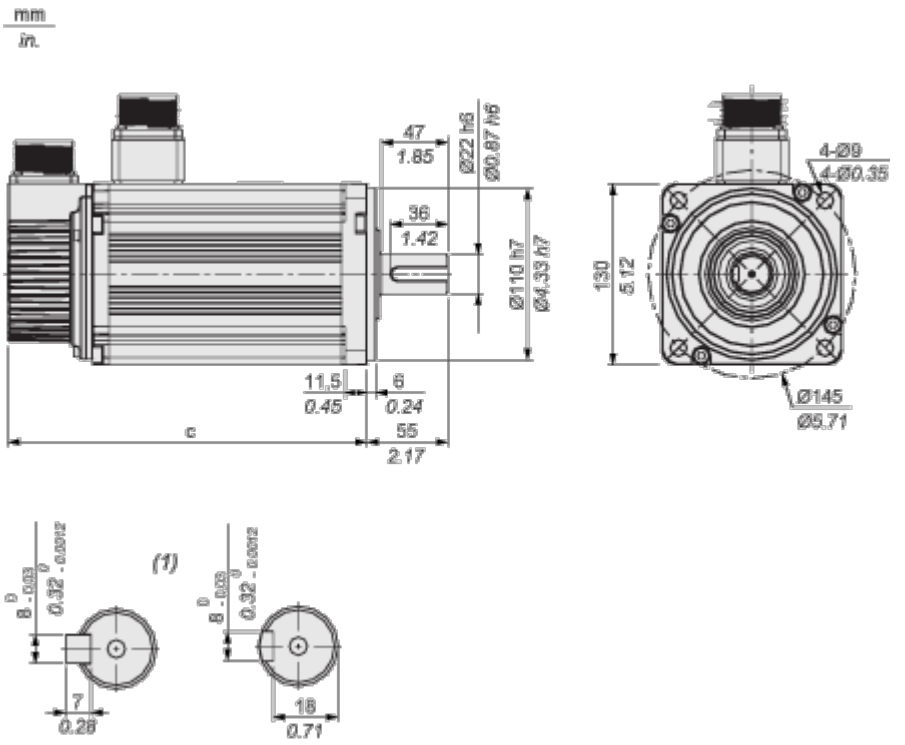
## Use Longer

### Lifetime extension

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

Dimensions Drawings

## Dimensions




(1) Shaft end, keyed slot (optional)

Dimensions in mm

| c (without holding brake) | c (with holding brake) |
|---|---|
| 163.5 | 198 |

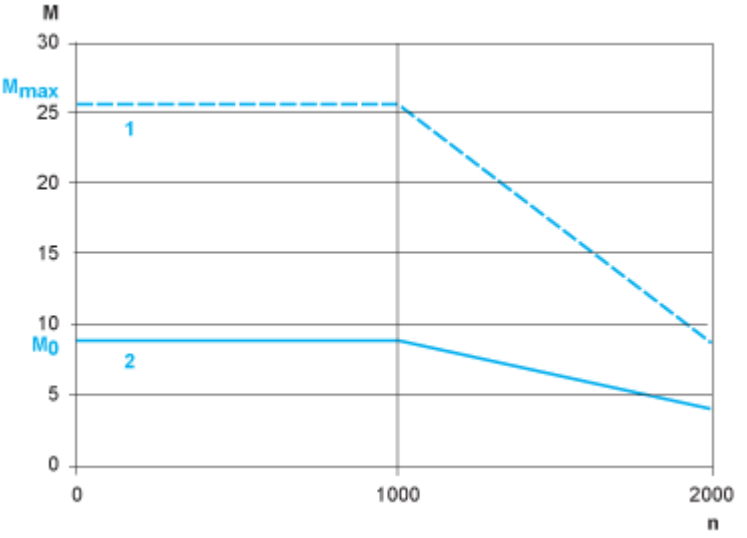
Dimensions in in.

| c (without holding brake) | c (with holding brake) |
|---|---|
| 6.44 | 7.79 |

## Performance Curves

### Torque/Speed Curves with 220 V Single Phase Supply Voltage

Servo Motor with LXM23•U10M3X Servo Drive




M : Torque in Nm

n : Speed in rpm

1 : Peak torque

2 : Continuous torque