

Product datasheet

Specifications



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

BCH1002O12F1C

⚠ Discontinued on: Dec 31, 2018 AD

⚠ End-of-service on: Dec 15, 2025 AD

⚠ Discontinued

Main

Range compatibility	Lexium 23 Plus
Device short name	BCH
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	12.05 A
Continuous power	2 kW
Shaft end	Keyed
Second shaft	Without second shaft end
Shaft diameter	22 mm
Shaft length	37 mm
Key width	8 mm
Feedback type	20 bits incremental encoder
Holding brake	With
Holding torque	8 N.m
Mounting support	Asian standard flange
Motor flange size	100 mm
Torque constant	0.53 N.m/A
Back emf constant	19.2 V/krpm at 20 °C
Rotor inertia	4.953 kg.cm²
Stator resistance	0.26 Ohm at 20 °C
Stator inductance	3 mH at 20 °C
Stator electrical time constant	11.4 ms at 20 °C
Maximum radial force Fr	490 N
Maximum axial force Fa	98 N
Brake pull-in power	19.4 W
Type of cooling	Natural convection

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

Length	226 mm
Number of motor stacks	2
Centring collar diameter	95 mm
Centring collar depth	5 mm
Number of mounting holes	4
Mounting holes diameter	9 mm
Circle diameter of the mounting holes	115 mm
Distance shaft shoulder-flange	37 mm
Net weight	7.2 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	19.6 cm
Package 1 Width	27.6 cm
Package 1 Length	35.0 cm
Package 1 Weight	7.5 kg
Unit Type of Package 2	CAR
Number of Units in Package 2	2
Package 2 Height	19.6 cm
Package 2 Width	27.6 cm
Package 2 Length	35.0 cm
Package 2 Weight	15.0 kg

Contractual warranty

Warranty (in months)	18
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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



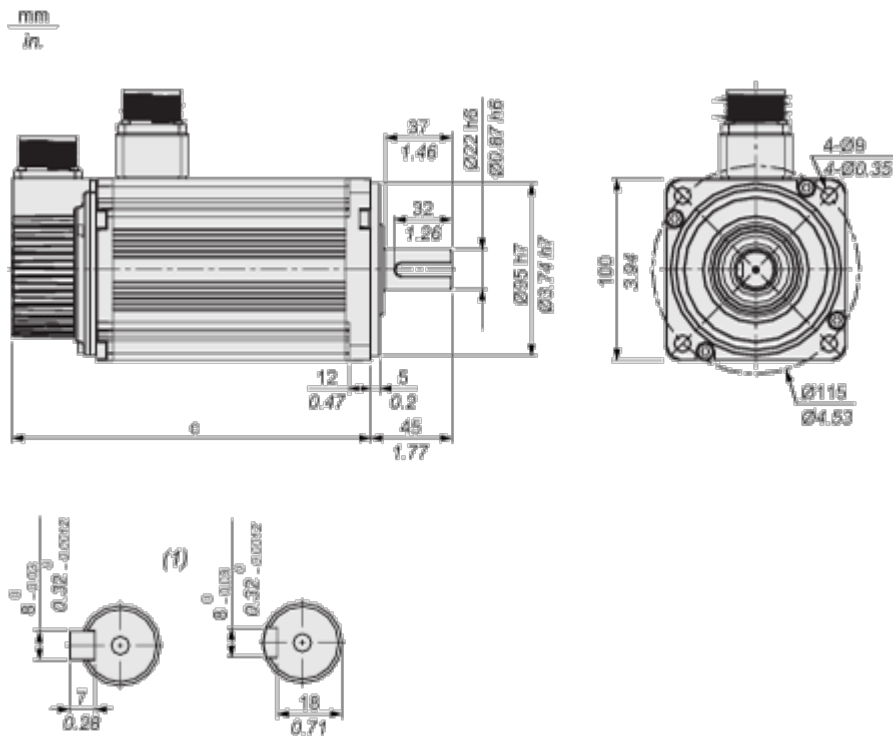
Lifetime extension

Repair

No

Dimensions Drawings

Dimensions



(1) Shaft end, keyed slot (optional)

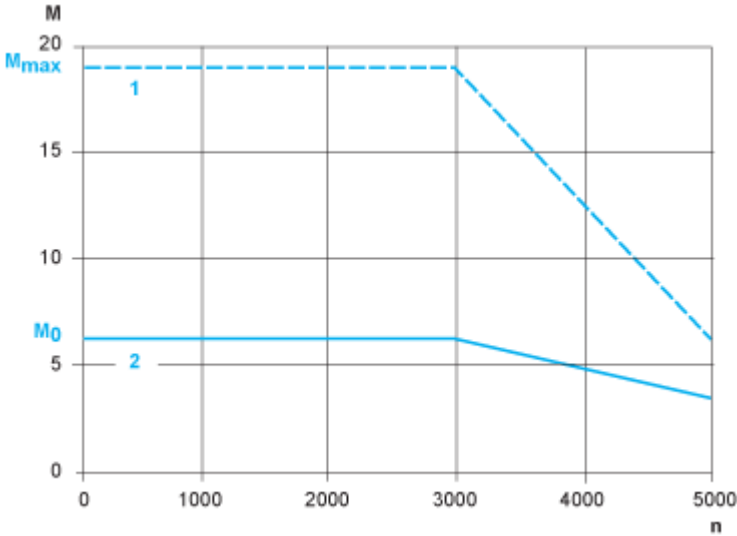
Dimensions in mm	
c (without holding brake)	c (with holding brake)
199	226

Dimensions in in.	
c (without holding brake)	c (with holding brake)
7.83	8.90

Performance Curves

Torque/Speed Curves with 220 V Three Phase Supply Voltage

Servo Motor with LXM23•U20M3X Servo Drive



M : Torque in Nm

n : Speed in rpm

1 : Peak torque

2 : Continuous torque