

Product datasheet

Specifications



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

BCH1802M12F1C

⚠ Discontinued on: Jan 23, 2021

⚠ End-of-service on: Dec 31, 2023

⚠ Discontinued - Service only

Main

Range of product	Lexium 23 Plus
Range compatibility	Lexium 23 Plus
Product or component type	Servo motor
Device short name	BCH

Complementary

Maximum mechanical speed	3000 rpm
[Us] rated supply voltage	220 V
Network number of phases	Three phase
Continuous stall current	19.4 A
Continuous power	3 kW
Shaft end	Keyed
Second shaft	Without second shaft end
Shaft length	73 mm
Key width	10 mm
Feedback type	20 bits incremental encoder
Holding brake	With
Holding torque	25 N.m
Mounting support	Asian standard flange
Motor flange size	180 mm
Torque constant	0.98 N.m/A
Back emf constant	35 V/krpm at 20 °C
Rotor inertia	57.06 kg.cm ²
Stator resistance	0.154 Ohm at 20 °C
Stator inductance	2.54 mH at 20 °C
Stator electrical time constant	16.5 ms at 20 °C
Maximum radial force Fr	1470 N
Maximum axial force Fa	490 N
Brake pull-in power	20.4 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	235.3 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	73 mm
Product weight	22.5 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	35.5 cm
Package 1 Width	25.4 cm
Package 1 Length	58.8 cm
Package 1 Weight	22.8 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



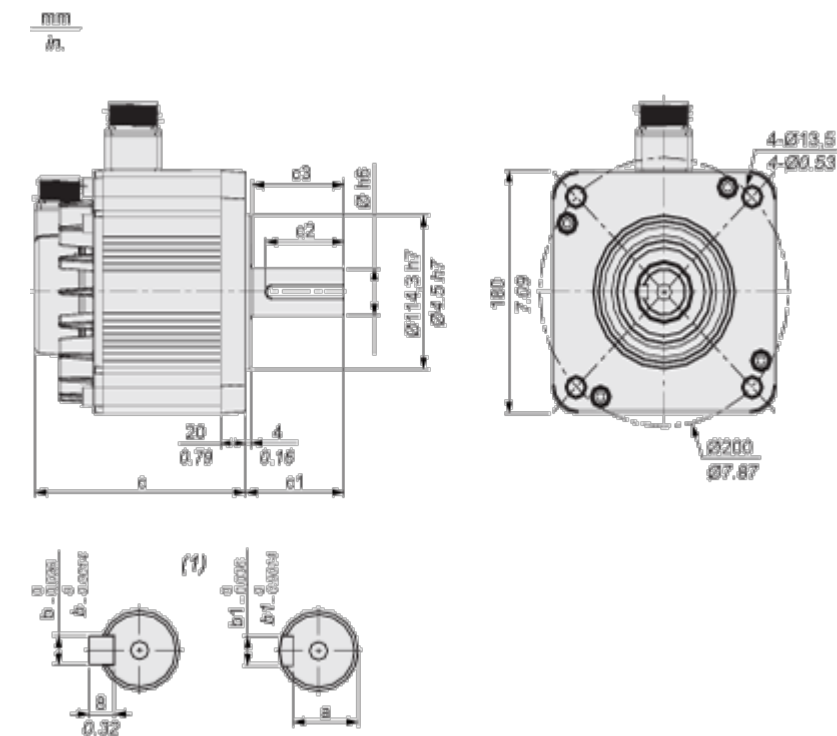
Lifetime extension

Repair

No

Dimensions Drawings

Dimensions



(1) Shaft end, keyed slot (optional)

Dimensions in mm

Ø	a	b	b1	c (without holding brake)	c (with holding brake)	c1	c2	c3
35	30	10	10	202.1	235.3	79	63	73

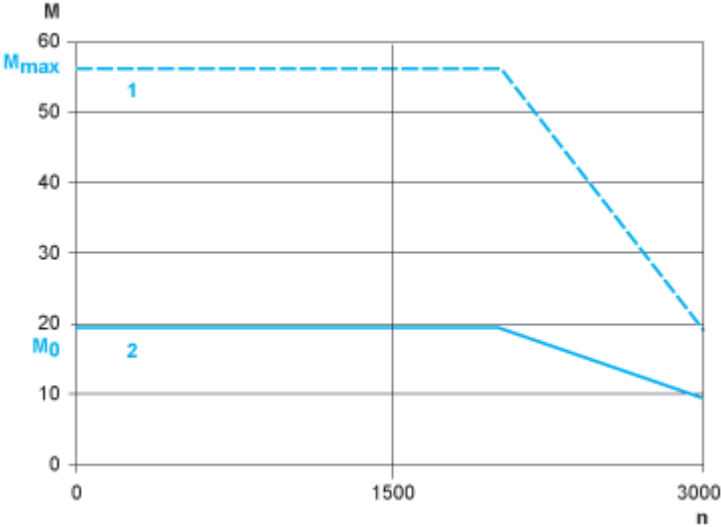
Dimensions in in.

Ø	a	b	b1	c (without holding brake)	c (with holding brake)	c1	c2	c3
1.38	1.18	0.39	0.39	7.96	9.26	3.11	2.48	2.87

Performance Curves

Torque/Speed Curves with 220 V Three Phase Supply Voltage

Servo Motor with LXM23•U30M3X Servo Drive



M : Torque in Nm

n : Speed in rpm

1 : Peak torque

2 : Continuous torque