

# Product datasheet

Specifications



servo motor BCH, no oil seal, w key,  
20-bit encoder, w/o brake-straight  
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BCH0801O12A1C

⚠ Discontinued on: 31 Dec 2023

⚠ End-of-service on: 31 Dec 2023

⚠ Discontinued - Service only

## 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	Single phase
Continuous stall current	2.6 A
Continuous power	0.4 kW
Shaft end	Keyed
Second shaft	Without second shaft end
Shaft diameter	14 mm
Shaft length	24.5 mm
Key width	5 mm
Feedback type	20 bits incremental encoder
Holding brake	Without
Mounting support	Asian standard flange
Motor flange size	80 mm
Torque constant	0.49 N.m/A
Back emf constant	18.5 V/krpm at 20 °C
Rotor inertia	0.68 kg.cm <sup>2</sup>
Stator resistance	1.86 Ohm at 20 °C
Stator inductance	14.78 mH at 20 °C
Stator electrical time constant	7.96 ms at 20 °C
Maximum radial force Fr	245 N
Maximum axial force Fa	98 N
Brake pull-in power	8.3 W
Type of cooling	Natural convection
Length	112.3 mm

Number of motor stacks	1
Centring collar diameter	70 mm
Centring collar depth	3 mm
Number of mounting holes	4
Mounting holes diameter	6.6 mm
Circle diameter of the mounting holes	90 mm
Distance shaft shoulder-flange	24.5 mm
Net weight	2.1 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	18.6 cm
Package 1 Width	14.2 cm
Package 1 Length	25.7 cm
Package 1 Weight	2.51 kg
Unit Type of Package 2	S06
Number of Units in Package 2	30
Package 2 Height	73.5 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	88.3 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](#)

## Use Again



### Repack and remanufacture

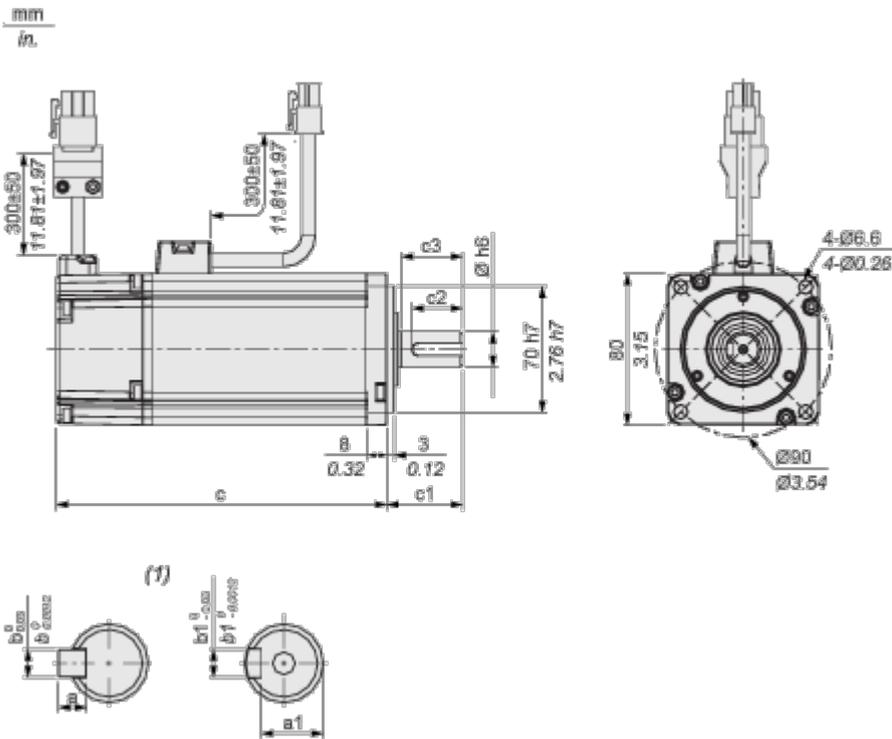
[WEEE Label](#)



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

Dimensions



(1) Shaft end, keyed slot (optional)

Dimensions in mm

Ø	a	a1	b	b1	c (without holding brake)	c (with holding brake)	c1	c2	c3
14	5	11	5	5	105.5	141.6	30	20	24.5

Dimensions in in.

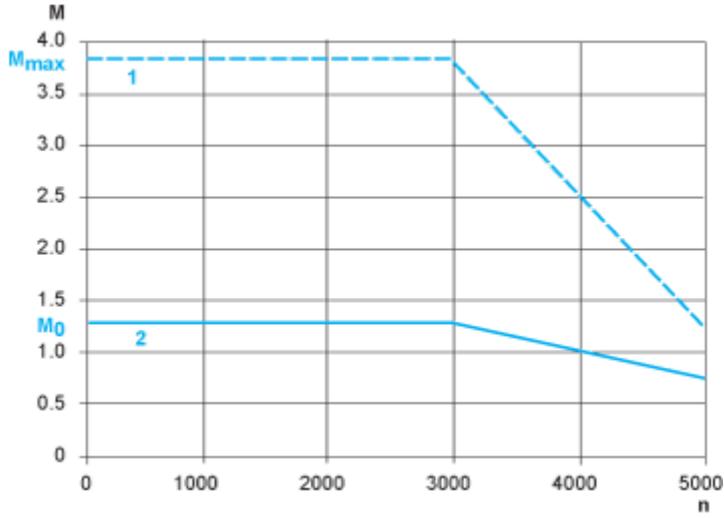
Ø	a	a1	b	b1	c (without holding brake)	c (with holding brake)	c1	c2	c3
0.55	0.20	0.43	0.20	0.20	4.15	5.57	1.18	0.79	0.96

Performance Curves

Torque/Speed Curves with 220 V Single Phase Supply Voltage

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Servo Motor with LXM23•U04M3X Servo Drive



- M : Torque in Nm
- n : Speed in rpm
- 1 : Peak torque
- 2 : Continuous torque