

# Product datasheet

Specifications



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

BCH1802N12A1C

⚠ Discontinued - Service only

⚠ Discontinued on: Jan 23, 2021

⚠ End-of-service on: Dec 31, 2023

## Main

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

## Complementary

Maximum mechanical speed	3000 rpm
[Us] rated supply voltage	220 V
Network number of phases	Three phase
Continuous stall current	16.1 A
Continuous power	3 kW
Shaft end	Keyed
Second shaft	Without second shaft end
Shaft diameter	35 mm
Shaft length	73 mm
Key width	10 mm
Feedback type	20 bits incremental encoder
Holding brake	Without
Mounting support	Asian standard flange
Motor flange size	180 mm
Torque constant	0.89 N.m/A
Back emf constant	32 V/krpm at 20 °C
Rotor inertia	54.95 kg.cm <sup>2</sup>
Stator resistance	0.104 Ohm at 20 °C
Stator inductance	2.76 mH at 20 °C
Stator electrical time constant	26.39 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
Length	202.1 mm

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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
Net weight	18.5 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	31.5 cm
Package 1 Width	37.0 cm
Package 1 Length	41.5 cm
Package 1 Weight	21.057 kg
Unit Type of Package 2	S06
Number of Units in Package 2	2
Package 2 Height	73.5 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	55.114 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

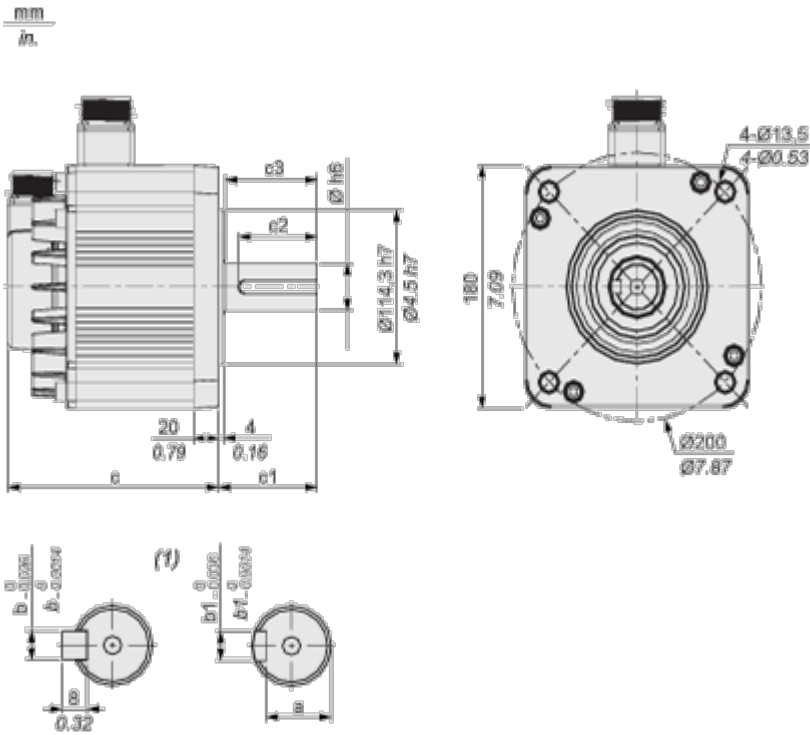
### Lifetime extension

[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.

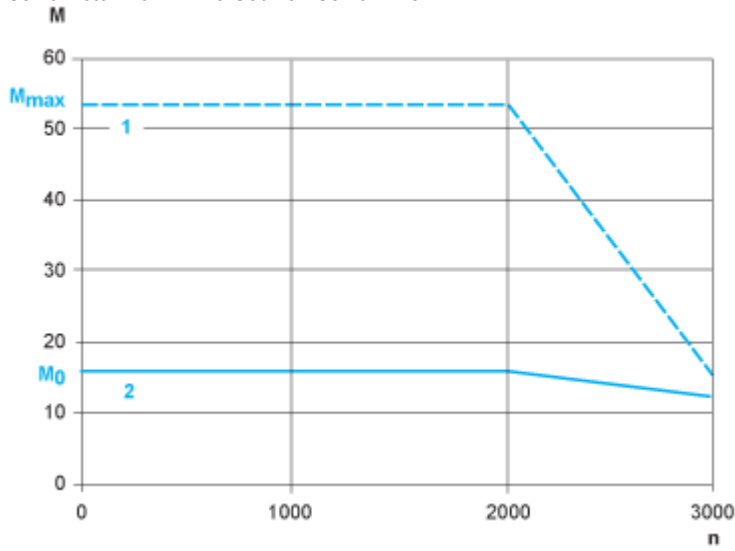
Ø	a	b	b1	c (without holding brake)	c (with holding brake)	c1	c2	c3
1.38	1.18	0.39	0.39	7.96	9.26	3.11	2.48	2.87

Performance Curves

Torque/Speed Curves with 220 V Three Phase Supply Voltage

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Servo Motor with LXM23•U30M3X Servo Drive



M : Torque in Nm

n : Speed in rpm

1 : Peak torque

2 : Continuous torque