

Product datasheet

Specifications



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

BCH0801002A1C

⚠ Discontinued on: Dec 31, 2018 AD

⚠ End-of-service on: Dec 31, 2023 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 | Single phase |
| Continuous stall current | 2.6 A |
| Continuous power | 0.4 kW |
| Shaft end | Smooth shaft |
| Second shaft | Without second shaft end |
| Shaft diameter | 14 mm |
| Shaft length | 24.5 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 ² |
| 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 | 19.0 cm |
| Package 1 Width | 14.5 cm |
| Package 1 Length | 26.0 cm |
| Package 1 Weight | 2.512 kg |
| Unit Type of Package 2 | S03 |
| Number of Units in Package 2 | 2 |
| Package 2 Height | 30.0 cm |
| Package 2 Width | 30.0 cm |
| Package 2 Length | 40.0 cm |
| Package 2 Weight | 5.737 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](#)

Use Again



Repack and remanufacture

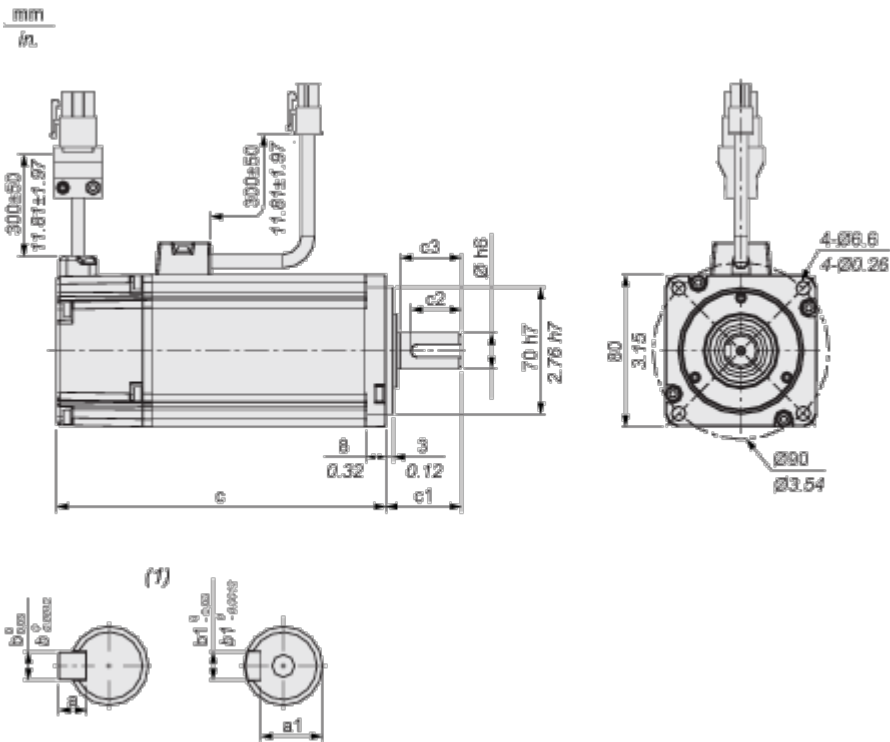
[WEEE Label](#)



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

| ∅ | 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 |

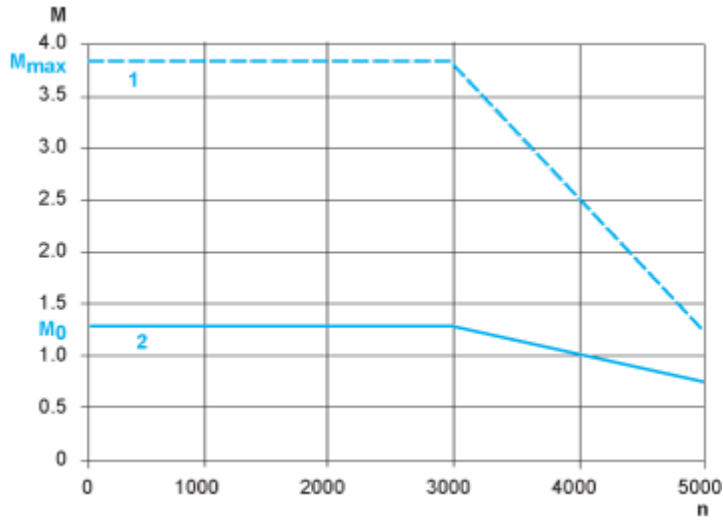
Dimensions in in.

| ∅ | 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

Servo Motor with LXM23•U04M3X Servo Drive



M : Torque in Nm

n : Speed in rpm

1 : Peak torque

2 : Continuous torque