

# Product datasheet

Specifications



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

BCH1304N12A1C

! To be discontinued on: 31 December 2023

! To be end-of-service on: 31 December 2023

! Discontinued - Service only

## Main

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	11.01 A
Continuous power	2 kW
Shaft end	Keyed
Second shaft	Without second shaft end
Shaft diameter	22 mm
Shaft length	47 mm
Key width	8 mm
Feedback type	20 bits incremental encoder
Holding brake	Without
Mounting support	Asian standard flange
Motor flange size	130 mm
Torque constant	0.87 N.m/A
Back emf constant	31.8 V/krpm at 20 °C
Rotor inertia	14.59 kg.cm <sup>2</sup>
Stator resistance	0.348 Ohm at 20 °C
Stator inductance	5.52 mH at 20 °C
Stator electrical time constant	15.86 ms at 20 °C
Maximum radial force Fr	490 N
Maximum axial force Fa	98 N
Brake pull-in power	19 W

Type of cooling	Natural convection
Length	187.5 mm
Number of motor stacks	4
Centring collar diameter	110 mm
Centring collar depth	6 mm
Number of mounting holes	4
Mounting holes diameter	9 mm
Circle diameter of the mounting holes	145 mm
Distance shaft shoulder-flange	47 mm
Net weight	7.8 kg

## Environment

IP degree of protection	IP40
Ambient air temperature for operation	0...40 °C

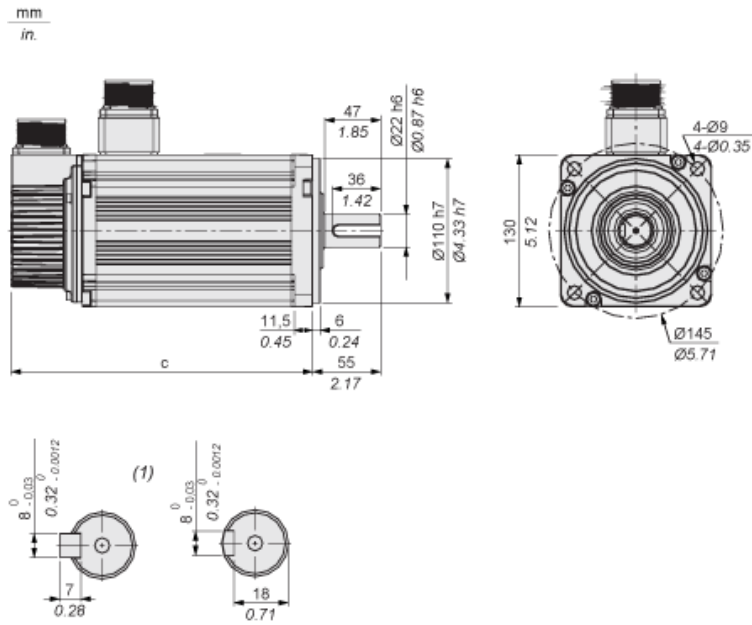
## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	24.0 cm
Package 1 Width	29.0 cm
Package 1 Length	37.0 cm
Package 1 Weight	10.366 kg
Unit Type of Package 2	CAR
Number of Units in Package 2	1
Package 2 Height	24.0 cm
Package 2 Width	29.0 cm
Package 2 Length	37.0 cm
Package 2 Weight	10.366 kg
Unit Type of Package 3	S06
Number of Units in Package 3	4
Package 3 Height	73.5 cm
Package 3 Width	60.0 cm
Package 3 Length	80.0 cm
Package 3 Weight	45.4 kg

## Contractual warranty

Warranty	18 months
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**Dimensions**



(1) Shaft end, keyed slot (optional)

Dimensions in mm

c (without holding brake)	c (with holding brake)
187.5	216

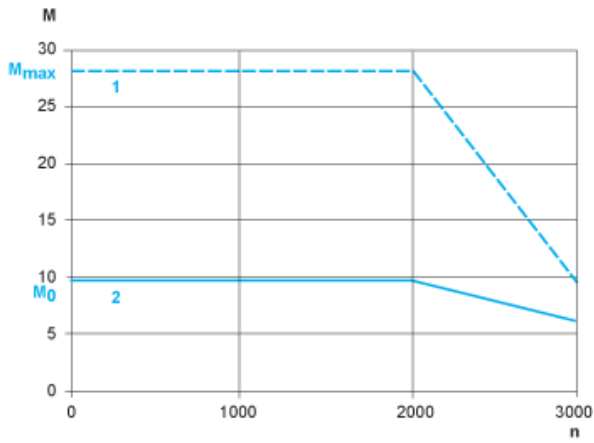
Dimensions in in.

c (without holding brake)	c (with holding brake)
7.38	8.50

**Torque/Speed Curves with 220 V Three Phase Supply Voltage**

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Servo Motor with LXM23•U20M3X Servo Drive



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

**Recommended replacement(s)**