

# Product data sheet

Specifications



servo motor BCH, Lexium 28,  
40mm, 100W, with oil seal, with key,  
brake, leads connection

BCH2MB0133CF5C

## Main

Range compatibility	Lexium 28
Product or component type	Servo motor
Device short name	BCH2

## Complementary

Maximum mechanical speed	5000 rpm
[Us] rated supply voltage	220 V 110 V
Network number of phases	Three phase Single phase
Continuous stall current	0.81 A
Continuous stall torque	2.83 lbf.in (0.32 N.m) LXM26D 0.9 A, 220 V, single phase 2.83 lbf.in (0.32 N.m) LXM26D 0.9 A, 220 V, three phase 2.83 lbf.in (0.32 N.m) LXM28... 0.9 A, 220 V, single phase 2.83 lbf.in (0.32 N.m) LXM28... 0.9 A, 220 V, three phase 2.83 lbf.in (0.32 N.m) LXM28... 1.8 A, 110 V, single phase
Continuous power	100 W
Peak stall torque	8.50 lbf.in (0.96 N.m) LXM26D 0.9 A, 220 V, single phase 8.50 lbf.in (0.96 N.m) LXM26D 0.9 A, 220 V, three phase 8.50 lbf.in (0.96 N.m) LXM28... 0.9 A, 220 V, single phase 8.50 lbf.in (0.96 N.m) LXM28... 0.9 A, 220 V, three phase 8.50 lbf.in (0.96 N.m) LXM28... 1.8 A, 110 V, single phase
Nominal output power	100 W LXM26D 0.9 A, 220 V, single phase 100 W LXM26D 0.9 A, 220 V, three phase 100 W LXM28... 0.9 A, 220 V, single phase 100 W LXM28... 0.9 A, 220 V, three phase 100 W LXM28... 1.8 A, 110 V, single phase
Nominal torque	2.83 lbf.in (0.32 N.m) LXM26D 0.9 A, 220 V, single phase 2.83 lbf.in (0.32 N.m) LXM26D 0.9 A, 220 V, three phase 2.83 lbf.in (0.32 N.m) LXM28... 0.9 A, 220 V, single phase 2.83 lbf.in (0.32 N.m) LXM28... 0.9 A, 220 V, three phase 2.83 lbf.in (0.32 N.m) LXM28... 1.8 A, 110 V, single phase
Nominal speed	3000 rpm LXM26D 0.9 A, 220 V, single phase 3000 rpm LXM26D 0.9 A, 220 V, three phase 3000 rpm LXM28... 0.9 A, 220 V, single phase 3000 rpm LXM28... 0.9 A, 220 V, three phase 3000 rpm LXM28... 1.8 A, 110 V, single phase
Maximum current Irms	2.65 A LXM28... 0.1 kW, 220 V 2.65 A LXM28... 0.1 kW, 110 V
Maximum permanent current	0.89 A
Product compatibility	LXM26D servo drive 0.1 kW, 220 V, single phase LXM26D servo drive 0.1 kW, 220 V, three phase LXM28... servo drive 0.1 kW, 220 V, single phase LXM28... servo drive 0.1 kW, 220 V, three phase

LXM28... servo drive 0.1 kW, 110 V, single phase	
Shaft end	Keyed
Shaft diameter	0.31 in (8 mm)
Shaft length	0.98 in (25 mm)
Key width	0.12 in (3 mm)
Feedback type	20 bits single turn absolute encoder
Holding brake	With
Holding torque	2.83 lbf.in (0.32 N.m) built-in
Mounting support	Asian standard flange
Motor flange size	1.57 in (40 mm)
Electrical connection	Free lead
Torque constant	0.4 N.m/A 68 °F (20 °C)
Back emf constant	24 V/krpm 68 °F (20 °C)
Rotor inertia	0.076 kg.cm²
Stator resistance	23.4 Ohm 68 °F (20 °C)
Stator inductance	20.6 mH 68 °F (20 °C)
Stator electrical time constant	0.88 ms 68 °F (20 °C)
Maximum radial force Fr	85 N 3000 rpm
Maximum axial force Fa	40 N
Brake pull-in power	4.35 W
Type of cooling	Natural convection
Length	5.12 in (130 mm)
Number of motor stacks	2
Centring collar diameter	1.18 in (30 mm)
Centring collar depth	0.12 in (3 mm)
Number of mounting holes	4
Mounting holes diameter	0.18 in (4.5 mm)
Circle diameter of the mounting holes	1.81 in (46 mm)
Distance shaft shoulder-flange	0.12 in (3 mm)
Product weight	1.70 lb(US) (0.77 kg)

## Environment

IP degree of protection	IP50 IM V3 IP65 IM B5, IM V1
Ambient air temperature for operation	32...104 °F (0...40 °C)

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.15 in (8.0 cm)
Package 1 Width	5.12 in (13.0 cm)
Package 1 Length	9.45 in (24.0 cm)
Package 1 Weight	2.31 lb(US) (1.05 kg)

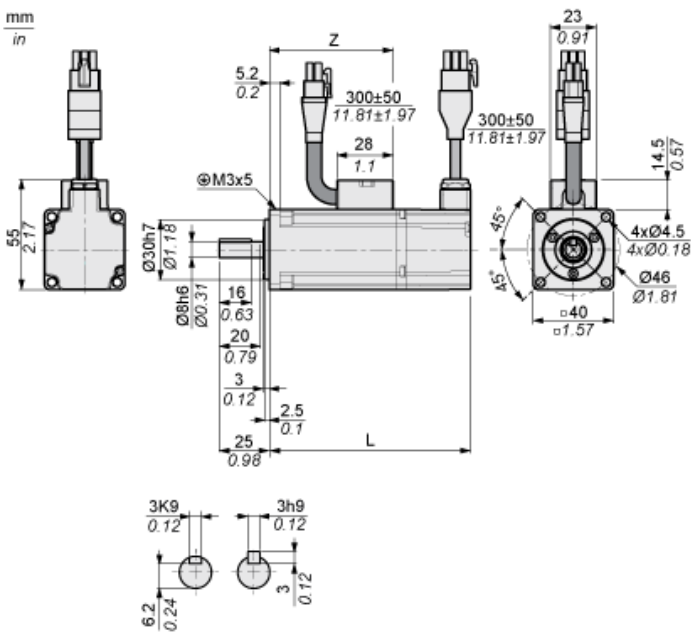
Unit Type of Package 2	S02
Number of Units in Package 2	3
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	6.96 lb(US) (3.156 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

Dimensions

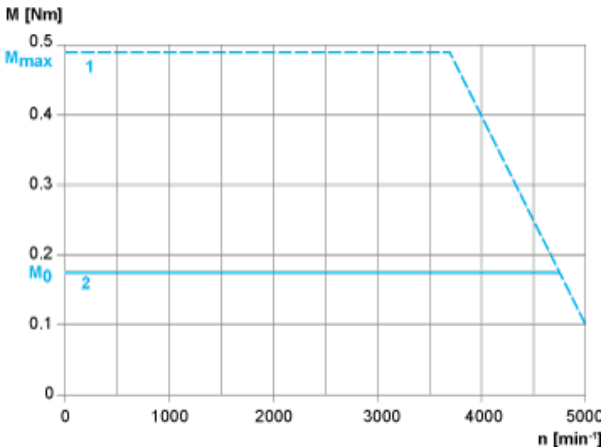
Dimensions of Motor



	mm	in.
L (without holding brake)	100	3.94
L (with holding brake)	130	5.12
Z	61.5	2.42

Torque/Speed Curves with 230 V Single/Three Phase Supply Voltage

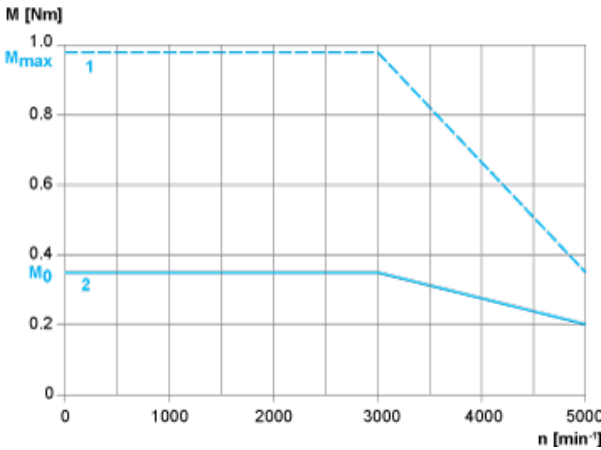
Servo Motor without shaft sealing ring and LXM28AU01●●● Servo Drive



- 1 : Peak torque
- 2 : Continuous torque

Torque/Speed Curves with 230 V Single/Three Phase Supply Voltage

Servo Motor with shaft sealing ring and LXM28AU01●●● Servo Drive



- 1 : Peak torque
- 2 : Continuous torque

Recommended replacement(s)