# **Product datasheet**

Specifications





# servo motor BCH, Lexium 28, 130mm, 500W, 6.91kg.cm<sup>2</sup>, with oil seal, with key, brake, straight connection

BCH2MM0523CF6C

(!) Discontinued

Discontinued on: Aug 27, 2020

#### Main

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

## Complementary

Maximum mechanical speed	3000 rpm
[Us] rated supply voltage	220 V
	110 V
Network number of phases	Three phase
	Single phase
Continuous stall current	2.89 A
Continuous stall torque	2.39 N.m for LXM26D at 4.5 A, 220 V, single phase
	2.39 N.m for LXM26D at 4.5 A, 220 V, three phase
	2.39 N.m for LXM28 at 4.5 A, 220 V, single phase
	2.39 N.m for LXM28 at 4.5 A, 220 V, three phase
	2.39 N.m for LXM28 at 9 A, 110 V, single phase
Continuous power	500 W
Peak stall torque	7.16 N.m for LXM26D at 4.5 A, 220 V, single phase
	7.16 N.m for LXM26D at 4.5 A, 220 V, three phase
	7.16 N.m for LXM28 at 4.5 A, 220 V, single phase
	7.16 N.m for LXM28 at 4.5 A, 220 V, three phase
	7.16 N.m for LXM28 at 9 A, 110 V, single phase
Nominal output power	500 W for LXM26D at 4.5 A, 220 V, single phase
	500 W for LXM26D at 4.5 A, 220 V, three phase
	500 W for LXM28 at 4.5 A, 220 V, single phase
	500 W for LXM28 at 4.5 A, 220 V, three phase
	500 W for LXM28 at 9 A, 110 V, single phase
Nominal torque	2.39 N.m for LXM26D at 4.5 A, 220 V, single phase
	2.39 N.m for LXM26D at 4.5 A, 220 V, three phase
	2.39 N.m for LXM28 at 4.5 A, 220 V, single phase
	2.39 N.m for LXM28 at 4.5 A, 220 V, three phase
	2.39 N.m for LXM28 at 9 A, 110 V, single phase
Nominal speed	2000 rpm for LXM26D at 4.5 A, 220 V, single phase
	2000 rpm for LXM26D at 4.5 A, 220 V, three phase
	2000 rpm for LXM28 at 4.5 A, 220 V, single phase
	2000 rpm for LXM28 at 4.5 A, 220 V, three phase
	2000 rpm for LXM28 at 9 A, 110 V, single phase
Maximum current Irms	9.18 A for LXM28 at 0.5 kW, 220 V
	9.18 A for LXM28 at 0.5 kW, 110 V
Maximum permanent current	3.24 A

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Product compatibilityLXM2DE serve drive motor at 0.5 KW, 220 V, single phase LXM2E, serve drive motor at 0.5 KW, 220 V, three phase LXM2E, serve drive motor at 0.5 KW, 220 V, three phase LXM2E, serve drive motor at 0.5 KW, 220 V, three phase LXM2E, serve drive motor at 0.5 KW, 210 V, single phase LXM2E, serve drive motor at 0.5 KW, 210 V, single phase LXM2E, serve drive dri		
LXX28 servo drive motor at 0.5 kW, 220 V, integ phase         LXX28 servo drive motor at 0.5 kW, 210 V, three phase         Shaft end       Keyed         Shaft length       45 mm         Key width       8 mm         Feedback type       20 bits single turn absolute encoder         Holding brake       With         Holding support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.63 N.m bailt-in         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       7.4 mH at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum radial force Fr       670 N at 200 °C         Preve of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar depth       8 mm         Number of mounting holes       4         Mo	Product compatibility	
LXM28 servo drive motor at 0.5 kW, 220 V, three phase         Shaft end       Keyed         Shaft diameter       22 mm         Shaft diameter       22 mm         Shaft length       45 mm         Key width       8 mm         Feedback type       20 bits single turn absolute encoder         Holding brake       With         Holding torque       9.6 N.m built-in         mounting support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MilL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm <sup>2</sup> Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       7.4 mH at 20 °C         Maximum radial force Fr       670 N at 200 °C         Stator rosistant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 200 °C         Stator or force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks		
Shaft end       Keyed         Shaft diameter       22 mm         Shaft length       45 mm         Key width       8 mm         Feedback type       20 bits single turn absolute encoder         Holding brake       With         Holding torque       9.6 N.m built-in         mounting support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Maximum radial force Fr       670 N at 200 °C         Maximum axial force Fa       200 N         Brake pull-in pover       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar diameter       9.2 mm         Circle diameter of the mounting       145 mm		
Shaft diameter       22 mm         Shaft length       45 mm         Key width       8 mm         Feedback type       20 bits single turn absolute encoder         Holding brake       With         Holding torque       9.6 N.m built-in         mounting support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum axial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar diameter       9.2 mm         Vincle diameter of the mounting       45 mm		LXM28 servo drive motor at 0.5 kW, 110 V, single phase
Shaft length       45 mm         Key width       8 mm         Feedback type       20 bits single turn absolute encoder         Holding brake       With         Holding torque       9.6 N.m built-in         mounting support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor risertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator selectrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar diameter       9.2 mm         Circle diameter of the mounting       45 mm	Shaft end	Keyed
Key width     8 mm       Feedback type     20 bits single turn absolute encoder       Holding brake     With       Holding torque     9.6 N.m built-in       mounting support     Asian standard flange       Motor flange size     130 mm       Electrical connection     Connector MIL       Torque constant     0.83 N.m/A at 20 °C       Back emf constant     50 V/krpm at 20 °C       Rotor inertia     6.91 kg.cm²       Stator resistance     0.62 Ohm at 20 °C       Stator resistance     0.62 Ohm at 20 °C       Stator electrical time constant     11.94 ms at 20 °C       Maximum radial force Fr     670 N at 2000 rpm       Maximum axial force Fa     200 N       Brake pull-in power     19.7 W       Type of cooling     Natural convection       Length     183 mm       Number of motor stacks     1       Centring collar diameter     110 mm       Centring collar diameter     110 mm       Centring collar diameter     9.2 mm       Number of mounting holes     4       Mounting holes diameter     9.2 mm	Shaft diameter	22 mm
Feedback type       20 bits single turn absolute encoder         Holding brake       With         Holding torque       9.6 N.m built-in         mounting support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm	Shaft length	45 mm
Holding brake       With         Holding torque       9.6 N.m built-in         mounting support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Key width	8 mm
Holding torque9.6 N.m built-inmounting supportAsian standard flangeMotor flange size130 mmElectrical connectionConnector MILTorque constant0.83 N.m/A at 20 °CBack emf constant50 V/krpm at 20 °CRotor inertia6.91 kg.cm³Stator resistance0.62 Ohm at 20 °CStator electrical time constant11.94 ms at 20 °CStator electrical time constant11.94 ms at 20 °CMaximum radial force Fr670 N at 200 °CMaximum axial force Fa200 NBrake pull-in power19.7 WType of coolingNatural convectionLength183 mmNumber of motor stacks1Centring collar depth8 mmNumber of mounting holes4Mounting holes diameter9.2 mmCircle diameter of the mounting145 mm	Feedback type	20 bits single turn absolute encoder
mounting support       Asian standard flange         Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Holding brake	With
Motor flange size       130 mm         Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator resistance       0.62 Ohm at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator lectrical time constant       11.94 ms at 20 °C         Maximum axial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Holding torque	9.6 N.m built-in
Electrical connection       Connector MIL         Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	mounting support	Asian standard flange
Torque constant       0.83 N.m/A at 20 °C         Back emf constant       50 V/krpm at 20 °C         Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Motor flange size	130 mm
Back emf constant50 V/krpm at 20 °CRotor inertia6.91 kg.cm²Stator resistance0.62 Ohm at 20 °CStator inductance7.4 mH at 20 °CStator electrical time constant11.94 ms at 20 °CMaximum radial force Fr670 N at 2000 rpmMaximum axial force Fa200 NBrake pull-in power19.7 WType of coolingNatural convectionLength183 mmNumber of motor stacks1Centring collar diameter110 mmCentring collar depth8 mmNumber of mounting holes4Mounting holes diameter9.2 mmCircle diameter of the mounting145 mm	Electrical connection	Connector MIL
Rotor inertia       6.91 kg.cm²         Stator resistance       0.62 Ohm at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Torque constant	0.83 N.m/A at 20 °C
Stator resistance       0.62 Ohm at 20 °C         Stator inductance       7.4 mH at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Back emf constant	50 V/krpm at 20 °C
Stator inductance       7.4 mH at 20 °C         Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Rotor inertia	6.91 kg.cm <sup>2</sup>
Stator electrical time constant       11.94 ms at 20 °C         Maximum radial force Fr       670 N at 2000 rpm         Maximum axial force Fa       200 N         Brake pull-in power       19.7 W         Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Stator resistance	0.62 Ohm at 20 °C
Maximum radial force Fr670 N at 2000 rpmMaximum axial force Fa200 NBrake pull-in power19.7 WType of coolingNatural convectionLength183 mmNumber of motor stacks1Centring collar diameter110 mmCentring collar depth8 mmNumber of mounting holes4Mounting holes diameter9.2 mmCircle diameter of the mounting145 mm	Stator inductance	7.4 mH at 20 °C
Maximum axial force Fa     200 N       Brake pull-in power     19.7 W       Type of cooling     Natural convection       Length     183 mm       Number of motor stacks     1       Centring collar diameter     110 mm       Centring collar depth     8 mm       Number of mounting holes     4       Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Stator electrical time constant	11.94 ms at 20 °C
Brake pull-in power     19.7 W       Type of cooling     Natural convection       Length     183 mm       Number of motor stacks     1       Centring collar diameter     110 mm       Centring collar depth     8 mm       Number of mounting holes     4       Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Maximum radial force Fr	670 N at 2000 rpm
Type of cooling       Natural convection         Length       183 mm         Number of motor stacks       1         Centring collar diameter       110 mm         Centring collar depth       8 mm         Number of mounting holes       4         Mounting holes diameter       9.2 mm         Circle diameter of the mounting       145 mm	Maximum axial force Fa	200 N
Length     183 mm       Number of motor stacks     1       Centring collar diameter     110 mm       Centring collar depth     8 mm       Number of mounting holes     4       Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Brake pull-in power	19.7 W
Number of motor stacks     1       Centring collar diameter     110 mm       Centring collar depth     8 mm       Number of mounting holes     4       Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Type of cooling	Natural convection
Centring collar diameter     110 mm       Centring collar depth     8 mm       Number of mounting holes     4       Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Length	183 mm
Centring collar depth     8 mm       Number of mounting holes     4       Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Number of motor stacks	1
Number of mounting holes     4       Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Centring collar diameter	110 mm
Mounting holes diameter     9.2 mm       Circle diameter of the mounting     145 mm	Centring collar depth	8 mm
Circle diameter of the mounting 145 mm	Number of mounting holes	4
<b>0</b>	Mounting holes diameter	9.2 mm
	Circle diameter of the mounting holes	145 mm
Distance shaft shoulder-flange 8 mm	Distance shaft shoulder-flange	8 mm
Net weight 8.2 kg	Net weight	8.2 kg

## Environment

IP degree of protection	IP50 IM V3 IP65 IM B5, IM V1
Ambient air temperature for operation	040 °C

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1

Package 1 Height	18.1 cm
Package 1 Width	23 cm
Package 1 Length	36 cm
Package 1 Weight	9200 g

## Sustainability Screen Premium

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

### Well-being performance

Reach Free Of Svhc
Mercury Free
Rohs Exemption Information Yes
Pvc Free

#### **Certifications & Standards**

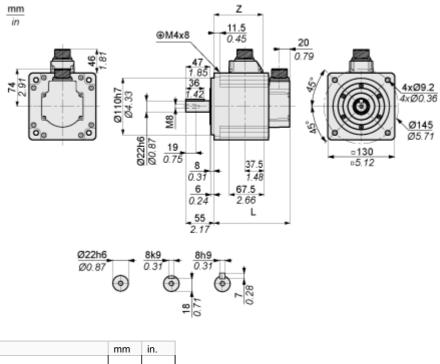
Reach Regulation	REACh Declaration	
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)	
China Rohs Regulation	China RoHS declaration	
Environmental Disclosure	Product Environmental Profile	
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins	
Circularity Profile	End of Life Information	

### **Product datasheet**

#### **Dimensions Drawings**

#### Dimensions

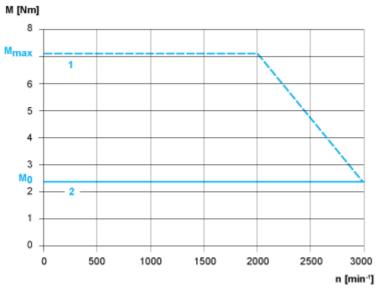
#### **Dimensions of Motor**



	mm	in.
L (without holding brake)	147	5.79
L (with holding brake)	183	7.2
Z	94.5	3.72

#### Performance Curves

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



Servo Motor with LXM28AU04 ••• Servo Drive

1: Peak torque

2: Continuous torque