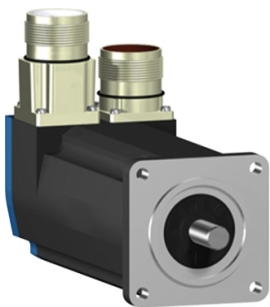


# Product data sheet

Specifications



## AC servo motor BSH, Lexium 05, 1.3N.m, 4000rpm, keyed shaft, with brake, IP50

BSH0553M12F1A

ⓘ Discontinued

### Main

Product Or Component Type	Servo motor
Device Short Name	BSH
Maximum Mechanical Speed	8000 rpm
Continuous Stall Torque	1.3 N.m for LXM05AD10M2, 200...240 V, single phase 1.3 N.m for LXM05BD10M2, 200...240 V, single phase 1.3 N.m for LXM05CD10M2, 200...240 V, single phase 1.3 N.m for LXM15LU60N4, 400 V, three phase 1.3 N.m for LXM15LU60N4, 480 V, three phase 1.3 N.m for LXM05AD10M3X, 200...240 V, three phase 1.3 N.m for LXM05BD10M3X, 200...240 V, three phase 1.3 N.m for LXM05CD10M3X, 200...240 V, three phase
Peak Stall Torque	3.5 N.m for LXM05AD10M2, 200...240 V, single phase 3.5 N.m for LXM05BD10M2, 200...240 V, single phase 3.5 N.m for LXM05CD10M2, 200...240 V, single phase 3.5 N.m for LXM15LU60N4, 400 V, three phase 3.5 N.m for LXM15LU60N4, 480 V, three phase 3.5 N.m for LXM05AD10M3X, 200...240 V, three phase 3.5 N.m for LXM05BD10M3X, 200...240 V, three phase 3.5 N.m for LXM05CD10M3X, 200...240 V, three phase
Nominal Output Power	190 W for LXM05AD10M2, 200...240 V, single phase 190 W for LXM05BD10M2, 200...240 V, single phase 190 W for LXM05CD10M2, 200...240 V, single phase 190 W for LXM05AD10M3X, 200...240 V, three phase 190 W for LXM05BD10M3X, 200...240 V, three phase 190 W for LXM05CD10M3X, 200...240 V, three phase 460 W for LXM15LU60N4, 400 V, three phase 524 W for LXM15LU60N4, 480 V, three phase
Nominal Torque	1.2 N.m for LXM05AD10M2, 200...240 V, single phase 1.2 N.m for LXM05BD10M2, 200...240 V, single phase 1.2 N.m for LXM05CD10M2, 200...240 V, single phase 1.1 N.m for LXM15LU60N4, 400 V, three phase 1.1 N.m for LXM15LU60N4, 480 V, three phase 1.2 N.m for LXM05AD10M3X, 200...240 V, three phase 1.2 N.m for LXM05BD10M3X, 200...240 V, three phase 1.2 N.m for LXM05CD10M3X, 200...240 V, three phase
Nominal Speed	1500 rpm for LXM05AD10M2, 200...240 V, single phase 1500 rpm for LXM05BD10M2, 200...240 V, single phase 1500 rpm for LXM05CD10M2, 200...240 V, single phase 1500 rpm for LXM05AD10M3X, 200...240 V, three phase 1500 rpm for LXM05BD10M3X, 200...240 V, three phase 1500 rpm for LXM05CD10M3X, 200...240 V, three phase 4000 rpm for LXM15LU60N4, 400 V, three phase 5000 rpm for LXM15LU60N4, 480 V, three phase
Product Compatibility	LXM05AD10M2 at 200...240 V single phase LXM05BD10M2 at 200...240 V single phase LXM05CD10M2 at 200...240 V single phase LXM05AD10M3X at 200...240 V three phase LXM05BD10M3X at 200...240 V three phase LXM05CD10M3X at 200...240 V three phase LXM15LU60N4 at 400 V three phase LXM15LU60N4 at 480 V three phase

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

Shaft End	Keyed
Ip Degree Of Protection	IP50 standard
Speed Feedback Resolution	131072 points/turn x 4096 turns
Holding Brake	With
Mounting Support	International standard flange
Electrical Connection	Straight connectors

## Complementary

Range Compatibility	Lexium 05 Lexium 15
Supply Voltage Max	480 V
Network Number Of Phases	Three phase
Continuous Stall Current	0.9 A
Maximum Continuous Power	0.97 W
Maximum Current Irms	3.4 A for LXM05CD10M3X 3.6 A for LXM15LU60N4 3.4 A for LXM05AD10M2 3.4 A for LXM05AD10M3X 3.4 A for LXM05BD10M2 3.4 A for LXM05BD10M3X 3.4 A for LXM05CD10M2
Maximum Permanent Current	3.4 A
Switching Frequency	4 kHz
Second Shaft	Without second shaft end
Shaft Diameter	9 mm
Shaft Length	20 mm
Key Width	12 mm
Feedback Type	Multiturn SinCos Hiperface
Holding Torque	0.8 N.m holding brake
Motor Flange Size	55 mm
Number Of Motor Stacks	3
Torque Constant	1.18 N.m/A at 120 °C 1.33 N.m/A at 120 °C
Back Emf Constant	78 V/krpm at 120 °C 79 V/krpm at 120 °C
Number Of Motor Poles	6
Rotor Inertia	0.2113 kg.cm²
Stator Resistance	32 Ohm at 20 °C 38.4 Ohm at 20 °C
Stator Inductance	48 mH at 20 °C 92.2 mH at 20 °C
Stator Electrical Time Constant	1.5 ms at 20 °C 2.4 ms at 20 °C

Maximum Radial Force Fr	190 N at 8000 rpm 200 N at 7000 rpm 210 N at 6000 rpm 230 N at 5000 rpm 240 N at 4000 rpm 270 N at 3000 rpm 310 N at 2000 rpm 390 N at 1000 rpm
Maximum Axial Force Fa	0.2 x Fr
Brake Pull-In Power	10 W
Type Of Cooling	Natural convection
Length	203 mm
Centring Collar Diameter	40 mm
Centring Collar Depth	2 mm
Number Of Mounting Holes	4
Mounting Holes Diameter	5.5 mm
Circle Diameter Of The Mounting Holes	63 mm
Net Weight	1.9 kg

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1

## Contractual warranty

Warranty	18 months
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