

Product data sheet

Specifications



AC servo motor BSH, Lexium 05,
1.3N.m, 4000rpm, keyed shaft,
without brake, IP65

BSH0553M31A1A

ⓘ 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	IP65 standard IP67 with IP67 kit
Speed Feedback Resolution	131072 points/turn
Holding Brake	Without
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	Single turn SinCos Hiperface
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	0.19 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
Type Of Cooling	Natural convection
Length	176.5 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	1.76 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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Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ 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

✓ 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	No need of specific recycling operations
California Proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov