

Product datasheet

Specifications



servo motor BSH, Lexium 05,
1.3N.m, 4000rpm, 55mm, untapped
shaft, Sincos multi turn, without
brake, IP50, straight

BSH0553M02A1A

! Discontinued

Main

Device short name	BSH
Product or component type	Servo motor
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	Untapped
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Straight connectors

Complementary

Range compatibility	Lexium 15 Lexium 05
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
Feedback type	Multiturn 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
Rotor inertia	0.19 kg.cm ²
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
Sizing reference	BSH0553M
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	120 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C

Packing Units

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

Contractual warranty

Warranty (in months)	18
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Use Longer



Lifetime extension

Repair

No