

Product datasheet

Specifications



servo motor BSH, Lexium 05,
3.4N.m, 1500rpm, 100mm, keyed
shaft, Sincos single turn, without
brake, IP65, straight

BSH1001M31A1A

! Discontinued

! Discontinued on: 18 Apr 2024

! To be end-of-service on: 18 Apr 2026

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	6000 rpm
Continuous stall torque	3.4 N.m for LXM05AD14N4, 380...480 V, three phase 3.4 N.m for LXM05BD14N4, 380...480 V, three phase 3.4 N.m for LXM05CD14N4, 380...480 V, three phase
Peak stall torque	7.1 N.m for LXM05AD14N4, 380...480 V, three phase 7.1 N.m for LXM05BD14N4, 380...480 V, three phase 7.1 N.m for LXM05CD14N4, 380...480 V, three phase
Nominal output power	500 W for LXM05AD14N4, 380...480 V, three phase 500 W for LXM05BD14N4, 380...480 V, three phase 500 W for LXM05CD14N4, 380...480 V, three phase
Nominal torque	3.16 N.m for LXM05AD14N4, 380...480 V, three phase 3.16 N.m for LXM05BD14N4, 380...480 V, three phase 3.16 N.m for LXM05CD14N4, 380...480 V, three phase
Nominal speed	1500 rpm for LXM05AD14N4, 380...480 V, three phase 1500 rpm for LXM05BD14N4, 380...480 V, three phase 1500 rpm for LXM05CD14N4, 380...480 V, three phase
Product compatibility	LXM05AD14N4 at 380...480 V three phase LXM05BD14N4 at 380...480 V three phase LXM05CD14N4 at 380...480 V three phase
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
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	1.8 A
maximum continuous power	1.6 W

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

Maximum current Irms	6.3 A for LXM05AD14N4 6.3 A for LXM05BD14N4 6.3 A for LXM05CD14N4
Maximum permanent current	6.3 A
Switching frequency	4 kHz
Second shaft	Without second shaft end
Shaft diameter	19 mm
Shaft length	40 mm
Key width	30 mm
Feedback type	Single turn SinCos Hiperface
Motor flange size	100 mm
Torque constant	1.83 N.m/A at 120 °C
Back emf constant	115 V/krpm at 120 °C
Number of motor poles	8
Rotor inertia	1.4 kg.cm²
Stator resistance	13.9 Ohm at 20 °C
Stator inductance	64.3 mH at 20 °C
Stator electrical time constant	4.63 ms at 20 °C
Maximum radial force Fr	530 N at 5000 rpm 570 N at 4000 rpm 630 N at 3000 rpm 720 N at 2000 rpm 900 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	168.5 mm
Centring collar diameter	95 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	9 mm
Circle diameter of the mounting holes	115 mm
Net weight	4.2 kg
Sizing reference	BSH1001M
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



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