

# Product datasheet

Specifications



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

BSH1001M21A2A

! 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	Untapped
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	Rotatable right-angled 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

<b>Maximum current Irms</b>	6.3 A for LXM05AD14N4 6.3 A for LXM05BD14N4 6.3 A for LXM05CD14N4
<b>Maximum permanent current</b>	6.3 A
<b>Switching frequency</b>	4 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	19 mm
<b>Shaft length</b>	40 mm
<b>Feedback type</b>	Single turn SinCos Hiperface
<b>Motor flange size</b>	100 mm
<b>Torque constant</b>	1.83 N.m/A at 120 °C
<b>Back emf constant</b>	115 V/krpm at 120 °C
<b>Number of motor poles</b>	8
<b>Rotor inertia</b>	1.4 kg.cm <sup>2</sup>
<b>Stator resistance</b>	13.9 Ohm at 20 °C
<b>Stator inductance</b>	64.3 mH at 20 °C
<b>Stator electrical time constant</b>	4.63 ms at 20 °C
<b>Maximum radial force Fr</b>	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
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Type of cooling</b>	Natural convection
<b>Length</b>	168.5 mm
<b>Centring collar diameter</b>	95 mm
<b>Centring collar depth</b>	3.5 mm
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	9 mm
<b>Circle diameter of the mounting holes</b>	115 mm
<b>Net weight</b>	4.2 kg
<b>Sizing reference</b>	BSH1001M
<b>Network number of phases</b>	3
<b>Accuracy error [angular]</b>	1.4 °
<b>Temperature copper hot</b>	120 °C
<b>Temperature magnet hot</b>	100 °C
<b>Temperature magnet rt</b>	20 °C

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1

## Contractual warranty

<b>Warranty (in months)</b>	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