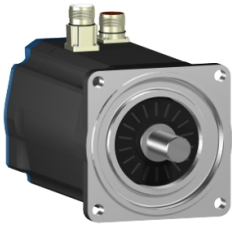


# Product datasheet

Specifications



## AC servo motor BSH - 11.1 N.m - 2500 rpm - keyed shaft - with brake - IP50

BSH1401T12F1A

⚠ Discontinued on: 18 Apr 2024

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

⚠ Discontinued

### Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	4000 rpm
Continuous stall torque	11.1 N.m for LXM15MD56N4, 230 V, three phase 11.4 N.m for LXM05AD42M3X, 200...240 V, three phase 11.4 N.m for LXM05BD42M3X, 200...240 V, three phase 11.4 N.m for LXM05CD42M3X, 200...240 V, three phase
Peak stall torque	23.33 N.m for LXM15MD56N4, 230 V, three phase 23.33 N.m for LXM05AD42M3X, 200...240 V, three phase 23.33 N.m for LXM05BD42M3X, 200...240 V, three phase 23.33 N.m for LXM05CD42M3X, 200...240 V, three phase
Nominal output power	2000 W for LXM15MD56N4, 230 V, three phase 2200 W for LXM05AD42M3X, 200...240 V, three phase 2200 W for LXM05BD42M3X, 200...240 V, three phase 2200 W for LXM05CD42M3X, 200...240 V, three phase
Nominal torque	6.9 N.m for LXM05AD42M3X, 200...240 V, three phase 6.9 N.m for LXM05BD42M3X, 200...240 V, three phase 6.9 N.m for LXM05CD42M3X, 200...240 V, three phase 7.63 N.m for LXM15MD56N4, 230 V, three phase
Nominal speed	3000 rpm for LXM05AD42M3X, 200...240 V, three phase 3000 rpm for LXM05BD42M3X, 200...240 V, three phase 3000 rpm for LXM05CD42M3X, 200...240 V, three phase 2500 rpm for LXM15MD56N4, 230 V, three phase
Product compatibility	LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase LXM15MD56N4 at 230 V three phase
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

<b>Continuous stall current</b>	13.9 A
<b>maximum continuous power</b>	3.6 W
<b>Maximum current Irms</b>	37.1 A for LXM15MD56N4 37.1 A for LXM05AD42M3X 37.1 A for LXM05BD42M3X 37.1 A for LXM05CD42M3X
<b>Maximum permanent current</b>	37.1 A
<b>Switching frequency</b>	4 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	24 mm
<b>Shaft length</b>	50 mm
<b>Key width</b>	40 mm
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Holding torque</b>	23 N.m holding brake
<b>Motor flange size</b>	140 mm
<b>Number of motor stacks</b>	1
<b>Torque constant</b>	0.83 N.m/A at 120 °C
<b>Back emf constant</b>	56 V/krpm at 120 °C
<b>Number of motor poles</b>	10
<b>Rotor inertia</b>	8.56 kg.cm <sup>2</sup>
<b>Stator resistance</b>	0.4 Ohm at 20 °C 0.44 Ohm at 20 °C
<b>Stator inductance</b>	4.9 mH at 20 °C 5.15 mH at 20 °C
<b>Stator electrical time constant</b>	11.14 ms at 20 °C 12.88 ms at 20 °C
<b>Maximum radial force Fr</b>	1530 N at 3000 rpm 1760 N at 2000 rpm 2210 N at 1000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Brake pull-in power</b>	24 W
<b>Type of cooling</b>	Natural convection
<b>Length</b>	255.5 mm
<b>Centring collar diameter</b>	130 mm
<b>Centring collar depth</b>	3.5 mm
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	11 mm
<b>Circle diameter of the mounting holes</b>	165 mm
<b>Net weight</b>	13 kg
<b>Sizing reference</b>	BSH1401T
<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

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Temperature magnet rt	20 °C
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## Packing Units

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Unit Type of Package 1	PCE
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Number of Units in Package 1	1
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Package 1 Height	27.0 cm
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Package 1 Width	27.0 cm
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Package 1 Length	48.2 cm
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Package 1 Weight	9.79 kg
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## Contractual warranty

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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 Better



#### Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

### Use Longer



#### Lifetime extension

Repair

No

### Use Again



#### Repack and remanufacture

End of life manual availability

No need of specific recycling operations