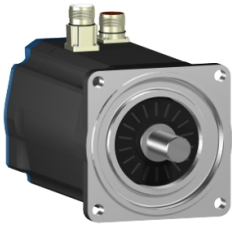


# Product datasheet

Specifications



## AC servo motor BSH - 14.9 N.m - 1500 rpm - untapped shaft - with brake - IP50

BSH1402P12F1A

⚠ 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	<p>19.5 N.m for LXM15MD40N4, 400 V, three phase</p> <p>19.5 N.m for LXM15MD40N4, 480 V, three phase</p> <p>14.9 N.m for LXM15LD28M3, 230 V, three phase</p> <p>14.9 N.m for LXM15MD28N4, 230 V, three phase</p> <p>14.9 N.m for LXM15MD28N4, 400 V, three phase</p> <p>14.9 N.m for LXM15MD28N4, 480 V, three phase</p> <p>19.5 N.m for LXM15MD40N4, 230 V, three phase</p> <p>19.5 N.m for LXM15MD56N4, 230 V, three phase</p> <p>19.5 N.m for LXM15MD56N4, 400 V, three phase</p> <p>19.5 N.m for LXM15MD56N4, 480 V, three phase</p> <p>19.2 N.m for LXM05AD42M3X, 200...240 V, three phase</p> <p>19.2 N.m for LXM05AD57N4, 380...480 V, three phase</p> <p>19.2 N.m for LXM05BD42M3X, 200...240 V, three phase</p> <p>19.2 N.m for LXM05BD57N4, 380...480 V, three phase</p> <p>19.2 N.m for LXM05CD42M3X, 200...240 V, three phase</p> <p>19.2 N.m for LXM05CD57N4, 380...480 V, three phase</p>
Peak stall torque	<p>28.71 N.m for LXM15LD28M3, 230 V, three phase</p> <p>28.71 N.m for LXM15MD28N4, 230 V, three phase</p> <p>28.71 N.m for LXM15MD28N4, 400 V, three phase</p> <p>28.71 N.m for LXM15MD28N4, 480 V, three phase</p> <p>39.3 N.m for LXM15MD40N4, 230 V, three phase</p> <p>39.3 N.m for LXM15MD40N4, 400 V, three phase</p> <p>39.3 N.m for LXM15MD40N4, 480 V, three phase</p> <p>47.5 N.m for LXM15MD56N4, 230 V, three phase</p> <p>47.5 N.m for LXM15MD56N4, 400 V, three phase</p> <p>47.5 N.m for LXM15MD56N4, 480 V, three phase</p> <p>41.94 N.m for LXM05AD42M3X, 200...240 V, three phase</p> <p>47.5 N.m for LXM05AD57N4, 380...480 V, three phase</p> <p>41.94 N.m for LXM05BD42M3X, 200...240 V, three phase</p> <p>47.5 N.m for LXM05BD57N4, 380...480 V, three phase</p> <p>41.94 N.m for LXM05CD42M3X, 200...240 V, three phase</p> <p>47.5 N.m for LXM05CD57N4, 380...480 V, three phase</p>
Nominal output power	<p>2350 W for LXM05AD42M3X, 200...240 V, three phase</p> <p>2350 W for LXM05BD42M3X, 200...240 V, three phase</p> <p>2350 W for LXM05CD42M3X, 200...240 V, three phase</p> <p>2350 W for LXM15LD28M3, 230 V, three phase</p> <p>2350 W for LXM15MD28N4, 230 V, three phase</p> <p>2350 W for LXM15MD40N4, 230 V, three phase</p> <p>2350 W for LXM15MD56N4, 230 V, three phase</p> <p>3350 W for LXM15MD28N4, 480 V, three phase</p> <p>3350 W for LXM15MD40N4, 480 V, three phase</p> <p>3400 W for LXM05AD57N4, 380...480 V, three phase</p> <p>3400 W for LXM05BD57N4, 380...480 V, three phase</p> <p>3400 W for LXM05CD57N4, 380...480 V, three phase</p> <p>3400 W for LXM15MD28N4, 400 V, three phase</p> <p>3400 W for LXM15MD40N4, 400 V, three phase</p> <p>3400 W for LXM15MD56N4, 400 V, three phase</p> <p>3400 W for LXM15MD56N4, 480 V, three phase</p>

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

<b>Nominal torque</b>	8 N.m for LXM15MD40N4, 480 V, three phase 10.8 N.m for LXM05AD57N4, 380...480 V, three phase 10.8 N.m for LXM05BD57N4, 380...480 V, three phase 10.8 N.m for LXM05CD57N4, 380...480 V, three phase 10.8 N.m for LXM15MD28N4, 400 V, three phase 10.8 N.m for LXM15MD40N4, 400 V, three phase 10.8 N.m for LXM15MD56N4, 400 V, three phase 10.8 N.m for LXM15MD56N4, 480 V, three phase 15 N.m for LXM05AD42M3X, 200...240 V, three phase 15 N.m for LXM05BD42M3X, 200...240 V, three phase 15 N.m for LXM05CD42M3X, 200...240 V, three phase 15 N.m for LXM15LD28M3, 230 V, three phase 15 N.m for LXM15MD28N4, 230 V, three phase 15 N.m for LXM15MD40N4, 230 V, three phase 15 N.m for LXM15MD56N4, 230 V, three phase 8 N.m for LXM15MD28N4, 480 V, three phase
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<b>Nominal speed</b>	1500 rpm for LXM05AD42M3X, 200...240 V, three phase 1500 rpm for LXM05BD42M3X, 200...240 V, three phase 1500 rpm for LXM05CD42M3X, 200...240 V, three phase 1500 rpm for LXM15MD28N4, 230 V, three phase 1500 rpm for LXM15MD40N4, 230 V, three phase 3000 rpm for LXM05AD57N4, 380...480 V, three phase 3000 rpm for LXM05BD57N4, 380...480 V, three phase 3000 rpm for LXM05CD57N4, 380...480 V, three phase 3000 rpm for LXM15MD28N4, 400 V, three phase 3000 rpm for LXM15MD40N4, 400 V, three phase 4000 rpm for LXM15MD28N4, 480 V, three phase 1500 rpm for LXM15LD28M3, 230 V, three phase 1500 rpm for LXM15MD56N4, 230 V, three phase 3000 rpm for LXM15MD56N4, 400 V, three phase 3000 rpm for LXM15MD56N4, 480 V, three phase 4000 rpm for LXM15MD40N4, 480 V, three phase
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<b>Product compatibility</b>	LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase LXM15LD28M3 at 230 V three phase LXM15MD28N4 at 400 V three phase LXM15MD28N4 at 480 V three phase LXM15MD40N4 at 400 V three phase LXM15MD40N4 at 480 V three phase LXM05AD57N4 at 380...480 V three phase LXM05BD57N4 at 380...480 V three phase LXM05CD57N4 at 380...480 V three phase LXM15MD28N4 at 230 V three phase LXM15MD40N4 at 230 V three phase LXM15MD56N4 at 230 V three phase LXM15MD56N4 at 400 V three phase LXM15MD56N4 at 480 V three phase
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<b>Shaft end</b>	Untapped
<b>IP degree of protection</b>	IP50 standard
<b>Speed feedback resolution</b>	131072 points/turn
<b>Holding brake</b>	With
<b>Mounting support</b>	International standard flange
<b>Electrical connection</b>	Straight connectors

## Complementary

<b>Range compatibility</b>	Lexium 05 Lexium 15
<b>supply voltage max</b>	480 V
<b>Network number of phases</b>	Three phase
<b>Continuous stall current</b>	13.2 A
<b>maximum continuous power</b>	4.2 W

<b>Maximum current Irms</b>	44.1 A for LXM15LD28M3 44.1 A for LXM15MD28N4 44.1 A for LXM15MD40N4 44.1 A for LXM15MD56N4 44.1 A for LXM05AD42M3X 44.1 A for LXM05AD57N4 44.1 A for LXM05BD42M3X 44.1 A for LXM05BD57N4 44.1 A for LXM05CD42M3X 44.1 A for LXM05CD57N4 72 A for LXM32.D72N4
<b>Maximum permanent current</b>	44.1 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>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>	2
<b>Torque constant</b>	1.47 N.m/A at 120 °C
<b>Back emf constant</b>	101 V/krpm at 120 °C
<b>Rotor inertia</b>	14.48 kg.cm <sup>2</sup>
<b>Stator resistance</b>	0.6 Ohm at 20 °C
<b>Stator inductance</b>	7.4 mH at 20 °C
<b>Stator electrical time constant</b>	12.33 ms at 20 °C
<b>Maximum radial force Fr</b>	1680 N at 3000 rpm 1930 N at 2000 rpm 2430 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>	310.5 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>	17.7 kg
<b>Sizing reference</b>	BSH1402P
<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
<b>Package 1 Height</b>	27.0 cm
<b>Package 1 Width</b>	27.0 cm
<b>Package 1 Length</b>	48.2 cm
<b>Package 1 Weight</b>	13.29 kg

## **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 Better



#### Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

PVC free

Yes

### Use Longer



#### Lifetime extension

Repair

No

### Use Again



#### Repack and remanufacture

End of life manual availability

No need of specific recycling operations

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins