

# Product datasheet

Specifications



## AC servo motor BSH - 11.1 N.m - 2500 rpm - keyed shaft - without brake - IP50

BSH1401T12A2A

⚠ 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	Without
mounting support	International standard flange
Electrical connection	Rotatable right-angled 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>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>	7.41 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>Type of cooling</b>	Natural convection
<b>Length</b>	217.5 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>	11.9 kg

## 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>	8.0 kg

# Contractual warranty

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Warranty

18 months

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

Mercury Free

RoHS Exemption Information [Yes](#)

## Certifications & Standards

**Eu RoHS Directive** [Pro-active compliance \(Product out of EU RoHS legal scope\)](#)

**China RoHS Regulation** [China RoHS declaration](#)

**Environmental Disclosure** [Product Environmental Profile](#)

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

**Circularity Profile** No need of specific recycling operations