

# Product datasheet

Specifications



## AC servo motor BSH - 2.12 N.m - 3000 rpm - untapped shaft - without brake - IP50

BSH0702M01A2A

! Discontinued

! Discontinued on: 11 Sept 2019

! To be end-of-service on: 31 Dec 2026

### Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	2.12 N.m for LXM15LU60N4, 400 V, three phase 2.12 N.m for LXM15LU60N4, 480 V, three phase 2.12 N.m for LXM05AD10M2, 200...240 V, single phase 2.12 N.m for LXM05AD10M3X, 200...240 V, three phase 2.12 N.m for LXM05BD10M2, 200...240 V, single phase 2.12 N.m for LXM05BD10M3X, 200...240 V, three phase 2.12 N.m for LXM05CD10M2, 200...240 V, single phase 2.12 N.m for LXM05CD10M3X, 200...240 V, three phase
Peak stall torque	5.63 N.m for LXM05AD10M2, 200...240 V, single phase 5.63 N.m for LXM05BD10M2, 200...240 V, single phase 5.63 N.m for LXM05CD10M2, 200...240 V, single phase 5.63 N.m for LXM15LU60N4, 400 V, three phase 5.63 N.m for LXM15LU60N4, 480 V, three phase 5.63 N.m for LXM05AD10M3X, 200...240 V, three phase 5.63 N.m for LXM05BD10M3X, 200...240 V, three phase 5.63 N.m for LXM05CD10M3X, 200...240 V, three phase
Nominal output power	300 W for LXM05AD10M2, 200...240 V, single phase 300 W for LXM05BD10M2, 200...240 V, single phase 300 W for LXM05CD10M2, 200...240 V, single phase 300 W for LXM05AD10M3X, 200...240 V, three phase 300 W for LXM05BD10M3X, 200...240 V, three phase 300 W for LXM05CD10M3X, 200...240 V, three phase 594 W for LXM15LU60N4, 400 V, three phase 753 W for LXM15LU60N4, 480 V, three phase
Nominal torque	2 N.m for LXM05AD10M2, 200...240 V, single phase 2 N.m for LXM05BD10M2, 200...240 V, single phase 2 N.m for LXM05CD10M2, 200...240 V, single phase 1.8 N.m for LXM15LU60N4, 480 V, three phase 1.89 N.m for LXM15LU60N4, 400 V, three phase 2 N.m for LXM05AD10M3X, 200...240 V, three phase 2 N.m for LXM05BD10M3X, 200...240 V, three phase 2 N.m for LXM05CD10M3X, 200...240 V, three phase
Nominal speed	1500 rpm for LXM05AD10M2, 200...240 V, single phase 1500 rpm for LXM05BD10M2, 200...240 V, single phase 1500 rpm for LXM05CD10M2, 200...240 V, single phase 1500 rpm for LXM05AD10M3X, 200...240 V, three phase 1500 rpm for LXM05BD10M3X, 200...240 V, three phase 1500 rpm for LXM05CD10M3X, 200...240 V, three phase 3000 rpm for LXM15LU60N4, 400 V, three phase 4000 rpm for LXM15LU60N4, 480 V, three phase

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>Product compatibility</b>	LXM05AD10M2 at 200...240 V single phase LXM05BD10M2 at 200...240 V single phase LXM05CD10M2 at 200...240 V single phase LXM05AD10M3X at 200...240 V three phase LXM05BD10M3X at 200...240 V three phase LXM05CD10M3X at 200...240 V three phase LXM15LU60N4 at 400 V three phase LXM15LU60N4 at 480 V three phase
<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>	Without
<b>Mounting support</b>	International standard flange
<b>Electrical connection</b>	Rotatable right-angled 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>	1.5 A
<b>maximum continuous power</b>	1.51 W
<b>Maximum current Irms</b>	5.9 A for LXM15LU60N4 6 A for LXM05AD10M2 6 A for LXM05AD10M3X 6 A for LXM05BD10M2 6 A for LXM05BD10M3X 6 A for LXM05CD10M2 6 A for LXM05CD10M3X
<b>Maximum permanent current</b>	6 A
<b>Switching frequency</b>	4 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	11 mm
<b>Shaft length</b>	23 mm
<b>Feedback type</b>	Single turn SinCos Hiperface
<b>Motor flange size</b>	70 mm
<b>Torque constant</b>	1.46 N.m/A at 120 °C 0.87 N.m/A at 120 °C
<b>Back emf constant</b>	93 V/krpm at 120 °C 95 V/krpm at 120 °C
<b>Rotor inertia</b>	0.41 kg.cm <sup>2</sup>
<b>Stator resistance</b>	16.4 Ohm at 20 °C 17.3 Ohm at 20 °C
<b>Stator inductance</b>	74.1 mH at 20 °C 84.4 mH at 20 °C
<b>Stator electrical time constant</b>	4.52 ms at 20 °C 4.88 ms at 20 °C
<b>Maximum radial force Fr</b>	390 N at 6000 rpm 410 N at 5000 rpm 450 N at 4000 rpm 490 N at 3000 rpm 560 N at 2000 rpm 710 N at 1000 rpm

Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	187 mm
Centring collar diameter	60 mm
Centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	82 mm
Net weight	2.89 kg
Sizing reference	BSH0702M
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
Package 1 Height	12.3 cm
Package 1 Width	12.8 cm
Package 1 Length	37.7 cm
Package 1 Weight	2.8 kg

## Contractual warranty

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 Longer



#### Lifetime extension

Repair

No