

# Product datasheet

Specifications



servo motor BSH, Lexium 05,  
1.3N.m, 4000rpm, 55mm, untapped  
shaft, Sincos multi turn, with brake,  
IP50

BSH0553M02F2A

! Discontinued

! Discontinued on: Jan 23, 2021

## Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	1.3 N.m for LXM05AD10M2, 200...240 V, single phase 1.3 N.m for LXM05BD10M2, 200...240 V, single phase 1.3 N.m for LXM05CD10M2, 200...240 V, single phase 1.3 N.m for LXM15LU60N4, 400 V, three phase 1.3 N.m for LXM15LU60N4, 480 V, three phase 1.3 N.m for LXM05AD10M3X, 200...240 V, three phase 1.3 N.m for LXM05BD10M3X, 200...240 V, three phase 1.3 N.m for LXM05CD10M3X, 200...240 V, three phase
Peak stall torque	3.5 N.m for LXM05AD10M2, 200...240 V, single phase 3.5 N.m for LXM05BD10M2, 200...240 V, single phase 3.5 N.m for LXM05CD10M2, 200...240 V, single phase 3.5 N.m for LXM15LU60N4, 400 V, three phase 3.5 N.m for LXM15LU60N4, 480 V, three phase 3.5 N.m for LXM05AD10M3X, 200...240 V, three phase 3.5 N.m for LXM05BD10M3X, 200...240 V, three phase 3.5 N.m for LXM05CD10M3X, 200...240 V, three phase
Nominal output power	190 W for LXM05AD10M2, 200...240 V, single phase 190 W for LXM05BD10M2, 200...240 V, single phase 190 W for LXM05CD10M2, 200...240 V, single phase 190 W for LXM05AD10M3X, 200...240 V, three phase 190 W for LXM05BD10M3X, 200...240 V, three phase 190 W for LXM05CD10M3X, 200...240 V, three phase 460 W for LXM15LU60N4, 400 V, three phase 524 W for LXM15LU60N4, 480 V, three phase
Nominal torque	1.2 N.m for LXM05AD10M2, 200...240 V, single phase 1.2 N.m for LXM05BD10M2, 200...240 V, single phase 1.2 N.m for LXM05CD10M2, 200...240 V, single phase 1.1 N.m for LXM15LU60N4, 400 V, three phase 1.1 N.m for LXM15LU60N4, 480 V, three phase 1.2 N.m for LXM05AD10M3X, 200...240 V, three phase 1.2 N.m for LXM05BD10M3X, 200...240 V, three phase 1.2 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 4000 rpm for LXM15LU60N4, 400 V, three phase 5000 rpm for LXM15LU60N4, 480 V, three phase

<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 x 4096 turns
<b>Holding brake</b>	With
<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>	0.9 A
<b>maximum continuous power</b>	0.97 W
<b>Maximum current Irms</b>	3.4 A for LXM05CD10M3X 3.6 A for LXM15LU60N4 3.4 A for LXM05AD10M2 3.4 A for LXM05AD10M3X 3.4 A for LXM05BD10M2 3.4 A for LXM05BD10M3X 3.4 A for LXM05CD10M2
<b>Maximum permanent current</b>	3.4 A
<b>Switching frequency</b>	4 kHz
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	9 mm
<b>Shaft length</b>	20 mm
<b>Feedback type</b>	Multiturn SinCos Hiperface
<b>Holding torque</b>	0.8 N.m holding brake
<b>Motor flange size</b>	55 mm
<b>Number of motor stacks</b>	3
<b>Torque constant</b>	1.18 N.m/A at 120 °C 1.33 N.m/A at 120 °C
<b>Back emf constant</b>	78 V/krpm at 120 °C 79 V/krpm at 120 °C
<b>Rotor inertia</b>	0.2113 kg.cm <sup>2</sup>
<b>Stator resistance</b>	32 Ohm at 20 °C 38.4 Ohm at 20 °C
<b>Stator inductance</b>	48 mH at 20 °C 92.2 mH at 20 °C
<b>Stator electrical time constant</b>	1.5 ms at 20 °C 2.4 ms at 20 °C

<b>Maximum radial force Fr</b>	190 N at 8000 rpm 200 N at 7000 rpm 210 N at 6000 rpm 230 N at 5000 rpm 240 N at 4000 rpm 270 N at 3000 rpm 310 N at 2000 rpm 390 N at 1000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Brake pull-in power</b>	10 W
<b>Type of cooling</b>	Natural convection
<b>Length</b>	203 mm
<b>Centring collar diameter</b>	40 mm
<b>Centring collar depth</b>	2 mm
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	5.5 mm
<b>Circle diameter of the mounting holes</b>	63 mm
<b>Product weight</b>	1.9 kg
<b>Sizing reference</b>	BSH0553M
<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