Product datasheet

Specifications

AC servo motor BSH - 11.1 N.m - 2500 rpm - keyed shaft - with brake - IP65

BSH1401T31F1A

Discontinued on: 9 Feb 2023

Discontinued

EAN Code: 3389118141308

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	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn
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

Continuous stall current	13.9 A
maximum continuous power	3.6 W
Maximum current Irms	37.1 A for LXM15MD56N4 37.1 A for LXM05AD42M3X 37.1 A for LXM05BD42M3X 37.1 A for LXM05CD42M3X
Maximum permanent current	37.1 A
Switching frequency	4 kHz
Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Key width	40 mm
Feedback type	Single turn SinCos Hiperface
Holding torque	23 N.m holding brake
Motor flange size	140 mm
Number of motor stacks	1
Torque constant	0.83 N.m/A at 120 °C
Back emf constant	56 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	8.56 kg.cm²
Stator resistance	0.4 Ohm at 20 °C 0.44 Ohm at 20 °C
Stator inductance	4.9 mH at 20 °C 5.15 mH at 20 °C
Stator electrical time constant	11.14 ms at 20 °C 12.88 ms at 20 °C
Maximum radial force Fr	1530 N at 3000 rpm 1760 N at 2000 rpm 2210 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	24 W
Type of cooling	Natural convection
Length	255.5 mm
Centring collar diameter	130 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	11 mm
Circle diameter of the mounting holes	165 mm
Net weight	13 kg
Sizing reference	BSH1401T
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	27.0 cm
Package 1 Width	27.0 cm
Package 1 Length	48.2 cm
Package 1 Weight	9.79 kg

Contractual warranty

Warranty (in months)	18

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 >

Environmental footprint

Total lifecycle Carbon footprint	**2 423 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**43 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**1 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0.1 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**2 378 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.9 kg CO2 eq.**

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**

Use Longer

Lifetime extension

Repair	**No**

Use Again

Repack and remanufacture

End of life manual availability	**No need of specific recycling operations**
Take-back	**No**