

Product datasheet

Specifications



servo motor BSH, Lexium 05,
19.5N.m, 1500rpm, 140mm,
untapped shaft, Sincos single turn,
with brake, IP65, straight

BSH1402M21F1A

! Discontinued

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	4000 rpm
Continuous stall torque	19.5 N.m for LXM15MD40N4, 400 V, three phase 19.5 N.m for LXM15MD40N4, 480 V, three phase 19.2 N.m for LXM05AD34N4, 380...480 V, three phase 19.2 N.m for LXM05BD34N4, 380...480 V, three phase 19.2 N.m for LXM05CD34N4, 380...480 V, three phase
Peak stall torque	47.5 N.m for LXM15MD40N4, 400 V, three phase 47.5 N.m for LXM15MD40N4, 480 V, three phase 47.5 N.m for LXM05AD34N4, 380...480 V, three phase 47.5 N.m for LXM05BD34N4, 380...480 V, three phase 47.5 N.m for LXM05CD34N4, 380...480 V, three phase
Nominal output power	2350 W for LXM05AD34N4, 380...480 V, three phase 2350 W for LXM05BD34N4, 380...480 V, three phase 2350 W for LXM05CD34N4, 380...480 V, three phase 2350 W for LXM15MD40N4, 400 V, three phase 2350 W for LXM15MD40N4, 480 V, three phase
Nominal torque	15 N.m for LXM05AD34N4, 380...480 V, three phase 15 N.m for LXM05BD34N4, 380...480 V, three phase 15 N.m for LXM05CD34N4, 380...480 V, three phase 15 N.m for LXM15MD40N4, 400 V, three phase 15 N.m for LXM15MD40N4, 480 V, three phase
Nominal speed	1500 rpm for LXM15MD40N4, 400 V, three phase 1500 rpm for LXM05AD34N4, 380...480 V, three phase 1500 rpm for LXM05BD34N4, 380...480 V, three phase 1500 rpm for LXM05CD34N4, 380...480 V, three phase 1500 rpm for LXM15MD40N4, 480 V, three phase
Product compatibility	LXM05AD34N4 at 380...480 V three phase LXM05BD34N4 at 380...480 V three phase LXM05CD34N4 at 380...480 V three phase LXM15MD40N4 at 400 V three phase LXM15MD40N4 at 480 V three phase
Shaft end	Untapped
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

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

Range compatibility	Lexium 15 Lexium 05
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	6.7 A
maximum continuous power	5.5 W
Maximum current Irms	22.4 A for LXM15MD40N4 22.4 A for LXM05AD34N4 22.4 A for LXM05BD34N4 22.4 A for LXM05CD34N4
Maximum permanent current	22.4 A
Switching frequency	4 kHz
Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Feedback type	Single turn SinCos Hiperface
Holding torque	23 N.m holding brake
Motor flange size	140 mm
Torque constant	2.91 N.m/A at 120 °C
Back emf constant	199 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	13.83 kg.cm²
Stator resistance	2.3 Ohm at 20 °C 2.32 Ohm at 20 °C
Stator inductance	28.6 mH at 20 °C 29.79 mH at 20 °C
Stator electrical time constant	12.33 ms at 20 °C 12.85 ms at 20 °C
Maximum radial force Fr	1680 N at 3000 rpm 1930 N at 2000 rpm 2430 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	24 W
Type of cooling	Natural convection
Length	310.5 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	17.7 kg
Sizing reference	BSH1402M
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

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