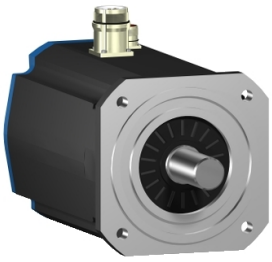
Product datasheet

Specifications



Discontinued

AC servo motor BSH - 36 N.m - 1500 rpm - untapped shaft - with brake - IP65

BSH2051M22F1A

Discontinued on: 18 Apr 2024

To be end-of-service on: 18 Apr 2026

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	3800 rpm
Continuous stall torque	36 N.m for LXM15MD40N4, 400 V, three phase 36 N.m for LXM15MD40N4, 480 V, three phase 36 N.m for LXM15MD56N4, 400 V, three phase 36 N.m for LXM15MD56N4, 480 V, three phase 36 N.m for LXM15HC11N4X, 400 V, three phase 36 N.m for LXM15HC11N4X, 480 V, three phase 34.4 N.m for LXM05AD57N4, 380...480 V, three phase 34.4 N.m for LXM05BD57N4, 380...480 V, three phase 34.4 N.m for LXM05CD57N4, 380...480 V, three phase
Peak stall torque	68.33 N.m for LXM15MD40N4, 400 V, three phase 68.33 N.m for LXM15MD40N4, 480 V, three phase 68.33 N.m for LXM15MD56N4, 400 V, three phase 68.33 N.m for LXM15MD56N4, 480 V, three phase 68.33 N.m for LXM15HC11N4X, 400 V, three phase 68.33 N.m for LXM15HC11N4X, 480 V, three phase 110 N.m for LXM05AD57N4, 380...480 V, three phase 110 N.m for LXM05BD57N4, 380...480 V, three phase 110 N.m for LXM05CD57N4, 380...480 V, three phase
Nominal output power	4500 W for LXM05AD57N4, 380...480 V, three phase 4500 W for LXM05BD57N4, 380...480 V, three phase 4500 W for LXM05CD57N4, 380...480 V, three phase 5000 W for LXM15HC11N4X, 400 V, three phase 5000 W for LXM15MD40N4, 400 V, three phase 5000 W for LXM15MD56N4, 400 V, three phase 5500 W for LXM15HC11N4X, 480 V, three phase 5500 W for LXM15MD40N4, 480 V, three phase 5500 W for LXM15MD56N4, 480 V, three phase
Nominal torque	28.2 N.m for LXM05AD57N4, 380...480 V, three phase 28.2 N.m for LXM05BD57N4, 380...480 V, three phase 28.2 N.m for LXM05CD57N4, 380...480 V, three phase 31.2 N.m for LXM15HC11N4X, 480 V, three phase 31.2 N.m for LXM15MD40N4, 480 V, three phase 31.2 N.m for LXM15MD56N4, 480 V, three phase 32 N.m for LXM15HC11N4X, 400 V, three phase 32 N.m for LXM15MD40N4, 400 V, three phase 32 N.m for LXM15MD56N4, 400 V, three phase
Nominal speed	1500 rpm for LXM15MD40N4, 400 V, three phase 1500 rpm for LXM05AD57N4, 380...480 V, three phase 1500 rpm for LXM05BD57N4, 380...480 V, three phase 1500 rpm for LXM05CD57N4, 380...480 V, three phase 1500 rpm for LXM15HC11N4X, 400 V, three phase 1500 rpm for LXM15MD56N4, 400 V, three phase 1700 rpm for LXM15HC11N4X, 480 V, three phase 1700 rpm for LXM15MD40N4, 480 V, three phase 1700 rpm for LXM15MD56N4, 480 V, three phase

Product compatibility	LXM15MD40N4 at 400 V three phase LXM15MD40N4 at 480 V three phase LXM05AD57N4 at 380...480 V three phase LXM05BD57N4 at 380...480 V three phase LXM05CD57N4 at 380...480 V three phase LXM15MD56N4 at 400 V three phase LXM15MD56N4 at 480 V three phase LXM15HC11N4X at 400 V three phase LXM15HC11N4X at 480 V three phase
Shaft end	Untapped
IP degree of protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn x 4096 turns
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	11.1 A
maximum continuous power	7.44 W
Maximum current Irms	40.4 A for LXM15MD40N4 40.4 A for LXM15MD56N4 40.4 A for LXM15HC11N4X 40.4 A for LXM05AD57N4 40.4 A for LXM05BD57N4 40.4 A for LXM05CD57N4
Maximum permanent current	45.2 A
Switching frequency	4 kHz
Second shaft	Without second shaft end
Shaft diameter	38 mm
Shaft length	80 mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	80 N.m holding brake
Motor flange size	205 mm
Number of motor stacks	1
Torque constant	3.3 N.m/A at 120 °C
Back emf constant	208 V/krpm at 120 °C
Rotor inertia	93 kg.cm²
Stator resistance	1.1 Ohm at 20 °C
Stator inductance	21.3 mH at 20 °C
Stator electrical time constant	19.36 ms at 20 °C 19.4 ms at 20 °C
Maximum radial force Fr	2580 N at 3000 rpm 2960 N at 2000 rpm 3730 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr

Brake pull-in power	40 W
Type of cooling	Natural convection
Length	370.5 mm
Centring collar diameter	180 mm
Centring collar depth	4 mm
Number of mounting holes	4
Mounting holes diameter	14 mm
Circle diameter of the mounting holes	215 mm
Net weight	38.6 kg
Sizing reference	BSH2051M
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

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