Product datasheet

Specifications

servo motor BSH, Lexium 05, 2.12N.m, 3000rpm, 70mm, untapped shaft, Sincos single turn, with brake, IP65

BSH0702M21F2A

Discontinued

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
Product compatibility	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

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	Rotatable right-angled connectors

Complementary

Range compatibility	Lexium 05 Lexium 15
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	1.5 A
maximum continuous power	1.51 W
Maximum current Irms	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
Maximum permanent current	6 A
Switching frequency	4 kHz
Second shaft	Without second shaft end
Shaft diameter	11 mm
Shaft length	23 mm
Feedback type	Single turn SinCos Hiperface
Holding torque	2 N.m holding brake
Motor flange size	70 mm
Torque constant	1.46 N.m/A at 120 °C 0.87 N.m/A at 120 °C
Back emf constant	93 V/krpm at 120 °C 95 V/krpm at 120 °C
Rotor inertia	0.482 kg.cm²
Stator resistance	16.4 Ohm at 20 °C 17.3 Ohm at 20 °C
Stator inductance	74.1 mH at 20 °C 84.4 mH at 20 °C
Stator electrical time constant	4.52 ms at 20 °C 4.88 ms at 20 °C
Maximum radial force Fr	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
Brake pull-in power	10 W
Type of cooling	Natural convection

Length	212.5 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	3 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

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