

Product data sheet

Specifications



servo motor BSH, Lexium 05,
2.83N.m, 6000rpm, 70mm, keyed
shaft, Sincos multi turn, with brake,
IP65, straight

BSH0703T32F1A

! Discontinued

! Discontinued on: Jun 30, 2023

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	24.8 lbf.in (2.8 N.m) LXM05AD28M2, 200...240 V, single phase 24.8 lbf.in (2.8 N.m) LXM05BD28M2, 200...240 V, single phase 24.8 lbf.in (2.8 N.m) LXM05CD28M2, 200...240 V, single phase 23.01 lbf.in (2.6 N.m) LXM32.D18M2 6 A, 230 V, single phase 25.05 lbf.in (2.83 N.m) LXM15LD28M3, 230 V, three phase 24.8 lbf.in (2.8 N.m) LXM05AD28F1 6 A, 110...120 V, single phase 24.8 lbf.in (2.8 N.m) LXM05AD42M3X, 200...240 V, three phase 24.8 lbf.in (2.8 N.m) LXM05BD28F1, 110...120 V, single phase 24.8 lbf.in (2.8 N.m) LXM05BD42M3X, 200...240 V, three phase 24.8 lbf.in (2.8 N.m) LXM05CD28F1, 110...120 V, single phase 24.8 lbf.in (2.8 N.m) LXM05CD42M3X, 200...240 V, three phase
Peak stall torque	65.32 lbf.in (7.38 N.m) LXM05AD28F1, 110...120 V, single phase 65.32 lbf.in (7.38 N.m) LXM05AD28M2, 200...240 V, single phase 65.32 lbf.in (7.38 N.m) LXM05BD28F1, 110...120 V, single phase 65.32 lbf.in (7.38 N.m) LXM05BD28M2, 200...240 V, single phase 65.32 lbf.in (7.38 N.m) LXM05CD28F1, 110...120 V, single phase 65.32 lbf.in (7.38 N.m) LXM05CD28M2, 200...240 V, single phase 65.5 lbf.in (7.4 N.m) LXM32.D18M2 6 A, 230 V, single phase 65.32 lbf.in (7.38 N.m) LXM15LD28M3, 230 V, three phase 90.72 lbf.in (10.25 N.m) LXM05AD42M3X 6 A, 200...240 V, three phase 90.72 lbf.in (10.25 N.m) LXM05BD42M3X, 200...240 V, three phase 90.72 lbf.in (10.25 N.m) LXM05CD42M3X, 200...240 V, three phase
Nominal output power	750 W LXM05AD28M2, 200...240 V, single phase 750 W LXM05BD28M2, 200...240 V, single phase 750 W LXM05CD28M2, 200...240 V, single phase 750 W LXM05AD28F1, 110...120 V, single phase 750 W LXM05BD28F1, 110...120 V, single phase 750 W LXM05CD28F1, 110...120 V, single phase 900 W LXM32.D18M2 6 A, 230 V, single phase 1250 W LXM15LD28M3, 230 V, three phase 750 W LXM05AD42M3X 6 A, 200...240 V, three phase 750 W LXM05BD42M3X, 200...240 V, three phase 750 W LXM05CD42M3X, 200...240 V, three phase
Nominal torque	21.2 lbf.in (2.4 N.m) LXM05AD28M2, 200...240 V, single phase 21.2 lbf.in (2.4 N.m) LXM05BD28M2, 200...240 V, single phase 21.2 lbf.in (2.4 N.m) LXM05CD28M2, 200...240 V, single phase 21.2 lbf.in (2.4 N.m) LXM05AD28F1, 110...120 V, single phase 21.2 lbf.in (2.4 N.m) LXM05BD28F1, 110...120 V, single phase 21.2 lbf.in (2.4 N.m) LXM05CD28F1, 110...120 V, single phase 18.6 lbf.in (2.1 N.m) LXM32.D18M2 6 A, 230 V, single phase 17.7 lbf.in (2 N.m) LXM15LD28M3, 230 V, three phase 21.2 lbf.in (2.4 N.m) LXM05AD42M3X 6 A, 200...240 V, three phase 21.2 lbf.in (2.4 N.m) LXM05BD42M3X, 200...240 V, three phase 21.2 lbf.in (2.4 N.m) LXM05CD42M3X, 200...240 V, three phase

Nominal speed	3000 rpm LXM05AD28M2, 200...240 V, single phase 3000 rpm LXM05BD28M2 6 A, 200...240 V, single phase 3000 rpm LXM05CD28M2, 200...240 V, single phase 3000 rpm LXM05AD42M3X, 200...240 V, three phase 3000 rpm LXM05BD42M3X, 200...240 V, three phase 3000 rpm LXM05CD42M3X, 200...240 V, three phase 3000 rpm LXM05AD28F1, 110...120 V, single phase 3000 rpm LXM05BD28F1, 110...120 V, single phase 3000 rpm LXM05CD28F1, 110...120 V, single phase 4000 rpm LXM32.D18M2 6 A, 230 V, single phase 6000 rpm LXM15LD28M3, 230 V, three phase
Product compatibility	LXM05AD28F1 110...120 V single phase LXM05AD28M2 200...240 V single phase LXM05BD28F1 110...120 V single phase LXM05BD28M2 200...240 V single phase LXM05CD28F1 110...120 V single phase LXM05CD28M2 200...240 V single phase LXM32.D18M2 230 V single phase LXM05AD42M3X 200...240 V three phase LXM05BD42M3X 200...240 V three phase LXM05CD42M3X 200...240 V three phase LXM15LD28M3 230 V three phase
Shaft end	Keyed
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 32 Lexium 05 Lexium 15
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	7 A
maximum continuous power	1.7 W
Maximum current Irms	18 A LXM32.D18M2 30.9 A LXM15LD28M3 29.2 A LXM05AD28F1 29.2 A LXM05AD28M2 29.2 A LXM05AD42M3X 29.2 A LXM05BD28F1 29.2 A LXM05BD28M2 29.2 A LXM05BD42M3X 29.2 A LXM05CD28F1 29.2 A LXM05CD28M2 29.2 A LXM05CD42M3X
Maximum permanent current	29.2 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	0.6 in (14 mm)
Shaft length	1.2 in (30 mm)
Key width	0.8 in (20 mm)
Feedback type	Multiturn SinCos Hiperface
Holding torque	26.6 lbf.in (3 N.m) holding brake

Motor flange size	2.8 in (70 mm)
Number of motor stacks	3
Torque constant	0.44 N.m/A 248 °F (120 °C)
Back emf constant	29 V/krpm 248 °F (120 °C)
Number of motor poles	6
Rotor inertia	0.81 kg.cm ²
Stator resistance	0.91 Ohm 68 °F (20 °C)
Stator inductance	4.4 mH 68 °F (20 °C)
Stator electrical time constant	4.84 ms 68 °F (20 °C)
Maximum radial force Fr	400 N 6000 rpm 430 N 5000 rpm 460 N 4000 rpm 510 N 3000 rpm 580 N 2000 rpm 730 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	12 W
Type of cooling	Natural convection
Length	10 in (254 mm)
Centring collar diameter	2.4 in (60 mm)
Centring collar depth	0.10 in (2.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.2 in (5.5 mm)
Circle diameter of the mounting holes	3.2 in (82 mm)
Net weight	8.4 lb(US) (3.8 kg)
Sizing reference	BSH0703T
Network number of phases	3
Accuracy error [angular]	1.4 °
Temperature copper hot	248 °F (120 °C)
Temperature magnet hot	212 °F (100 °C)
Temperature magnet rt	68 °F (20 °C)

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.8 in (12.3 cm)
Package 1 Width	5.04 in (12.8 cm)
Package 1 Length	14.8 in (37.7 cm)
Package 1 Weight	8.93 lb(US) (4.05 kg)

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 Better



Materials and Substances

EU RoHS Directive

[Compliant By Exemption](#)

Use Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

Circularity Profile

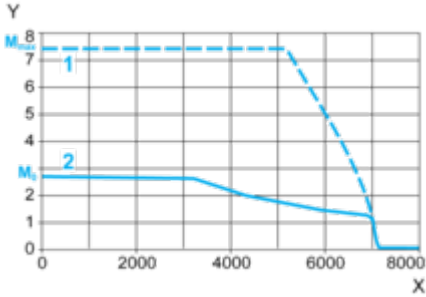
No need of specific recycling operations

Performance Curves

230 V Single-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18M2 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque