

BSH1402P21A2A

servo motor BSH, Lexium 05, 14.9 Nm,
4000rpm, 140mm, smooth shaft, Sincos single
turn, without brake, IP65, IP67





Main

Product or Component Type	Servo motor
Device short name	BSH
Maximum mechanical speed	4000 rpm
Continuous stall torque	<p>172.59 Lbf.In (19.5 N.m) LXM15MD40N4, 400 V, three phase</p> <p>172.59 Lbf.In (19.5 N.m) LXM15MD40N4, 480 V, three phase</p> <p>131.88 Lbf.In (14.9 N.m) LXM15LD28M3, 230 V, three phase</p> <p>131.88 Lbf.In (14.9 N.m) LXM15MD28N4, 230 V, three phase</p> <p>131.88 Lbf.In (14.9 N.m) LXM15MD28N4, 400 V, three phase</p> <p>131.88 Lbf.In (14.9 N.m) LXM15MD28N4, 480 V, three phase</p> <p>172.59 Lbf.In (19.5 N.m) LXM15MD56N4, 230 V, three phase</p> <p>172.59 Lbf.In (19.5 N.m) LXM15MD56N4, 400 V, three phase</p> <p>172.59 Lbf.In (19.5 N.m) LXM15MD56N4, 480 V, three phase</p> <p>169.93 Lbf.In (19.2 N.m) LXM05AD42M3X, 200...240 V, three phase</p> <p>169.93 Lbf.In (19.2 N.m) LXM05AD57N4, 380...480 V, three phase</p> <p>169.93 Lbf.In (19.2 N.m) LXM05BD42M3X, 200...240 V, three phase</p> <p>169.93 Lbf.In (19.2 N.m) LXM05BD57N4, 380...480 V, three phase</p> <p>169.93 Lbf.In (19.2 N.m) LXM05CD42M3X, 200...240 V, three phase</p> <p>169.93 Lbf.in (19.2 N.m) LXM05CD57N4, 380...480 V, three phase</p>
Peak stall torque	<p>254.10 Lbf.In (28.71 N.m) LXM15LD28M3, 230 V, three phase</p> <p>254.10 Lbf.In (28.71 N.m) LXM15MD28N4, 230 V, three phase</p> <p>254.10 Lbf.In (28.71 N.m) LXM15MD28N4, 400 V, three phase</p> <p>254.10 Lbf.In (28.71 N.m) LXM15MD28N4, 480 V, three phase</p> <p>347.83 Lbf.In (39.3 N.m) LXM15MD40N4, 230 V, three phase</p> <p>347.83 Lbf.In (39.3 N.m) LXM15MD40N4, 400 V, three phase</p> <p>347.83 Lbf.In (39.3 N.m) LXM15MD40N4, 480 V, three phase</p> <p>420.41 Lbf.In (47.5 N.m) LXM15MD56N4, 230 V, three phase</p> <p>420.41 Lbf.In (47.5 N.m) LXM15MD56N4, 400 V, three phase</p> <p>420.41 Lbf.In (47.5 N.m) LXM15MD56N4, 480 V, three phase</p> <p>371.20 Lbf.In (41.94 N.m) LXM05AD42M3X, 200...240 V, three phase</p> <p>420.41 Lbf.In (47.5 N.m) LXM05AD57N4, 380...480 V, three phase</p> <p>371.20 Lbf.In (41.94 N.m) LXM05BD42M3X, 200...240 V, three phase</p> <p>420.41 Lbf.In (47.5 N.m) LXM05BD57N4, 380...480 V, three phase</p> <p>371.20 Lbf.In (41.94 N.m) LXM05CD42M3X, 200...240 V, three phase</p> <p>420.41 lbf.in (47.5 N.m) LXM05CD57N4, 380...480 V, three phase</p>

Nominal output power	<p>2350 W LXM05AD42M3X, 200...240 V, three phase</p> <p>2350 W LXM05BD42M3X, 200...240 V, three phase</p> <p>2350 W LXM05CD42M3X, 200...240 V, three phase</p> <p>2350 W LXM15LD28M3, 230 V, three phase</p> <p>2350 W LXM15MD28N4, 230 V, three phase</p> <p>2350 W LXM15MD40N4, 230 V, three phase</p> <p>2350 W LXM15MD56N4, 230 V, three phase</p> <p>3350 W LXM15MD28N4, 480 V, three phase</p> <p>3350 W LXM15MD40N4, 480 V, three phase</p> <p>3400 W LXM05AD57N4, 380...480 V, three phase</p> <p>3400 W LXM05BD57N4, 380...480 V, three phase</p> <p>3400 W LXM05CD57N4, 380...480 V, three phase</p> <p>3400 W LXM15MD28N4, 400 V, three phase</p> <p>3400 W LXM15MD40N4, 400 V, three phase</p> <p>3400 W LXM15MD56N4, 400 V, three phase</p> <p>3400 W LXM15MD56N4, 480 V, three phase</p>
Nominal torque	<p>70.81 Lbf.In (8 N.m) LXM15MD40N4, 480 V, three phase</p> <p>95.59 Lbf.In (10.8 N.m) LXM05AD57N4, 380...480 V, three phase</p> <p>95.59 Lbf.In (10.8 N.m) LXM05BD57N4, 380...480 V, three phase</p> <p>95.59 Lbf.In (10.8 N.m) LXM05CD57N4, 380...480 V, three phase</p> <p>95.59 Lbf.In (10.8 N.m) LXM15MD28N4, 400 V, three phase</p> <p>95.59 Lbf.In (10.8 N.m) LXM15MD40N4, 400 V, three phase</p> <p>95.59 Lbf.In (10.8 N.m) LXM15MD56N4, 400 V, three phase</p> <p>95.59 Lbf.In (10.8 N.m) LXM15MD56N4, 480 V, three phase</p> <p>132.76 Lbf.In (15 N.m) LXM05AD42M3X, 200...240 V, three phase</p> <p>132.76 Lbf.In (15 N.m) LXM05BD42M3X, 200...240 V, three phase</p> <p>132.76 Lbf.In (15 N.m) LXM05CD42M3X, 200...240 V, three phase</p> <p>132.76 Lbf.In (15 N.m) LXM15LD28M3, 230 V, three phase</p> <p>132.76 Lbf.In (15 N.m) LXM15MD28N4, 230 V, three phase</p> <p>132.76 Lbf.In (15 N.m) LXM15MD40N4, 230 V, three phase</p> <p>132.76 Lbf.In (15 N.m) LXM15MD56N4, 230 V, three phase</p> <p>70.81 lbf.in (8 N.m) LXM15MD28N4, 480 V, three phase</p>
Nominal speed	<p>1500 rpm LXM05AD42M3X, 200...240 V, three phase</p> <p>1500 rpm LXM05BD42M3X, 200...240 V, three phase</p> <p>1500 rpm LXM05CD42M3X, 200...240 V, three phase</p> <p>1500 rpm LXM15MD28N4, 230 V, three phase</p> <p>1500 rpm LXM15MD40N4, 230 V, three phase</p> <p>3000 rpm LXM05AD57N4, 380...480 V, three phase</p> <p>3000 rpm LXM05BD57N4, 380...480 V, three phase</p> <p>3000 rpm LXM05CD57N4, 380...480 V, three phase</p> <p>3000 rpm LXM15MD28N4, 400 V, three phase</p> <p>3000 rpm LXM15MD40N4, 400 V, three phase</p> <p>4000 rpm LXM15MD28N4, 480 V, three phase</p> <p>1500 rpm LXM15LD28M3, 230 V, three phase</p> <p>1500 rpm LXM15MD56N4, 230 V, three phase</p> <p>3000 rpm LXM15MD56N4, 400 V, three phase</p> <p>3000 rpm LXM15MD56N4, 480 V, three phase</p> <p>4000 rpm LXM15MD40N4, 480 V, three phase</p>

Product compatibility	LXM05AD42M3X 200...240 V three phase LXM05BD42M3X 200...240 V three phase LXM05CD42M3X 200...240 V three phase LXM15LD28M3 230 V three phase LXM15MD28N4 400 V three phase LXM15MD28N4 480 V three phase LXM15MD40N4 400 V three phase LXM15MD40N4 480 V three phase LXM05AD57N4 380...480 V three phase LXM05BD57N4 380...480 V three phase LXM05CD57N4 380...480 V three phase LXM15MD28N4 230 V three phase LXM15MD40N4 230 V three phase LXM15MD56N4 230 V three phase LXM15MD56N4 400 V three phase LXM15MD56N4 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	Without
Mounting Support	International standard flange
Electrical Connection	Straight connectors

Complementary

Range Compatibility	Lexium 15 Lexium 05
Supply voltage max	480 V
Phase	Three phase
Continuous stall current	13.2 A
Maximum continuous power	4.2 W
Maximum permanent current	44.1 A
Second shaft	Without second shaft end
Shaft diameter	0.94 in (24 mm)
Shaft length	1.97 in (50 mm)
Feedback type	Single turn SinCos Hiperface
Motor flange size	5.51 in (140 mm)
Number of motor stacks	2
Torque constant	1.47 N.m/A 248 °F (120 °C)
Back emf constant	101 V/krpm 248 °F (120 °C)
Number of motor poles	10
Rotor inertia	12.68 kg.cm ²
Stator resistance	0.6 Ohm 68 °F (20 °C)
Stator inductance	7.4 MH 68 °F (20 °C) 7.71 mH 68 °F (20 °C)
Stator electrical time constant	12.33 Ms 68 °F (20 °C) 12.85 ms 68 °F (20 °C)
Maximum radial force Fr	1680 N 3000 rpm 1930 N 2000 rpm 2430 N 1000 rpm
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	10.73 in (272.5 mm)
Centring collar diameter	5.12 in (130 mm)
Centring collar depth	0.14 in (3.5 mm)
Number of mounting holes	4
Mounting holes diameter	0.43 in (11 mm)
Circle diameter of the mounting holes	6.50 in (165 mm)
Net Weight	36.60 lb(US) (16.6 kg)

Ordering and shipping details

Category	US1PC5318282
Discount Schedule	PC53
GTIN	3389118141827
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	10.63 in (27.0 cm)
Package 1 Width	10.63 in (27.0 cm)
Package 1 Length	18.98 in (48.2 cm)
Package 1 Weight	25.35 lb(US) (11.5 kg)
Unit Type of Package 2	P06
Number of Units in Package 2	8
Package 2 Height	30.31 in (77.0 cm)
Package 2 Width	31.50 in (80.0 cm)
Package 2 Length	23.62 in (60.0 cm)
Package 2 Weight	330.07 lb(US) (149.716 kg)

Offer Sustainability

Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	No need of specific recycling operations
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

Contractual warranty

Warranty	18 months
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