

Product datasheet

Specifications



servo motor BSH, Lexium 05,
14.9N.m, 1500rpm, 140mm,
untapped shaft, Sincos single turn,
without brake, IP65, IP67

BSH1402P31A2A

⚠ Discontinued

⚠ Discontinued on: 1 Nov 2020

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 14.9 N.m for LXM15LD28M3, 230 V, three phase 14.9 N.m for LXM15MD28N4, 230 V, three phase 14.9 N.m for LXM15MD28N4, 400 V, three phase 14.9 N.m for LXM15MD28N4, 480 V, three phase 19.5 N.m for LXM15MD56N4, 230 V, three phase 19.5 N.m for LXM15MD56N4, 400 V, three phase 19.5 N.m for LXM15MD56N4, 480 V, three phase 19.2 N.m for LXM05AD42M3X, 200...240 V, three phase 19.2 N.m for LXM05AD57N4, 380...480 V, three phase 19.2 N.m for LXM05BD42M3X, 200...240 V, three phase 19.2 N.m for LXM05BD57N4, 380...480 V, three phase 19.2 N.m for LXM05CD42M3X, 200...240 V, three phase 19.2 N.m for LXM05CD57N4, 380...480 V, three phase
Peak stall torque	28.71 N.m for LXM15LD28M3, 230 V, three phase 28.71 N.m for LXM15MD28N4, 230 V, three phase 28.71 N.m for LXM15MD28N4, 400 V, three phase 28.71 N.m for LXM15MD28N4, 480 V, three phase 39.3 N.m for LXM15MD40N4, 230 V, three phase 39.3 N.m for LXM15MD40N4, 400 V, three phase 39.3 N.m for LXM15MD40N4, 480 V, three phase 47.5 N.m for LXM15MD56N4, 230 V, three phase 47.5 N.m for LXM15MD56N4, 400 V, three phase 47.5 N.m for LXM15MD56N4, 480 V, three phase 41.94 N.m for LXM05AD42M3X, 200...240 V, three phase 47.5 N.m for LXM05AD57N4, 380...480 V, three phase 41.94 N.m for LXM05BD42M3X, 200...240 V, three phase 47.5 N.m for LXM05BD57N4, 380...480 V, three phase 41.94 N.m for LXM05CD42M3X, 200...240 V, three phase 47.5 N.m for LXM05CD57N4, 380...480 V, three phase
Nominal output power	2350 W for LXM05AD42M3X, 200...240 V, three phase 2350 W for LXM05BD42M3X, 200...240 V, three phase 2350 W for LXM05CD42M3X, 200...240 V, three phase 2350 W for LXM15LD28M3, 230 V, three phase 2350 W for LXM15MD28N4, 230 V, three phase 2350 W for LXM15MD40N4, 230 V, three phase 2350 W for LXM15MD56N4, 230 V, three phase 3350 W for LXM15MD28N4, 480 V, three phase 3350 W for LXM15MD40N4, 480 V, three phase 3400 W for LXM05AD57N4, 380...480 V, three phase 3400 W for LXM05BD57N4, 380...480 V, three phase 3400 W for LXM05CD57N4, 380...480 V, three phase 3400 W for LXM15MD28N4, 400 V, three phase 3400 W for LXM15MD40N4, 400 V, three phase 3400 W for LXM15MD56N4, 400 V, three phase 3400 W for LXM15MD56N4, 480 V, three phase

Nominal torque	8 N.m for LXM15MD40N4, 480 V, three phase 10.8 N.m for LXM05AD57N4, 380...480 V, three phase 10.8 N.m for LXM05BD57N4, 380...480 V, three phase 10.8 N.m for LXM05CD57N4, 380...480 V, three phase 10.8 N.m for LXM15MD28N4, 400 V, three phase 10.8 N.m for LXM15MD40N4, 400 V, three phase 10.8 N.m for LXM15MD56N4, 400 V, three phase 10.8 N.m for LXM15MD56N4, 480 V, three phase 15 N.m for LXM05AD42M3X, 200...240 V, three phase 15 N.m for LXM05BD42M3X, 200...240 V, three phase 15 N.m for LXM05CD42M3X, 200...240 V, three phase 15 N.m for LXM15LD28M3, 230 V, three phase 15 N.m for LXM15MD28N4, 230 V, three phase 15 N.m for LXM15MD40N4, 230 V, three phase 15 N.m for LXM15MD56N4, 230 V, three phase 8 N.m for LXM15MD28N4, 480 V, three phase
Nominal speed	1500 rpm for LXM05AD42M3X, 200...240 V, three phase 1500 rpm for LXM05BD42M3X, 200...240 V, three phase 1500 rpm for LXM05CD42M3X, 200...240 V, three phase 1500 rpm for LXM15MD28N4, 230 V, three phase 1500 rpm for LXM15MD40N4, 230 V, three phase 3000 rpm for LXM05AD57N4, 380...480 V, three phase 3000 rpm for LXM05BD57N4, 380...480 V, three phase 3000 rpm for LXM05CD57N4, 380...480 V, three phase 3000 rpm for LXM15MD28N4, 400 V, three phase 3000 rpm for LXM15MD40N4, 400 V, three phase 4000 rpm for LXM15MD28N4, 480 V, three phase 1500 rpm for LXM15LD28M3, 230 V, three phase 1500 rpm for LXM15MD56N4, 230 V, three phase 3000 rpm for LXM15MD56N4, 400 V, three phase 3000 rpm for LXM15MD56N4, 480 V, three phase 4000 rpm for LXM15MD40N4, 480 V, three phase
Product compatibility	LXM05AD42M3X at 200...240 V three phase LXM05BD42M3X at 200...240 V three phase LXM05CD42M3X at 200...240 V three phase LXM15LD28M3 at 230 V three phase LXM15MD28N4 at 400 V three phase LXM15MD28N4 at 480 V three phase 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 LXM15MD28N4 at 230 V three phase LXM15MD40N4 at 230 V three phase LXM15MD56N4 at 230 V three phase LXM15MD56N4 at 400 V three phase LXM15MD56N4 at 480 V three phase
Shaft end	Untapped
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

Complementary

Range compatibility	Lexium 15 Lexium 05
supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	13.2 A
maximum continuous power	4.2 W

Maximum current Irms	44.1 A for LXM15LD28M3 44.1 A for LXM15MD28N4 44.1 A for LXM15MD40N4 44.1 A for LXM15MD56N4 44.1 A for LXM05AD42M3X 44.1 A for LXM05AD57N4 44.1 A for LXM05BD42M3X 44.1 A for LXM05BD57N4 44.1 A for LXM05CD42M3X 44.1 A for LXM05CD57N4 72 A for LXM32.D72N4
Maximum permanent current	44.1 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
Motor flange size	140 mm
Number of motor stacks	2
Torque constant	1.47 N.m/A at 120 °C
Back emf constant	101 V/krpm at 120 °C
Rotor inertia	12.68 kg.cm ²
Stator resistance	0.6 Ohm at 20 °C
Stator inductance	7.4 mH at 20 °C
Stator electrical time constant	12.33 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
Type of cooling	Natural convection
Length	272.5 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	16.6 kg
Sizing reference	BSH1402P
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

Package 1 Height	27.0 cm
Package 1 Width	27.0 cm
Package 1 Length	48.2 cm
Package 1 Weight	11.5 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 >](#)

Environmental footprint

Total lifecycle Carbon footprint **3718**

Environmental Disclosure [Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Pro-active compliance (Product out of EU RoHS legal scope)**

REACH Regulation [REACH Declaration](#)

PVC free **Yes**

Use Again

Repack and remanufacture

End of life manual availability **No need of specific recycling operations**

Take-back **No**

WEEE Label  **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**