Product data sheet
Characteristics

BSH0551T02F2A
servo motor BSH, Lexium 05, 0.5N.m, 8000rpm, 55mm, untapped shaft, Sincos multi turn, with brake, IP50



Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	9000 Rpm
Continuous stall torque	0.5 N.M for LXM32.U90M2 at 3 A, 115 V, single phase 0.5 N.M for LXM32.U45M2 at 1.5 A, 230 V, single phase 0.5 N.M for LXM05CU70M2, 200...240 V, single phase 0.5 N.M for LXM05AD10F1, 110...120 V, single phase 0.5 N.M for LXM05AD10M2, 200...240 V, single phase 0.5 N.M for LXM05BD10F1 at 1.5 A, 110...120 V, single phase 0.5 N.M for LXM05BD10M2, 200...240 V, single phase 0.5 N.M for LXM05CD10F1, 110...120 V, single phase 0.5 N.M for LXM05CD10M2, 200...240 V, single phase 0.5 N.M for LXM15LD13M3, 230 V, three phase 0.5 N.M for LXM05AD10M3X, 200...240 V, three phase 0.5 N.M for LXM05BD10M3X, 200...240 V, three phase 0.5 N.M for LXM05CD10M3X, 200...240 V, three phase
Peak stall torque	1.5 N.M for LXM32.U90M2 at 3 A, 115 V, single phase 1.4 N.M for LXM32.U45M2 at 1.5 A, 230 V, single phase 1.08 N.M for LXM05CU70M2, 200...240 V, single phase 1.4 N.M for LXM05AD10F1, 110...120 V, single phase 1.4 N.M for LXM05AD10M2, 200...240 V, single phase 1.4 N.M for LXM05BD10F1 at 1.5 A, 110...120 V, single phase 1.4 N.M for LXM05BD10M2, 200...240 V, single phase 1.4 N.M for LXM05CD10F1, 110...120 V, single phase 1.4 N.M for LXM05CD10M2, 200...240 V, single phase 1.24 N.M for LXM15LD13M3, 230 V, three phase 1.4 N.M for LXM05AD10M3X, 200...240 V, three phase 1.4 N.M for LXM05BD10M3X, 200...240 V, three phase 1.4 N.M for LXM05CD10M3X, 200...240 V, three phase
Nominal output power	150 W for LXM32.U90M2 at 3 A, 115 V, single phase 300 W for LXM32.U45M2 at 1.5 A, 230 V, single phase 150 W for LXM05AD10F1, 110...120 V, single phase 150 W for LXM05BD10F1, 110...120 V, single phase 150 W for LXM05CD10F1, 110...120 V, single phase 150 W for LXM05CU70M2 at 1.5 A, 200...240 V, single phase 270 W for LXM05AD10M2, 200...240 V, single phase 270 W for LXM05BD10M2, 200...240 V, single phase 270 W for LXM05CD10M2, 200...240 V, single phase 270 W for LXM05AD10M3X, 200...240 V, three phase 270 W for LXM05BD10M3X, 200...240 V, three phase 270 W for LXM05CD10M3X, 200...240 V, three phase 340 W for LXM15LD13M3, 230 V, three phase

Nominal torque	0.49 N.M for LXM32.U90M2 at 3 A, 115 V, single phase 0.45 N.M for LXM32.U45M2 at 1.5 A, 230 V, single phase 0.43 N.M for LXM05AD10M2, 200...240 V, single phase 0.43 N.M for LXM05BD10M2, 200...240 V, single phase 0.43 N.M for LXM05CD10M2, 200...240 V, single phase 0.46 N.M for LXM05AD10F1 at 1.5 A, 110...120 V, single phase 0.46 N.M for LXM05BD10F1, 110...120 V, single phase 0.46 N.M for LXM05CD10F1, 110...120 V, single phase 0.46 N.M for LXM05CU70M2, 200...240 V, single phase 0.41 N.M for LXM15LD13M3, 230 V, three phase 0.43 N.M for LXM05AD10M3X, 200...240 V, three phase 0.43 N.M for LXM05BD10M3X, 200...240 V, three phase 0.43 N.M for LXM05CD10M3X, 200...240 V, three phase
Nominal speed	3000 rpm for LXM32.U90M2 at 3 A, 115 V, single phase 6000 rpm for LXM32.U45M2 at 1.5 A, 230 V, single phase 3000 rpm for LXM05AD10F1, 110...120 V, single phase 3000 rpm for LXM05BD10F1, 110...120 V, single phase 3000 rpm for LXM05CD10F1, 110...120 V, single phase 3000 rpm for LXM05CU70M2 at 1.5 A, 200...240 V, single phase 6000 rpm for LXM05AD10M2, 200...240 V, single phase 6000 rpm for LXM05BD10M2, 200...240 V, single phase 6000 rpm for LXM05CD10M2, 200...240 V, single phase 6000 rpm for LXM05AD10M3X, 200...240 V, three phase 6000 rpm for LXM05BD10M3X, 200...240 V, three phase 6000 rpm for LXM05CD10M3X, 200...240 V, three phase 8000 rpm for LXM15LD13M3, 230 V, three phase
Product compatibility	LXM05AD10F1 at 110...120 V single phase LXM05AD10M2 at 200...240 V single phase LXM05BD10F1 at 110...120 V single phase LXM05BD10M2 at 200...240 V single phase LXM05CD10F1 at 110...120 V single phase LXM05CD10M2 at 200...240 V single phase LXM05CU70M2 at 200...240 V single phase LXM32.U90M2 at 115 V single phase LXM32.U45M2 at 230 V single phase LXM05AD10M3X at 200...240 V three phase LXM05BD10M3X at 200...240 V three phase LXM05CD10M3X at 200...240 V three phase LXM15LD13M3 at 230 V three phase
Shaft end	Untapped
IP degree of protection	IP50 standard
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

Complementary

Range compatibility	Lexium 15 Lexium 05 Lexium 32
[Us] rated supply voltage	480 V
Network number of phases	Three phase
Continuous stall current	1.4 A
Continuous power	0.45 W
Maximum current Irms	6.2 A for LXM15LD13M3 5.4 A for LXM05AD10F1 5.4 A for LXM05CU70M2 5.4 A for LXM05AD10M2 5.4 A for LXM05AD10M3X 5.4 A for LXM05BD10F1 5.4 A for LXM05BD10M2 5.4 A for LXM05BD10M3X 5.4 A for LXM05CD10F1 5.4 A for LXM05CD10M2 5.4 A for LXM05CD10M3X 5.4 A for LXM32.U90M2 4.5 A for LXM32.U45M2
Maximum permanent current	5.4 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	9 Mm

Shaft length	20 Mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	0.8 N.M holding brake
Motor flange size	55 Mm
Number of motor stacks	1
Torque constant	0.36 N.M/A at 120 °C
Back emf constant	22 V/Krpm at 120 °C
Number of motor poles	3.0
Rotor inertia	0.0803 Kg.Cm²
Stator resistance	12.2 Ohm at 20 °C
Stator inductance	10.85 MH at 20 °C
Stator electrical time constant	1.7 Ms at 20 °C
Maximum radial force Fr	170 N at 8000 rpm 180 N at 7000 rpm 190 N at 6000 rpm 200 N at 5000 rpm 220 N at 4000 rpm 240 N at 3000 rpm 270 N at 2000 rpm 340 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	10 W
Type of cooling	Natural convection
Length	159 Mm
Centring collar diameter	40 Mm
Centring collar depth	2 Mm
Number of mounting holes	4
Mounting holes diameter	5.5 Mm
Circle diameter of the mounting holes	63 Mm
Net weight	1.3 Kg
Sizing reference	BSH0551T
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
Output current 3s peak	5.4 A
Inertia	0.021 Kg.Cm² of brake 0.059 Kg.Cm² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.5 Cm
Package 1 Width	19.0 Cm
Package 1 Length	39.5 Cm
Package 1 Weight	950.0 G

Offer Sustainability

Recyclability potential, in %	87
Total lifecycle Carbon footprint	388 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	3.77200786190154
Carbon footprint of the manufacturing phase [A1 to A3]	4 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.4677572313031712
Carbon footprint of the distribution phase [A4]	0.5 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.005620452895330427
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	382.16992074131275

Carbon footprint of the use phase [B2, B3, B4, B6]	382 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	1.088581746352991
Carbon footprint of the end-of-life phase [C1 to C4]	1 kg CO2 eq.
Total lifecycle Carbon footprint	388
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	8c11b0c9-e501-4810-83eb-05fc6605ede4
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which
PVC free	Yes
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

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised