Product data sheet
Characteristics

BSH0553T02F2A
servo motor BSH, Lexium 05, 1.3N.m, 3000rpm, 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	1.2 N.M for LXM32.U90M2 at 3 A, 230 V, single phase 1.3 N.M for LXM05AD17F1, 110...120 V, single phase 1.3 N.M for LXM05AD17M2, 200...240 V, single phase 1.3 N.M for LXM05BD17F1, 110...120 V, single phase 1.3 N.M for LXM05BD17M2, 200...240 V, single phase 1.3 N.M for LXM05CD17F1, 110...120 V, single phase 1.3 N.M for LXM05CD17M2, 200...240 V, single phase 1.2 N.M for LXM32.D18M2 at 6 A, 115 V, single phase 1.3 N.M for LXM05AD17M3X, 200...240 V, three phase 1.3 N.M for LXM05BD17M3X at 6 A, 200...240 V, three phase 1.3 N.M for LXM05CD17M3X, 200...240 V, three phase
Peak stall torque	3 N.M for LXM32.U90M2 at 3 A, 230 V, single phase 3.31 N.M for LXM05AD17F1, 110...120 V, single phase 3.31 N.M for LXM05AD17M2, 200...240 V, single phase 3.31 N.M for LXM05BD17F1, 110...120 V, single phase 3.31 N.M for LXM05BD17M2, 200...240 V, single phase 3.31 N.M for LXM05CD17F1, 110...120 V, single phase 3.31 N.M for LXM05CD17M2, 200...240 V, single phase 3.3 N.M for LXM32.D18M2 at 6 A, 115 V, single phase 3.31 N.M for LXM05AD17M3X, 200...240 V, three phase 3.31 N.M for LXM05BD17M3X at 6 A, 200...240 V, three phase 3.31 N.M for LXM05CD17M3X, 200...240 V, three phase
Nominal output power	550 W for LXM32.U90M2 at 3 A, 230 V, single phase 350 W for LXM05AD17F1, 110...120 V, single phase 350 W for LXM05AD17M2, 200...240 V, single phase 350 W for LXM05BD17F1, 110...120 V, single phase 350 W for LXM05BD17M2, 200...240 V, single phase 350 W for LXM05CD17F1, 110...120 V, single phase 350 W for LXM05CD17M2, 200...240 V, single phase 350 W for LXM32.D18M2 at 6 A, 115 V, single phase 350 W for LXM05AD17M3X, 200...240 V, three phase 350 W for LXM05BD17M3X at 6 A, 200...240 V, three phase 350 W for LXM05CD17M3X, 200...240 V, three phase
Nominal torque	0.84 N.M for LXM32.U90M2 at 3 A, 230 V, single phase 1.1 N.M for LXM05AD17F1, 110...120 V, single phase 1.1 N.M for LXM05AD17M2, 200...240 V, single phase 1.1 N.M for LXM05BD17F1, 110...120 V, single phase 1.1 N.M for LXM05BD17M2, 200...240 V, single phase 1.1 N.M for LXM05CD17F1, 110...120 V, single phase 1.1 N.M for LXM05CD17M2, 200...240 V, single phase 1.14 N.M for LXM32.D18M2 at 6 A, 115 V, single phase 1.1 N.M for LXM05AD17M3X, 200...240 V, three phase 1.1 N.M for LXM05BD17M3X at 6 A, 200...240 V, three phase 1.1 N.M for LXM05CD17M3X, 200...240 V, three phase

Nominal speed	6000 rpm for LXM32.U90M2 at 3 A, 230 V, single phase 3000 rpm for LXM05AD17F1, 110...120 V, single phase 3000 rpm for LXM05BD17F1, 110...120 V, single phase 3000 rpm for LXM05CD17F1, 110...120 V, single phase 3000 rpm for LXM05AD17M2, 200...240 V, single phase 3000 rpm for LXM05BD17M2, 200...240 V, single phase 3000 rpm for LXM05CD17M2, 200...240 V, single phase 3000 rpm for LXM32.D18M2 at 6 A, 115 V, single phase 3000 rpm for LXM05AD17M3X, 200...240 V, three phase 3000 rpm for LXM05BD17M3X at 6 A, 200...240 V, three phase 3000 rpm for LXM05CD17M3X, 200...240 V, three phase
Product compatibility	LXM05AD17F1 at 110...120 V single phase LXM05AD17M2 at 200...240 V single phase LXM05BD17F1 at 110...120 V single phase LXM05BD17M2 at 200...240 V single phase LXM05CD17F1 at 110...120 V single phase LXM05CD17M2 at 200...240 V single phase LXM32.U90M2 at 230 V single phase LXM32.D18M2 at 115 V single phase LXM05AD17M3X at 200...240 V three phase LXM05BD17M3X at 200...240 V three phase LXM05CD17M3X at 200...240 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 32 Lexium 05
[Us] rated supply voltage	480 V
Network number of phases	Three phase
Continuous stall current	3.1 A
Continuous power	0.97 W
Maximum current Irms	11.9 A for LXM05AD17F1 11.9 A for LXM05AD17M2 11.9 A for LXM05AD17M3X 11.9 A for LXM05BD17F1 11.9 A for LXM05BD17M2 11.9 A for LXM05BD17M3X 11.9 A for LXM05CD17F1 11.9 A for LXM05CD17M2 11.9 A for LXM05CD17M3X 10 A for LXM32.D18M2 9 A for LXM32.U90M2
Maximum permanent current	11.9 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	3
Torque constant	0.39 N.M/A at 120 °C
Back emf constant	22 V/Krpm at 120 °C
Number of motor poles	3.0
Rotor inertia	0.1553 Kg.Cm²
Stator resistance	3.1 Ohm at 20 °C
Stator inductance	3.9 MH at 20 °C
Stator electrical time constant	2.39 Ms at 20 °C

Maximum radial force Fr	190 N at 8000 rpm 200 N at 7000 rpm 210 N at 6000 rpm 230 N at 5000 rpm 240 N at 4000 rpm 270 N at 3000 rpm 310 N at 2000 rpm 390 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	10 W
Type of cooling	Natural convection
Length	203 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	1.9 Kg
Sizing reference	BSH0553T
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	11.9 A
Inertia	0.021 Kg.Cm² of brake 0.134 Kg.Cm² of motor

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	12.3 Cm
Package 1 Width	12.8 Cm
Package 1 Length	37.7 Cm
Package 1 Weight	1.55 Kg

Offer Sustainability

Total lifecycle Carbon footprint	614 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	6.7857248157
Carbon footprint of the manufacturing phase [A1 to A3]	7 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1999766585
Carbon footprint of the distribution phase [A4]	0.2 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.0137504423
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	607.3060153994
Carbon footprint of the use phase [B2, B3, B4, B6]	607 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	0.1460579853
Carbon footprint of the end-of-life phase [C1 to C4]	0.1 kg CO2 eq.
Total lifecycle Carbon footprint	614
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, w

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