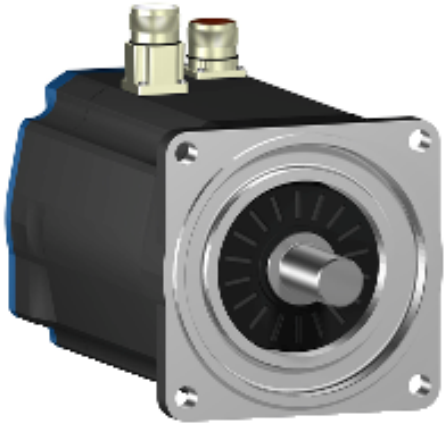
Product data sheet
Characteristics

BSH1002T31F1A
servo motor BSH, Lexium 05, 5.5N.m, 4000rpm, 100mm, keyed shaft, Sincos single turn, with brake, IP65, straight



⚠ End of Commercialisation

Commercial status
End of Commercialisation : JUN 30, 2023

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	6000 Rpm
Continuous stall torque	5.8 N.M for LXM32.D30M2 at 10 A, 230 V, single phase 5.5 N.M for LXM15LD28M3, 230 V, three phase 5.5 N.M for LXM05AD42M3X, 200...240 V, three phase 5.5 N.M for LXM05BD42M3X, 200...240 V, three phase 5.5 N.M for LXM05CD42M3X, 200...240 V, three phase
Peak stall torque	16.4 N.M for LXM32.D30M2 at 10 A, 230 V, single phase 11.59 N.M for LXM15LD28M3, 230 V, three phase 16 N.M for LXM05AD42M3X, 200...240 V, three phase 16 N.M for LXM05BD42M3X, 200...240 V, three phase 16 N.M for LXM05CD42M3X, 200...240 V, three phase
Nominal output power	1500 W for LXM32.D30M2 at 10 A, 230 V, single phase 1400 W for LXM05AD42M3X, 200...240 V, three phase 1400 W for LXM05BD42M3X, 200...240 V, three phase 1400 W for LXM05CD42M3X, 200...240 V, three phase 1700 W for LXM15LD28M3, 230 V, three phase
Nominal torque	3.7 N.M for LXM32.D30M2 at 10 A, 230 V, single phase 4 N.M for LXM15LD28M3, 230 V, three phase 4.4 N.M for LXM05AD42M3X, 200...240 V, three phase 4.4 N.M for LXM05BD42M3X, 200...240 V, three phase 4.4 N.M for LXM05CD42M3X, 200...240 V, three phase
Nominal speed	4000 rpm for LXM32.D30M2 at 10 A, 230 V, single phase 3000 rpm for LXM05AD42M3X, 200...240 V, three phase 3000 rpm for LXM05BD42M3X, 200...240 V, three phase 3000 rpm for LXM05CD42M3X, 200...240 V, three phase 4000 rpm for LXM15LD28M3, 230 V, three phase
Product compatibility	LXM32.D30M2 at 230 V single phase 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
Shaft end	Keyed
IP degree of protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight 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	9.9 A
Continuous power	2.51 W
Maximum current Irms	31.2 A for LXM15LD28M3 35.4 A for LXM05AD42M3X 35.4 A for LXM05BD42M3X 35.4 A for LXM05CD42M3X 30 A for LXM32.D30M2
Maximum permanent current	35.4 A
Switching frequency	8 kHz
Second shaft	Without second shaft end
Shaft diameter	19 Mm
Shaft length	40 Mm
Key width	30 Mm
Feedback type	Single turn SinCos Hiperface
Holding torque	9 N.M holding brake
Motor flange size	100 Mm
Number of motor stacks	2
Torque constant	0.59 N.M/A at 120 °C
Back emf constant	37 V/Krpm at 120 °C
Number of motor poles	8
Rotor inertia	2.928 Kg.Cm²
Stator resistance	0.56 Ohm at 20 °C
Stator inductance	3 MH at 20 °C
Stator electrical time constant	5.36 Ms at 20 °C
Maximum radial force Fr	620 N at 4000 rpm 690 N at 3000 rpm 790 N at 2000 rpm 990 N at 1000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	18 W
Type of cooling	Natural convection
Length	235.5 Mm
Centring collar diameter	95 Mm
Centring collar depth	3.5 Mm
Number of mounting holes	4
Mounting holes diameter	9 Mm
Circle diameter of the mounting holes	115 Mm
Net weight	6.3 Kg
Sizing reference	BSH1002T
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	15.4 Cm
Package 1 Width	16.3 Cm
Package 1 Length	40.7 Cm
Package 1 Weight	6.45 Kg

Offer Sustainability

Mercury free	Yes
Sustainable packaging	No
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, wi
End of life manual availability	No need of specific recycling operations

Contractual warranty

Warranty (in months)	18

Product Life Status : End of commerc. - Block