

# Product data sheet

## Characteristics

# BSH1401T22F2A

servo motor BSH, Lexium 05, 11.1N.m, 2500rpm, 140mm, untapped shaft, Sincos multi turn, with brake, IP65



### Main

Product or component type	Servo motor
Device short name	BSH
Maximum mechanical speed	4000 rpm
Continuous stall torque	11.1 N.M for LXM15MD56N4, 230 V, three phase 11.4 N.M for LXM05AD42M3X, 200...240 V, three phase 11.4 N.M for LXM05BD42M3X, 200...240 V, three phase 11.4 N.m for LXM05CD42M3X, 200...240 V, three phase
Peak stall torque	23.33 N.M for LXM15MD56N4, 230 V, three phase 23.33 N.M for LXM05AD42M3X, 200...240 V, three phase 23.33 N.M for LXM05BD42M3X, 200...240 V, three phase 23.33 N.m for LXM05CD42M3X, 200...240 V, three phase
Nominal output power	2000 W for LXM15MD56N4, 230 V, three phase 2200 W for LXM05AD42M3X, 200...240 V, three phase 2200 W for LXM05BD42M3X, 200...240 V, three phase 2200 W for LXM05CD42M3X, 200...240 V, three phase
Nominal torque	6.9 N.M for LXM05AD42M3X, 200...240 V, three phase 6.9 N.M for LXM05BD42M3X, 200...240 V, three phase 6.9 N.M for LXM05CD42M3X, 200...240 V, three phase 7.63 N.m for LXM15MD56N4, 230 V, three phase
Nominal speed	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 2500 rpm for LXM15MD56N4, 230 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 LXM15MD56N4 at 230 V three phase
Shaft end	Untapped
IP degree of protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

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## Complementary

Range compatibility	Lexium 05 Lexium 15
Supply voltage max	480 V
Network number of phases	Three phase
Continuous stall current	13.9 A
Maximum continuous power	3.6 W
Maximum current $I_{rms}$	37.1 A for LXM15MD56N4 37.1 A for LXM05AD42M3X 37.1 A for LXM05BD42M3X 37.1 A for LXM05CD42M3X
Maximum permanent current	37.1 A
Switching frequency	4 kHz
Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	23 N.m holding brake
Motor flange size	140 mm
Number of motor stacks	1
Torque constant	0.83 N.m/A at 120 °C
Back emf constant	56 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	8.56 kg.cm <sup>2</sup>
Stator resistance	0.4 Ohm at 20 °C 0.44 Ohm at 20 °C
Stator inductance	4.9 MH at 20 °C 5.15 mH at 20 °C
Stator electrical time constant	11.14 Ms at 20 °C 12.88 ms at 20 °C
Maximum radial force $F_r$	1530 N at 3000 rpm 1760 N at 2000 rpm 2210 N at 1000 rpm
Maximum axial force $F_a$	0.2 x $F_r$
Brake pull-in power	24 W
Type of cooling	Natural convection
Length	255.5 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	13 kg

## 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	9.79 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>
RoHS exemption information	 <a href="#">Yes</a>
Environmental Disclosure	 <a href="#">Product Environmental Profile</a>
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

## Contractual warranty

Warranty	18 months
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