

Product data sheet

Specifications



servo motor BSH, Lexium 32,
0.21N.m, 9000rpm, 40mm, keyed
shaft, 16 Sincos single turn, without
brake, IP50

BSH0401P16A2A

Main

Device short name	BSH
Product or component type	Servo motor
Maximum mechanical speed	10000 rpm
Continuous stall torque	0.21 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 0.21 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 0.21 N.m for LXM32.U45M2 at 1.5 A, 230 V, single phase
Peak stall torque	0.8 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 0.8 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 0.8 N.m for LXM32.U45M2 at 1.5 A, 230 V, single phase
Nominal output power	166 W for LXM32.U60N4 at 1.5 A, 480 V, three phase 166 W for LXM32.U60N4 at 1.5 A, 400 V, three phase 77 W for LXM32.U45M2 at 1.5 A, 230 V, single phase
Nominal torque	0.176 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 0.176 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 0.184 N.m for LXM32.U45M2 at 1.5 A, 230 V, single phase
Nominal speed	9000 rpm for LXM32.U60N4 at 1.5 A, 480 V, three phase 9000 rpm for LXM32.U60N4 at 1.5 A, 400 V, three phase 4000 rpm for LXM32.U45M2 at 1.5 A, 230 V, single phase
Shaft end	Keyed
IP degree of protection	IP50 standard
Speed feedback resolution	32768 points/turn
Holding brake	Without
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

Complementary

Range compatibility	Lexium 32
supply voltage max	400 V
Network number of phases	Three phase
Continuous stall current	1.12 A
maximum continuous power	220 W
Maximum current Irms	4.7 A for LXM32.U60N4 at 480 V 4.7 A for LXM32.U60N4 at 400 V 4.7 A for LXM32.U45M2 at 230 V
Maximum permanent current	1.12 A
Switching frequency	8 kHz
Second shaft	Without second shaft end

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Shaft diameter	8 mm
Shaft length	25 mm
key width	12 mm
Feedback type	Single turn SinCos Hiperface
Motor flange size	40 mm
Number of motor stacks	1
Torque constant	0.19 N.m/A at 120 °C
Back emf constant	13.6 V/krpm at 20 °C
Number of motor poles	5.0
Rotor inertia	0.0232 kg.cm²
Stator resistance	17.2 Ohm at 20 °C
Stator inductance	7.3 mH at 20 °C
Stator electrical time constant	0.85 ms at 20 °C
Maximum axial force Fa	0.2 x Fr
Type of cooling	Natural convection
Length	73.4 mm
Centring collar diameter	30 mm
Centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	4.5 mm
Circle diameter of the mounting holes	46 mm
Product weight	0.4 kg
Sizing reference	BSH0401P
Network number of phases	3
Accuracy error [angular]	0.08 °
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	11.000 cm
Package 1 Width	24.000 cm
Package 1 Length	17.000 cm
Package 1 Weight	697.000 g
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm

Package 2 Weight	3.208 kg
Unit Type of Package 3	P06
Number of Units in Package 3	32
Package 3 Height	75.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	33.664 kg

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	198
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)
SCIP Number	8c11b0c9-e501-4810-83eb-05fc6605ede4
REACH Regulation	REACH Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
PVC free	Yes

Use Again

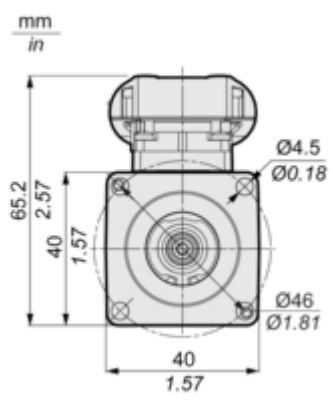
Repack and remanufacture	
End of life manual availability	No need of specific recycling operations
Take-back	No
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

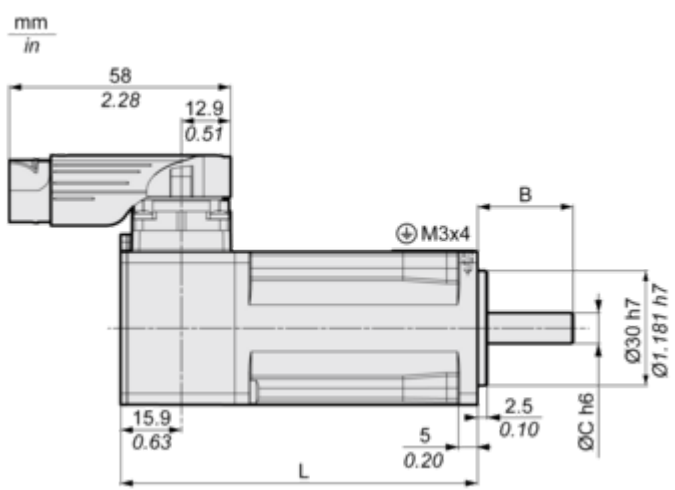
Servo Motors Dimensions

For Servo Motor without Brake

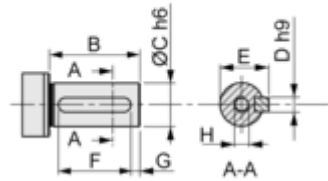
Front view



Left view



DIN 6885 A



	Dimensions in mm	Dimensions in in.
L	73.4	2.89
B	25	0.98
C	8	0.31
D	3	0.12

	Dimensions in mm	Dimensions in in.
E	9.2	0.36
F	12	0.47
G	4	0.16
H	DIN 332 DS M3 x 9	
A	DIN 6885-A3x3x12	