Product datasheet

Specifications

Discontinued

servo motor BMH - 1.2 Nm - 8000 rpm - untapped shaft - with brake - IP54

BMH0701P07F2A

Discontinued on: 9 Feb 2023

EAN Code: 3606485193489

Main

Device short name	BMH
Product or component type	Servo motor
Maximum mechanical speed	8000 rpm
Continuous stall torque	1.2 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 1.2 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 1.4 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 1.4 N.m for LXM32.D12N4 at 3 A, 480 V, three phase
Peak stall torque	4.2 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 4.2 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 4.2 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 4.2 N.m for LXM32.D12N4 at 3 A, 480 V, three phase
Nominal output power	350 W for LXM32.U60N4 at 1.5 A, 400 V, three phase 350 W for LXM32.U60N4 at 1.5 A, 480 V, three phase 700 W for LXM32.D12N4 at 3 A, 400 V, three phase 700 W for LXM32.D12N4 at 3 A, 480 V, three phase
Nominal torque	1.1 N.m for LXM32.U60N4 at 1.5 A, 400 V, three phase 1.1 N.m for LXM32.U60N4 at 1.5 A, 480 V, three phase 1.3 N.m for LXM32.D12N4 at 3 A, 400 V, three phase 1.3 N.m for LXM32.D12N4 at 3 A, 480 V, three phase
Nominal speed	3000 rpm for LXM32.U60N4 at 1.5 A, 400 V, three phase 3000 rpm for LXM32.U60N4 at 1.5 A, 480 V, three phase 5000 rpm for LXM32.D12N4 at 3 A, 400 V, three phase 5000 rpm for LXM32.D12N4 at 3 A, 480 V, three phase
Product compatibility	LXM32.U60N4 at 400...480 V three phase LXM32.D12N4 at 400...480 V three phase
Shaft end	Smooth shaft
IP degree of protection	IP54 standard
Speed feedback resolution	32768 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Rotatable right-angled connectors

Complementary

Range compatibility	Lexium 32
[Us] rated supply voltage	480 V
Network number of phases	Three phase
Continuous stall current	1.78 A
Continuous power	1.05 W

Maximum current Irms	6 A for LXM32.U60N4 6 A for LXM32.D12N4
Maximum permanent current	5.97 A
Second shaft	Without second shaft end
Shaft diameter	11 mm
Shaft length	23 mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	3 N.m holding brake
Motor flange size	70 mm
Number of motor stacks	1
Torque constant	0.79 N.m/A at 120 °C
Back emf constant	50.72 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	0.7 kg.cm²
Stator resistance	8.3 Ohm at 20 °C
Stator inductance	23.4 mH at 20 °C
Stator electrical time constant	2.8 ms at 20 °C
Maximum radial force Fr	660 N at 1000 rpm 520 N at 2000 rpm 460 N at 3000 rpm 410 N at 4000 rpm 380 N at 5000 rpm 360 N at 6000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	7 W
type of cooling	Natural convection
Length	161 mm
Centring collar diameter	60 mm
centring collar depth	2.5 mm
Number of mounting holes	4
Mounting holes diameter	5.5 mm
Circle diameter of the mounting holes	82 mm
Net weight	2.6 kg
Sizing reference	BMH0701P
Network number of phases	3
Accuracy error [angular]	4.8 °
Coefficient 1_1	-0.0000187500000003 N.m/rpm
Coefficient 1_2	0.000000000000000000562440546 N.m/rpm²
Coefficient 1_3	-0.000000000000000000000002965143 N.m/rpm3
Coefficient 1_4	0.000000000000000000000000000711 N.m/rpm4
Coefficient 1_5	-0.000000000000000000000000000000078919 N.m/rpm5
Coefficient 1_6	0.000000000000000000000000000000000032 N.m/rpm6
Saturation coefficient 1	-0.000000000000000000038243890773

Saturation coefficient 2	-0.0078140960163432
Saturation coefficient 3	0.000000000000000000158151428
Coefficient 2_1	0.00000875000000000026 N.m/rpm
Temperature copper hot	135 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C
Motor voltage drop coefficient	1

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.600 cm
Package 1 Width	19.300 cm
Package 1 Length	39.600 cm
Package 1 Weight	2.616 kg
Unit Type of Package 2	S04
Number of Units in Package 2	2
Package 2 Height	30.000 cm
Package 2 Width	40.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	6.608 kg
Unit Type of Package 3	P06
Number of Units in Package 3	12
Package 3 Height	77.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	40.636 kg

Logistical informations

Country of origin	DE

Contractual warranty

Warranty	18 months

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

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	**784**
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	**A7df881f-135f-4256-b8c2-ea55d4c9a151**
REACh Regulation	**REACh Declaration**
PVC free	**Yes**

Use Again

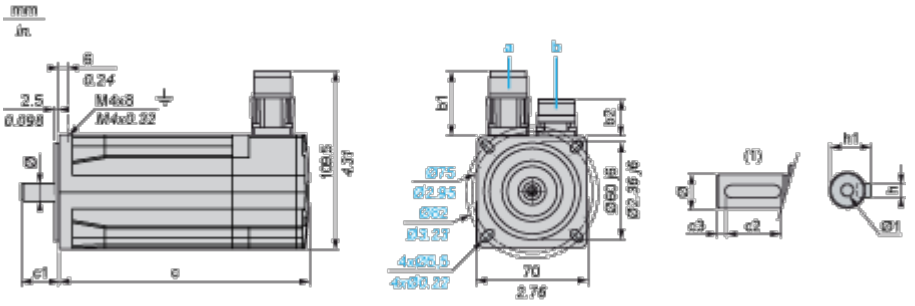
Repack and remanufacture

Circularity Profile	**No need of specific recycling operations**
Take-back	**No**
WEEE	**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

Example with Straight Connectors



a: Power supply for servo motor brake

b: Power supply for servo motor encoder

(1) Shaft end, keyed slot (optional)

Dimensions in mm

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
39.5	25.5	39.5	39.5	122	161	23	18	2.5	4 h9	$12.5^{+0}_{-0.13}$	11 k6	M4 x 14

Dimensions in in.

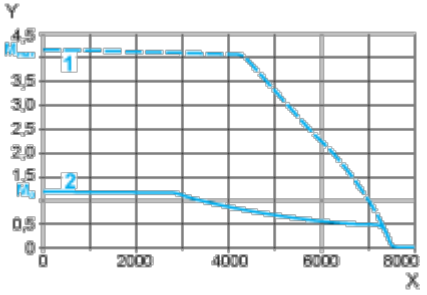
Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)	c1	c2	c3	h	h1	Ø	Ø1 for screws
b1	b2	b1	b2									
1.55	1	1.55	1.55	4.80	6.33	0.90	0.70	0.09	0.16 h9	$0.49^{+0}_{-0.0051}$	0.43 k6	M4 x 0.55

Performance Curves

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



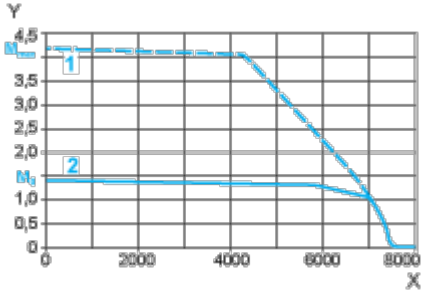
X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque

Servo motor with LXM32•D12N4 servo drive



X Speed in rpm

Y Torque in Nm

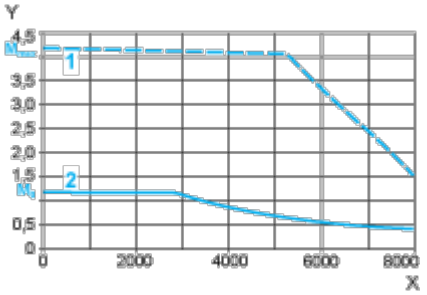
1 Peak torque

2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•U60N4 servo drive



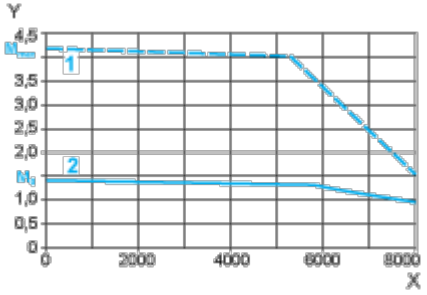
X Speed in rpm

Y Torque in Nm

1 Peak torque

2 Continuous torque

Servo motor with LXM32•D12N4 servo drive



X Speed in rpm

Y Torque in Nm

1 Peak torque

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