

BMH2051P12F1A

servo motor BMH - 34.4 Nm - 3800 rpm -
keyed shaft - with brake - IP54



Main

Product or component type	Servo motor
Device short name	BMH
Maximum mechanical speed	3800 rpm
Continuous stall torque	34.4 N.m for LXM32.D72N4 24 A at 400 V three phase 34.4 N.m for LXM32.D72N4 24 A at 480 V three phase
Peak stall torque	103.4 N.m for LXM32.D72N4 24 A at 400 V three phase 103.4 N.m for LXM32.D72N4 24 A at 480 V three phase
Nominal output power	5400 W for LXM32.D72N4 24 A at 400 V three phase 5400 W for LXM32.D72N4 24 A at 480 V three phase
Nominal torque	25.8 N.m for LXM32.D72N4 24 A at 400 V three phase 25.8 N.m for LXM32.D72N4 24 A at 480 V three phase
Nominal speed	2000 rpm for LXM32.D72N4 24 A at 400 V three phase 2000 rpm for LXM32.D72N4 24 A at 480 V three phase
Product compatibility	LXM32.D72N4 at 400...480 V three phase
Shaft end	Keyed
IP degree of protection	IP54 (standard)
Speed feedback resolution	131072 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors

Complementary

Range compatibility	Lexium 32
[Us] rated supply voltage	480 V
Network number of phases	Three phase
Continuous stall current	21.5 A
Continuous power	6.8 W
Maximum current Irms	72 A for LXM32.D72N4
Maximum permanent current	78.1 A
Second shaft	Without second shaft end
Shaft diameter	38 mm
Shaft length	80 mm
Key width	70 mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	80 N.m (holding brake)
Motor flange size	205 mm
Number of motor stacks	1

Back emf constant	104 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	87.4 kg.cm ²
Stator resistance	0.3 Ohm at 20 °C
Stator inductance	5.9 mH at 20 °C
Stator electrical time constant	19.7 ms at 20 °C
Maximum radial force Fr	3730 N at 1000 rpm 2960 N at 2000 rpm 2580 N at 3000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	40 W
Type of cooling	Natural convection
Length	370.5 mm
Centring collar diameter	180 mm
Centring collar depth	4 mm
Number of mounting holes	4
Mounting holes diameter	14 mm
Circle diameter of the mounting holes	215 mm
Product weight	37.9 kg

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0936 - Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available Download Product Environmental
Product end of life instructions	Need no specific recycling operations

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)
(2) For screw M12 x 28 mm/M12 x 1.10 in.

Dimensions in mm

Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
259	54	25.5	265	60	39.5	312	370.5

Dimensions in in.

Straight connectors			Rotatable angled connectors			c (without brake)	c (with brake)
b	b1	b2	b	b1	b2		
10.19	2.12	1.00	10.43	2.36	1.55	12.28	14.58

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D72N4 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•D72N4 servo drive



- X Speed in rpm
Y Torque in Nm
1 Peak torque
2 Continuous torque