

# BMH2053P32F1A

servo motor BMH - 84 Nm - 3800 rpm - keyed shaft - with brake - IP65/IP67



## Main

Product or component type	Servo motor
Device short name	BMH
Maximum mechanical speed	3800 rpm
Continuous stall torque	84 N.m for LXM32.D72N4 24 A at 400 V three phase 84 N.m for LXM32.D72N4 24 A at 480 V three phase
Peak stall torque	232 N.m for LXM32.D72N4 24 A at 400 V three phase 232 N.m for LXM32.D72N4 24 A at 480 V three phase
Nominal output power	6500 W for LXM32.D72N4 24 A at 400 V three phase 6500 W for LXM32.D72N4 24 A at 480 V three phase
Nominal torque	52.2 N.m for LXM32.D72N4 24 A at 400 V three phase 52.2 N.m for LXM32.D72N4 24 A at 480 V three phase
Nominal speed	1200 rpm for LXM32.D72N4 24 A at 400 V three phase 1200 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	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	Straight connectors

## Complementary

Range compatibility	Lexium 32
[Us] rated supply voltage	480 V
Network number of phases	Three phase
Continuous stall current	25.2 A
Continuous power	9.6 W
Maximum current Irms	72 A for LXM32.D72N4
Maximum permanent current	107.4 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	3

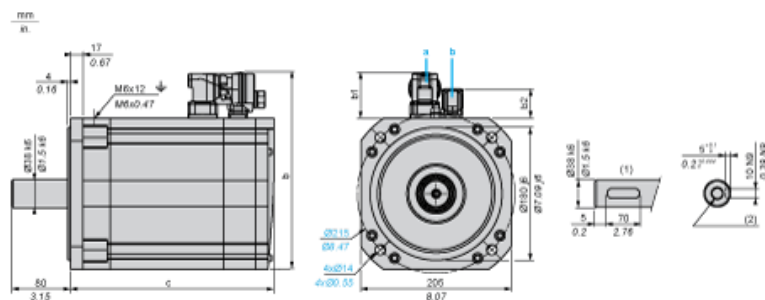
Torque constant	3.5 N.m/A at 120 °C
Back emf constant	218 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	206 kg.cm <sup>2</sup>
Stator resistance	0.32 Ohm at 20 °C
Stator inductance	6.9 mH at 20 °C
Stator electrical time constant	21.6 ms at 20 °C
Maximum radial force Fr	4500 N at 1000 rpm 3570 N at 2000 rpm 3120 N at 3000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	40 W
Type of cooling	Natural convection
Length	538.5 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	71.9 kg

### Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0936 - <a href="#">Schneider Electric declaration of conformity</a>
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available <a href="#">Download Product Environmental</a>
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	489	538.5

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	19.25	21.20

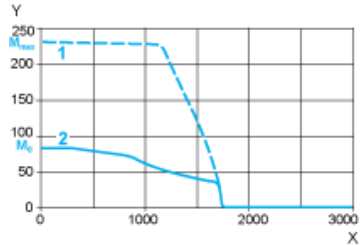
---

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

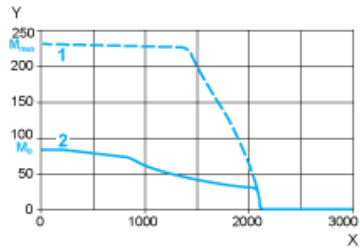
---

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