

# BMH0701P12A2A

servo motor BMH - 1.2 Nm - 8000 rpm - keyed  
shaft - without brake - IP54



## Main

|                           |                                                                                                                                                                                                                      |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                                                                                                                          |
| Device short name         | BMH                                                                                                                                                                                                                  |
| Maximum mechanical speed  | 8000 rpm                                                                                                                                                                                                             |
| Continuous stall torque   | 1.2 N.m for LXM32.U60N4 1.5 A at 400 V three phase<br>1.2 N.m for LXM32.U60N4 1.5 A at 480 V three phase<br>1.4 N.m for LXM32.D12N4 3 A at 400 V three phase<br>1.4 N.m for LXM32.D12N4 3 A at 480 V three phase     |
| Peak stall torque         | 4.2 N.m for LXM32.U60N4 1.5 A at 400 V three phase<br>4.2 N.m for LXM32.U60N4 1.5 A at 480 V three phase<br>4.2 N.m for LXM32.D12N4 3 A at 400 V three phase<br>4.2 N.m for LXM32.D12N4 3 A at 480 V three phase     |
| Nominal output power      | 350 W for LXM32.U60N4 1.5 A at 400 V three phase<br>350 W for LXM32.U60N4 1.5 A at 480 V three phase<br>700 W for LXM32.D12N4 3 A at 400 V three phase<br>700 W for LXM32.D12N4 3 A at 480 V three phase             |
| Nominal torque            | 1.1 N.m for LXM32.U60N4 1.5 A at 400 V three phase<br>1.1 N.m for LXM32.U60N4 1.5 A at 480 V three phase<br>1.3 N.m for LXM32.D12N4 3 A at 400 V three phase<br>1.3 N.m for LXM32.D12N4 3 A at 480 V three phase     |
| Nominal speed             | 3000 rpm for LXM32.U60N4 1.5 A at 400 V three phase<br>3000 rpm for LXM32.U60N4 1.5 A at 480 V three phase<br>5000 rpm for LXM32.D12N4 3 A at 400 V three phase<br>5000 rpm for LXM32.D12N4 3 A at 480 V three phase |
| Product compatibility     | LXM32.U60N4 at 400...480 V three phase<br>LXM32.D12N4 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             | Without                                                                                                                                                                                                              |
| 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<br>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                                                                                                                      |
| Key width                             | 18 mm                                                                                                                      |
| Feedback type                         | Multiturn SinCos Hiperface                                                                                                 |
| 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                         | 0.59 kg.cm <sup>2</sup>                                                                                                    |
| 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<br>520 N at 2000 rpm<br>460 N at 3000 rpm<br>410 N at 4000 rpm<br>380 N at 5000 rpm<br>360 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 122 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                                                                                                                      |
| Product weight                        | 1.6 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)

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 <sup>+0</sup> <sub>-0.13</sub> | 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 <sup>+0</sup> <sub>-0.0051</sub> | 0.43 k6 | M4 x 0.55     |

## 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
- 2 Continuous torque