

# BMH0702P21A2A

servo motor BMH - 2.5 Nm - 8000 rpm -  
untapped shaft - without brake - IP65/IP67



## Main

|                           |                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                            |
| Device short name         | BMH                                                                                                    |
| Maximum mechanical speed  | 8000 rpm                                                                                               |
| Continuous stall torque   | 2.5 N.m for LXM32.D12N4 3 A at 400 V three phase<br>2.5 N.m for LXM32.D12N4 3 A at 480 V three phase   |
| Peak stall torque         | 7.4 N.m for LXM32.D12N4 3 A at 400 V three phase<br>7.4 N.m for LXM32.D12N4 3 A at 480 V three phase   |
| Nominal output power      | 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            | 2.2 N.m for LXM32.D12N4 3 A at 400 V three phase<br>2.2 N.m for LXM32.D12N4 3 A at 480 V three phase   |
| Nominal speed             | 3000 rpm for LXM32.D12N4 3 A at 400 V three phase<br>3000 rpm for LXM32.D12N4 3 A at 480 V three phase |
| Product compatibility     | LXM32.D12N4 at 400...480 V three phase                                                                 |
| Shaft end                 | Untapped                                                                                               |
| IP degree of protection   | IP65 (standard)<br>IP67 (with IP67 kit)                                                                |
| Speed feedback resolution | 131072 points/turn                                                                                     |
| 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        | 2.94 A                       |
| Continuous power                | 1.51 W                       |
| Maximum current Irms            | 9.7 A for LXM32.D12N4        |
| Maximum permanent current       | 9.68 A                       |
| Second shaft                    | Without second shaft end     |
| Shaft diameter                  | 11 mm                        |
| Shaft length                    | 23 mm                        |
| Feedback type                   | Single turn SinCos Hiperface |
| Motor flange size               | 70 mm                        |
| Number of motor stacks          | 2                            |
| Torque constant                 | 0.84 N.m/A at 120 °C         |
| Back emf constant               | 54.08 V/krpm at 120 °C       |
| Number of motor poles           | 10                           |
| Rotor inertia                   | 1.13 kg.cm <sup>2</sup>      |
| Stator resistance               | 3.8 Ohm at 20 °C             |
| Stator inductance               | 12.2 mH at 20 °C             |
| Stator electrical time constant | 3.2 ms at 20 °C              |

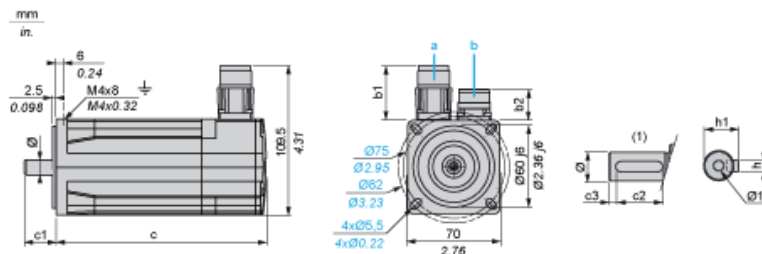
|                                       |                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Maximum radial force Fr               | 710 N at 1000 rpm<br>560 N at 2000 rpm<br>490 N at 3000 rpm<br>450 N at 4000 rpm<br>410 N at 5000 rpm<br>390 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 154 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                        | 2.3 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 | 154               | 193            | 23 | 18 | 2.5 | 4 h9 | 12.5 <sup>+0</sup> <sub>-0.13</sub> | 11 k6 | M4 x 14       |

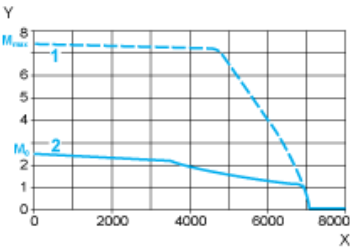
Dimensions in in.

| 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 | 6.06              | 7.59           | 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•D12N4 servo drive

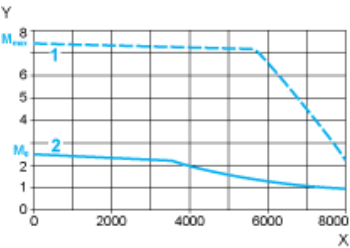


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

480 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D12N4 servo drive



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