

# BMH0703P32A1A

servo motor BMH - 3.4 Nm - 8000 rpm - keyed  
shaft - without brake - IP65/IP67



## Main

|                           |                                                                                                        |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                            |
| Device short name         | BMH                                                                                                    |
| Maximum mechanical speed  | 8000 rpm                                                                                               |
| Continuous stall torque   | 3.4 N.m for LXM32.D18N4 6 A at 400 V three phase<br>3.4 N.m for LXM32.D18N4 6 A at 480 V three phase   |
| Peak stall torque         | 10.2 N.m for LXM32.D18N4 6 A at 400 V three phase<br>10.2 N.m for LXM32.D18N4 6 A at 480 V three phase |
| Nominal output power      | 1300 W for LXM32.D18N4 6 A at 400 V three phase<br>1300 W for LXM32.D18N4 6 A at 480 V three phase     |
| Nominal torque            | 2.4 N.m for LXM32.D18N4 6 A at 400 V three phase<br>2.4 N.m for LXM32.D18N4 6 A at 480 V three phase   |
| Nominal speed             | 5000 rpm for LXM32.D18N4 6 A at 400 V three phase<br>5000 rpm for LXM32.D18N4 6 A at 480 V three phase |
| Product compatibility     | LXM32.D18N4 at 400...480 V three phase                                                                 |
| Shaft end                 | Keyed                                                                                                  |
| IP degree of protection   | IP65 (standard)<br>IP67 (with IP67 kit)                                                                |
| Speed feedback resolution | 131072 points/turn x 4096 turns                                                                        |
| Holding brake             | Without                                                                                                |
| 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  | 3.91 A                     |
| Continuous power          | 1.68 W                     |
| Maximum current Irms      | 12.6 A for LXM32.D18N4     |
| Maximum permanent current | 12.57 A                    |
| Second shaft              | Without second shaft end   |
| Shaft diameter            | 14 mm                      |
| Shaft length              | 30 mm                      |
| Key width                 | 20 mm                      |
| Feedback type             | Multiturn SinCos Hiperface |
| Motor flange size         | 70 mm                      |
| Number of motor stacks    | 3                          |
| Torque constant           | 0.87 N.m/A at 120 °C       |
| Back emf constant         | 55.8 V/krpm at 120 °C      |
| Number of motor poles     | 10                         |
| Rotor inertia             | 1.67 kg.cm <sup>2</sup>    |
| Stator resistance         | 2.65 Ohm at 20 °C          |

|                                       |                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Stator inductance                     | 8.6 mH at 20 °C                                                                                                            |
| Stator electrical time constant       | 3.2 ms at 20 °C                                                                                                            |
| Maximum radial force Fr               | 730 N at 1000 rpm<br>580 N at 2000 rpm<br>510 N at 3000 rpm<br>460 N at 4000 rpm<br>430 N at 5000 rpm<br>400 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 186 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                        | 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 | 186               | 225            | 30 | 20 | 5  | 5 h9 | 16 <sup>+0</sup> <sub>-0.13</sub> | 14 k6 | M5 x 17       |

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 | 7.32              | 8.85           | 1.18 | 0.78 | 0.19 | 0.20 h9 | 0.63 <sup>+0</sup> <sub>-0.0051</sub> | 0.55 k6 | M5 x 0.67     |

400 V 3-Phase Supply Voltage

Torque/Speed Curves

Servo motor with LXM32•D18N4 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•D18N4 servo drive



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