

## BMH1901P37A2A

servo motor BMH - 30 Nm - 5000 rpm - keyed  
shaft - without brake - IP65/IP67





## Main

|                           |                                                                                                                                                                                                                                                                                                                                  |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product or component type | Servo motor                                                                                                                                                                                                                                                                                                                      |
| Device short name         | BMH                                                                                                                                                                                                                                                                                                                              |
| Maximum mechanical speed  | 4000 rpm                                                                                                                                                                                                                                                                                                                         |
| Continuous stall torque   | 30 N.m for LXM32.D72N4 24 A at 400 V three phase<br>30 N.m for LXM32.D72N4 24 A at 480 V three phase<br>30 N.m for LXM32MD85N4 32 A at 400 V three phase<br>30 N.m for LXM32MD85N4 32 A at 480 V three phase<br>30 N.m for LXM32MC10N4 40 A at 400 V three phase<br>30 N.m for LXM32MC10N4 40 A at 480 V three phase             |
| Peak stall torque         | 77.7 N.m for LXM32.D72N4 24 A at 400 V three phase<br>77.7 N.m for LXM32.D72N4 24 A at 480 V three phase<br>86.6 N.m for LXM32MD85N4 32 A at 400 V three phase<br>86.6 N.m for LXM32MD85N4 32 A at 480 V three phase<br>89.7 N.m for LXM32MC10N4 40 A at 400 V three phase<br>89.7 N.m for LXM32MC10N4 40 A at 480 V three phase |
| Nominal output power      | 4800 W for LXM32.D72N4 24 A at 400 V three phase<br>4800 W for LXM32.D72N4 24 A at 480 V three phase<br>5180 W for LXM32MD85N4 32 A at 400 V three phase<br>5180 W for LXM32MD85N4 32 A at 480 V three phase<br>5180 W for LXM32MC10N4 40 A at 400 V three phase<br>5180 W for LXM32MC10N4 40 A at 480 V three phase             |
| Nominal torque            | 18.4 N.m for LXM32.D72N4 24 A at 400 V three phase<br>18.4 N.m for LXM32.D72N4 24 A at 480 V three phase<br>16.5 N.m for LXM32MD85N4 32 A at 400 V three phase<br>16.5 N.m for LXM32MD85N4 32 A at 480 V three phase<br>16.5 N.m for LXM32MC10N4 40 A at 400 V three phase<br>16.5 N.m for LXM32MC10N4 40 A at 480 V three phase |
| Nominal speed             | 2500 rpm for LXM32.D72N4 24 A at 400 V three phase<br>2500 rpm for LXM32.D72N4 24 A at 480 V three phase<br>3000 rpm for LXM32MD85N4 32 A at 400 V three phase<br>3000 rpm for LXM32MD85N4 32 A at 480 V three phase<br>3000 rpm for LXM32MC10N4 40 A at 400 V three phase<br>3000 rpm for LXM32MC10N4 40 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)<br>IP67 (with IP67 kit)                                                                                                                                                                                                                                                                                          |
| Speed feedback resolution | 32768 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              | 23.2 A                     |
| Continuous power                      | 5.24 W                     |
| Maximum current Irms                  | 72 A for LXM32.D72N4       |
| Maximum permanent current             | 89.6 A                     |
| Second shaft                          | Without second shaft end   |
| Shaft diameter                        | 38 mm                      |
| Shaft length                          | 80 mm                      |
| Key width                             | 70 mm                      |
| Feedback type                         | Multiturn SinCos Hiperface |
| Motor flange size                     | 190 mm                     |
| Number of motor stacks                | 1                          |
| Torque constant                       | 1.3 N.m/A at 120 °C        |
| Back emf constant                     | 87.6 V/krpm at 120 °C      |
| Number of motor poles                 | 10                         |
| Rotor inertia                         | 67.7 kg.cm²                |
| Stator resistance                     | 0.24 Ohm at 20 °C          |
| Stator inductance                     | 5.08 mH at 20 °C           |
| Stator electrical time constant       | 21.2 ms at 20 °C           |
| Maximum radial force Fr               | 3730 N at 1000 rpm         |
| Maximum axial force Fa                | 0.2 x Fr                   |
| Type of cooling                       | Natural convection         |
| Length                                | 190 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                        | 19 kg                      |

## Offer Sustainability

|                                  |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                                 |
| RoHS (date code: YYWW)           | Compliant - since 1501 - <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                                                 |

Technical drawing of the 3D-TEC 3000 pump assembly, showing three views: side view, front view, and detail view.

**Side View Dimensions:**

- Overall height: 180 B
- Flange thickness: 7.09 B
- Flange outer diameter: Ø 38 k6
- Flange inner diameter: Ø 17.5 k6
- Mounting flange thickness: 4
- Mounting flange outer diameter: 80
- Mounting flange inner diameter: 13
- Mounting flange hole diameter: Ø ±1
- Mounting flange hole spacing: c ±0.039
- Mounting flange hole diameter: 3.15
- Mounting flange hole diameter: 0.16
- Mounting flange hole diameter: 0.51
- Mounting flange hole diameter: 31.8
- Mounting flange hole diameter: 1.25
- Mounting flange hole diameter: 17
- Mounting flange hole diameter: 0.67
- Mounting flange hole diameter: 1.7
- Mounting flange hole diameter: 0.67

**Front View Dimensions:**

- Overall diameter: Ø 14
- Overall diameter: Ø 0.55
- Overall diameter: Ø 21.5
- Overall diameter: Ø 8.47
- Overall diameter: 257
- Overall diameter: 10.12
- Overall diameter: 67
- Overall diameter: 2.64
- Overall diameter: R22
- Overall diameter: R0.87
- Overall diameter: 190
- Overall diameter: 7.48

**Detail View Dimensions:**

- Detail view (1) shows the mounting flange with dimensions: 80, 3.15, Ø 38 k6, Ø 17.5 k6, 70, 5, 2.76, 0.2, M12, 41, 1.67, 10 H9, 0.39 H9.

- Dimensions in mm

| c (without brake) | c (with brake) | c1 (without brake) | c1 (with brake) |
|-------------------|----------------|--------------------|-----------------|
| 190               | 248            | 65                 | 123             |

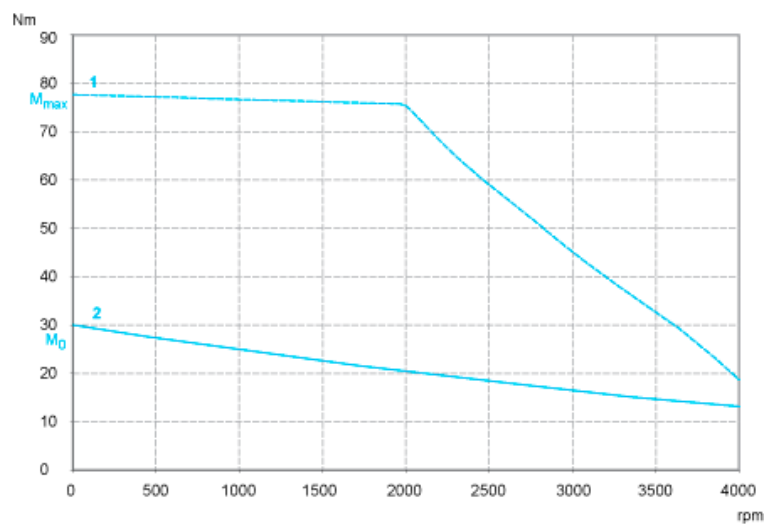
Dimensions in in.

| c (without brake) | c (with brake) | c1 (without brake) | c1 (with brake) |
|-------------------|----------------|--------------------|-----------------|
| 7.48              | 9.76           | 2.56               | 4.84            |

## Torque/Speed Curves

### 400 V 3-Phase Supply Voltage

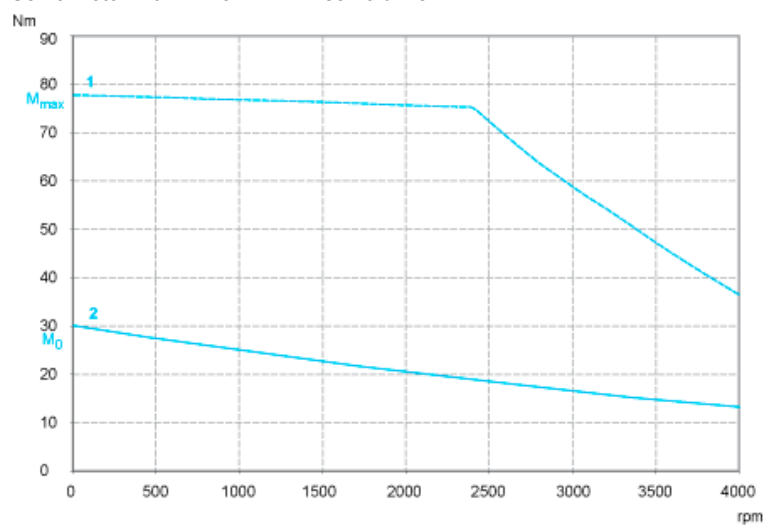
Servo motor with LXM32-D72N4 servo drive



- (1) Peak torque
- (2) Continuous torque

### 480 V 3-Phase Supply Voltage

Servo motor with LXM32-D72N4 servo drive



- (1) Peak torque
- (2) Continuous torque