

# BMH2053P07F1A

servo motor BMH - 84 Nm - 3800 rpm -  
untapped shaft - with brake - IP54



## 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<br>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<br>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<br>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<br>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<br>1200 rpm for LXM32.D72N4 24 A at 480 V three phase |
| Product compatibility     | LXM32.D72N4 at 400...480 V three phase                                                                   |
| Shaft end                 | Untapped                                                                                                 |
| IP degree of protection   | IP54 (standard)                                                                                          |
| Speed feedback resolution | 32768 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                      |
| 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        |

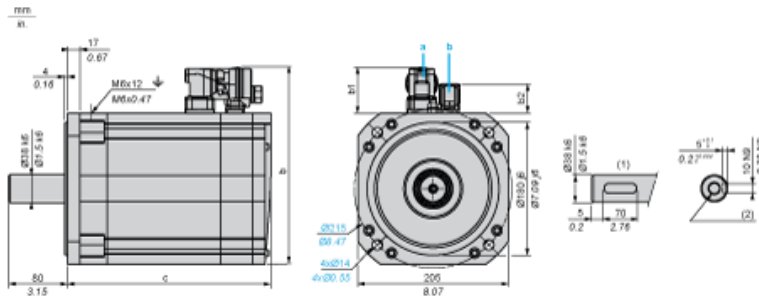
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|---------------------------------------|----------------------------------------------------------------|
| Back emf constant                     | 218 V/krpm at 120 °C                                           |
| Number of motor poles                 | 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<br>3570 N at 2000 rpm<br>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          |

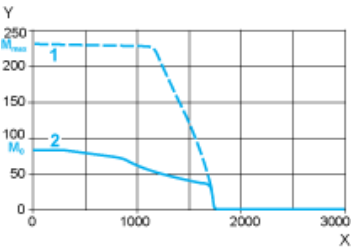
Dimensions in in.

| 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

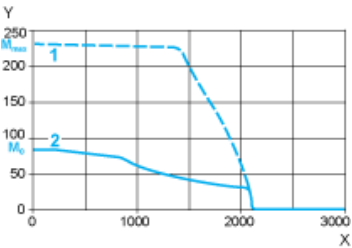


- X Speed in rpm  
Y Torque in Nm  
1 Peak torque  
2 Continuous torque

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