# Product data sheet

Specifications



## servo motor BMH, Lexium 32, 84Nm, 3800rpm, keyed shaft, with brake, IP54, 128 multiturn encoder

BMH2053P12F2A

**Product availability: Non-Stock - Not normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Device short name** | BMH |
| **Product or Component Type** | Servo motor |
| **Maximum mechanical speed** | 3800 rpm |
| **Continuous stall torque** | 743.5 lbf.in (84 N.m) LXM32.D72N4 24 A, 400 V, three phase<br>743.5 lbf.in (84 N.m) LXM32.D72N4 24 A, 480 V, three phase |
| **Peak stall torque** | 2053.4 lbf.in (232 N.m) LXM32.D72N4 24 A, 400 V, three phase<br>2053.4 lbf.in (232 N.m) LXM32.D72N4 24 A, 480 V, three phase |
| **Nominal output power** | 6500 W LXM32.D72N4 24 A, 400 V, three phase<br>6500 W LXM32.D72N4 24 A, 480 V, three phase |
| **Nominal torque** | 462.008 lbf.in (52.2 N.m) LXM32.D72N4 24 A, 400 V, three phase<br>462.008 lbf.in (52.2 N.m) LXM32.D72N4 24 A, 480 V, three phase |
| **Nominal speed** | 1200 rpm LXM32.D72N4 24 A, 400 V, three phase<br>1200 rpm LXM32.D72N4 24 A, 480 V, three phase |
| **Product compatibility** | LXM32.D72N4 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** | With |
| **Mounting Support** | International standard flange |
| **Electrical Connection** | Rotatable right-angled connectors |

## Complementary

| | |
|---|---|
| **Range Compatibility** | Lexium 32 |
| **[Us] rated supply voltage** | 480 V |
| **Phase** | Three phase |
| **Continuous stall current** | 25.2 A |
| **Continuous power** | 9.6 W |
| **Maximum current Irms** | 136.1 A LXM32.D72N4 |
| **Maximum permanent current** | 107.4 A |
| **Second shaft** | Without second shaft end |
| **Shaft diameter** | 1.5 in (38 mm) |
| **Shaft length** | 3.1 in (80 mm) |
| **Key width** | 2.8 in (70 mm) |
| **Feedback type** | Multiturn SinCos Hiperface |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|---|
| **Holding torque** | 708.06 lbf.in (80 N.m) holding brake |
| **Motor flange size** | 8.07 in (205 mm) |
| **Number of motor stacks** | 3 |
| **Torque constant** | 2.76 N.m/A 248 °F (120 °C) |
| **Back emf constant** | 218 V/krpm 248 °F (120 °C) |
| **Number of motor poles** | 5.0 |
| **Rotor inertia** | 206 kg.cm² |
| **Stator resistance** | 0.32 Ohm 68 °F (20 °C) |
| **Stator inductance** | 2.15 mH 68 °F (20 °C) |
| **Stator electrical time constant** | 21.6 ms 68 °F (20 °C) |
| **Maximum radial force Fr** | 4500 N 1000 rpm<br>3570 N 2000 rpm<br>3120 N 3000 rpm |
| **Maximum axial force Fa** | 0.2 x Fr |
| **Brake pull-in power** | 40 W |
| **Type of cooling** | Natural convection |
| **Length** | 21.2 in (538.5 mm) |
| **Centring collar diameter** | 7.09 in (180 mm) |
| **Centring collar depth** | 0.2 in (4 mm) |
| **Number of mounting holes** | 4 |
| **Mounting holes diameter** | 0.6 in (14 mm) |
| **Circle diameter of the mounting holes** | 8.5 in (215 mm) |
| **Product Weight** | 158.5 lb(US) (71.9 kg) |
| **Sizing reference** | BMH2053P |
| **Network number of phases** | 3 |
| **Accuracy error [angular]** | 1.4 ° |
| **Temperature copper hot** | 275 °F (135 °C) |
| **Temperature magnet hot** | 212 °F (100 °C) |
| **Temperature magnet rt** | 68 °F (20 °C) |
| **Output current 3s peak** | 136.1 A |
| **Inertia** | 16.0 kg.cm² of brake<br>190.0 kg.cm² of motor |

# Ordering and shipping details

| | |
|---|---|
| **Category** | US1PC5318282 |
| **Discount Schedule** | PC53 |
| **GTIN** | 3606485202211 |
| **Returnability** | No |
| **Country of origin** | DE |

# Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |

| | |
|---|---|
| **Nbr. of units in pkg.** | 1 |
| **Package 1 Height** | 14.2 in (36.0 cm) |
| **Package 1 Width** | 12.2 in (31.0 cm) |
| **Package 1 Length** | 28.7 in (73.0 cm) |
| **Package weight(Lbs)** | 165.3 lb(US) (75.0 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **7 337 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **328 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **10 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0.7 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **6 992 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **7 kg CO2 eq.** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **No** |
| SCIP Number | **A7df881f-135f-4256-b8c2-ea55d4c9a151** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| California proposition 65 | **WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov** |
| PVC free | **Yes** |

## Use Longer

### Lifetime extension

| | |
|---|---|
| Repair | **No** |

## Use Again

### Repack and remanufacture

| | |
|---|---|
| Circularity Profile | **No need of specific recycling operations** |
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.** |