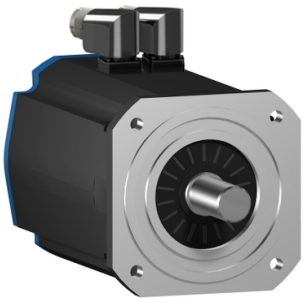
# Product datasheet

Specifications



## servo motor BSH, Lexium 15, 62.5N.m, 500rpm, 205mm, keyed shaft, Sincos multi turn, without brake, IP50

BSH2052M12A3A

Discontinued

## Main

| | |
|---|---|
| **Device short name** | BSH |
| **Product or component type** | Servo motor |
| **Maximum mechanical speed** | 3800 rpm |
| **Continuous stall torque** | 62.5 N.m for LXM15HC11N4X, 230 V, three phase<br>62.5 N.m for LXM15HC11N4X, 400 V, three phase<br>62.5 N.m for LXM15HC11N4X, 480 V, three phase<br>62.5 N.m for LXM15HC20N4X, 230 V, three phase<br>62.5 N.m for LXM15HC20N4X, 400 V, three phase<br>62.5 N.m for LXM15HC20N4X, 480 V, three phase |
| **Peak stall torque** | 220 N.m for LXM15HC11N4X, 480 V, three phase<br>220 N.m for LXM15HC20N4X, 230 V, three phase<br>220 N.m for LXM15HC20N4X, 400 V, three phase<br>220 N.m for LXM15HC20N4X, 480 V, three phase<br>220 N.m for LXM15HC11N4X, 230 V, three phase<br>220 N.m for LXM15HC11N4X, 400 V, three phase |
| **Nominal output power** | 5000 W for LXM15HC11N4X, 400 V, three phase<br>3000 W for LXM15HC11N4X, 230 V, three phase<br>3000 W for LXM15HC20N4X, 230 V, three phase<br>5000 W for LXM15HC20N4X, 400 V, three phase<br>7150 W for LXM15HC11N4X, 480 V, three phase<br>7150 W for LXM15HC20N4X, 480 V, three phase |
| **Nominal torque** | 45.6 N.m for LXM15HC11N4X, 480 V, three phase<br>45.6 N.m for LXM15HC20N4X, 480 V, three phase<br>51.7 N.m for LXM15HC11N4X, 400 V, three phase<br>51.7 N.m for LXM15HC20N4X, 400 V, three phase<br>57.9 N.m for LXM15HC11N4X, 230 V, three phase<br>57.9 N.m for LXM15HC20N4X, 230 V, three phase |
| **Nominal speed** | 1000 rpm for LXM15HC11N4X, 400 V, three phase<br>1000 rpm for LXM15HC20N4X, 400 V, three phase<br>1500 rpm for LXM15HC11N4X, 480 V, three phase<br>1500 rpm for LXM15HC20N4X, 480 V, three phase<br>500 rpm for LXM15HC11N4X, 230 V, three phase<br>500 rpm for LXM15HC20N4X, 230 V, three phase |
| **Product compatibility** | LXM15HC11N4X at 400 V three phase<br>LXM15HC11N4X at 480 V three phase<br>LXM15HC11N4X at 230 V three phase<br>LXM15HC20N4X at 230 V three phase<br>LXM15HC20N4X at 400 V three phase<br>LXM15HC20N4X at 480 V three phase |
| **Shaft end** | Keyed |
| **IP degree of protection** | IP50 standard |
| **Speed feedback resolution** | 131072 points/turn x 4096 turns |
| **Holding brake** | Without |
| **Mounting support** | International standard flange |

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|---|---|
| **Electrical connection** | Rotatable right-angled connectors<br>Power connection terminal |

## Complementary

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|---|---|
| **Range compatibility** | Lexium 15 |
| **supply voltage max** | 480 V |
| **Network number of phases** | Three phase |
| **Continuous stall current** | 12.4 A |
| **maximum continuous power** | 8.54 W |
| **Maximum current Irms** | 49.6 A for LXM15HC11N4X<br>49.6 A for LXM15HC20N4X |
| **Maximum permanent current** | 49.6 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** | 205 mm |
| **Number of motor stacks** | 2 |
| **Torque constant** | 5.04 N.m/A at 120 °C |
| **Back emf constant** | 314 V/krpm at 120 °C |
| **Rotor inertia** | 129 kg.cm² |
| **Stator resistance** | 1.1 Ohm at 20 °C |
| **Stator inductance** | 20.6 mH at 20 °C |
| **Stator electrical time constant** | 18.72 ms at 20 °C |
| **Maximum radial force Fr** | 2910 N at 3000 rpm<br>3330 N at 2000 rpm<br>4200 N at 1000 rpm |
| **Maximum axial force Fa** | 0.2 x Fr |
| **Type of cooling** | Natural convection |
| **Length** | 405 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 |
| **Net weight** | 50 kg |
| **Sizing reference** | BSH2052M |
| **Network number of phases** | 3 |
| **Accuracy error [angular]** | 1.4 ° |
| **Temperature copper hot** | 120 °C |
| **Temperature magnet hot** | 100 °C |
| **Temperature magnet rt** | 20 °C |

## Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |

## 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 >

### Use Longer

#### Lifetime extension

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