# Product datasheet Characteristics

## BCH2MR4512CA6C

servo motor BCH - 180mm - 4500W - w oil seal - smooth - straight con



#### Main

|                           |             | 2. |
|---------------------------|-------------|----|
| Range compatibility       | Lexium 28   |    |
| Product or component type | Servo motor |    |
| Device short name         | BCH2        |    |

### Complementary

| Complementary             |   |  |
|---------------------------|---|--|
| Maximum mechanical speed  | 3000 rpm  |  |
| [Us] rated supply voltage | 220 V   |  |
| Network number of phases  | Three phase   |  |
| Continuous stall current  | 19.68 A   |  |
| Continuous stall torque   | 28.65 N.m for LXM28 at 22.9 A, 220 V, three phase     |  |
| Continuous power          | 4500 W  |  |
| Peak stall torque         | 71.62 N.m for LXM28 at 22.9 A, 220 V, three phase     |  |
| Nominal output power      | 4500 W for LXM28 at 22.9 A, 220 V, three phase        |  |
| Nominal torque            | 28.65 N.m for LXM28 at 22.9 A, 220 V, three phase     |  |
| Nominal speed             | 1500 rpm for LXM28 at 22.9 A, 220 V, three phase      |  |
| Maximum current Irms      | 57.6 A for LXM28 at 4.5 kW, 220 V                     |  |
| Maximum permanent current | 22.8 A  |  |
| Product compatibility     | LXM28 servo drive motor at 4.5 kW, 220 V, three phase |  |
| Shaft end                 | Smooth shaft  |  |
| Shaft diameter            | 35 mm   |  |
| Shaft length              | 79 mm   |  |
| Feedback type             | 20 bits single turn absolute encoder                  |  |
| Holding brake             | Without   |  |
| Mounting support          | Asian standard flange                                 |  |
| Motor flange size         | 180 mm  |  |
| Electrical connection     | Connector MIL   |  |
| Torque constant           | 1.46 N.m/A at 20 °C                                   |  |
| Back emf constant         | 88 V/krpm at 20 °C                                    |  |
| Rotor inertia             | 73.32 kg.cm²  |  |
| Stator resistance         | 0.199 Ohm at 20 °C                                    |  |
| Stator inductance         | 3.8 mH at 20 °C                                       |  |
|                           |   |  |

| Stator electrical time constant       | 19.1 ms at 20 °C   |
|---------------------------------------|--------------------|
| Maximum radial force Fr               | 1200 N at 1500 rpm |
| Maximum axial force Fa                | 497 N              |
| Brake pull-in power                   | 49.6 W             |
| Type of cooling                       | Natural convection |
| Length                                | 235 mm             |
| Number of motor stacks                | 3                  |
| Centring collar diameter              | 114.3 mm           |
| Centring collar depth                 | 4 mm               |
| Number of mounting holes              | 4                  |
| Mounting holes diameter               | 13.5 mm            |
| Circle diameter of the mounting holes | 200 mm             |
| Distance shaft shoulder-flange        | 4 mm               |
| Product weight                        | 23.64 kg           |
|                                       |                    |

### Environment

| IP degree of protection               | IP50 IM V3<br>IP65 IM B5, IM V1 |
|---------------------------------------|---------------------------------|
| Ambient air temperature for operation | -2040 °C                        |

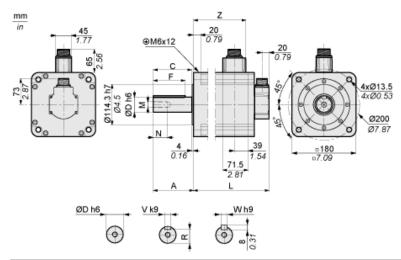
### Contractual warranty

| Warranty | 18 months |
|----------|-----------|

# BCH2MR4512CA6C

### **Dimensions**

### **Dimensions of Motor**

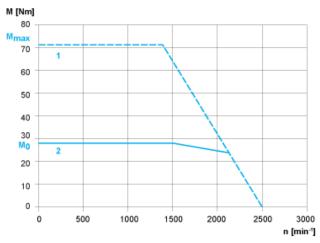


|                           | mm  | in.   |
|---------------------------|-----|-------|
| L (without holding brake) | 235 | 9.25  |
| L (with holding brake)    | 279 | 10.98 |
| A                         | 79  | 3.11  |
| С                         | 73  | 2.87  |
| D                         | 35  | 1.38  |
| F                         | 63  | 2.48  |
| N                         | 28  | 1.10  |
| M                         | M12 |       |
| R                         | 30  | 1.18  |
| V                         | 10  | 0.39  |
| W                         | 10  | 0.39  |
| Z                         | 169 | 6.65  |

## BCH2MR4512CA6C

### Torque/Speed Curves with 230 V Three Phase Supply Voltage

#### Servo Motor with LXM28AU45●●● Servo Drive



1: Peak torque2: Continuous torque