# Product datasheet Characteristics

## BCH0801O12A1C

servo motor BCH - no oil seal - w key - 20-bit encoder - w/o brake-straight con



| Range compatibility       | Lexium 23 Plus |  |  |
|---------------------------|----------------|--|--|
| Product or component type | Servo motor    |  |  |
| Device short name         | BCH            |  |  |

## Complementary

|                                 |                             | j  |
|---------------------------------|-----------------------------|--|
| Maximum mechanical speed        | 5000 rpm                    |  |
| [Us] rated supply voltage       | 220 V                       | 9  |
| Network number of phases        | Single phase                |  |
| Continuous stall current        | 2.6 A                       | or selection of the sel |
| Continuous power                | 0.4 kW                      | <u> </u>   |
| Shaft end                       | Keyed                       |  |
| Second shaft                    | Without second shaft end    |  |
| Shaft diameter                  | 14 mm                       |  |
| Shaft length                    | 24.5 mm                     |  |
| Key width                       | 5 mm                        |  |
| Feedback type                   | 20 bits incremental encoder | 7  |
| Holding brake                   | Without                     |  |
| Mounting support                | Asian standard flange       | to   |
| Motor flange size               | 80 mm                       |  |
| Torque constant                 | 0.49 N.m/A                  | Ţ  |
| Back emf constant               | 18.5 V/krpm at 20 °C        |  |
| Rotor inertia                   | 0.68 kg.cm <sup>2</sup>     | <u>-</u>   |
| Stator resistance               | 1.86 Ohm at 20 °C           | ,,<br>,,   |
| Stator inductance               | 14.78 mH at 20 °C           |  |
| Stator electrical time constant | 7.96 ms at 20 °C            |  |
| Maximum radial force Fr         | 245 N                       | . <u>v</u>   |
| Maximum axial force Fa          | 98 N                        |  |
| Brake pull-in power             | 8.3 W                       |  |
| Type of cooling                 | Natural convection          |  |
| Length                          | 112.3 mm                    | ر<br>ا   |
| Number of motor stacks          | 1                           |  |
|                                 |                             |  |

| Centring collar diameter              | 70 mm   |
|---------------------------------------|---------|
| Centring collar depth                 | 3 mm    |
| Number of mounting holes              | 4       |
| Mounting holes diameter               | 6.6 mm  |
| Circle diameter of the mounting holes | 90 mm   |
| Distance shaft shoulder-flange        | 24.5 mm |
| Product weight                        | 2.1 kg  |

#### Environment

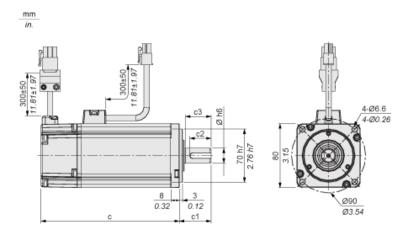
| IP degree of protection               | IP40   |
|---------------------------------------|--------|
| Ambient air temperature for operation | 040 °C |

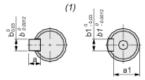
## Contractual warranty

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

# BCH0801O12A1C

#### **Dimensions**





(1) Shaft end, keyed slot (optional)

#### Dimensions in mm

| Ø  | а | a1 | b | b1 | c (without holding brake) | c (with holding brake) | c1 | c2 | сЗ   |
|----|---|----|---|----|---------------------------|------------------------|----|----|------|
| 14 | 5 | 11 | 5 | 5  | 105.5                     | 141.6                  | 30 | 20 | 24.5 |

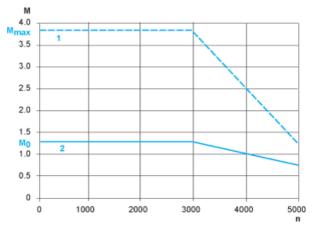
#### Dimensions in in.

| Ø    | а    | a1   | b    | b1   | c (without holding brake) | c (with holding brake) | с1   | c2   | с3   |
|------|------|------|------|------|---------------------------|------------------------|------|------|------|
| 0.55 | 0.20 | 0.43 | 0.20 | 0.20 | 4.15                      | 5.57                   | 1.18 | 0.79 | 0.96 |

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## Torque/Speed Curves with 220 V Single Phase Supply Voltage

#### Servo Motor with LXM23•U04M3X Servo Drive



M: Torque in Nm
n: Speed in rpm
1: Peak torque
2: Continuous torque