# Product datasheet Characteristics

# BCH1802N02A1C

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



#### Main

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

## Complementary

| , ,                             |                             |
|---------------------------------|-----------------------------|
| Maximum mechanical speed        | 3000 rpm                    |
| [Us] rated supply voltage       | 220 V                       |
| Network number of phases        | Three phase                 |
| Continuous stall current        | 16.1 A                      |
| Continuous power                | 3 kW                        |
| Shaft end                       | Smooth shaft                |
| Second shaft                    | Without second shaft end    |
| Shaft diameter                  | 35 mm                       |
| Shaft length                    | 73 mm                       |
| Feedback type                   | 20 bits incremental encoder |
| Holding brake                   | Without                     |
| Mounting support                | Asian standard flange       |
| Motor flange size               | 180 mm                      |
| Torque constant                 | 0.89 N.m/A                  |
| Back emf constant               | 32 V/krpm at 20 °C          |
| Rotor inertia                   | 54.95 kg.cm²                |
| Stator resistance               | 0.104 Ohm at 20 °C          |
| Stator inductance               | 2.76 mH at 20 °C            |
| Stator electrical time constant | 26.39 ms at 20 °C           |
| Maximum radial force Fr         | 1470 N                      |
| Maximum axial force Fa          | 490 N                       |
| Brake pull-in power             | 20.4 W                      |
| Type of cooling                 | Natural convection          |
| Length                          | 202.1 mm                    |
| Number of motor stacks          | 2                           |
| 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        | 73 mm   |
| Product weight                        | 18.5 kg |

## Environment

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

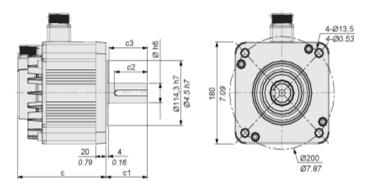
## Contractual warranty

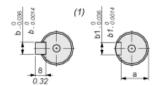
| Warranty | 18 months |
|----------|-----------|
|          |           |

# BCH1802N02A1C

#### **Dimensions**







#### (1) Shaft end, keyed slot (optional)

#### Dimensions in mm

| Ø  | а  | b  | b1 | c (without holding brake) | c (with holding brake) | c1 | c2 | с3 |
|----|----|----|----|---------------------------|------------------------|----|----|----|
| 35 | 30 | 10 | 10 | 202.1                     | 235.3                  | 79 | 63 | 73 |

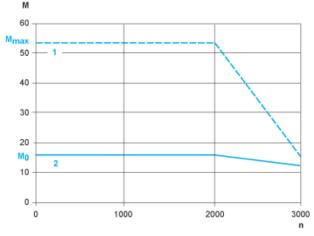
## Dimensions in in.

| Ø    | а    | b    | b1   | c (without holding brake) | c (with holding brake) | c1   | c2 | с3   |
|------|------|------|------|---------------------------|------------------------|------|----|------|
| 1.38 | 1.18 | 0.39 | 0.39 | 7.96                      | 9.26                   | 3.11 |    | 2.87 |

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

#### Servo Motor with LXM23•U30M3X Servo Drive



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