

# BCH1303N12A1C

servo motor BCH - no oil seal - w key - 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        | Single phase                |
| Continuous stall current        | 8.3 A                       |
| Continuous power                | 1.5 kW                      |
| Shaft end                       | Keyed                       |
| Second shaft                    | Without second shaft end    |
| Shaft diameter                  | 22 mm                       |
| Shaft length                    | 47 mm                       |
| Key width                       | 8 mm                        |
| Feedback type                   | 20 bits incremental encoder |
| Holding brake                   | Without                     |
| Mounting support                | Asian standard flange       |
| Motor flange size               | 130 mm                      |
| Torque constant                 | 0.87 N.m/A                  |
| Back emf constant               | 31.8 V/krpm at 20 °C        |
| Rotor inertia                   | 11.18 kg.cm <sup>2</sup>    |
| Stator resistance               | 0.52 Ohm at 20 °C           |
| Stator inductance               | 8.02 mH at 20 °C            |
| Stator electrical time constant | 15.31 ms at 20 °C           |
| Maximum radial force Fr         | 490 N                       |
| Maximum axial force Fa          | 98 N                        |
| Brake pull-in power             | 19 W                        |
| Type of cooling                 | Natural convection          |
| Length                          | 167.5 mm                    |
| Number of motor stacks          | 3                           |

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

|                                       |        |
|---------------------------------------|--------|
| Centring collar diameter              | 110 mm |
| Centring collar depth                 | 6 mm   |
| Number of mounting holes              | 4      |
| Mounting holes diameter               | 9 mm   |
| Circle diameter of the mounting holes | 145 mm |
| Distance shaft shoulder-flange        | 47 mm  |
| Product weight                        | 7.5 kg |

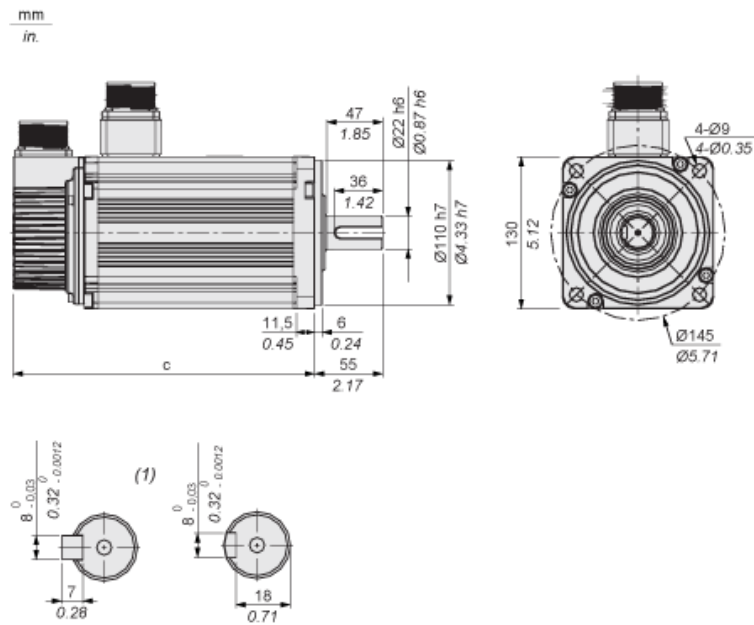
## Environment

|                                       |           |
|---------------------------------------|-----------|
| IP degree of protection               | IP40      |
| Ambient air temperature for operation | 0...40 °C |

## Contractual warranty

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

Dimensions



(1) Shaft end, keyed slot (optional)

Dimensions in mm

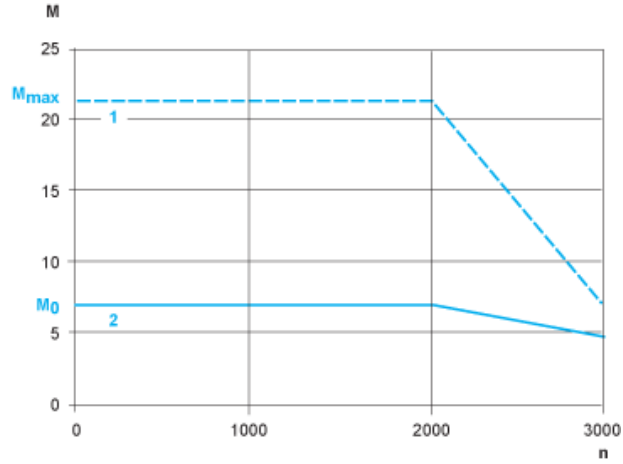
| c (without holding brake) | c (with holding brake) |
|---------------------------|------------------------|
| 167.5                     | 202                    |

Dimensions in in.

| c (without holding brake) | c (with holding brake) |
|---------------------------|------------------------|
| 6.59                      | 7.95                   |

Torque/Speed Curves with 220 V Single Phase Supply Voltage

Servo Motor with LXM23-U15M3X Servo Drive



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