

# Product datasheet

Specifications



servo motor BCH2, Lexium, 180mm,  
3000W, with oil seal, with key, 20 bit  
MT encoder, straight connection

BCH2MR3013MA6C

## Main

Range compatibility	Easy Lexium 26 Lexium 28
Device short name	BCH2
Product or component type	Servo motor

## Complementary

Maximum mechanical speed	3000 rpm
[Us] rated supply voltage	220 V
Network number of phases	Three phase
Continuous stall current	16.49 A
Continuous stall torque	19.1 N.m for LXM26D at 19.8 A, 220 V, three phase 19.1 N.m for LXM28 at 19.8 A, 220 V, three phase
Continuous power	3000 W
Peak stall torque	57.29 N.m for LXM26D at 19.8 A, 220 V, three phase 57.29 N.m for LXM28... at 19.8 A, 220 V, three phase
Nominal output power	3000 W for LXM26D at 19.8 A, 220 V, three phase 3000 W for LXM28... at 19.8 A, 220 V, three phase
Nominal torque	19.1 N.m for LXM26D at 19.8 A, 220 V, three phase 19.1 N.m for LXM28... at 19.8 A, 220 V, three phase
Nominal speed	1500 rpm for LXM26D at 19.8 A, 220 V, three phase 1500 rpm for LXM28... at 19.8 A, 220 V, three phase
Maximum current Irms	58.4 A for LXM26D at 3 kW, 220 V 58.4 A for LXM28... at 3 kW, 220 V
Maximum permanent current	18.8 A
Product compatibility	LXM26D servo drive motor at 3 kW, 220 V, three phase LXM28... servo drive motor at 3 kW, 220 V, three phase
Shaft end	Keyed
Shaft diameter	35 mm
Shaft length	79 mm
Key width	10 mm
Feedback type	20 bits multi turn absolute encoder
Holding brake	Without
Mounting support	Asian standard flange
Motor flange size	180 mm
Electrical connection	Connector MIL

<b>Torque constant</b>	1.16 N.m/A at 20 °C
<b>Back emf constant</b>	70 V/krpm at 20 °C
<b>Number of motor poles</b>	5.0
<b>Rotor inertia</b>	53.56 kg.cm <sup>2</sup>
<b>Stator resistance</b>	0.234 Ohm at 20 °C
<b>Stator inductance</b>	3.45 mH at 20 °C
<b>Stator electrical time constant</b>	20.94 ms at 20 °C
<b>Maximum radial force Fr</b>	1200 N at 1500 rpm
<b>Maximum axial force Fa</b>	497 N
<b>Brake pull-in power</b>	49.6 W
<b>Type of cooling</b>	Natural convection
<b>Length</b>	202 mm
<b>Number of motor stacks</b>	2
<b>Centring collar diameter</b>	114.3 mm
<b>Centring collar depth</b>	4 mm
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	13.5 mm
<b>Circle diameter of the mounting holes</b>	200 mm
<b>Distance shaft shoulder-flange</b>	4 mm
<b>Net weight</b>	18.5 kg
<b>Sizing reference</b>	BCH2
<b>Network number of phases</b>	3
<b>Accuracy error [angular]</b>	0.044 °
<b>Temperature copper hot</b>	135 °C
<b>Temperature magnet hot</b>	100 °C
<b>Temperature magnet rt</b>	20 °C
<b>Inertia</b>	0.0 kg.cm <sup>2</sup> of brake 53.55 kg.cm <sup>2</sup> of motor

## Environment

<b>IP degree of protection</b>	IP50 IM V3 IP65 IM B5, IM V1
<b>Ambient air temperature for operation</b>	-20...40 °C

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	24.5 cm
<b>Package 1 Width</b>	29.0 cm
<b>Package 1 Length</b>	58.5 cm
<b>Package 1 Weight</b>	20.5 kg

# Contractual warranty

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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 >](#)



### Environmental footprint

Total lifecycle Carbon footprint	11 192 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	117 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.1 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	11 069 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	2 kg CO2 eq.

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	<a href="#">REACH Declaration</a>
PVC free	Yes

## Use Longer



### Lifetime extension

Repair	No
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## Use Again



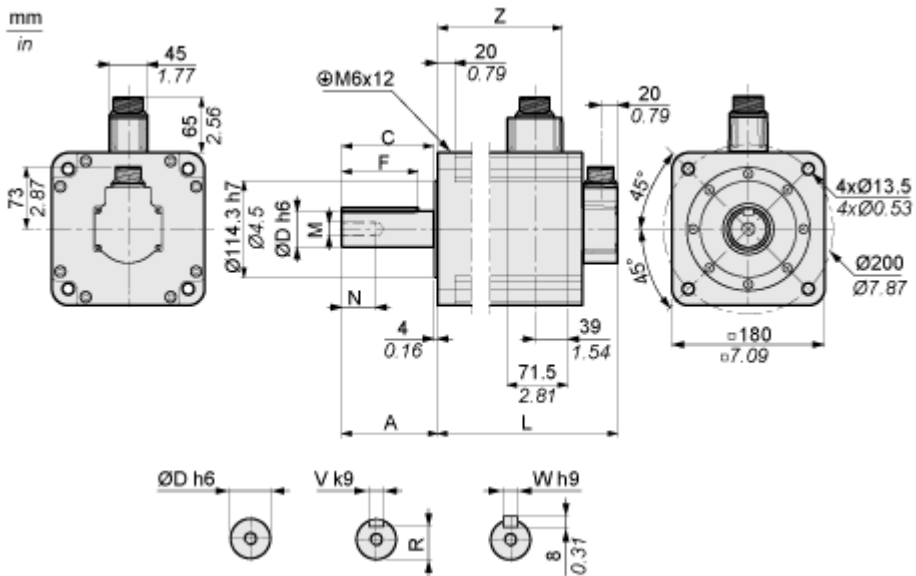
### Repack and remanufacture

End of life manual availability	<a href="#">End of Life Information</a>
Take-back	No

Dimensions Drawings

Dimensions

Dimensions of Motor



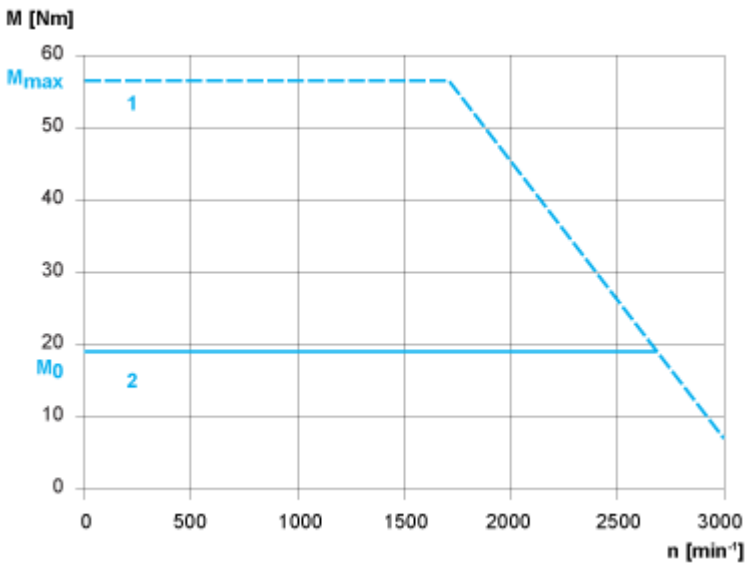
	mm	in.
L (without holding brake)	202	7.95
L (with holding brake)	235	9.25
A	79	3.11
C	73	2.87
D	35	1.38
F	63	2.48
N	28	1.10
M	M12	
R	30	1.18
V	10	0.39
W	10	0.39
Z	136	5.35

Performance Curves

Torque/Speed Curves with 230 V Three Phase Supply Voltage

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Servo Motor with LXM28AU30••• Servo Drive



- 1 : Peak torque
- 2 : Continuous torque