

Product datasheet

Specifications



servo motor BCH2, Lexium, 180mm, 4500W, with oil seal, with key, 20 bit MT encoder, straight connection

BCH2MR4513MA6C

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	19.68 A
Continuous stall torque	28.65 N.m for LXM26D at 22.9 A, 220 V, three phase 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 LXM26D at 22.9 A, 220 V, three phase 71.62 N.m for LXM28... at 22.9 A, 220 V, three phase
Nominal output power	4500 W for LXM26D at 22.9 A, 220 V, three phase 4500 W for LXM28... at 22.9 A, 220 V, three phase
Nominal torque	28.65 N.m for LXM26D at 22.9 A, 220 V, three phase 28.65 N.m for LXM28... at 22.9 A, 220 V, three phase
Nominal speed	1500 rpm for LXM26D at 22.9 A, 220 V, three phase 1500 rpm for LXM28... at 22.9 A, 220 V, three phase
Maximum current Irms	57.6 A for LXM26D at 4.5 kW, 220 V 57.6 A for LXM28... at 4.5 kW, 220 V
Maximum permanent current	22.8 A
Product compatibility	LXM26D servo drive motor at 4.5 kW, 220 V, three phase LXM28... servo drive motor at 4.5 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

Torque constant	1.46 N.m/A at 20 °C
Back emf constant	88 V/krpm at 20 °C
Number of motor poles	5.0
Rotor inertia	73.32 kg.cm ²
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
Net weight	23.64 kg
Sizing reference	BCH2
Network number of phases	3
Accuracy error [angular]	0.044 °
Temperature copper hot	135 °C
Temperature magnet hot	100 °C
Temperature magnet rt	20 °C
Inertia	0.0 kg.cm ² of brake 73.31 kg.cm ² of motor

Environment

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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	29.0 cm
Package 1 Width	58.5 cm
Package 1 Length	24.5 cm
Package 1 Weight	25.64 kg

Contractual warranty

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	14 881 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Carbon footprint of the manufacturing phase [A1 to A3]	147 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	3 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.2 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	14 728 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	3 kg CO2 eq.

Use Better



Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	REACH Declaration
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
--------	----

Use Again



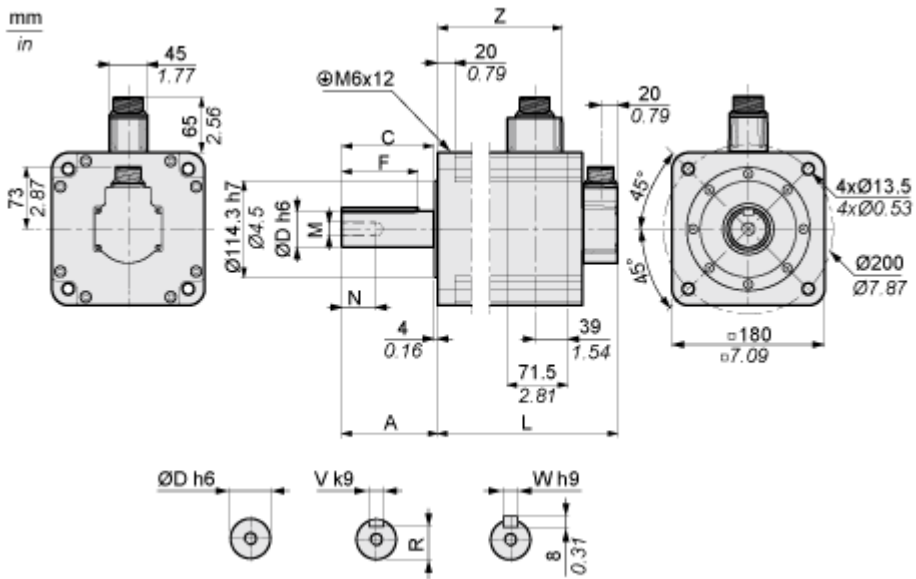
Repack and remanufacture

End of life manual availability	End of Life Information
Take-back	No

Dimensions Drawings

Dimensions

Dimensions of Motor

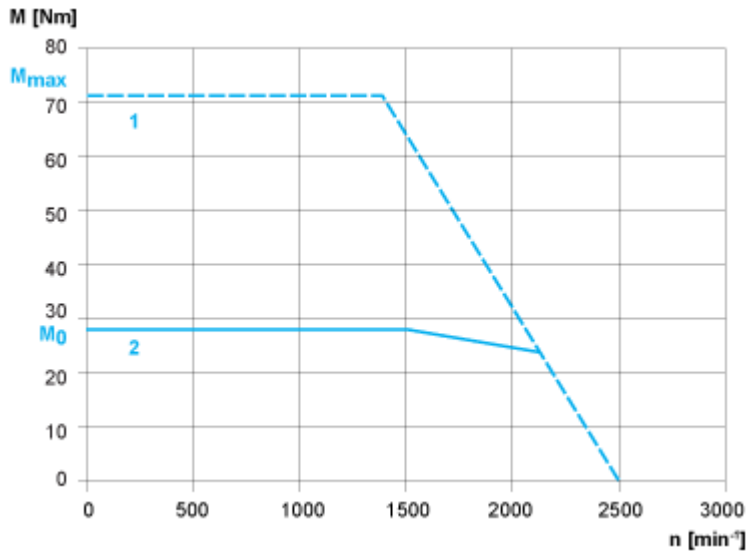


	mm	in.
L (without holding brake)	235	9.25
L (with holding brake)	279	10.98
A	79	3.11
C	73	2.87
D	35	1.38
F	63	2.48
N	28	1.10
M	M12	
R	30	1.18
V	10	0.39
W	10	0.39
Z	169	6.65

Performance Curves

Torque/Speed Curves with 230 V Three Phase Supply Voltage

Servo Motor with LXM28AU45 Servo Drive



- 1 : Peak torque
- 2 : Continuous torque