

# Product datasheet

Specifications



servo motor BMH, Lexium 32,  
84Nm, 3800rpm, untapped shaft,  
with brake, IP65, IP67, 16 multturn  
encoder, straight

BMH2053P27F1A

## Main

Device short name	BMH
Product or component type	Servo motor
Maximum mechanical speed	3800 rpm
Continuous stall torque	84 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 84 N.m for LXM32.D72N4 at 24 A, 480 V, three phase
Peak stall torque	232 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 232 N.m for LXM32.D72N4 at 24 A, 480 V, three phase
Nominal output power	6500 W for LXM32.D72N4 at 24 A, 400 V, three phase 6500 W for LXM32.D72N4 at 24 A, 480 V, three phase
Nominal torque	52.2 N.m for LXM32.D72N4 at 24 A, 400 V, three phase 52.2 N.m for LXM32.D72N4 at 24 A, 480 V, three phase
Nominal speed	1200 rpm for LXM32.D72N4 at 24 A, 400 V, three phase 1200 rpm for LXM32.D72N4 at 24 A, 480 V, three phase
Product compatibility	LXM32.D72N4 at 400...480 V three phase
Shaft end	Smooth shaft
IP degree of protection	IP65 standard IP67 with IP67 kit
Speed feedback resolution	32768 points/turn x 4096 turns
Holding brake	With
Mounting support	International standard flange
Electrical connection	Straight connectors

## Complementary

Range compatibility	Lexium 32
[Us] rated supply voltage	480 V
Network number of phases	Three phase
Continuous stall current	25.2 A
Continuous power	9.6 W
Maximum current Irms	136.1 A for LXM32.D72N4
Maximum permanent current	107.4 A
Second shaft	Without second shaft end
Shaft diameter	38 mm
Shaft length	80 mm
Feedback type	Multiturn SinCos Hiperface

<b>Holding torque</b>	80 N.m holding brake
<b>Motor flange size</b>	205 mm
<b>Number of motor stacks</b>	3
<b>Torque constant</b>	2.76 N.m/A at 120 °C
<b>Back emf constant</b>	218 V/krpm at 120 °C
<b>Number of motor poles</b>	5.0
<b>Rotor inertia</b>	206 kg.cm <sup>2</sup>
<b>Stator resistance</b>	0.32 Ohm at 20 °C
<b>Stator inductance</b>	2.15 mH at 20 °C
<b>Stator electrical time constant</b>	21.6 ms at 20 °C
<b>Maximum radial force Fr</b>	4500 N at 1000 rpm 3570 N at 2000 rpm 3120 N at 3000 rpm
<b>Maximum axial force Fa</b>	0.2 x Fr
<b>Brake pull-in power</b>	40 W
<b>Type of cooling</b>	Natural convection
<b>Length</b>	538.5 mm
<b>Centring collar diameter</b>	180 mm
<b>Centring collar depth</b>	4 mm
<b>Number of mounting holes</b>	4
<b>Mounting holes diameter</b>	14 mm
<b>Circle diameter of the mounting holes</b>	215 mm
<b>Net weight</b>	71.9 kg
<b>Sizing reference</b>	BMH2053P
<b>Network number of phases</b>	3
<b>Accuracy error [angular]</b>	4.8 °
<b>Temperature copper hot</b>	135 °C
<b>Temperature magnet hot</b>	100 °C
<b>Temperature magnet rt</b>	20 °C
<b>Output current 3s peak</b>	136.1 A
<b>Inertia</b>	16.0 kg.cm <sup>2</sup> of brake 190.0 kg.cm <sup>2</sup> of motor

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	36.0 cm
<b>Package 1 Width</b>	31.0 cm
<b>Package 1 Length</b>	73.0 cm
<b>Package 1 Weight</b>	75.0 kg

## Contractual warranty





## 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	7 337 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	328 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	10 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.7 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	6 992 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	7 kg CO2 eq.

## Use Better



### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	A7df881f-135f-4256-b8c2-ea55d4c9a151
EU RoHS Directive	<a href="#">Compliant By Exemption</a>
REACH Regulation	<a href="#">Reference contains Substances of Very High Concern above the threshold</a>
PVC free	Yes

## Use Longer



### Lifetime extension

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

## Use Again



### Repack and remanufacture

End of life manual availability	No need of specific recycling operations
Take-back	Yes
WEEE Label	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins