# Product datasheet Characteristics

# BMH1401P22F2A

servo motor BMH - 10.3 Nm - 4000 rpm - untapped shaft - with brake - IP65/IP67





#### Main

Product or component type	Servo motor		
Device short name	ВМН		
Maximum mechanical speed	4000 rpm		
Continuous stall torque	10.3 N.m for LXM32.D30M2 at 10 A, 230 V, single phase 10.3 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 10.3 N.m for LXM32.D30N4 at 10 A, 480 V, three phase		
Peak stall torque	30.8 N.m for LXM32.D30M2 at 10 A, 230 V, single phase 30.8 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 30.8 N.m for LXM32.D30N4 at 10 A, 480 V, three phase		
Nominal output power	1450 W for LXM32.D30M2 at 10 A, 230 V, single phase 2400 W for LXM32.D30N4 at 10 A, 400 V, three phase 2400 W for LXM32.D30N4 at 10 A, 480 V, three phase		
Nominal torque	6.9 N.m for LXM32.D30M2 at 10 A, 230 V, single phase 7.7 N.m for LXM32.D30N4 at 10 A, 400 V, three phase 7.7 N.m for LXM32.D30N4 at 10 A, 480 V, three phase		
Nominal speed	2000 rpm for LXM32.D30M2 at 10 A, 230 V, single phase 3000 rpm for LXM32.D30N4 at 10 A, 400 V, three phase 3000 rpm for LXM32.D30N4 at 10 A, 480 V, three phase		
Product compatibility	LXM32.D30M2 at 230 V single phase LXM32.D30N4 at 400480 V three phase		
Shaft end	Smooth shaft		
IP degree of protection	IP65 standard IP67 with IP67 kit		
Speed feedback resolution	131072 points/turn x 4096 turns		
Holding brake	With		
Mounting support	International standard flange		
Electrical connection	Rotatable right-angled connectors		

#### Complementary

Complementary		
Range compatibility	Lexium 32	Jer: J
[Us] rated supply voltage	480 V	

Network number of phases	Three phase
Continuous stall current	8.58 A
Continuous power	2.85 W
Maximum current Irms	29.8 A for LXM32.D30M2 29.8 A for LXM32.D30N4
Maximum permanent current	29.8 A
Second shaft	Without second shaft end
Shaft diameter	24 mm
Shaft length	50 mm
Feedback type	Multiturn SinCos Hiperface
Holding torque	18 N.m holding brake
Motor flange size	140 mm
Number of motor stacks	1
Torque constant	1.2 N.m/A at 120 °C
Back emf constant	77.4 V/krpm at 120 °C
Number of motor poles	10
Rotor inertia	17.96 kg.cm²
Stator resistance	0.69 Ohm at 20 °C
Stator inductance	6.7 mH at 20 °C
Stator electrical time constant	9.7 ms at 20 °C
Maximum radial force Fr	1930 N at 1000 rpm 1530 N at 2000 rpm 1340 N at 3000 rpm
Maximum axial force Fa	0.2 x Fr
Brake pull-in power	18 W
Type of cooling	Natural convection
Length	187 mm
Centring collar diameter	130 mm
Centring collar depth	3.5 mm
Number of mounting holes	4
Mounting holes diameter	11 mm
Circle diameter of the mounting holes	165 mm
Product weight	10.3 kg

### Offer Sustainability

Sustainable offer status Green Premium product				
REACh Regulation REACh Declaration				
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration			
Mercury free	Yes			
RoHS exemption information	Yes			
China RoHS Regulation	China RoHS declaration			
Environmental Disclosure	Product Environmental Profile			
Circularity Profile	No need of specific recycling operations			
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins			

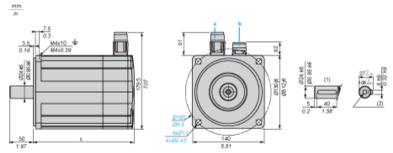
#### Contractual warranty

Contraction Warranty			
Warranty	18 months		

# BMH1401P22F2A

#### Servo Motors Dimensions

### **Example with Straight Connectors**



- a: Power supply for servo motor brake
- b: Power supply for servo motor encoder
- (1) Shaft end, keyed slot (optional)
- (2) For screw M8 x 25 mm/M8 x 0.98 in.

#### Dimensions in mm

Straight connector	rs	Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
39.5	25.5	39.5	39.5	152	187

#### Dimensions in in.

Straight connectors		Rotatable angled connectors		c (without brake)	c (with brake)
b	b1	b	b1		
1.55	1.00	1.55	1.55	5.98	7.36

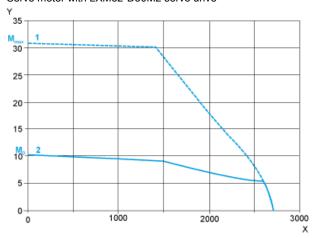
## Product datasheet Performance Curves

# BMH1401P22F2A

### 230 V Single-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D30M2 servo drive



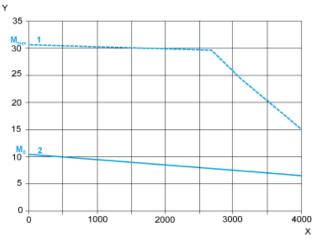
- X Y Speed in rpm
- Torque in Nm
- Peak torque
- Continuous torque

# BMH1401P22F2A

### 400 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



- Speed in rpm
- X Y 1 2 Torque in Nm
- Peak torque
- Continuous torque

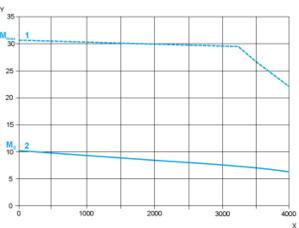
# Product datasheet Performance Curves

# BMH1401P22F2A

### 480 V 3-Phase Supply Voltage

### Torque/Speed Curves

Servo motor with LXM32•D30N4 servo drive



- X Speed in rpm Y Torque in Nm
- 1 Peak torque
- 2 Continuous torque