

Product data sheet

Characteristics

BMI0703P36F

servo motor BMI 3-phase - keyed IP65 single turn - 32768 p/t - brake



Main

| | |
|---------------------------|------------------------------|
| Range compatibility | Lexium 32i |
| Device short name | BMI |
| Product or component type | Servo motor with power stage |

Complementary

| | |
|---------------------------|---|
| Maximum mechanical speed | 8000 rpm |
| [Us] rated supply voltage | 208...480 V - 15...10 % |
| Supply voltage limits | 208...480 V |
| Network number of phases | Three phase |
| Supply frequency | 50/60 Hz - 5...5 % |
| Network frequency limits | 47.5...63 Hz |
| EMC filter | Integrated |
| Continuous output current | 2 A at 8 kHz |
| Output current 3s peak | 6 A at 400 V for 3 s |
| Continuous stall current | 2 A |
| Continuous stall torque | 3.4 N.m at 208...480 V three phase |
| Peak stall torque | 8.6 N.M at 208 V three phase 8.6 N.M at 400 V three phase 8.6 N.m at 480 V three phase |
| Nominal output power | 900 W at 400 V three phase 900 W at 480 V three phase 450 W at 208 V three phase |
| Nominal torque | 2.9 N.M at 208 V three phase 2.7 N.M at 400 V three phase 2.3 N.m at 480 V three phase |
| Nominal speed | 3300 rpm at 400 V three phase 1600 rpm at 208 V three phase 3900 rpm at 480 V three phase |
| Maximum current Irms | 12.5 A at 400 V, three phase 12.5 A at 480 V, three phase 12.5 A at 208 V, three phase |
| Product compatibility | Drive control unit LXM32i CANopen[RETURN]Drive control unit LXM32i EtherCAT |
| Shaft end | Keyed |
| Second shaft | Without second shaft end |
| Shaft diameter | 14 mm |
| Shaft length | 30 mm |
| Key width | 5 mm |
| Feedback type | Absolute single turn SinCos Hiperface |
| Speed feedback resolution | 32768 points/turn |
| Holding brake | With |
| Holding torque | 3 N.m holding brake |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

| | |
|---------------------------------------|--|
| Mounting support | International standard flange |
| Motor flange size | 70 mm |
| Electrical connection | Printed circuit board connector |
| Torque constant | 1.41 N.m/A at 20 °C |
| Back emf constant | 95.39 V/krpm at 20 °C |
| Number of motor poles | 10 |
| Rotor inertia | 1.78 kg.cm ² |
| Stator resistance | 7.99 Ohm at 20 °C |
| Stator inductance | 25.6 mH at 20 °C |
| Stator electrical time constant | 3.2 ms at 20 °C |
| Maximum radial force Fr | 730 N at 1000 rpm 580 N at 2000 rpm 510 N at 3000 rpm 460 N at 4000 rpm 430 N at 5000 rpm 400 N at 6000 rpm |
| Maximum axial force Fa | 0.2 x Fr |
| Brake pull-in power | 5 W |
| Type of cooling | Natural convection |
| Length | 339 mm |
| Number of motor stacks | 3 |
| Centring collar diameter | 60 mm |
| Centring collar depth | 2.5 mm |
| Number of mounting holes | 4 |
| Mounting holes diameter | 5.5 mm |
| Circle diameter of the mounting holes | 75...82 mm |
| Distance shaft shoulder-flange | 2.5 mm |

Environment

| | |
|-------------------------|------|
| IP degree of protection | IP65 |
|-------------------------|------|

Packing Units

| | |
|------------------------------|---------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 25.0 cm |
| Package 1 Width | 18.6 cm |
| Package 1 Length | 55.0 cm |
| Package 1 Weight | 6.5 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) |
| Mercury free | Yes |
| China RoHS Regulation |  China RoHS Declaration |
| RoHS exemption information |  Yes |
| Environmental Disclosure |  Product Environmental Profile |
| Circularity Profile |  End Of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free | Yes |

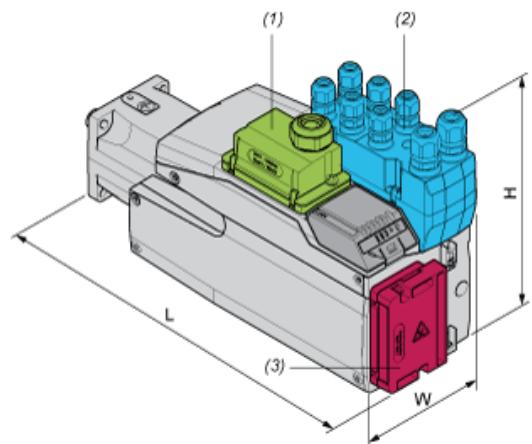
Contractual warranty

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

External Dimensions

With Standard Braking Resistor

Mounting type A



(1) Module for supply voltage

(2) I/O module

(3) Standard braking resistor

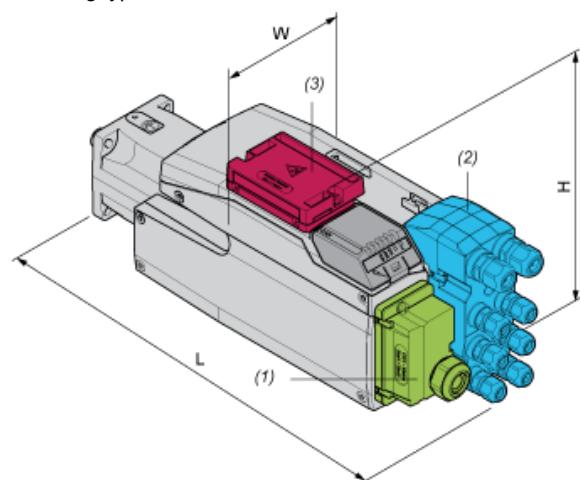
Dimensions in mm

| W | H | L |
|----|-----|-----|
| 99 | 187 | 360 |

Dimensions in in.

| W | H | L |
|------|------|-------|
| 3,90 | 7,36 | 14,17 |

Mounting type B



(1) Module for supply voltage

(2) I/O module

(3) Standard braking resistor

Dimensions in mm

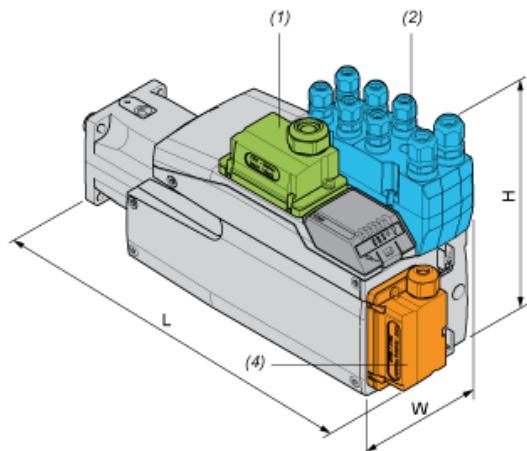
| W | H | L |
|----|-------|-----|
| 99 | 138,5 | 409 |

Dimensions in in.

| W | H | L |
|------|------|------|
| 3,90 | 5,45 | 16,1 |

With External Braking Resistor

Mounting type C



- (1) Module for supply voltage
- (2) I/O module
- (4) External braking resistor

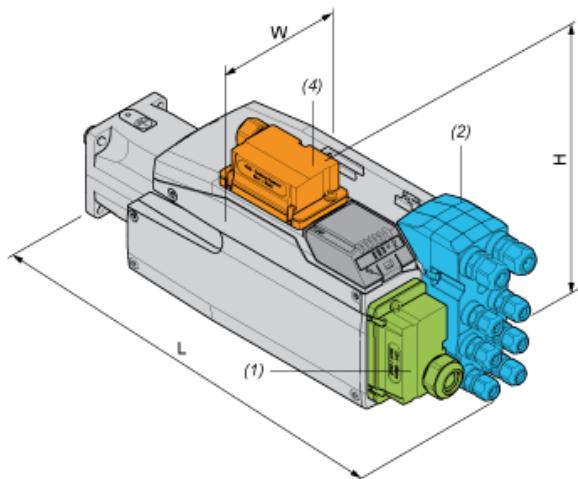
Dimensions in mm

| W | H | L |
|----|-----|-----|
| 99 | 187 | 372 |

Dimensions in in.

| W | H | L |
|------|------|-------|
| 3,90 | 7,36 | 14,65 |

Mounting type D



- (1) Module for supply voltage
- (2) I/O module
- (4) External braking resistor

Dimensions in mm

| W | H | L |
|----|-----|-----|
| 99 | 160 | 409 |

Dimensions in in.

| W | H | L |
|------|-----|------|
| 3,90 | 6,3 | 16,1 |

Mounting type E



- (1) Module for supply voltage
- (2) I/O module
- (4) External braking resistor

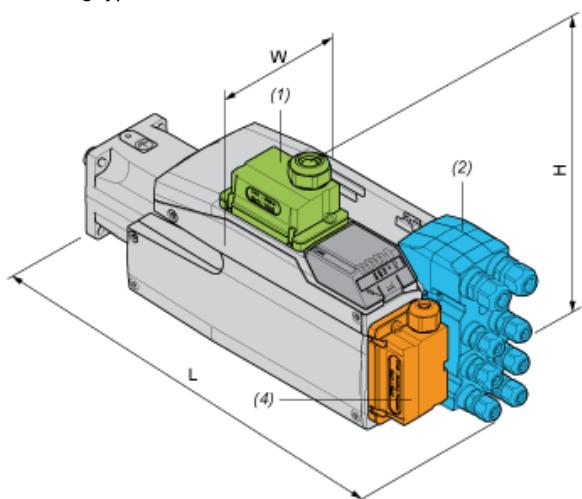
Dimensions in mm

| W | H | L |
|----|-----|-----|
| 99 | 187 | 399 |

Dimensions in in.

| W | H | L |
|------|------|-------|
| 3,90 | 7,36 | 15,71 |

Mounting type F



- (1) Module for supply voltage
- (2) I/O module
- (4) External braking resistor

Dimensions in mm

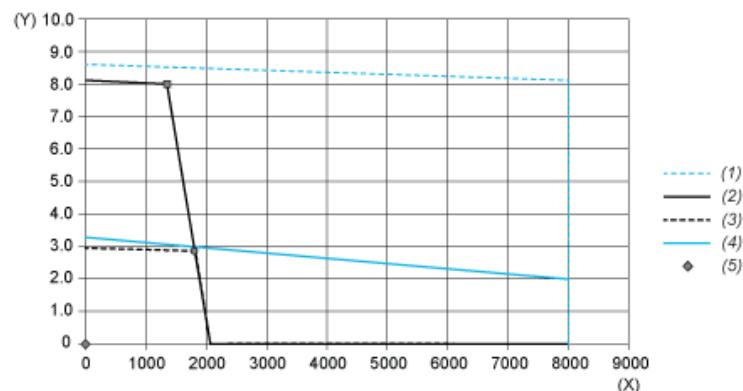
| W | H | L |
|----|-----|-----|
| 99 | 180 | 409 |

Dimensions in in.

| W | H | L |
|------|------|------|
| 3,90 | 7,09 | 16,1 |

Performance Curves

Torque/Speed Curves with 208 V Three Phases Supply Voltage

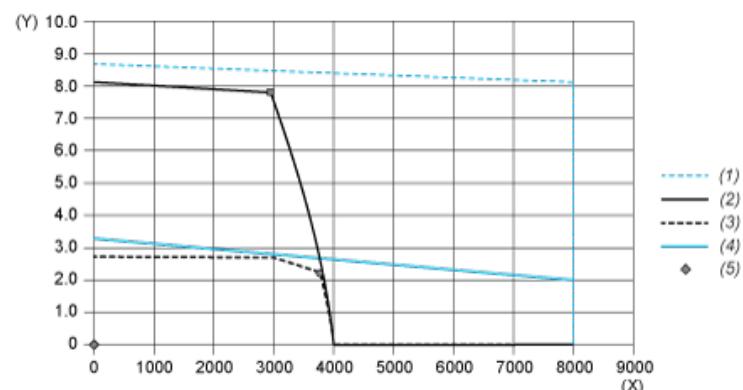


(X) Speed (rpm)
(Y) Torque (N.m)
(1) Motor peak
(2) Drive peak
(3) Drive cont
(4) Motor cont
(5) Operating point

| | | Power | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power | ■ | 1138 W | 1360 rpm | 7.99 N.m |
| max Cont. Power (Drive) | ● | 564 W | 1840 rpm | 2.93 N.m |

Performance Curves

Torque/Speed Curves with 400 V Three Phases Supply Voltage

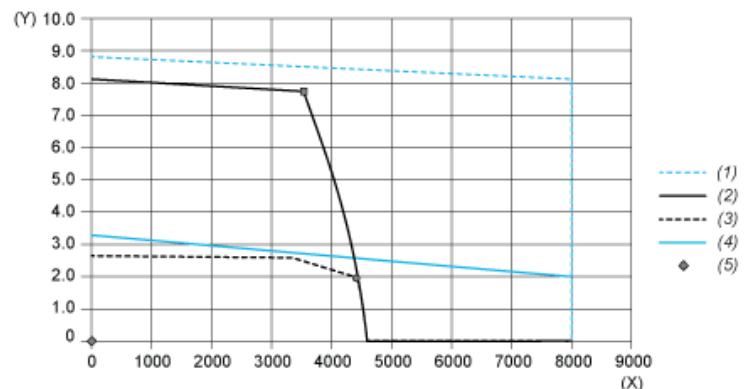


(X) Speed (rpm)
(Y) Torque (N.m)
(1) Motor peak
(2) Drive peak
(3) Drive cont
(4) Motor cont
(5) Operating point

| | | Power | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power | ■ | 2390 W | 2960 rpm | 7.71 N.m |
| max Cont. Power (Drive) | ● | 895 W | 3760 rpm | 2.27 N.m |

Performance Curves

Torque/Speed Curves with 480 V Three Phases Supply Voltage



(X) Speed (rpm)

(Y) Torque (N.m)

(1) Motor peak

(2) Drive peak

(3) Drive cont

(4) Motor cont

(5) Operating point

| | | Power | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power | ■ | 2915 W | 3600 rpm | 7.73 N.m |
| max Cont. Power (Drive) | ● | 945 W | 4560 rpm | 1.98 N.m |