# **Product data sheet**

Specification





# servo motor BMI 3-phase - keyed IP65 multiturn - 32768 p/t x 4096 t

BMI0703P37A

Product availability: Non-Stock - Not normally stocked in distribution facility

Price\*: 2,645.19 USD

## Main

| Range Compatibility       | Lexium 32i                   |
|---------------------------|------------------------------|
| Product Or Component Type | Servo motor with power stage |
| Device Short Name         | BMI                          |

# Complementary

| Maximum Mechanical Speed  | 8000 rpm   |
|---------------------------|--|
| [Us] Rated Supply Voltage | 208480 V - 1510 %  |
| Supply Voltage Limits     | 208480 V   |
| Phase                     | Three phase  |
| Supply Frequency          | 50/60 Hz - 55 %  |
| Network Frequency Limits  | 47.563 Hz  |
| Emc Filter                | Integrated   |
| Continuous Output Current | 2 A 8 kHz  |
| Output Current 3S Peak    | 6 A 400 V 3 s  |
| Continuous Stall Current  | 2 A  |
| Continuous Stall Torque   | 30.09 lbf.in (3.4 N.m) 208480 V three phase  |
| Peak Stall Torque         | 76.12 lbf.in (8.6 N.m) 208 V three phase<br>76.12 lbf.in (8.6 N.m) 400 V three phase<br>76.12 lbf.in (8.6 N.m) 480 V three phase |
| Nominal Output Power      | 900 W 400 V three phase<br>900 W 480 V three phase<br>450 W 208 V three phase  |
| Nominal Torque            | 25.67 lbf.in (2.9 N.m) 208 V three phase<br>23.90 lbf.in (2.7 N.m) 400 V three phase<br>20.36 lbf.in (2.3 N.m) 480 V three phase |
| Nominal Speed             | 3300 rpm 400 V three phase<br>1600 rpm 208 V three phase<br>3900 rpm 480 V three phase   |
| Maximum Current Irms      | 12.5 A 400 V, three phase<br>12.5 A 480 V, three phase<br>12.5 A 208 V, three phase  |
| Product Compatibility     | Drive control unit LXM32i CANopen<br>Drive control unit LXM32i EtherCAT  |
| Shaft End                 | Keyed  |
| Second Shaft              | Without second shaft end   |
| Shaft Diameter            | 0.55 in (14 mm)  |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| Shaft Length                          | 1.18 in (30 mm)  |
|---------------------------------------|--|
| Key Width                             | 0.20 in (5 mm)   |
| Feedback Type                         | Absolute multiturn SinCos Hiperface  |
| Speed Feedback Resolution             | 32768 points/turn x 4096 turns   |
| Holding Brake                         | Without  |
| Mounting Support                      | International standard flange  |
| Motor Flange Size                     | 2.76 in (70 mm)  |
| Electrical Connection                 | Printed circuit board connector  |
| Torque Constant                       | 1.41 N.m/A 68 °F (20 °C)   |
| Back Emf Constant                     | 95.39 V/krpm 68 °F (20 °C)   |
| Number Of Motor Poles                 | 10   |
| Rotor Inertia                         | 1.67 kg.cm²  |
| Stator Resistance                     | 7.99 Ohm 68 °F (20 °C)   |
| Stator Inductance                     | 25.6 mH 68 °F (20 °C)  |
| Stator Electrical Time Constant       | 3.2 ms 68 °F (20 °C)   |
| Maximum Radial Force Fr               | 730 N 1000 rpm<br>580 N 2000 rpm<br>510 N 3000 rpm<br>460 N 4000 rpm<br>430 N 5000 rpm<br>400 N 6000 rpm |
| Maximum Axial Force Fa                | 0.2 x Fr   |
| Type Of Cooling                       | Natural convection   |
| Length                                | 11.81 in (300 mm)  |
| Number Of Motor Stacks                | 3  |
| Centring Collar Diameter              | 2.36 in (60 mm)  |
| Centring Collar Depth                 | 0.10 in (2.5 mm)   |
| Number Of Mounting Holes              | 4  |
| Mounting Holes Diameter               | 0.22 in (5.5 mm)   |
| Circle Diameter Of The Mounting Holes | 2.953.23 in (7582 mm)  |
| Distance Shaft Shoulder-Flange        | 0.10 in (2.5 mm)   |

## **Environment**

Ip Degree Of Protection IP65

# Ordering and shipping details

| Category          | US1PC5618287  |
|-------------------|---------------|
| Discount Schedule | PC56          |
| Gtin              | 3606485376585 |
| Returnability     | No            |
| Country Of Origin | DE            |

# **Packing Units**

Unit Type Of Package 1 PCE

| Number Of Units In Package 1 | 1                     |
|------------------------------|-----------------------|
| Package 1 Height             | 9.84 in (25.0 cm)     |
| Package 1 Width              | 7.32 in (18.6 cm)     |
| Package 1 Length             | 21.65 in (55.0 cm)    |
| Package 1 Weight             | 14.33 lb(US) (6.5 kg) |

# **Contractual warranty**

Warranty 18 months

# Sustainability Green Premium\*

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

# Well-being performance



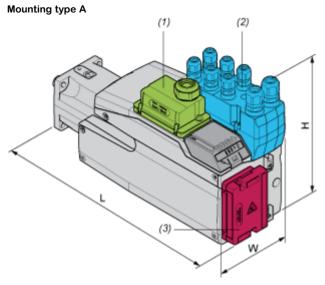
#### **Certifications & Standards**

| Reach Regulation          | REACh Declaration   |  |
|---------------------------|---|--|
| Eu Rohs Directive         | Pro-active compliance (Product out of EU RoHS legal scope)  |  |
| China Rohs Regulation     | China RoHS declaration  |  |
| Environmental Disclosure  | Product Environmental Profile   |  |
| Weee                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |  |
| Circularity Profile       | End of Life Information   |  |
| California Proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |  |

## **Dimensions Drawings**

#### **External Dimensions**

# With Standard Braking Resistor



- (1) Module for supply voltage
- (2) I/O module
- (3) Standard braking resistor

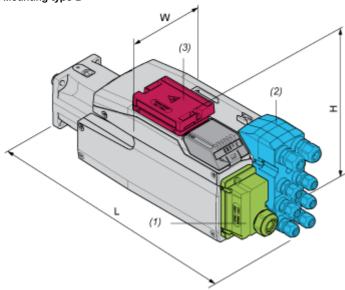
#### Dimensions in mm

| W  | Н   | L   |
|----|-----|-----|
| 99 | 187 | 321 |

#### Dimensions in in.

| W    | Н    | L     |
|------|------|-------|
| 3,90 | 7,36 | 12,64 |

#### Mounting type B



- (1) Module for supply voltage
- (2) I/O module

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(3) Standard braking resistor

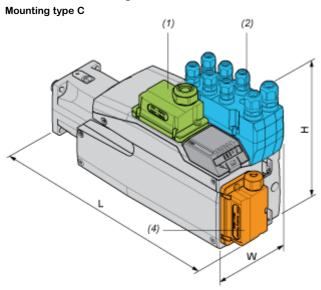
| Dime | nsions | in | mm |
|------|--------|----|----|
|      |        |    |    |

| W  | Н     | L   |
|----|-------|-----|
| 99 | 138,5 | 370 |

#### Dimensions in in.

| W    | Н    | L     |
|------|------|-------|
| 3,90 | 5,45 | 14,57 |

## With External Braking Resistor



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

Dimensions in mm

| W  | Н   | L   |
|----|-----|-----|
| 99 | 187 | 333 |

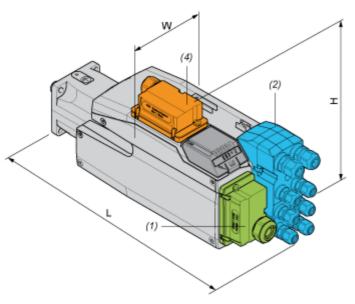
Dimensions in in.

| W    | Н    | L     |
|------|------|-------|
| 3,90 | 7,36 | 13,11 |

# Mounting type D

# **Product data sheet**

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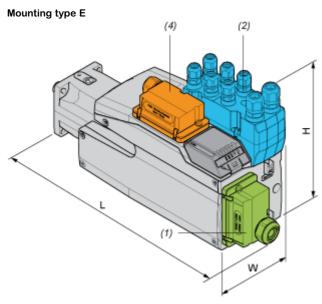
- (1) Module for supply voltage
- (2) I/O module
- External braking resistor (4)

#### Dimensions in mm

| W  | Н   | L   |
|----|-----|-----|
| 99 | 160 | 370 |

#### Dimensions in in

| Difficitional in in. |     |       |  |  |  |
|----------------------|-----|-------|--|--|--|
| W                    | Н   | L     |  |  |  |
| 3,90                 | 6,3 | 14,57 |  |  |  |



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

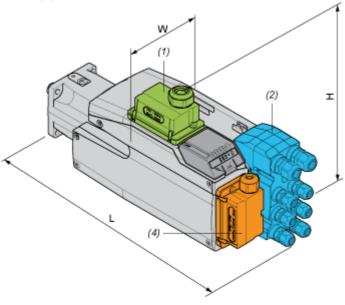
#### Dimensions in mm

| W  | Н   | L   |
|----|-----|-----|
| 99 | 187 | 360 |

Dimensions in in.

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

#### Mounting type F



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

#### Dimensions in mm

| W  | Н   | L   |
|----|-----|-----|
| 99 | 180 | 370 |

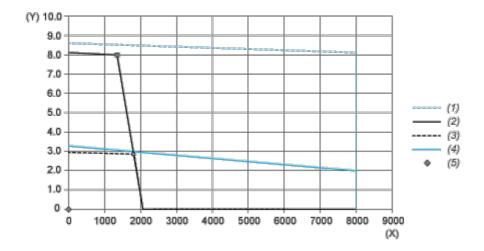
#### Dimensions in in

| W    | Н    | L     |
|------|------|-------|
| 3,90 | 7,09 | 14,57 |

#### Performance Curves

# **Performance Curves**

#### Torque/Speed Curves with 208 V Three Phases Supply Voltage

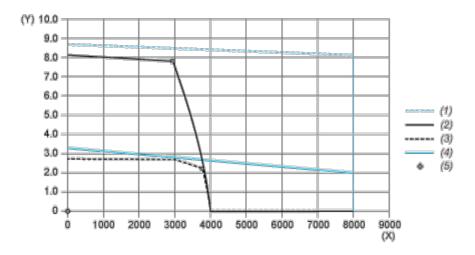


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

|                         |   | 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

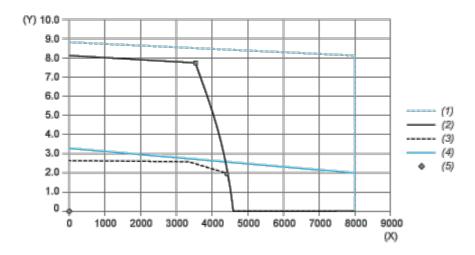


- (X) Speed (rpm)
- (Y) Torque (N.m)
- (1) Motor peak
- (2) Drive peak
- (3) Drive cont
- (4) Motor cont
- (5) Operating point

|                         |   | 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    |