



## 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 | 115...230 V - 15...10 %                                                 |
| Supply voltage limits     | 100...240 V                                                             |
| Network number of phases  | Single phase                                                            |
| Supply frequency          | 50/60 Hz - 5...5 %                                                      |
| Network frequency limits  | 47.5...63 Hz                                                            |
| EMC filter                | Integrated                                                              |
| Continuous output current | 3.5 A at 8 kHz                                                          |
| Output current 3s peak    | 10.5 A at 230 V for 3 s                                                 |
| Continuous stall current  | 3.5 A                                                                   |
| Continuous stall torque   | 3.4 N.m at 115...230 V single phase                                     |
| Peak stall torque         | 8.6 N.M at 115 V single phase<br>8.6 N.m at 230 V single phase          |
| Nominal output power      | 700 W at 230 V single phase<br>400 W at 115 V single phase              |
| Nominal torque            | 2.9 N.M at 115 V single phase<br>2.2 N.m at 230 V single phase          |
| Nominal speed             | 3200 rpm at 230 V single phase<br>1400 rpm at 115 V single phase        |
| Maximum current Irms      | 17.8 A at 115 V, single phase<br>17.8 A at 230 V, single phase          |
| Product compatibility     | Drive control unit LXM32i CANopen<br>Drive control unit LXM32i EtherCAT |
| Shaft end                 | Untapped                                                                |
| Second shaft              | Without second shaft end                                                |
| Shaft diameter            | 14 mm                                                                   |
| Shaft length              | 30 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         | 70 mm                                                                   |
| Electrical connection     | Printed circuit board connector                                         |
| Torque constant           | 0.81 N.m/A at 20 °C                                                     |
| Back emf constant         | 54.44 V/krpm at 20 °C                                                   |

|                                       |                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Number of motor poles                 | 10                                                                                                                         |
| Rotor inertia                         | 1.67 kg.cm <sup>2</sup>                                                                                                    |
| Stator resistance                     | 2.58 Ohm at 20 °C                                                                                                          |
| Stator inductance                     | 2.28 mH at 20 °C                                                                                                           |
| Stator electrical time constant       | 0.88 ms at 20 °C                                                                                                           |
| Maximum radial force Fr               | 730 N at 1000 rpm<br>580 N at 2000 rpm<br>510 N at 3000 rpm<br>460 N at 4000 rpm<br>430 N at 5000 rpm<br>400 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 300 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 | Shaft: IP54<br>Housing: IP65 |
|-------------------------|------------------------------|

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 62.0 cm   |
| Package 1 Width              | 20.0 cm   |
| Package 1 Length             | 59.0 cm   |
| Package 1 Weight             | 5.594 kg  |
| Unit Type of Package 2       | P06       |
| Number of Units in Package 2 | 8         |
| Package 2 Height             | 77.0 cm   |
| Package 2 Width              | 80.0 cm   |
| Package 2 Length             | 60.0 cm   |
| Package 2 Weight             | 53.252 kg |

## Offer Sustainability

|                            |                                                                                                                                   |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                             |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Pro-active compliance (Product out of EU RoHS legal scope)                                                                        |
| Mercury free               | Yes                                                                                                                               |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |
| RoHS exemption information |  <a href="#">Yes</a>                           |
| Environmental Disclosure   |  <a href="#">Product Environmental Profile</a> |
| Circularity Profile        |  <a href="#">End Of Life Information</a>       |
| 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

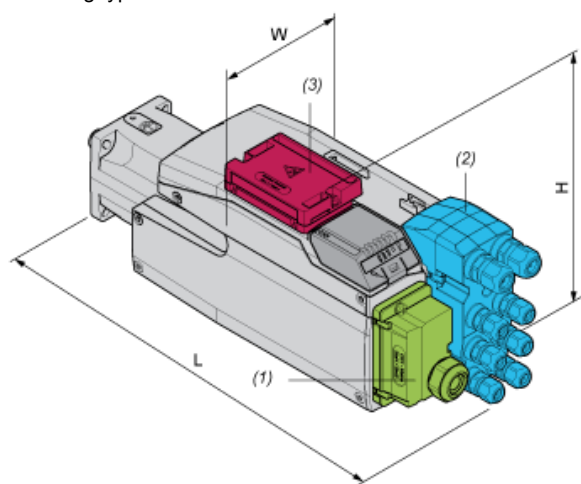
Dimensions in mm

| W  | H   | L   |
|----|-----|-----|
| 99 | 187 | 321 |

Dimensions in in.

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

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 | 370 |

Dimensions in in.

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

## 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 | 333 |

Dimensions in in.

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

Mounting type D



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

Dimensions in mm

| W  | H   | L   |
|----|-----|-----|
| 99 | 160 | 370 |

Dimensions in in.

| W    | H   | L     |
|------|-----|-------|
| 3,90 | 6,3 | 14,57 |

## Mounting type E



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



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

Dimensions in mm

| W  | H   | L   |
|----|-----|-----|
| 99 | 180 | 370 |

Dimensions in in.

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

## Performance Curves

### Torque/Speed Curves with 115 V Single Phase 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         | ■ | 889 W | 1360 rpm | 6.24 N.m    |
| max Cont. Power (Drive) | ● | 501 W | 1680 rpm | 2.85 N.m    |

## Performance Curves

### Torque/Speed Curves with 230 V Single Phase 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         | ■ | 2314 W | 2800 rpm | 7.89 N.m    |
| max Cont. Power (Drive) | ● | 738 W  | 3600 rpm | 1.96 N.m    |