



## 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   | 2.48 N.m at 208...480 V three phase                                                             |
| Peak stall torque         | 6.8 N.M at 208 V three phase<br>6.8 N.M at 400 V three phase<br>6.8 N.m at 480 V three phase    |
| Nominal output power      | 400 W at 208 V three phase<br>800 W at 400 V three phase<br>900 W at 480 V three phase          |
| Nominal torque            | 2.4 N.M at 208 V three phase<br>2.2 N.M at 400 V three phase<br>2 N.m at 480 V three phase      |
| Nominal speed             | 1800 rpm at 208 V three phase<br>3600 rpm at 400 V three phase<br>4400 rpm at 480 V three phase |
| Maximum current Irms      | 9.6 A at 208 V, three phase<br>9.6 A at 400 V, three phase<br>9.6 A at 480 V, three 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            | 11 mm                                                                                           |
| Shaft length              | 23 mm                                                                                           |
| Feedback type             | Absolute single turn SinCos Hiperface                                                           |
| Speed feedback resolution | 131072 points/turn                                                                              |
| Holding brake             | With                                                                                            |
| Holding torque            | 3 N.m holding brake                                                                             |

|                                       |                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------|
| Mounting support                      | International standard flange                                                                                              |
| Motor flange size                     | 70 mm                                                                                                                      |
| Electrical connection                 | Printed circuit board connector                                                                                            |
| Torque constant                       | 1.15 N.m/A at 20 °C                                                                                                        |
| Back emf constant                     | 77.18 V/krpm at 20 °C                                                                                                      |
| Number of motor poles                 | 10                                                                                                                         |
| Rotor inertia                         | 1.24 kg.cm <sup>2</sup>                                                                                                    |
| Stator resistance                     | 8.89 Ohm at 20 °C                                                                                                          |
| Stator inductance                     | 25.75 mH at 20 °C                                                                                                          |
| Stator electrical time constant       | 2.9 ms at 20 °C                                                                                                            |
| Maximum radial force Fr               | 710 N at 1000 rpm<br>560 N at 2000 rpm<br>490 N at 3000 rpm<br>450 N at 4000 rpm<br>410 N at 5000 rpm<br>390 N at 6000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                                                   |
| Brake pull-in power                   | 5 W                                                                                                                        |
| Type of cooling                       | Natural convection                                                                                                         |
| Length                                | 306 mm                                                                                                                     |
| Number of motor stacks                | 2                                                                                                                          |
| 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             | 26.0 cm |
| Package 1 Width              | 20.0 cm |
| Package 1 Length             | 59.0 cm |
| Package 1 Weight             | 5.4 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                                                                                                                               |

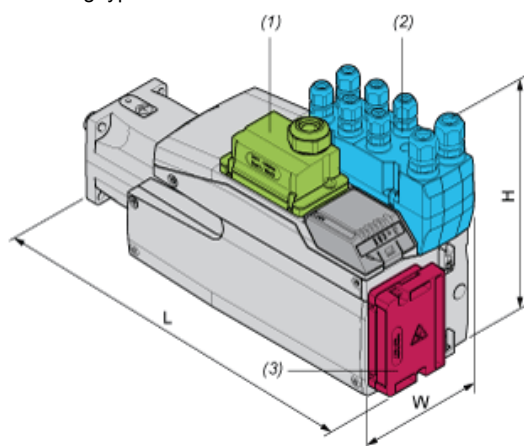
## Contractual warranty

|          |           |
|----------|-----------|
| 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

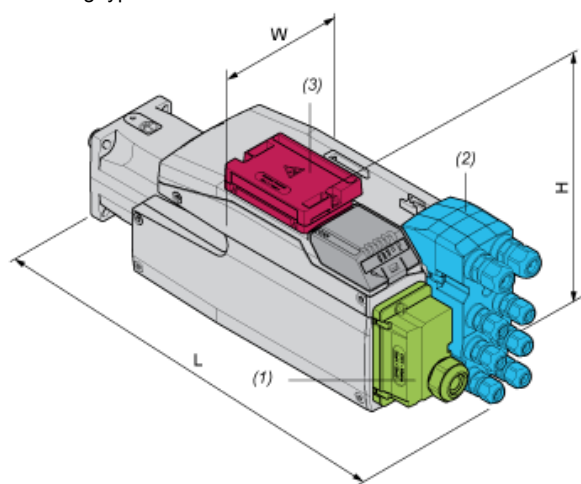
Dimensions in mm

| W  | H   | L   |
|----|-----|-----|
| 99 | 187 | 327 |

Dimensions in in.

| W    | H    | L     |
|------|------|-------|
| 3,90 | 7,36 | 12,87 |

Mounting type B



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

Dimensions in mm

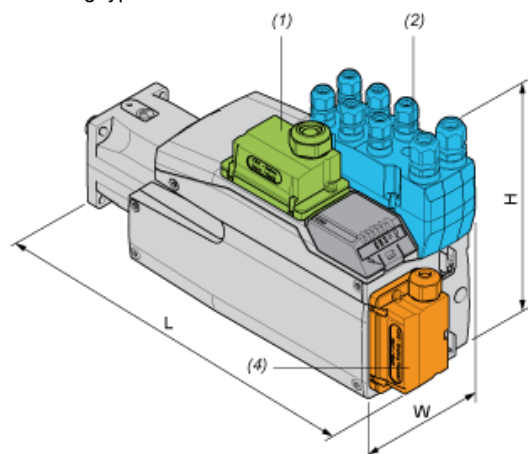
| W  | H     | L   |
|----|-------|-----|
| 99 | 138,5 | 376 |

Dimensions in in.

| W    | H    | L    |
|------|------|------|
| 3,90 | 5,45 | 14,8 |

## With External Braking Resistor

Mounting type C



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

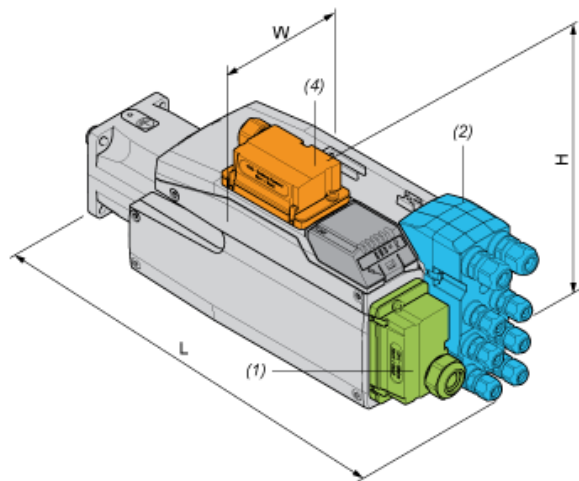
Dimensions in mm

| W  | H   | L   |
|----|-----|-----|
| 99 | 187 | 339 |

Dimensions in in.

| W    | H    | L     |
|------|------|-------|
| 3,90 | 7,36 | 13,35 |

Mounting type D



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

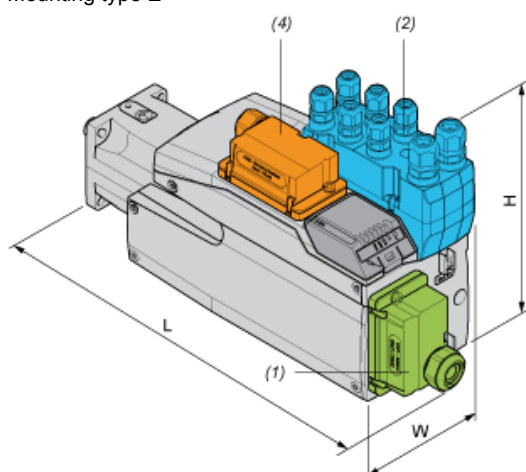
Dimensions in mm

| W  | H   | L   |
|----|-----|-----|
| 99 | 160 | 376 |

Dimensions in in.

| W    | H   | L    |
|------|-----|------|
| 3,90 | 6,3 | 14,8 |

### Mounting type E



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

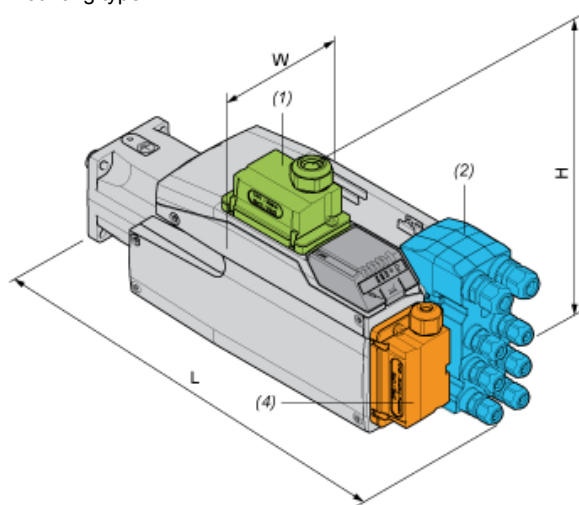
Dimensions in mm

| W  | H   | L   |
|----|-----|-----|
| 99 | 187 | 366 |

Dimensions in in.

| W    | H    | L     |
|------|------|-------|
| 3,90 | 7,36 | 14,41 |

### Mounting type F



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

Dimensions in mm

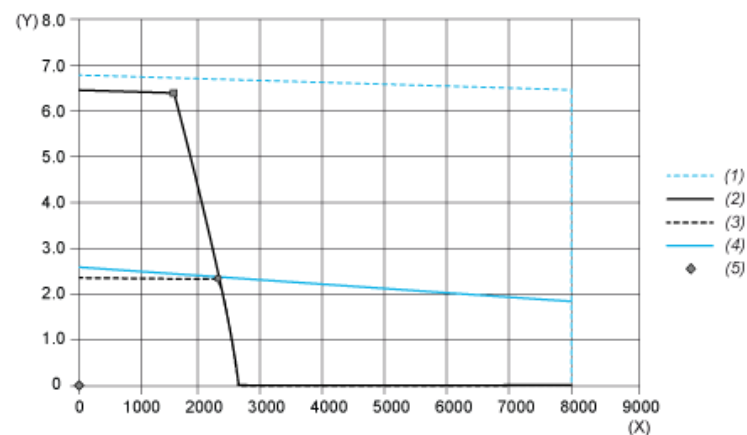
| W  | H   | L   |
|----|-----|-----|
| 99 | 180 | 376 |

Dimensions in in.

| W    | H    | L    |
|------|------|------|
| 3,90 | 7,09 | 14,8 |

## Performance Curves

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

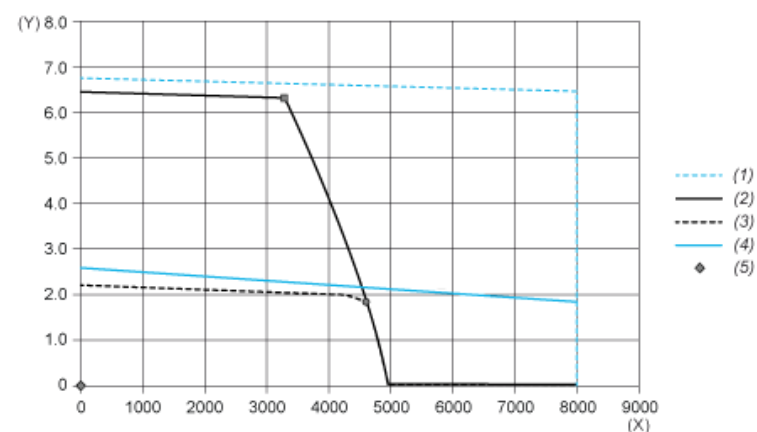


- (X) Speed (rpm)  
(Y) Torque (N.m)  
(1) Motor peak  
(2) Drive peak  
(3) Drive cont  
(4) Motor cont  
(5) Operating point

|                         |   | Power  | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power         | ■ | 1013 W | 1520 rpm | 6.36 N.m    |
| max Cont. Power (Drive) | ● | 519 W  | 2240 rpm | 2.21 N.m    |

## Performance Curves

### Torque/Speed Curves with 400 V Three Phases Supply Voltage



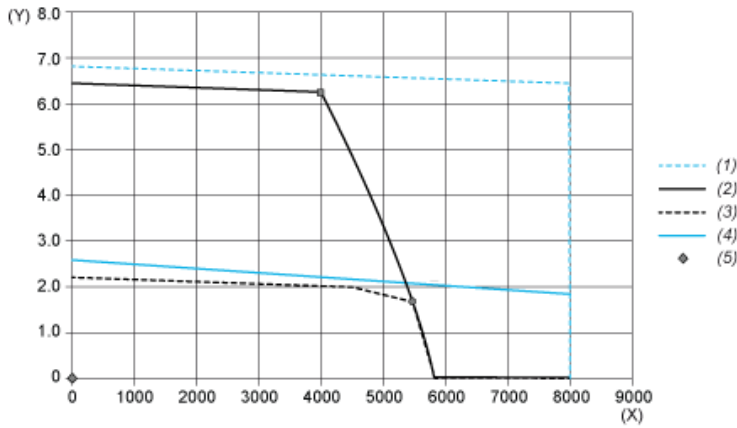
- (X) Speed (rpm)  
(Y) Torque (N.m)  
(1) Motor peak  
(2) Drive peak  
(3) Drive cont  
(4) Motor cont  
(5) Operating point

|                 |   | Power  | At Speed | With Torque |
|-----------------|---|--------|----------|-------------|
| max. Peak Power | ■ | 2161 W | 3280 rpm | 6.29 N.m    |

|                         |   | Power | At Speed | With Torque |
|-------------------------|---|-------|----------|-------------|
| max Cont. Power (Drive) | ● | 892 W | 4560 rpm | 1.87 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         | ■ | 2623 W | 4000 rpm | 6.26 N.m    |
| max Cont. Power (Drive) | ● | 943 W  | 5600 rpm | 1.61 N.m    |