



## Main

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

## Complementary

|                           |                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------|
| Maximum mechanical speed  | 6000 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 | 4 A at 8 kHz                                                                                    |
| Output current 3s peak    | 12 A at 400 V for 3 s                                                                           |
| Continuous stall current  | 4 A                                                                                             |
| Continuous stall torque   | 6 N.m at 208...480 V three phase                                                                |
| Peak stall torque         | 14 N.M at 208 V three phase<br>14 N.M at 400 V three phase<br>14 N.m at 480 V three phase       |
| Nominal output power      | 1000 W at 208 V three phase<br>1900 W at 400 V three phase<br>1900 W at 480 V three phase       |
| Nominal torque            | 5.1 N.M at 400 V three phase<br>5.4 N.M at 208 V three phase<br>4.1 N.m at 480 V three phase    |
| Nominal speed             | 1900 rpm at 208 V three phase<br>3800 rpm at 400 V three phase<br>4700 rpm at 480 V three phase |
| Maximum current Irms      | 17.5 A at 208 V, three phase<br>17.5 A at 400 V, three phase<br>17.5 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            | 19 mm                                                                                           |
| Shaft length              | 40 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                     | 100 mm                                                                                                |
| Electrical connection                 | Printed circuit board connector                                                                       |
| Torque constant                       | 1.28 N.m/A at 20 °C                                                                                   |
| Back emf constant                     | 84.52 V/krpm at 20 °C                                                                                 |
| Number of motor poles                 | 10                                                                                                    |
| Rotor inertia                         | 6.28 kg.cm <sup>2</sup>                                                                               |
| Stator resistance                     | 2.347 Ohm at 20 °C                                                                                    |
| Stator inductance                     | 9.79 mH at 20 °C                                                                                      |
| Stator electrical time constant       | 4.17 ms at 20 °C                                                                                      |
| Maximum radial force Fr               | 990 N at 1000 rpm<br>790 N at 2000 rpm<br>690 N at 3000 rpm<br>620 N at 4000 rpm<br>580 N at 5000 rpm |
| Maximum axial force Fa                | 0.2 x Fr                                                                                              |
| Type of cooling                       | Natural convection                                                                                    |
| Length                                | 273 mm                                                                                                |
| Number of motor stacks                | 2                                                                                                     |
| Centring collar diameter              | 95 mm                                                                                                 |
| Centring collar depth                 | 3.5 mm                                                                                                |
| Number of mounting holes              | 4                                                                                                     |
| Mounting holes diameter               | 9 mm                                                                                                  |
| Circle diameter of the mounting holes | 115 mm                                                                                                |
| Distance shaft shoulder-flange        | 3.5 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             | 9.5 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   |
|-------|-----|-----|
| 132,6 | 217 | 294 |

Dimensions in in.

| W    | H    | L     |
|------|------|-------|
| 5,22 | 8,54 | 11,57 |

Mounting type B



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

Dimensions in mm

| W     | H   | L   |
|-------|-----|-----|
| 132,6 | 168 | 343 |

Dimensions in in.

| W    | H    | L    |
|------|------|------|
| 5,22 | 6,61 | 13,5 |

## 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   |
|-------|-----|-----|
| 132,6 | 217 | 306 |

Dimensions in in.

| W    | H    | L     |
|------|------|-------|
| 5,22 | 8,54 | 12,05 |

Mounting type D



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

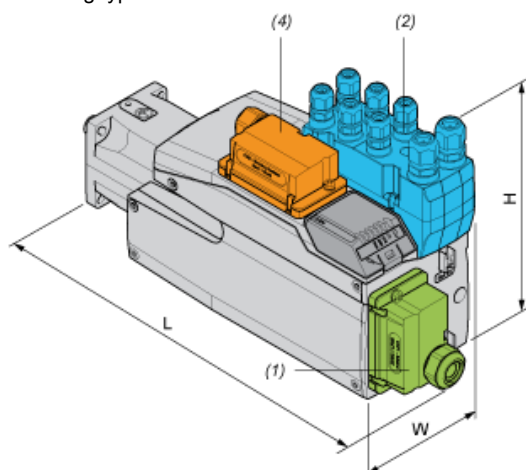
Dimensions in mm

| W     | H   | L   |
|-------|-----|-----|
| 132,6 | 180 | 343 |

Dimensions in in.

| W    | H    | L    |
|------|------|------|
| 5,22 | 7,09 | 13,5 |

### Mounting type E



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

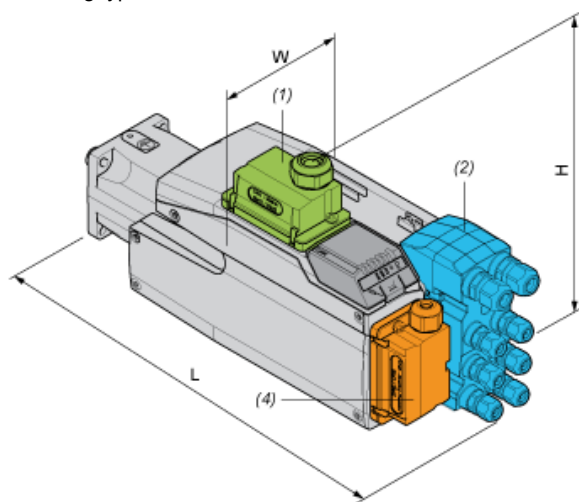
Dimensions in mm

| W     | H   | L   |
|-------|-----|-----|
| 132,6 | 217 | 333 |

Dimensions in in.

| W    | H    | L     |
|------|------|-------|
| 5,22 | 8,54 | 13,11 |

### Mounting type F



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

Dimensions in mm

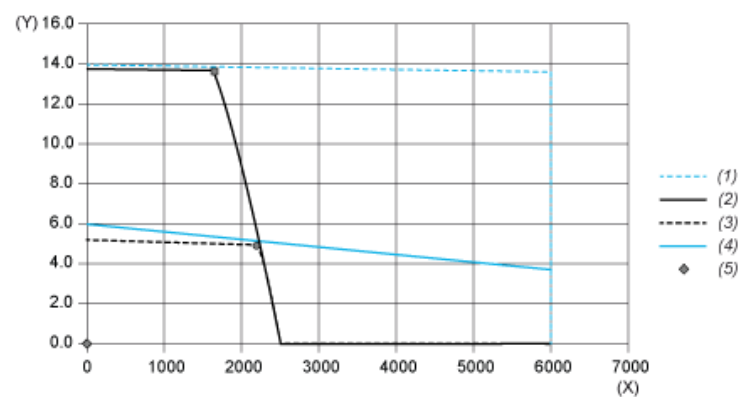
| W     | H     | L   |
|-------|-------|-----|
| 132,6 | 206,5 | 343 |

Dimensions in in.

| W    | H    | L    |
|------|------|------|
| 5,22 | 8,13 | 13,5 |

## Performance Curves

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

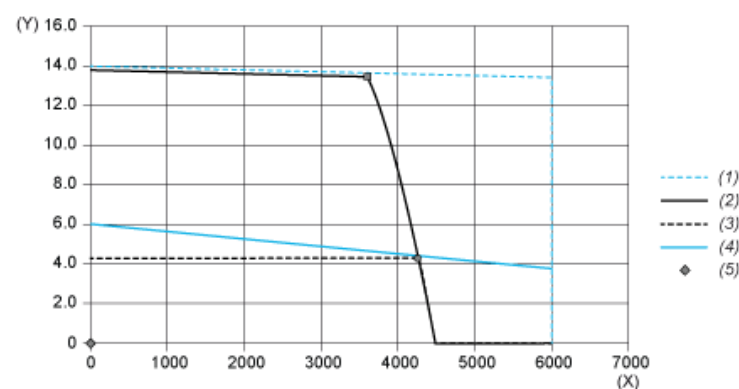


- (X) Speed (rpm)  
(Y) Torque (N.m)  
(1) Motor peak  
(2) Drive peak  
(3) Drive cont  
(4) Motor cont  
(5) Operating point

|                         |   | Power  | At Speed | With Torque |
|-------------------------|---|--------|----------|-------------|
| max. Peak Power         | ■ | 2499 W | 1740 rpm | 13.72 N.m   |
| max Cont. Power (Drive) | ● | 1109   | 2160 rpm | 4.90 N.m    |

## Performance Curves

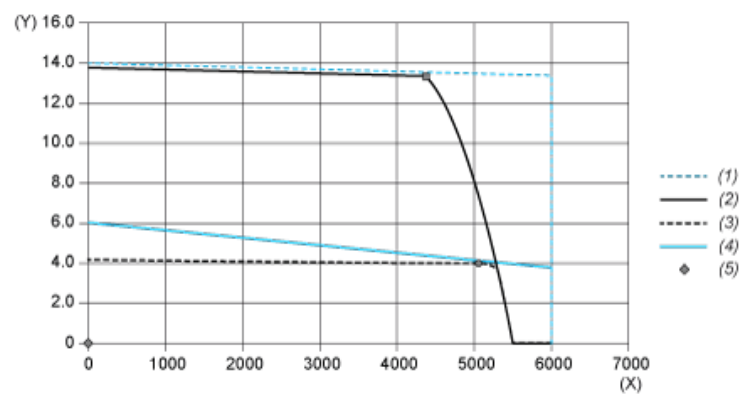
### Torque/Speed Curves with 400 V Three Phases Supply Voltage



- (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         | ■ | 5090 W | 3600 rpm | 13.50 N.m   |
| max Cont. Power (Drive) | ● | 1954 W | 4320 rpm | 4.32 N.m    |

### 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         | ■ | 6117 W | 4380 rpm | 13.34 N.m   |
| max Cont. Power (Drive) | ● | 2080 W | 5040 rpm | 3.94 N.m    |