



## Main

|                           |                                            |
|---------------------------|--------------------------------------------|
| Range of product          | Lexium integrated drive                    |
| Product or component type | Motion integrated drive                    |
| Device short name         | ILA                                        |
| Motor type                | AC synchronous servo motor                 |
| Number of motor poles     | 6                                          |
| Network number of phases  | Single phase                               |
| [Us] rated supply voltage | 48 V<br>24 V                               |
| Network type              | DC                                         |
| Communication interface   | EtherCAT, integrated                       |
| Length                    | 145.3 mm                                   |
| Winding type              | Medium speed of rotation and medium torque |
| Electrical connection     | Industrial connector                       |
| Holding brake             | Without                                    |
| Gear box type             | Without                                    |
| Nominal speed             | 3200 rpm at 24 V<br>5100 rpm at 48 V       |
| Nominal torque            | 0.44 N.m                                   |

## Complementary

|                                       |                                                                          |
|---------------------------------------|--------------------------------------------------------------------------|
| Transmission rate                     | 100 Mbits                                                                |
| Mounting support                      | Flange                                                                   |
| Motor flange size                     | 57 mm                                                                    |
| Number of motor stacks                | 1                                                                        |
| Centring collar diameter              | 50 mm                                                                    |
| Centring collar depth                 | 1.6 mm                                                                   |
| Number of mounting holes              | 4                                                                        |
| Mounting holes diameter               | 5.2 mm                                                                   |
| Circle diameter of the mounting holes | 66.6 mm                                                                  |
| Feedback type                         | Single turn encoder                                                      |
| Shaft end                             | Untapped                                                                 |
| Second shaft                          | Without second shaft end                                                 |
| Shaft diameter                        | 9 mm                                                                     |
| Shaft length                          | 20 mm                                                                    |
| Supply voltage limits                 | 18...55.2 V                                                              |
| Current consumption                   | 5000 mA maximum continuous<br>7000 mA peak                               |
| Associated fuse rating                | 16 A                                                                     |
| Commissioning interface               | RS485 Modbus TCP (9.6, 19.2 and 38.4 kbauds)                             |
| Input/output type                     | 4 signals (each be used as input or output)                              |
| Voltage state 0 guaranteed            | -3...4.5 V                                                               |
| Voltage state 1 guaranteed            | 15...30 V                                                                |
| Discrete input current                | 10 MA at 24 V for safety input<br>2 mA at 24 V for 24 V signal interface |
| Discrete output voltage               | 23...25 V                                                                |

|                           |                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------|
| Maximum switching current | 100 MA per output<br>200 mA total                                                    |
| Protection type           | Overload of output voltage<br>Safe torque off<br>Short circuit of the output voltage |
| Peak stall torque         | 0.62 N.m                                                                             |
| Continuous stall torque   | 0.44 N.m                                                                             |
| Speed feedback resolution | 16384 points/turn                                                                    |
| Accuracy error            | +/- 0.05 °                                                                           |
| Rotor inertia             | 0.095 kg.cm <sup>2</sup>                                                             |
| Maximum radial force Fr   | 89 N                                                                                 |
| Maximum axial force Fa    | 104 N (force pressure)<br>104 N (tensile force)                                      |
| Service life in hours     | 20000 h bearing                                                                      |
| Marking                   | CE                                                                                   |
| Type of cooling           | Natural convection                                                                   |
| Net weight                | 1.4 kg                                                                               |

## Environment

|                                                       |                                                                                                                                          |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | IEC 50347<br>EN 61800-3:2001, second environment<br>IEC 61800-3, Ed 2<br>EN 61800-3 : 2001-02<br>IEC 61800-3<br>IEC 60072-1<br>IEC 50178 |
| Product certifications                                | TÜV[RETURN]cUL[RETURN]UL                                                                                                                 |
| Ambient air temperature for operation                 | 40...55 °C (with power derating of 2 % per °C)<br>0...40 °C (without derating)                                                           |
| Permissible ambient air temperature around the device | 105 °C power amplifier<br>110 °C motor                                                                                                   |
| Ambient air temperature for storage                   | -25...70 °C                                                                                                                              |
| Operating altitude                                    | <= 1000 m without derating                                                                                                               |
| Relative humidity                                     | 15...85 % without condensation                                                                                                           |
| Vibration resistance                                  | 20 m/s <sup>2</sup> (f= 10...500 Hz) 10 cycles conforming to IEC 60068-2-6                                                               |
| Shock resistance                                      | 150 m/s <sup>2</sup> 1000 shocks conforming to IEC 60068-2-29                                                                            |
| IP degree of protection                               | IP41 shaft bushing: conforming to IEC 60034-5<br>IP54 total except shaft bushing: conforming to IEC 60034-5                              |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 8.0 cm  |
| Package 1 Width              | 18.5 cm |
| Package 1 Length             | 35.5 cm |
| Package 1 Weight             | 1.7 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                                                                                                                         |
| <b>Contractual warranty</b> |                                                                                                                             |
| Warranty                    | 18 months                                                                                                                   |

## Integrated Drive without Holding Brake

## Dimensions



- 1 Accessories: I/O signal insert with industrial connectors  
2 Option: industrial connectors  
3 Earth (ground) terminal  
4 Accessories: cable entries  $\varnothing = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$   
5 Centring hole DIN 332 - DS M3  
L 145.3 mm/5.72 in.

Connection Example with 4 I/O Signals



## Torque Characteristics



- X Speed of rotation in rpm  
Y Torque in Nm  
1.1 Max. torque at 24 V  
1.2 Max. torque at 48 V  
2 Continuous torque