

# Product datasheet

Specifications



integrated drive ILA with servo motor - 24..48 V - EtherCAT - indus connector

ILA2E572PC2A0

! Discontinued on: 9 Feb 2023

! Discontinued

EAN Code: 3606485187518

## 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 | 24 V<br>48 V                               |
| network type              | DC                                         |
| Communication interface   | EtherCAT, integrated                       |
| Length                    | 207.8 mm                                   |
| Winding type              | Medium speed of rotation and medium torque |
| Electrical connection     | Industrial connector                       |
| Holding brake             | Without                                    |
| Gear box type             | Without                                    |
| Nominal speed             | 1600 rpm at 24 V<br>3400 rpm at 48 V       |
| Nominal torque            | 0.78 N.m                                   |

## Complementary

|                                       |                    |
|---------------------------------------|--------------------|
| Transmission rate                     | 100 Mbits          |
| mounting support                      | Flange             |
| Motor flange size                     | 57 mm              |
| Number of motor stacks                | 2                  |
| 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                         | Multi turn encoder |
| Shaft end                             | Untapped           |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                            |                                                                                      |
|----------------------------|--------------------------------------------------------------------------------------|
| Second shaft               | Without second shaft end                                                             |
| Shaft diameter             | 9 mm                                                                                 |
| Shaft length               | 20 mm                                                                                |
| Supply voltage limits      | 18...55.2 V                                                                          |
| Current consumption        | 7000 mA maximum continuous<br>8500 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>Short circuit of the output voltage<br>Safe torque off |
| Peak stall torque          | 1.62 N.m                                                                             |
| Continuous stall torque    | 0.78 N.m                                                                             |
| Speed feedback resolution  | 16384 points/turn x 4096 turns                                                       |
| Accuracy error             | +/- 0.05 °                                                                           |
| Rotor inertia              | 0.173 kg.cm²                                                                         |
| Maximum radial force Fr    | 107 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                 | 1.7 kg                                                                               |

## Environment

|                                                       |                                                                                                                                          |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | IEC 61800-3, Ed 2<br>IEC 50178<br>IEC 61800-3<br>EN 61800-3 : 2001-02<br>IEC 60072-1<br>IEC 50347<br>EN 61800-3:2001, second environment |
| Product certifications                                | cUL<br>UL<br>TÜV                                                                                                                         |
| 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/s² (f= 10...500 Hz) 10 cycles conforming to IEC 60068-2-6                                              |
| Shock resistance        | 150 m/s² 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             | 2.0 kg  |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Sustainability



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Transparency   RoHS/REACH

Well-being performance

|   |                            |     |
|---|----------------------------|-----|
| ✓ | Mercury Free               |     |
| ✓ | Rohs Exemption Information | Yes |
| ✓ | Pvc Free                   |     |

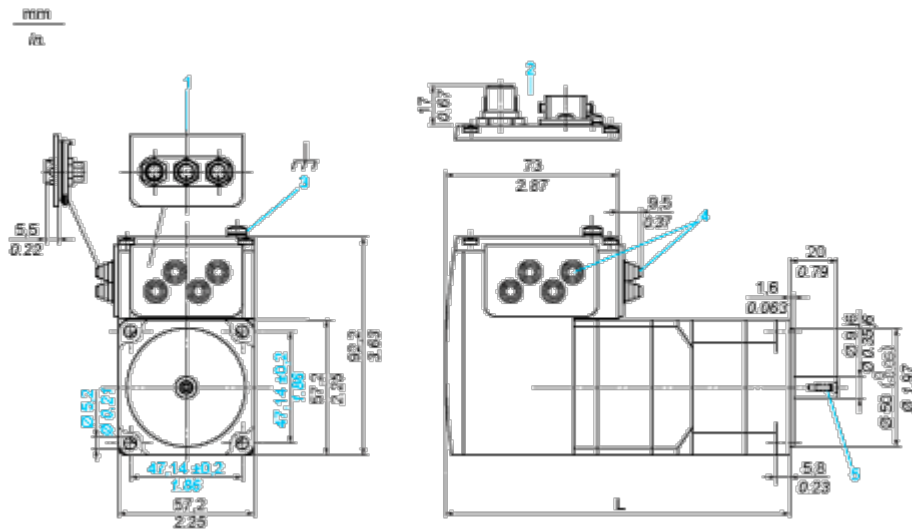
Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Pro-active compliance (Product out of EU RoHS legal scope)                                                                  |
| China Rohs Regulation    | <a href="#">China RoHS declaration</a>                                                                                      |
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>                                                                               |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |

## Dimensions Drawings

### Integrated Drive without Holding Brake

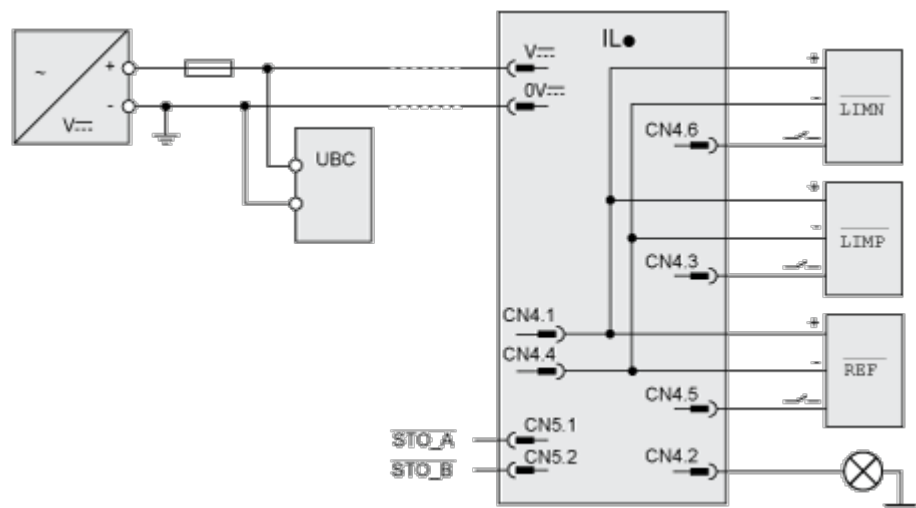
## Dimensions



- 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 : 197.3 mm/7.77 in.

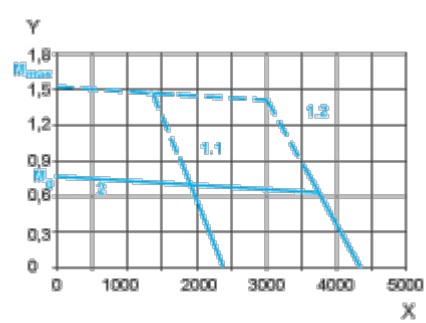
Connections and Schema

Connection Example with 4 I/O Signals



Performance Curves

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