



integrated drive ILS with stepper motor - 24..48 V - EtherCAT - 5 A

ILS2E852PB1A0

! Discontinued on: 9 Feb 2023

EAN Code: 3606485189499

① Discontinued

Main

| Range of product | Lexium integrated drive |
|---------------------------|--|
| Product or component type | Motion integrated drive |
| Device short name | ILS |
| Motor type | 3-phase stepper motor |
| Number of motor poles | 6 |
| Network number of phases | Single phase |
| [Us] rated supply voltage | 24 V 48 V |
| network type | DC |
| Communication interface | EtherCAT, integrated |
| Length | 170.6 mm |
| Winding type | Medium speed of rotation and medium torque |
| Electrical connection | Printed circuit board connector |
| Holding brake | Without |
| Gear box type | Without |
| Nominal speed | 180 rpm at 24 V 360 rpm at 48 V |
| Nominal torque | 4 N.m |
| Holding torque | 4 N.m |

Complementary

| Transmission rate | 100 Mbits |
|---------------------------------------|-------------|
| mounting support | Flange |
| Motor flange size | 85 mm |
| Number of motor stacks | 2 |
| Centring collar diameter | 60 mm |
| Centring collar depth | 2 mm |
| Number of mounting holes | 4 |
| Mounting holes diameter | 6.5 mm |
| Circle diameter of the mounting holes | 99 mm |
| Feedback type | Index pulse |

| Shaft end | Untapped |
|----------------------------|--|
| Second shaft | Without second shaft end |
| Shaft diameter | 12 mm |
| Shaft length | 30 mm |
| Supply voltage limits | 1855 V |
| Current consumption | 5000 mA maximum continuous |
| 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 | -34.5 V |
| Voltage state 1 guaranteed | 1530 V |
| Discrete input current | 10 mA at 24 V for safety input 2 mA at 24 V for 24 V signal interface |
| Discrete output voltage | 2325 V |
| Maximum switching current | 100 mA per output 200 mA total |
| Protection type | Short circuit of the output voltage Overload of output voltage Safe torque off |
| Peak stall torque | 4 N.m |
| Continuous stall torque | 4 N.m |
| Speed feedback resolution | 20000 points/turn |
| Accuracy error | +/- 6 arc min |
| Rotor inertia | 2.2 kg.cm² |
| Maximum mechanical speed | 3000 rpm |
| Maximum radial force Fr | 100 N |
| Maximum axial force Fa | 170 N (tensile force) 30 N (force pressure) |
| Service life in hours | 20000 h bearing |
| marking | CE |
| Type of cooling | Natural convection |
| Net weight | 3.6 kg |

Environment

| Standards | EN/IEC 61800-3 | |
|-------------------------------|---|--|
| | EN 61800-3:2001, second environment | |
| | IEC 60072-1 | |
| | EN 61800-3 : 2001-02 | |
| | IEC 61800-3, Ed 2 | |
| | EN 50347 | |
| | EN/IEC 50178 | |
| Product certifications | cUL | |
| | TÜV | |
| | UL | |
| Ambient air temperature for | 4055 °C (with power derating of 2 % per °C) | |
| operation | 040 °C (without derating) | |
| Permissible ambient air | 105 °C power amplifier | |
| temperature around the device | 110 °C motor | |

| Ambient air temperature for storage | -2570 °C |
|-------------------------------------|--|
| Operating altitude | <= 1000 m without derating |
| Relative humidity | 1585 % without condensation |
| Vibration resistance | 20 m/s² (f= 10500 Hz) 10 cycles conforming to EN/IEC 60068-2-6 |
| Shock resistance | 150 m/s² 1000 shocks conforming to EN/IEC 60068-2-29 |
| IP degree of protection | IP41 shaft bushing: conforming to EN/IEC 60034-5 IP54 total except shaft bushing: conforming to EN/IEC 60034-5 |

Packing Units

| Unit Type of Package 1 | PCE |
|------------------------------|---------|
| Number of Units in Package 1 | 1 |
| Package 1 Height | 10.4 cm |
| Package 1 Width | 18.0 cm |
| Package 1 Length | 36.5 cm |
| Package 1 Weight | 4.1 kg |

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

| | Mercury Free | |
|----------|----------------------------|-----|
| ② | Rohs Exemption Information | Yes |
| | Pvc Free | |

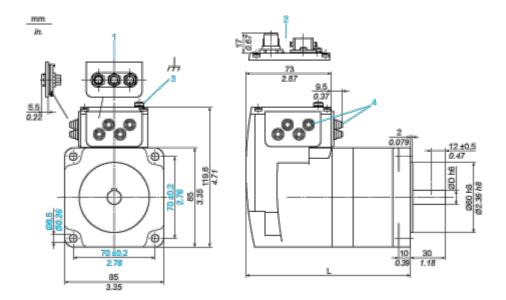
Certifications & Standards

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

Dimensions Drawings

Integrated Drive without Holding Brake

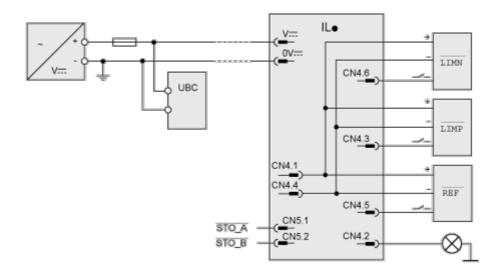
Dimensions



- 1 Accessories: I/O signal insert with industrial connectors
- 2 Option: industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries $\emptyset = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$
- L 170.6 mm/6.72 in.
- D 12 mm/0.47 in.

Connections and Schema

Connection Example with 4 I/O Signals

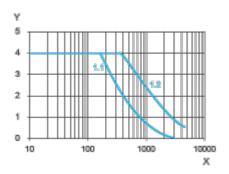


Product datasheet

ILS2E852PB1A0

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