ILS1U851PB1A0

integrated drive ILS with stepper motor - 24..36 V - pulse/direction 24 V - 5 A





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 | 36 V 24 V |
| Network type | DC |
| Communication interface | Pulse/direction 24 V, integrated |
| Length | 140.6 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 | 200 rpm at 24 V 400 rpm at 36 V |
| Nominal torque | 2 N.m |
| Holding torque | 2 N.m |
| | |

Complementary

| Complementary | | |
|---------------------------------------|---|--|
| Mounting support | Flange | |
| Motor flange size | 85 mm | |
| Number of motor stacks | 1 | |
| 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 | 1840 V | |
| Current consumption | 5000 mA maximum continuous | |
| Associated fuse rating | 10 A | |
| 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 | |
| Discrete output voltage | 2325 V | |
| Maximum switching current | 100 MA per output 200 mA total | |
| | 200 1111 (606) | |

| Protection type | Overload of output voltage | |
|---------------------------|--|--|
| | Short circuit of the output voltage | |
| | Safe torque off | |
| Peak stall torque | 2 N.m | |
| Continuous stall torque | 2 N.m | |
| Speed feedback resolution | 1.8°, 0.9°, 0.72°, 0.36°, 0.18°, 0.09°, 0.072°, 0.036° | |
| | 200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps | |
| Accuracy error | +/- 6 arc min | |
| Rotor inertia | 1.1 kg.cm² | |
| Maximum mechanical speed | 2000 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 | 2.6 kg | |
| | | |

Environment

| Standards | EN 61800-3:2001, second environment IEC 60072-1 EN/IEC 61800-3 EN 50347 EN/IEC 50178 EN 61800-3 : 2001-02 IEC 61800-3, Ed 2 |
|---|---|
| Product certifications | cUL[RETURN]UL[RETURN]TÜV |
| Ambient air temperature for operation | 5065 °C (with power derating of 2 % per °C) 050 °C (without derating) |
| Permissible ambient air temperature around the device | 105 °C power amplifier 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 | 10.5 cm | |
| Package 1 Width | 19.0 cm | |
| Package 1 Length | 39.0 cm | |
| Package 1 Weight | 3.0 kg | |

Offer Sustainability

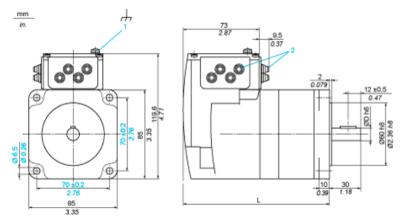
| um product |
|--|
| |
| Declaration |
| ompliance (Product out of EU RoHS legal scope) |
| |
| PHS Declaration |
| |
| Environmental Profile |
| ife Information |
| |

| 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 |

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Integrated Drive without Holding Brake

Dimensions

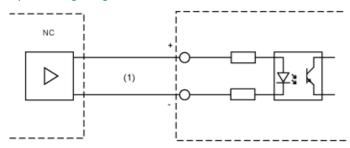


- 1
- Earth (ground) terminal Accessories: cable entries \emptyset = 3 ... 9 mm/0.12 ... 0.35 in. 2
- 140.6 mm/5.53 in.
- 12 mm/0.47 in.

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Multifunction Interface

Input Wiring Diagram



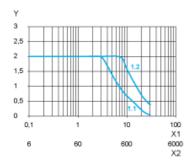
(1) Opto-isolated signals

The reference pulses are supplied via two of the signal inputs, either as pulse/ direction signals or as A/B signals. The other signal inputs have the functions "power amplifier enable/pulse blocking" and "step size switching/PWM motor current control".

Product data sheet Performance Curves

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Torque Characteristics



- Frequency in kHz
- X2 Y Speed of rotation in rpm
- Torque in Nm
- 1.1 Max. torque at 24 V
- 1.2 Max. torque at 36 V