



# integrated drive ILS with stepper motor - 24..48 V - EtherCAT - 3.5

ILS2E571PB1A0

! Discontinued on: 15 Jun 2023

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	48 V 24 V	
network type	DC	
Communication interface	EtherCAT, integrated	
Length	101.9 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	1000 rpm at 24 V 2000 rpm at 48 V	
Nominal torque	0.45 N.m	
Holding torque	0.45 N.m	

## Complementary

Transmission rate	100 Mbits
mounting support	Flange
Motor flange size	57 mm
Number of motor stacks	1
Centring collar diameter	38.1 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	Index pulse

Shaft end	Untapped	
Second shaft	Without second shaft end	
Shaft diameter	6.35 mm	
Shaft length	21 mm	
Supply voltage limits	1855 V	
Current consumption	3500 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 Safe torque off Overload of output voltage	
Peak stall torque	0.45 N.m	
Continuous stall torque	0.45 N.m	
Speed feedback resolution	20000 points/turn	
Accuracy error	+/- 6 arc min	
Rotor inertia	0.1 kg.cm²	
Maximum mechanical speed	3000 rpm	
Maximum radial force Fr	24 N	
Maximum axial force Fa	100 N (tensile force) 8.4 N (force pressure)	
Service life in hours	20000 h bearing	
marking	CE	
Type of cooling	Natural convection	
Net weight	1.3 kg	

### **Environment**

Standards	EN/IEC 50178 EN/IEC 61800-3 EN 61800-3:2001, second environment IEC 61800-3, Ed 2 EN 50347 IEC 60072-1 EN 61800-3: 2001-02
Product certifications	cUL TÜV UL
Ambient air temperature for operation	4055 °C (with power derating of 2 % per °C) 040 °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

# **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	1.6 kg

# **Contractual warranty**

Warranty 18 months



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Transparency RoHS/REACh

#### Well-being performance

	Mercury Free	
<b>②</b>	Rohs Exemption Information	Yes
	Pvc Free	

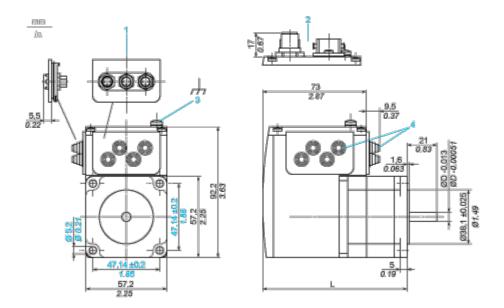
#### **Certifications & Standards**

Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
<b>Environmental Disclosure</b>	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**

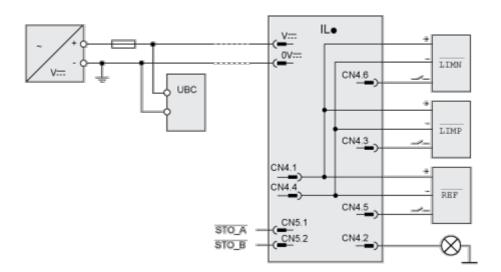
#### **Dimensions**



- 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 101.9 mm/4.01 in.
- D 6.35 mm/0.25 in.

Connections and Schema

### Connection Example with 4 I/O Signals

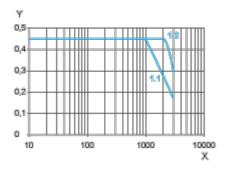


# **Product datasheet**

### ILS2E571PB1A0

#### 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