# **Product datasheet**

Specification





## integrated drive ILS with stepper motor - 24..48 V - Ethernet Powerlink - 5 A

ILS2P851PC1F0

! Discontinued on: 15 Jun 2023

! To be end-of-service on: 31 Dec 2026

! Discontinued - Service only

EAN Code: 3606485189703

#### 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	Ethernet Powerlink, integrated
Length	187.3 mm
Winding type	Medium speed of rotation and medium torque
Electrical connection	Industrial connector
Holding brake	With
Gear box type	Without
Nominal speed	300 rpm at 24 V 600 rpm at 48 V
Nominal torque	2 N.m
Holding torque	6 N.m holding brake 2 N.m

### Complementary

Transmission rate	100 Mbits
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	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 Safe torque off Overload of output voltage
Protection type  Peak stall torque	Safe torque off
	Safe torque off Overload of output voltage
Peak stall torque	Safe torque off Overload of output voltage  2 N.m
Peak stall torque  Continuous stall torque	Safe torque off Overload of output voltage  2 N.m
Peak stall torque  Continuous stall torque  Speed feedback resolution	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia  Maximum mechanical speed	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²  3000 rpm
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia  Maximum mechanical speed  Maximum radial force Fr	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²  3000 rpm  100 N  170 N (tensile force)
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia  Maximum mechanical speed  Maximum radial force Fr  Maximum axial force Fa	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²  3000 rpm  100 N  170 N (tensile force) 30 N (force pressure)
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia  Maximum mechanical speed  Maximum radial force Fr  Maximum axial force Fa  Service life in hours	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²  3000 rpm  100 N  170 N (tensile force) 30 N (force pressure)
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia  Maximum mechanical speed  Maximum radial force Fr  Maximum axial force Fa  Service life in hours  Brake pull-in power	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²  3000 rpm  100 N  170 N (tensile force) 30 N (force pressure)  20000 h bearing  22 W
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia  Maximum mechanical speed  Maximum radial force Fr  Maximum axial force Fa  Service life in hours  Brake pull-in power  Brake release time	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²  3000 rpm  100 N  170 N (tensile force) 30 N (force pressure)  20000 h bearing  22 W  40 ms
Peak stall torque  Continuous stall torque  Speed feedback resolution  Accuracy error  Rotor inertia  Maximum mechanical speed  Maximum radial force Fr  Maximum axial force Fa  Service life in hours  Brake pull-in power  Brake release time  Brake application time	Safe torque off Overload of output voltage  2 N.m  2 N.m  20000 points/turn  +/- 6 arc min  1.3 kg.cm²  3000 rpm  100 N  170 N (tensile force) 30 N (force pressure)  20000 h bearing  22 W  40 ms  20 ms

### **Environment**

Standards EN/IEC 61800-3

IEC 61800-3, Ed 2 EN 61800-3 : 2001-02

EN 50347

EN 61800-3:2001, second environment

IEC 60072-1 EN/IEC 50178

Product certifications	TÜV cUL
	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 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

## Sustainability Screen Premium

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

#### Well-being performance



Mercury Free



Rohs Exemption Information

Yes

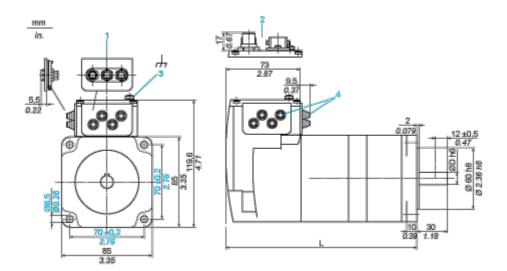
#### **Certifications & Standards**

Reach Regulation	REACh Declaration
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 with Holding Brake**

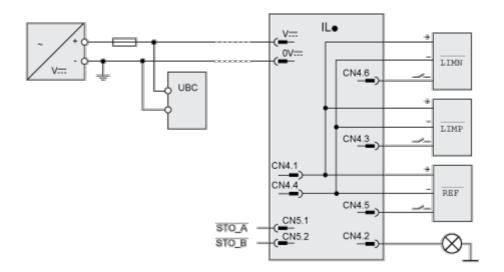
#### **Dimensions**



- 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 187.3 mm/7.37 in.
- D 12 mm/0.47 in.

Connections and Schema

#### Connection Example with 4 I/O Signals

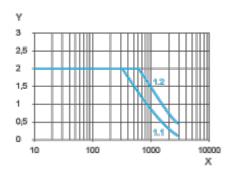


## **Product datasheet**

### ILS2P851PC1F0

#### 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