Product data sheet

Specifications

To be discontinued

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

ILS2P853PC1A0

To be discontinued on: 31 December 2022

To be end-of-service on: 31 December 2026

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	Ethernet Powerlink, integrated
Length	200.6 mm
Winding type	Medium speed of rotation and medium torque
Electrical connection	Industrial connector
Holding brake	Without
Gear box type	Without
Nominal speed	100 rpm at 24 V 200 rpm at 48 V
Nominal torque	6 N.m
Holding torque	6 N.m

Complementary

Transmission rate	100 Mbits
Mounting support	Flange
Motor flange size	85 mm
Number of motor stacks	3
Centring collar diameter	60 mm
Centring collar depth	2 mm
Number of mounting holes	4
Mounting holes diameter	6.5 mm

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

Circle diameter of the mounting holes	99 mm
Feedback type	Index pulse
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	14 mm
Shaft length	30 mm
Supply voltage limits	18…55 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	-3...4.5 V
Voltage state 1 guaranteed	15...30 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	23...25 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	6 N.m
Continuous stall torque	6 N.m
Speed feedback resolution	20000 points/turn
Accuracy error	+/- 6 arc min
Rotor inertia	3.3 kg.cm²
Maximum mechanical speed	2000 rpm
Maximum radial force Fr	110 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	4.7 kg

Environment

Standards	EN 50347 EN 61800-3:2001, second environment EN/IEC 50178 EN 61800-3 : 2001-02 IEC 60072-1 IEC 61800-3, Ed 2 EN/IEC 61800-3
Product certifications	TÜV cUL UL
Ambient air temperature for operation	40…55 °C (with power derating of 2 % per °C) 0…40 °C (without derating)
Permissible ambient air temperature around the device	105 °C power amplifier 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 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	5.2 kg

Offer Sustainability

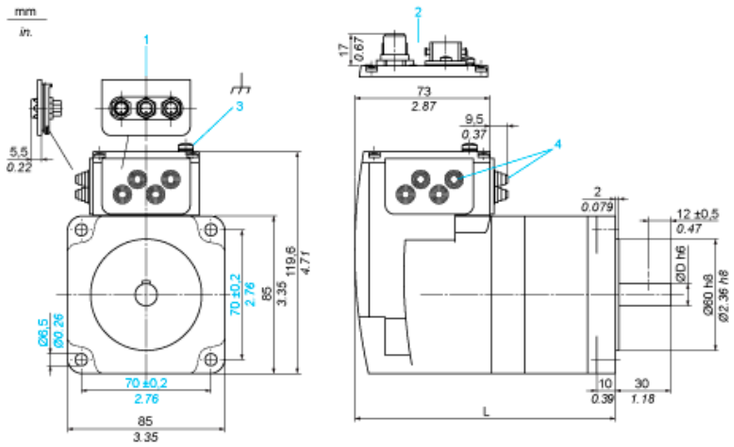
Sustainable offer status	Green Premium product
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Contractual warranty

Warranty	18 months

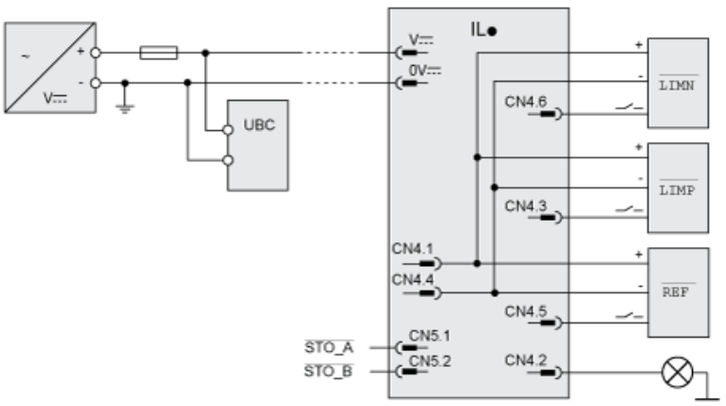
Integrated Drive without Holding Brake

Dimensions



1	Accessories: I/O signal insert with industrial connectors
2	Option: industrial connectors
3	Earth (ground) terminal
4	Accessories: cable entries Ø = 3 ... 9 mm/0.12 ... 0.35 in.
L	200.6 mm/7.90 in.
D	14 mm/0.55 in.

Connection Example with 4 I/O Signals



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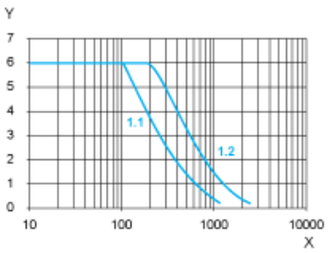
Performance Curves

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

Recommended replacement(s)

ILS2P853PC1A0 is replaced by the following product range:

Lexium ILA, ILE, ILS

Integrated drives for motion control

Products: 653