

Product datasheet

Specifications



integrated drive ILS with stepper motor - 24..36 V - CANopen DS301 - 5 A

ILS1F852PB1A0

EAN Code: 3389119227148

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 36 V
Network type	DC
Communication interface	CANopen DS301, 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	100 rpm at 24 V 200 rpm at 36 V
Nominal torque	4 N.m
Holding torque	4 N.m

Complementary

Transmission rate	50, 100, 125, 250, 500, 800 and 1000 kbauds
Mounting support	Flange 85 mm
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

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

Second shaft	Without second shaft end
Shaft diameter	12 mm
Shaft length	30 mm
Supply voltage limits	18...40 V
Current consumption	5000 mA maximum
Associated fuse rating	10 A
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 on/STO_A for safety input 3 mA at 24 V on/STO_B 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	Overload of output voltage Short circuit of the 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.cm ²
Maximum mechanical speed	1500 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	IEC 50347 EN 61800-3:2001, second environment EN 61800-3 : 2001-02 IEC 61800-3, Ed 2 IEC 61800-3 IEC 60072-1 IEC 50178
Product certifications	UL cUL TÜV
Ambient air temperature for operation	50...65 °C (with power derating of 2 % per °C) 0...50 °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 IEC 60068-2-6
Shock resistance	150 m/s² 1000 shocks conforming to IEC 60068-2-29
IP degree of protection	IP41 shaft bushing: conforming to IEC 60034-5 IP54 total except shaft bushing: conforming to IEC 60034-5

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	19.500 cm
Package 1 Width	22.000 cm
Package 1 Length	40.000 cm
Package 1 Weight	4.653 kg
Unit Type of Package 2	S04
Number of Units in Package 2	2
Package 2 Height	30 cm
Package 2 Width	40 cm
Package 2 Length	60 cm
Package 2 Weight	9.956 kg
Unit Type of Package 3	P06
Number of Units in Package 3	8
Package 3 Height	75.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	47.824 kg

Logistical informations

Country of origin	DE
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Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	436
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	F800009a-26ea-46d4-b613-164e8055f98f
REACH Regulation	REACH Declaration
PVC free	Yes

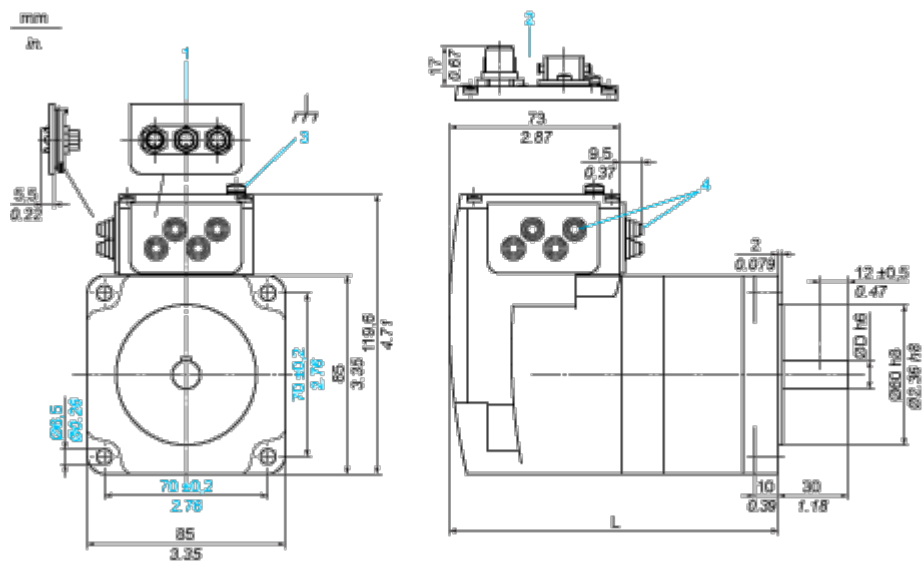
Use Again

Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

Integrated Drive without Holding Brake

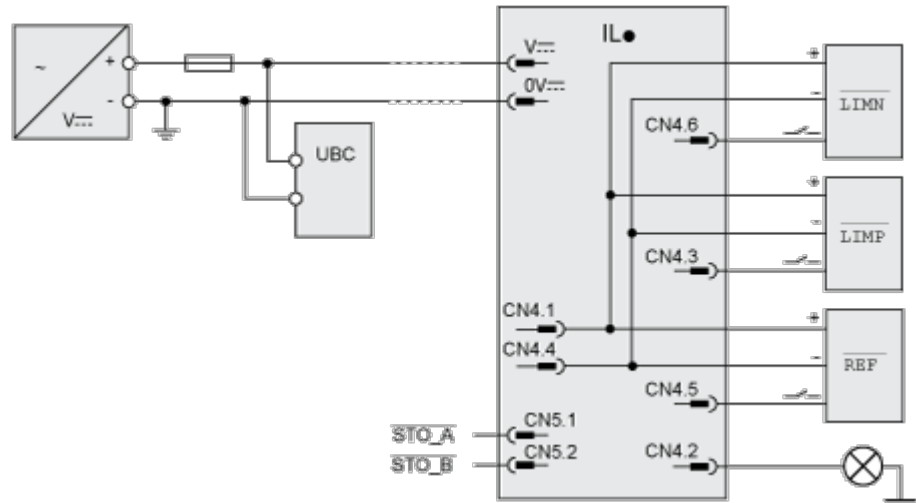
Dimensions



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

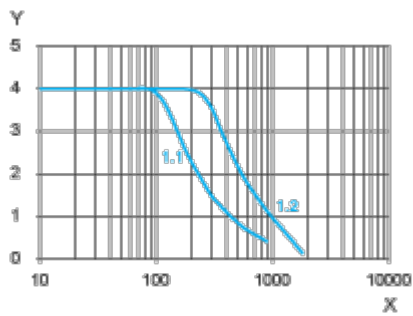
Connections and Schema

Connection Example with 4 I/O Signals



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 36 V