

# Product datasheet

Specifications



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

ILS1F852PB1F0

❗ Discontinued on: 9 Feb 2023

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EAN Code: 3389119227155

## 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	CANopen DS301, integrated
Length	217.3 mm
Winding type	Medium speed of rotation and medium torque
Electrical connection	Printed circuit board connector
Holding brake	With
Gear box type	Without
Nominal speed	100 rpm at 24 V 200 rpm at 36 V
Nominal torque	4 N.m
Holding torque	6 N.m holding brake 4 N.m

## Complementary

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

<b>Feedback type</b>	Index pulse
<b>Shaft end</b>	Untapped
<b>Second shaft</b>	Without second shaft end
<b>Shaft diameter</b>	12 mm
<b>Shaft length</b>	30 mm
<b>Supply voltage limits</b>	18...40 V
<b>Current consumption</b>	5000 mA maximum
<b>Associated fuse rating</b>	10 A
<b>Input/output type</b>	4 signals (each be used as input or output)
<b>Voltage state 0 guaranteed</b>	-3...4.5 V
<b>Voltage state 1 guaranteed</b>	15...30 V
<b>Discrete input current</b>	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
<b>Discrete output voltage</b>	23...25 V
<b>Maximum switching current</b>	100 mA per output 200 mA total
<b>Protection type</b>	Short circuit of the output voltage Safe torque off Overload of output voltage
<b>Peak stall torque</b>	4 N.m
<b>Continuous stall torque</b>	4 N.m
<b>Speed feedback resolution</b>	20000 points/turn
<b>Accuracy error</b>	+/- 6 arc min
<b>Rotor inertia</b>	2.4 kg.cm <sup>2</sup>
<b>Maximum mechanical speed</b>	1500 rpm
<b>Maximum radial force Fr</b>	100 N
<b>Maximum axial force Fa</b>	170 N (tensile force) 30 N (force pressure)
<b>Service life in hours</b>	20000 h bearing
<b>Brake pull-in power</b>	22 W
<b>Brake release time</b>	40 ms
<b>Brake application time</b>	20 ms
<b>Marking</b>	CE
<b>type of cooling</b>	Natural convection
<b>Net weight</b>	5.4 kg

## Environment

<b>Standards</b>	EN 61800-3 : 2001-02 EN/IEC 61800-3 EN/IEC 50178 EN 50347 IEC 60072-1 IEC 61800-3, Ed 2 EN 61800-3:2001, second environment
<b>Product certifications</b>	UL TÜV cUL

<b>Ambient air temperature for operation</b>	50...65 °C (with power derating of 2 % per °C) 0...50 °C (without derating)
<b>Permissible ambient air temperature around the device</b>	105 °C power amplifier 110 °C motor
<b>Ambient air temperature for storage</b>	-25...70 °C
<b>Operating altitude</b>	<= 1000 m without derating
<b>Relative humidity</b>	15...85 % without condensation
<b>Vibration resistance</b>	20 m/s <sup>2</sup> (f= 10...500 Hz) 10 cycles conforming to EN/IEC 60068-2-6
<b>Shock resistance</b>	150 m/s <sup>2</sup> 1000 shocks conforming to EN/IEC 60068-2-29
<b>IP degree of protection</b>	IP41 shaft bushing: conforming to EN/IEC 60034-5 IP54 total except shaft bushing: conforming to EN/IEC 60034-5

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	10.5 cm
<b>Package 1 Width</b>	19.0 cm
<b>Package 1 Length</b>	39.0 cm
<b>Package 1 Weight</b>	4.4 kg

## Logistical informations

<b>Country of origin</b>	DE
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## Contractual warranty

<b>Warranty</b>	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) **440**

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](#)

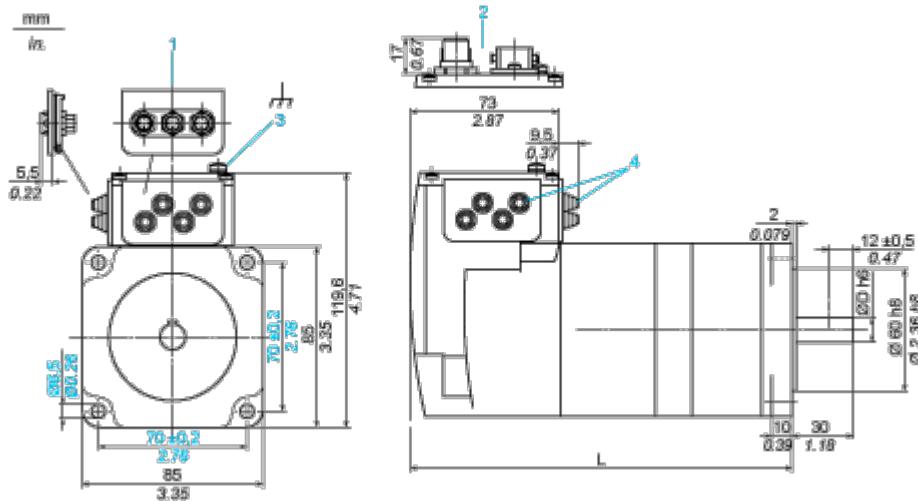
Take-back **No**

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 with Holding Brake

## Dimensions

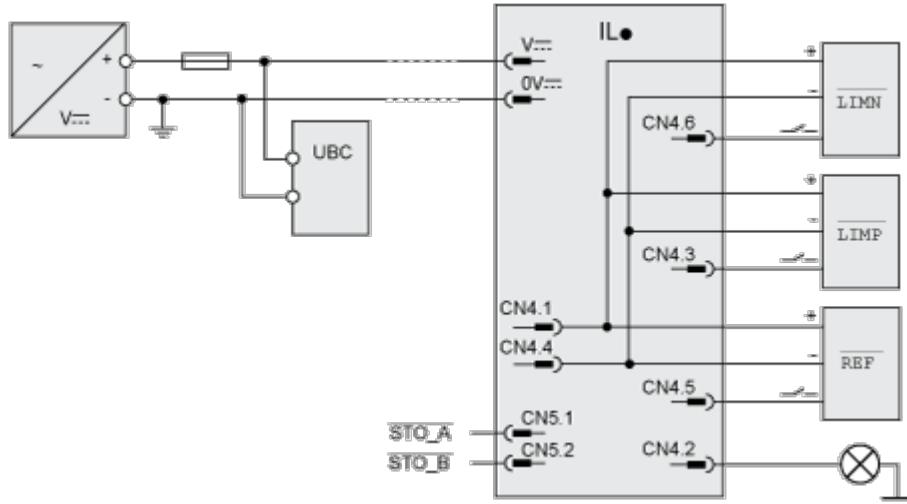


- 1 Accessories: I/O signal insert with industrial connectors
- 2 Option: industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries  $\varnothing = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$

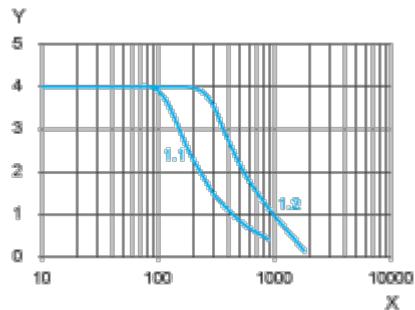
L 217.3 mm/8.55 in.

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