

Product datasheet

Specifications



integrated drive ILS with stepper motor - 24..36 V - Profibus DP - 6 A

ILS1B853TC1F0

⚠ Discontinued on: 15 Jun 2023

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

⚠ Discontinued - Service only

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	Profibus DP, integrated
Length	247.3 mm
Winding type	High speed of rotation and medium torque
Electrical connection	Industrial connector
Holding brake	With
Gear box type	Without
Nominal speed	100 rpm at 24 V 300 rpm at 36 V
Nominal torque	4.5 N.m
Holding torque	6 N.m holding brake 4.5 N.m

Complementary

Transmission rate	9.6, 19.2, 45.45, 93.75, 187.5, 500, 1500, 3000, 6000 and 12000 kbauds
Mounting support	Flange 85 mm
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
Circle diameter of the mounting holes	99 mm
Feedback type	Index pulse

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

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

Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	14 mm
Shaft length	30 mm
Supply voltage limits	18...40 V
Current consumption	6000 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	Safe torque off Short circuit of the output voltage Overload of output voltage
Peak stall torque	4.5 N.m
Continuous stall torque	4.5 N.m
Speed feedback resolution	20000 points/turn
Accuracy error	+/- 6 arc min
Rotor inertia	3.5 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
Brake pull-in power	22 W
Brake release time	40 ms
Brake application time	20 ms
Marking	CE
Type of cooling	Natural convection
Net weight	6.5 kg

Environment

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

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 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	22.0 cm
Package 1 Width	19.0 cm
Package 1 Length	39.0 cm
Package 1 Weight	7.538 kg
Unit Type of Package 2	P06
Number of Units in Package 2	12
Package 2 Height	77.0 cm
Package 2 Width	80.0 cm
Package 2 Length	60.0 cm
Package 2 Weight	98.956 kg

Contractual warranty

Warranty (in months)	18
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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

Environmental Disclosure

[Product Environmental Profile](#)

Use Better



Materials and Substances

[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 Longer



Lifetime extension

Repair

No

Use Again



Repack and remanufacture

End of life manual availability

[End of Life Information](#)

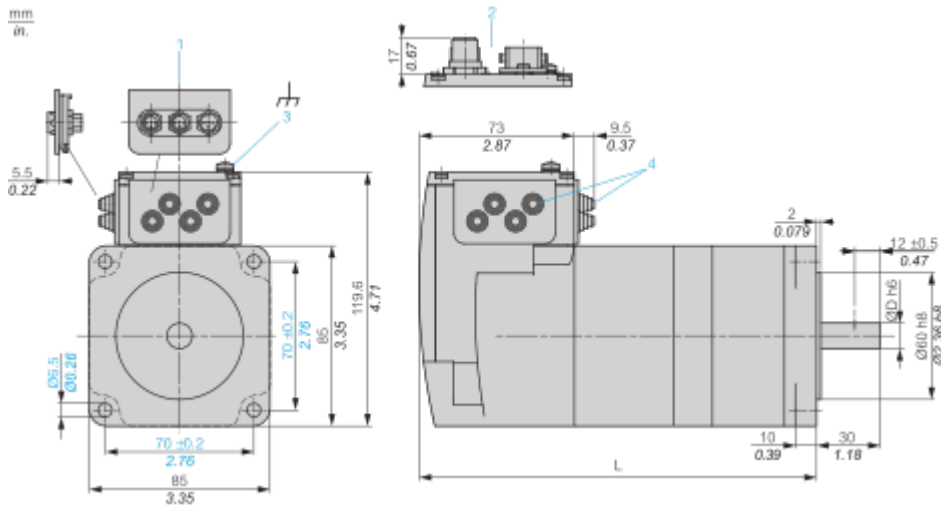
WEEE Label

 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions

Integrated Drive with Holding Brake

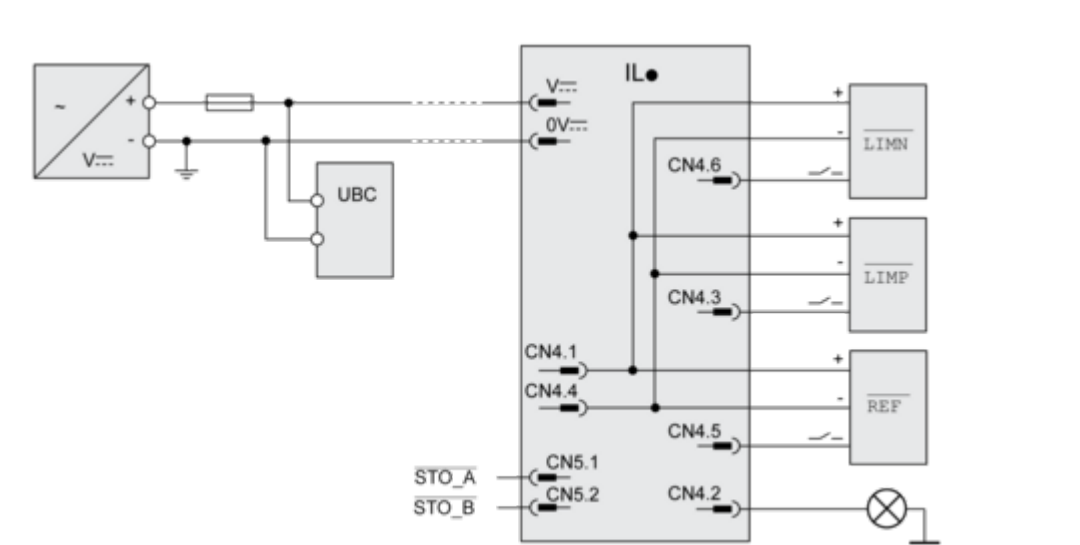
Dimensions



- 1** : Accessories: I/O signal insert with industrial connectors
2 : Option: industrial connectors
3 : Earth (ground) terminal
4 : Accessories: cable entries Ø = 3 ... 9 mm/0.12 ... 0.35 in.
L : 247.3 mm/9.74 in.
D : 14 mm/0.55 in.

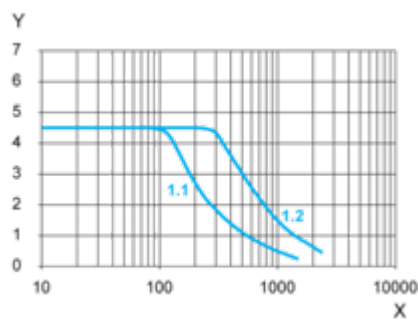
Wiring

Connection Example with 4 I/O Signals



PerformanceCurves

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