

integrated drive ILS with stepper motor - 24..36V- pulse/direction w/o RS422- 6A

ILS1V853TB1A0

EAN Code: 3389119227797

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	Pulse/direction 5 V without RS422, integrated	
Length	200.6 mm	
Winding type	High 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 300 rpm at 36 V	
Nominal torque	4.5 N.m	
Holding torque	4.5 N.m	

Complementary

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
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	1840 V	
Current consumption	6000 mA maximum continuous	
Associated fuse rating	10 A	
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	
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	
Peak stall torque	4.5 N.m	
Continuous stall torque	4.5 N.m	
Speed feedback resolution	1.8°, 0.9°, 0.72°, 0.36°, 0.18°, 0.09°, 0.072°, 0.036° 200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps	
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	IEC 61800-3, Ed 2 EN 61800-3: 2001-02 IEC 50178 IEC 60072-1 IEC 61800-3 IEC 50347 EN 61800-3:2001, second environment	
Product certifications	TÜV UL cUL	
Ambient air temperature for operation	5065 °C (with power derating of 2 % per °C) 050 °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 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	

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	39.500 cm
Package 1 Weight	5.715 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	12.067 kg
Unit Type of Package 3	P12
Number of Units in Package 3	8
Package 3 Height	45.000 cm
Package 3 Width	80.000 cm
Package 3 Length	120.000 cm
Package 3 Weight	60.268 kg

Logistical informations

Country of origin DE

Contractual warranty

Warranty 18 months



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)	711
Environmental Disclosure	Product Environmental Profile

Use Better

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

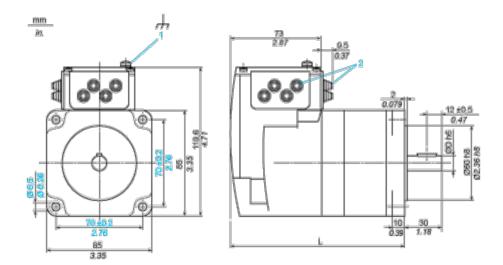
Use Again

○ 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 Earth (ground) terminal
- 2 Accessories: cable entries $\emptyset = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$
- L 200.6 mm/7.90 in.
- D 14 mm/0.55 in.

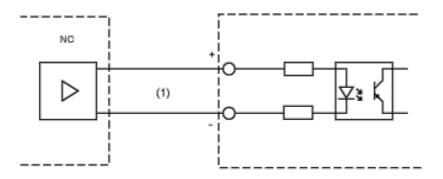
Product datasheet

ILS1V853TB1A0

Connections and Schema

Multifunction Interface

Input Wiring Diagram



(1) Opto-isolated signals

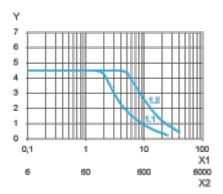
The reference pulses are supplied via two of the signal inputs, either as pulse/ direction signals or as A/B signals. The other signal inputs have the functions "power amplifier enable/pulse blocking" and "step size switching/PWM motor current control".

Product datasheet

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Performance Curves

Torque Characteristics



- X1 Frequency in kHz
- X2 Speed of rotation in rpm
- Y Torque in Nm
- 1.1 Max. torque at 24 V
- 1.2 Max. torque at 36 V