

Product data sheet

Characteristics

ILS1V853TB1F0

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

Product availability: Non-Stock - Not normally stocked in distribution facility

Price*: 1650.00 USD



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
Phase	Single phase
[Us] rated supply voltage	24 V 36 V
Network type	DC
Communication interface	Integrated pulse/direction 5 V without RS422
Length	9.74 in (247.3 mm)
Winding type	High 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 300 rpm at 36 V
Nominal torque	39.82 lbf.in (4.5 N.m)
Holding torque	53.1 lbf.in (6 N.m) (holding brake) 39.82 lbf.in (4.5 N.m)

Complementary

Mounting support	Flange
Motor flange size	3.35 in (85 mm)
Number of motor stacks	3
Centring collar diameter	2.36 in (60 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.26 in (6.5 mm)
Circle diameter of the mounting holes	3.9 in (99 mm)
Feedback type	Index pulse
Shaft end	Untapped

Second shaft	Without second shaft end
Shaft diameter	0.55 in (14 mm)
Shaft length	1.18 in (30 mm)
Supply voltage limits	18...40 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	-3...4.5 V
Voltage state 1 guaranteed	15...30 V
Discrete input current	10 mA at 24 V for safety input
Discrete output voltage	23...25 V
Maximum switching current	100 mA per output 200 mA total
Protection type	Safe torque off Overload of output voltage Short circuit of the output voltage
Peak stall torque	39.82 lbf.in (4.5 N.m)
Continuous stall torque	39.82 lbf.in (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	3.5 kg.cm ²
Maximum mechanical speed	2000 rpm
Maximum radial force Fr	110 N
Maximum axial force Fa	30 N (force pressure) 170 N (tensile force)
Service life in hours	20000 h of bearing:
Brake pull-in power	22 W
Brake release time	40 ms
Brake application time	20 ms
Marking	CE
Type of cooling	Natural convection
Product weight	14.33 lb(US) (6.5 kg)
Sizing reference	ILS1_853T
Supply voltage description	Single phase 36 V DC Single phase 24 V DC
Network number of phases	1
Voltage 1	24 V
Voltage 1 speed 1	112.33 rpm
Voltage 1 speed 1 max	112.33 rpm
Coefficient 1_0	605.12 lbf.in (68.379 N.m)
Coefficient 1_1	-62.24 N.m/rpm
Coefficient 1_2	19.385 N.m/rpm ²
Coefficient 1_3	-2.06 N.m/rpm ³
Voltage 2	36 V
Voltage 2 speed 2	284.734 rpm
Voltage 2 speed 2 max	284.734 rpm
Coefficient 2_0	133.48 lbf.in (15.083 N.m)
Coefficient 2_1	3.756 N.m/rpm
Coefficient 2_2	-5.664 N.m/rpm ²
Coefficient 2_3	0.968 N.m/rpm ³
Curve type	Semilog
Accuracy error [angular]	0.1 °
Compatibility code	ILS

Environment

Standards	EN/IEC 50178 EN/IEC 61800-3 IEC 60072-1 EN 61800-3 : 2001-02 IEC 61800-3, Ed 2 EN 50347 EN 61800-3:2001, second environment
Product certifications	CUL TÜV UL
Ambient air temperature for operation	> 122...149 °F (> 50...65 °C) with power derating of 2 % per °C 32...122 °F (0...50 °C) without derating
Permissible ambient air temperature around the device	221 °F (105 °C) (power amplifier) 230 °F (110 °C) (motor)
Ambient air temperature for storage	-13...158 °F (-25...70 °C)
Operating altitude	<= 3280.84 ft (1000 m) without derating
Relative humidity	15...85 % without condensation
Vibration resistance	20 m/s ² (f = 10...500 Hz) for 10 cycles conforming to EN/IEC 60068-2-6
Shock resistance	150 m/s ² 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

Ordering and shipping details

Category	18288 - LEXIUM INTEGRATED DRIVES II
Discount Schedule	PC56
GTIN	003389119227803
Nbr. of units in pkg.	1
Package weight(Lbs)	12.1
Returnability	N
Country of origin	DE

Offer Sustainability

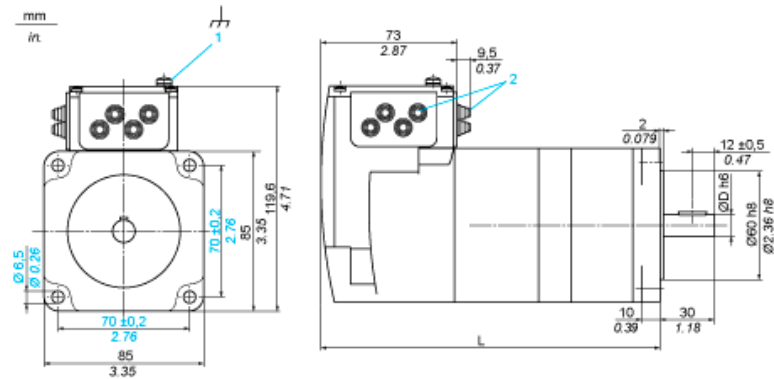
RoHS (date code: YYWW)	Compliant - since 0922 - Schneider Electric declaration of conformity Schneider-Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available End Of Life Information
California proposition 65	WARNING: This product can expose you to chemicals including:
----- Substance 1	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
----- More information	For more information go to www.p65warnings.ca.gov

Contractual warranty

Warranty period	18 months
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Integrated Drive with Holding Brake

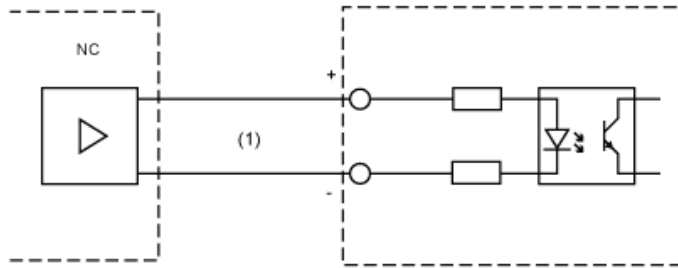
Dimensions



- 1 Earth (ground) terminal
- 2 Accessories: cable entries $\varnothing = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$
- L 247.3 mm/9.74 in.
- D 14 mm/0.55 in.

Multifunction Interface

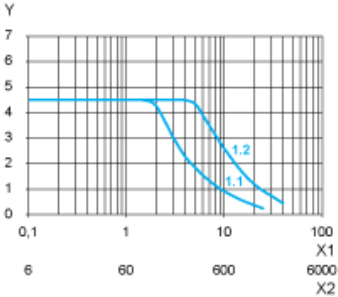
Input Wiring Diagram



(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".

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

Product Life Status : Commercialised