Product data sheet





integrated drive ILS with stepper motor - 24..36V - I/O for motion sequence - 5A

ILS1M853PB1A0

! Discontinued on: Oct 9, 2023



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

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	I/O for motion sequence, Integrated
Length	7.9 in (200.6 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	120 rpm 36 V 60 rpm 24 V
Nominal torque	53.1 lbf.in (6 N.m)
Holding torque	53.1 lbf.in (6 N.m)

Complementary

Transmission Rate	9.6, 19.2 and 38.4 kbauds
Mounting Support	Flange
Motor flange size	3.3 in (85 mm)
Number of motor stacks	3
Centring collar diameter	2.4 in (60 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.3 in (6.5 mm)
Circle diameter of the mounting holes	3.9 in (99 mm)

Price is "List Price" and may be subject to a trade discount - check with your local distributor or retailer for actual price.

Feedback type	Index pulse
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	0.6 in (14 mm)
Shaft length	1.2 in (30 mm)
Supply voltage limits	1840 V
Current consumption	5000 mA maximum continuous
Associated fuse rating	10 A
Commissioning interface	RS485 9.6, 19.2 and 38.4 kbauds)
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 on/STO_A safety input 3 mA at 24 V on/STO_B safety input 10 mA at 24 V 24 V signal interface
Discrete output voltage	1030 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	53.1 lbf.in (6 N.m)
Continuous stall torque	53.1 lbf.in (6 N.m)
Speed feedback resolution	20000 points/turn
Accuracy error	+/- 6 arc min
Rotor inertia	3.3 kg.cm²
Maximum mechanical speed	1000 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	10.4 lb(US) (4.7 kg)

Environment

Standards	EN 61800-3 : 2001-02 IEC 60072-1 EN 61800-3:2001, second environment EN 50347 EN/IEC 50178 IEC 61800-3, Ed 2 EN/IEC 61800-3
Product Certifications	TÜV cUL UL
Ambient air temperature for operation	122149 °F (5065 °C) with power derating of 2 % per °C) 32122 °F (050 °C) without derating)

Permissible ambient air temperature around the device	230 °F (110 °C) motor	
Ambient Air Temperature for Storage	-13158 °F (-2570 °C)	
Operating altitude	<= 3280.84 ft (1000 m) without derating	
Relative humidity	1585 % without condensation	
Vibration resistance	20 m/s² 10500 Hz) 10 cycles EN/IEC 60068-2-6	
Shock resistance	150 m/s² 1000 shocks 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	US1PC5618288	
Discount Schedule PC56		
GTIN	3389119227339	
Returnability	No	
Country of origin	DE	

Packing Units

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Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.7 in (22 cm)
Package 1 Width	7.7 in (19.5 cm)
Package 1 Length	15.7 in (40 cm)
Package 1 Weight	12.840 lb(US) (5.824 kg)
Unit Type of Package 2	S06
Number of Units in Package 2	9
Package 2 Height	28.9 in (73.5 cm)
Package 2 Width	23.6 in (60 cm)
Package 2 Length	31.5 in (80 cm)
Package 2 Weight	144.218 lb(US) (65.416 kg)

Contractual warranty

Warranty	18 months	

Sustainability Green Premium

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance

Ø	Mercury Free	
⊘	Rohs Exemption Information	Yes
⊘	Pvc Free	

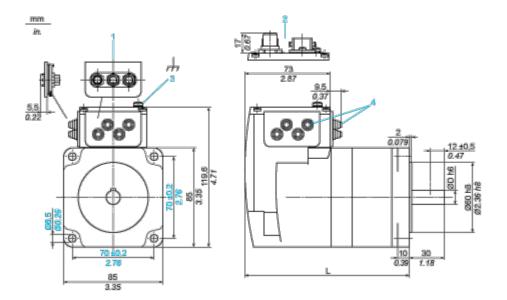
Certifications & Standards

REACh Declaration
Pro-active compliance (Product out of EU RoHS legal scope)
China RoHS declaration
Product Environmental Profile
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
End of Life Information
WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

Dimensions Drawings

Integrated Drive without Holding Brake

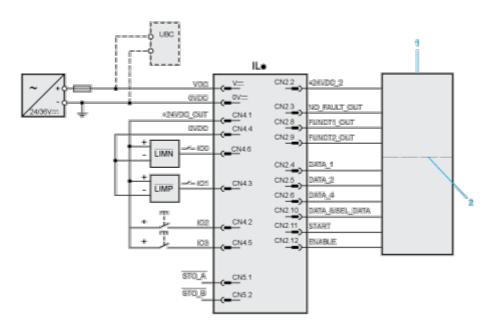
Dimensions



- 1 Accessories: I/O signal insert with industrial connectors
- 2 Option: industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries $\emptyset = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in.}$
- L 200.6 mm/7.90 in.
- D 14 mm/0.55 in.

Connections and Schema

Connection Example with 4 I/O Signals



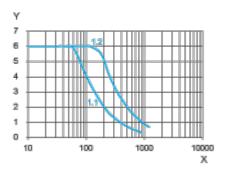
- 1 PLC
- 2 Galvanic isolation

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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