Product data sheet

Specifications





integrated drive ILS with stepper motor - 24..36 V - RS485 - 5 A

ILS1R853PB1F0

! Discontinued on: Jun 30, 2023

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

① Discontinued

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	36 V 24 V	
network type	DC	
Communication interface	RS485, Integrated	
Length	9.7 in (247.3 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	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) holding brake 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	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	
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 on/STO_A safety input 3 mA at 24 V on/STO_B safety input 2 mA at 24 V 24 V signal interface	
Discrete output voltage	2325 V	
Maximum switching current	100 mA per output 200 mA total	
Protection Type	Short circuit of the output voltage Overload of output voltage Safe torque off	
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	0.2 kg.cm ² 3.3 kg.cm ²	
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	
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	14.3 lb(US) (6.5 kg)	

Environment

Standards IEC 61800-3, Ed 2

EN 50347

EN 61800-3 : 2001-02 EN/IEC 50178

IEC 60072-1 EN 61800-3:2001, second environment EN/IEC 61800-3

Product Certifications	cUL TÜV 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	221 °F (105 °C) power amplifier 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	rotection 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	3389119227520	
Returnability	No	
Country of origin	DE	

Packing Units

Unit Type of Package 1	PCE	
Number of Units in Package 1	1	
Package 1 Height	4.1 in (10.5 cm)	
Package 1 Width	7.5 in (19.0 cm)	
Package 1 Length	15.4 in (39.0 cm)	
Package 1 Weight	12.1 lb(US) (5.5 kg)	

Contractual warranty

Warranty 18 months

Sustainability Screen 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



Mercury Free



Rohs Exemption Information

Yes

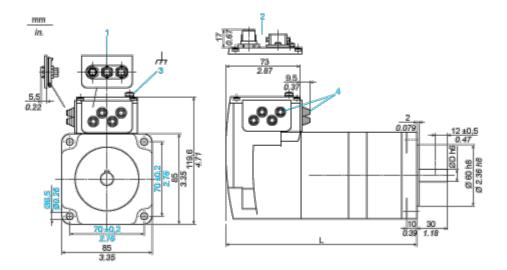
Certifications & Standards

Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Circularity Profile	End of Life Information
California Proposition 65	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 with Holding Brake

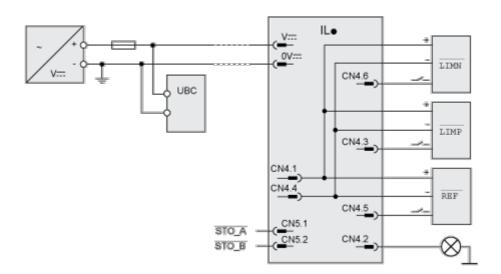
Dimensions



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

Connections and Schema

Connection Example with 4 I/O Signals

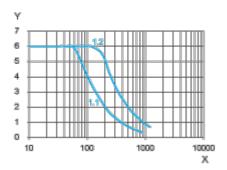


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Performance Curves

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