Product data sheet

Specification





brushless DC motor, Lexium ILA ILE ILS, 24 to 36V, RS485 interface, 174mm, straight teeth gear, 18:1

ILE1R661PB1A1



(!) 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	ILE
Motor Type	Brushless DC motor
Number Of Motor Poles	6
Phase	Single phase
[Us] Rated Supply Voltage	24 V 36 V
Network Type	DC
Communication Interface	RS485, Integrated
Length	6.85 in (174 mm)
Winding Type	Medium speed of rotation and medium torque
Electrical Connection	Printed circuit board connector
Holding Brake	Without
Gear Box Type	Straight teeth gear, 3 stages
Reduction Ratio	18:1 (160:9)
Nominal Speed	225 rpm 24 V 270 rpm 36 V
Nominal Torque	27.44 lbf.in (3.1 N.m) 24 V 30.98 lbf.in (3.5 N.m) 36 V

Complementary

Transmission Rate	9.6, 19.2 and 38.4 kbauds
Mounting Support	Flange
Motor Flange Size	2.60 in (66 mm)
Number Of Motor Stacks	1
Centring Collar Diameter	0.63 in (16 mm)
Centring Collar Depth	0.16 in (4 mm)
Number Of Mounting Holes	4
Mounting Holes Diameter	0.17 in (4.4 mm)

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

Circle Diameter Of The Mounting	2.90 in (73.54 mm)
Holes	2.90 ((73.34 (((()))
Feedback Type	BLDC encoder
Shaft End	Keyed
Second Shaft	Without second shaft end
Shaft Diameter	0.39 in (10 mm)
Shaft Length	0.98 in (25 mm)
Key Width	0.63 in (16 mm)
Supply Voltage Limits	1840 V
Current Consumption	7000 mA peak 5500 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 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
Maximum Supply Current	0.06 A 36 V power stage disabled) 0.1 A 24 V power stage disabled) 4 A 36 V 4.5 A 24 V
Nominal Output Power	74 W 24 V 98 W 36 V
Peak Stall Torque	33.10 lbf.in (3.74 N.m) 24 V 45.85 lbf.in (5.18 N.m) 36 V
Continuous Stall Torque	38.06 lbf.in (4.3 N.m)
Detent Torque	9.74 lbf.in (1.1 N.m)
Speed Feedback Resolution	1.667° gearbox output 12 points/turn motor
Accuracy Error	+/- 1 point
Maximum Torsional Backlash	1°
Rotor Inertia	48 kg.cm²
Maximum Mechanical Speed	281 rpm
Maximum Radial Force Fr	200 N long-term operation) 200 N short-term operation)
Maximum Axial Force Fa	10 N long-term operation) 80 N short-term operation)
Service Life In Hours	2500 h bearing short-term operation 15000 h bearing long-term operation
Marking	CE
Type Of Cooling	Natural convection
Net Weight	4.08 lb(US) (1.85 kg)

Environment

Standards	IEC 50347
	IEC 60072-1
	EN 61800-3:2001, second environment
	IEC 61800-3, Ed 2
	•
	IEC 61800-3
	EN 61800-3 : 2001-02
	IEC 50178
Product Certifications	TÜV
	UL
	cUL
	COL
Ambient Air Temperature For	122149 °F (5065 °C) with power derating of 2 % per °C)
Operation	32122 °F (050 °C) without derating)
	52122 1 (050 G) without defaulty)
Permissible Ambient Air	221 °F (105 °C) power amplifier
Temperature Around The Device	230 °F (110 °C) motor
	255 1 (116 5) 11661
Ambient Air Temperature For	-13158 °F (-2570 °C)
Storage	
Operating Altitude	<= 3280.84 ft (1000 m) without derating
5	
Relative Humidity	1585 % without condensation
Vibration Resistance	20 m/s² 10500 Hz) 10 cycles IEC 60068-2-6
	,
Shock Resistance	150 m/s² 1000 shocks IEC 60068-2-29
Ip Degree Of Protection	IDA4 aboft bushings conforming to IEC 60034 5
ip begree or Frotection	IP41 shaft bushing: conforming to IEC 60034-5
	IP54 total except shaft bushing: conforming to IEC 60034-5

Ordering and shipping details

Category	US1PC5618288
Discount Schedule	PC56
Gtin	3389119222495
Returnability	No
Country Of Origin	DE

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	7.28 in (18.5 cm)
Package 1 Width	4.33 in (11 cm)
Package 1 Length	15.75 in (40 cm)
Package 1 Weight	4.98 lb(US) (2.26 kg)
Unit Type Of Package 2	S04
Number Of Units In Package 2	4
Package 2 Height	11.81 in (30 cm)
Package 2 Width	15.75 in (40 cm)
Package 2 Length	23.62 in (60 cm)
Package 2 Weight	22.69 lb(US) (10.292 kg)

Contractual warranty

vvarranty	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.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

Well-being performance

Ø	Mercury Free	
	Rohs Exemption Information	Yes
②	Pvc Free	

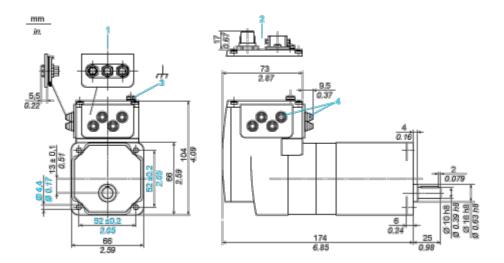
Certifications & Standards

Reach Regulation	REACh Declaration
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

Dimensions Drawings

Integrated Drive with Straight Teeth Gear

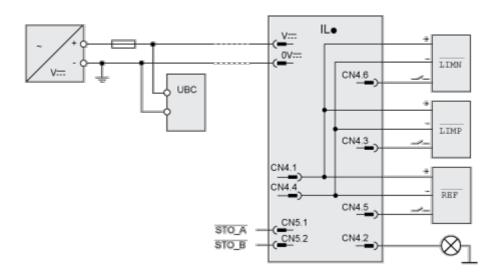
Dimensions



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

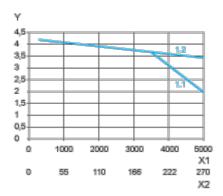
Connections and Schema

Connection Example with 4 I/O Signals



Performance Curves

Torque Characteristics



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