

# Product data sheet

Specifications



brushless DC motor, Lexium ILA ILE  
ILS, 24..48V, Modbus TCP  
interface, L = 174mm, 38:1

ILE2T661PB1A2

## 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
Network Number Of Phases	Single phase
[Us] Rated Supply Voltage	48 V 24 V
Network Type	DC
Communication Interface	Modbus TCP, integrated
Length	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	38:1 (75:2)
Nominal Speed	107 rpm at 24 V 133 rpm at 48 V
Nominal Torque	7.3 N.m at 24 V 7.3 N.m at 48 V

## Complementary

Transmission Rate	10, 100 Mbits
Mounting Support	Flange
Motor Flange Size	66 mm
Number Of Motor Stacks	1
Centring Collar Diameter	16 mm
Centring Collar Depth	4 mm
Number Of Mounting Holes	4
Mounting Holes Diameter	4.4 mm
Circle Diameter Of The Mounting Holes	73.54 mm
Feedback Type	BLDC encoder

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Shaft End	Keyed
Second Shaft	Without second shaft end
Shaft Diameter	10 mm
Shaft Length	25 mm
Key Width	16 mm
Supply Voltage Limits	18...55.2 V
Current Consumption	7000 mA peak 5500 mA maximum continuous
Associated Fuse Rating	16 A
Commissioning Interface	RS485 Modbus TCP (9.6, 19.2 and 38.4 kbauds)
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 on/STO_A for safety input 3 mA at 24 V on/STO_B for safety input 2 mA at 24 V for 24 V signal interface
Discrete Output Voltage	23...25 V
Maximum Switching Current	100 mA per output 200 mA total
Protection Type	Overload of output voltage Short circuit of the output voltage Safe torque off
Maximum Supply Current	0.1 A (power stage disabled) 6.8 A at 24 V 3.8 A at 48 V
Nominal Output Power	119 W at 48 V 95 W at 24 V
Peak Stall Torque	13.07 N.m at 24 V 13.07 N.m at 48 V
Continuous Stall Torque	8.3 N.m
Detent Torque	3 N.m
Speed Feedback Resolution	12 points/turn motor 0.8° gearbox output
Accuracy Error	+/- 0.5 point
Maximum Torsional Backlash	1 °
Rotor Inertia	211 kg.cm²
Maximum Mechanical Speed	133 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	1.85 kg

## Environment

Standards	IEC 50347 EN 61800-3 : 2001-02 EN 61800-3:2001, second environment IEC 60072-1 IEC 61800-3 IEC 61800-3, Ed 2 IEC 50178
Product Certifications	TÜV UL cUL
Ambient Air Temperature For Operation	40...55 °C (with power derating of 2 % per °C) 0...40 °C (without derating)
Permissible Ambient Air Temperature Around The Device	105 °C power amplifier 110 °C motor
Ambient Air Temperature For Storage	-25...70 °C
Operating Altitude	<= 1000 m without derating
Relative Humidity	15...85 % without condensation
Vibration Resistance	20 m/s² (f= 10...500 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 IP54 total except 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	8.0 cm
Package 1 Width	18.5 cm
Package 1 Length	35.5 cm
Package 1 Weight	2.8 kg

## Contractual warranty

Warranty	18 months
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## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> 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](#)

✓ Pvc Free

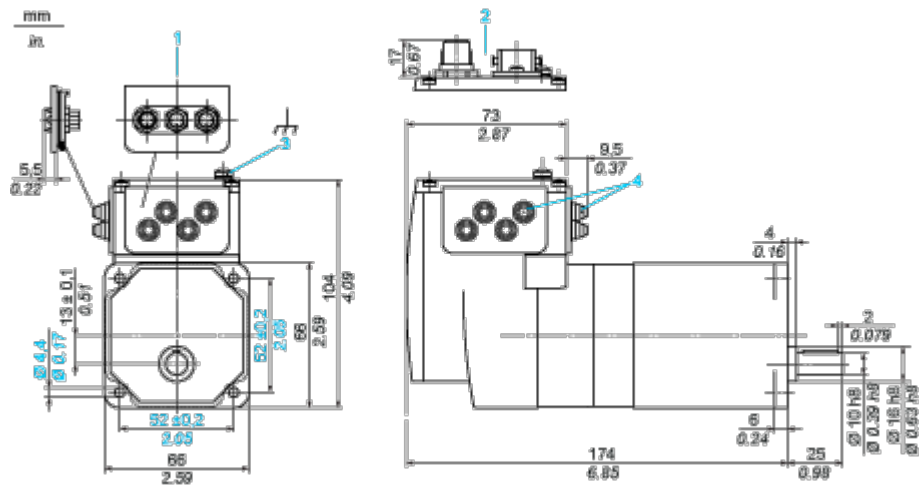
## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	<a href="#">End of Life Information</a>
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

Dimensions Drawings

Integrated Drive with Straight Teeth Gear

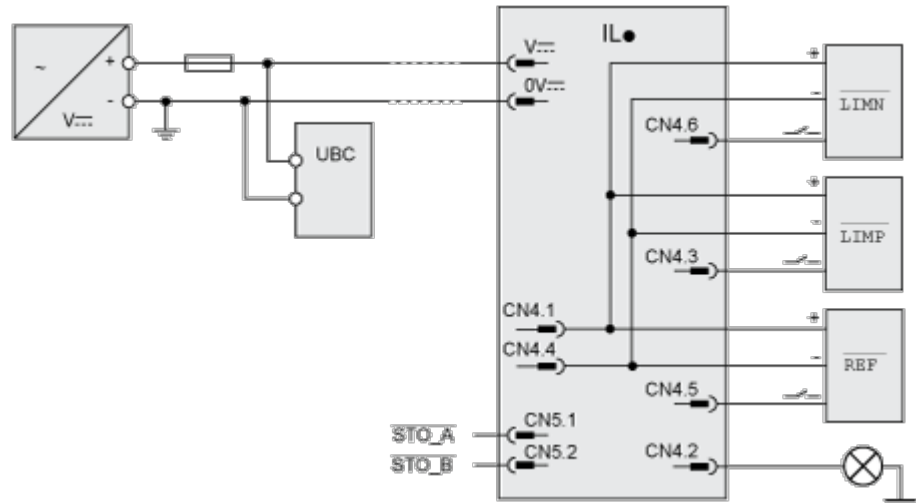
Dimensions



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

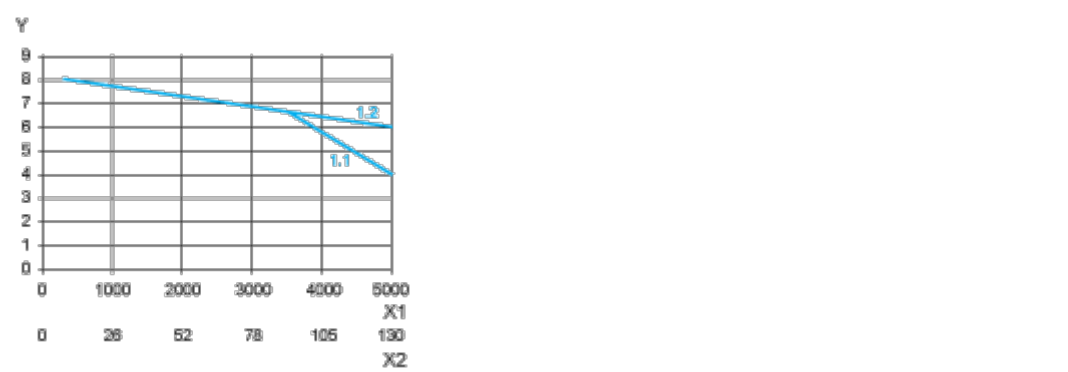
Connections and Schema

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