

# Product data sheet

Specifications



brushless DC motor, Lexium ILA ILE ILS, 24 to 48V, EtherNet IP interface, 174mm, 92:1

ILE2K661PB1A7

⚠ Discontinued on: Jul 28, 2023

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## 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	24 V 48 V
Network Type	DC
Communication Interface	Ethernet/IP, integrated
Length	229 mm
Winding Type	Medium speed of rotation and medium torque
Electrical Connection	Printed circuit board connector
Holding Brake	Without
Gear Box Type	Worm gear, 3 stages
Reduction Ratio	92:1 (735:5)
Nominal Speed	44 rpm at 24 V 44 rpm at 48 V
Nominal Torque	9.2 N.m at 24 V 9.2 N.m at 48 V

## Complementary

Transmission Rate	125, 250, 500 kbauds
Mounting Support	Flange
Motor Flange Size	66 mm
Number Of Motor Stacks	1
Centring Collar Diameter	36 mm
Number Of Mounting Holes	2
Mounting Holes Diameter	4.4 mm
Feedback Type	BLDC encoder
Shaft End	Hole
Second Shaft	Without second shaft end

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

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	Safe torque off Overload of output voltage Short circuit of the output voltage
Maximum Supply Current	0.1 A (power stage disabled) 6.8 A at 24 V 2.6 A at 48 V
Nominal Output Power	41 W at 24 V 42 W at 48 V
Peak Stall Torque	19.78 N.m at 24 V 19.78 N.m at 48 V
Continuous Stall Torque	11.6 N.m
Detent Torque	12.3 N.m
Speed Feedback Resolution	12 points/turn motor 0.33° gearbox output
Accuracy Error	+/- 1 point
Rotor Inertia	1270 kg.cm <sup>2</sup>
Maximum Mechanical Speed	54 rpm
Maximum Radial Force Fr	200 N
Maximum Axial Force Fa	80 N
Service Life In Hours	9000 h bearing
Marking	CE
Type Of Cooling	Natural convection
Net Weight	2.3 kg

## Environment

Standards	IEC 50347 IEC 50178 EN 61800-3 : 2001-02 IEC 61800-3, Ed 2 IEC 61800-3 IEC 60072-1 EN 61800-3:2001, second environment
Product Certifications	cUL UL TÜV
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	10.4 cm
Package 1 Width	18.0 cm
Package 1 Length	36.5 cm
Package 1 Weight	2.3 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

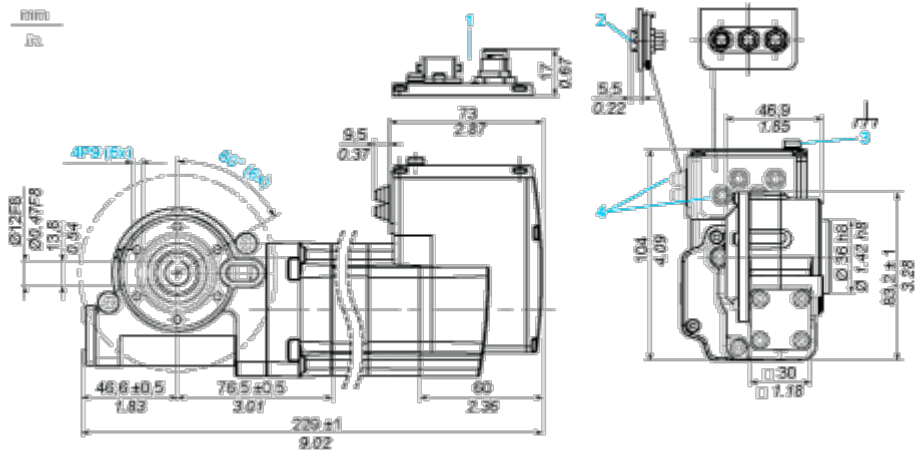
## Certifications & Standards

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 Worm Gear

## Dimensions



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

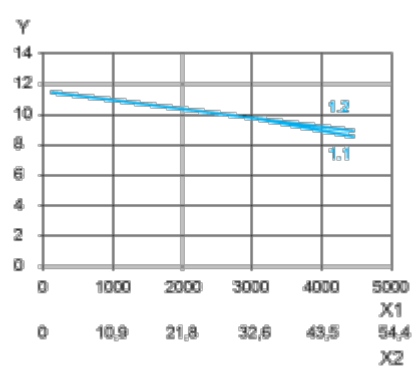
Connections and Schema

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 48 V