

# brushless DC motor, Lexium ILA ILE ILS, 24..48V- EtherCAT interface, L = 140mm, w/o gearbox

ILE2E662PC1A0

#### 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	EtherCAT, integrated
Length	140 mm
Winding Type	Medium speed of rotation and medium torque
Electrical Connection	Industrial connector
Holding Brake	Without
Gear Box Type	Without
Reduction Ratio	1:1
Nominal Speed	3100 rpm at 24 V 5000 rpm at 48 V
Nominal Torque	0.5 N.m at 24 V 0.5 N.m at 48 V

#### Complementary

Transmission Rate	100 Mbits
Mounting Support	Flange
Motor Flange Size	66 mm
Number Of Motor Stacks	2
Centring Collar Diameter	40 mm
Centring Collar Depth	2 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

Shaft End	Untapped
Second Shaft	Without second shaft end
Shaft Diameter	8 mm
Shaft Length	25 mm
Supply Voltage Limits	1855.2 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	-34.5 V
Voltage State 1 Guaranteed	1530 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	2325 V
Maximum Switching Current	100 mA per output 200 mA total
Protection Type	Short circuit of the output voltage Safe torque off Overload of output voltage
Maximum Supply Current	0.1 A (power stage disabled) 7 A at 48 V 9.5 A at 24 V
Nominal Output Power	162 W at 24 V 262 W at 48 V
Peak Stall Torque	0.8 N.m at 24 V 0.8 N.m at 48 V
Continuous Stall Torque	0.54 N.m
Detent Torque	
	0.106 N.m
Speed Feedback Resolution	0.106 N.m 12 points/turn
Speed Feedback Resolution  Accuracy Error	
	12 points/turn
Accuracy Error	12 points/turn +/- 0.5 °
Accuracy Error Rotor Inertia	12 points/turn +/- 0.5 ° 0.34 kg.cm² 5000 rpm
Accuracy Error  Rotor Inertia  Maximum Mechanical Speed	12 points/turn  +/- 0.5 °  0.34 kg.cm²  5000 rpm 7000 rpm
Accuracy Error  Rotor Inertia  Maximum Mechanical Speed  Maximum Radial Force Fr	12 points/turn  +/- 0.5 °  0.34 kg.cm²  5000 rpm 7000 rpm 80 N  30 N (force pressure)
Accuracy Error Rotor Inertia  Maximum Mechanical Speed  Maximum Radial Force Fr  Maximum Axial Force Fa	12 points/turn  +/- 0.5 °  0.34 kg.cm²  5000 rpm 7000 rpm  80 N  30 N (force pressure) 30 N (tensile force)
Accuracy Error Rotor Inertia Maximum Mechanical Speed Maximum Radial Force Fr Maximum Axial Force Fa Service Life In Hours	12 points/turn  +/- 0.5 °  0.34 kg.cm²  5000 rpm 7000 rpm 80 N  30 N (force pressure) 30 N (tensile force)  20000 h bearing

# **Environment**

Standards	IEC 61800-3, Ed 2	
	EN 61800-3:2001, second environment	
	IEC 50347	
	EN 61800-3 : 2001-02	
	IEC 60072-1	
	IEC 61800-3	
	IEC 50178	
	120 30170	
<b>Product Certifications</b>	cUL	
	UL	
	TÜV	
Ambient Air Temperature For	4055 °C (with power derating of 2 % per °C)	
Operation	040 °C (without derating)	
	3)	
Permissible Ambient Air	105 °C power amplifier	
Temperature Around The Device	110 °C motor	
Ambient Air Temperature For	-2570 °C	
Storage		
Operating Altitude	<= 1000 m without derating	
Relative Humidity	1585 % without condensation	
Vibration Resistance	20 m/s² (f= 10500 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	1.95 kg

## **Contractual warranty**

Warranty 18 months

### **Sustainability**

**Green Premium<sup>TM</sup> 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-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.

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Guide to assess a product's sustainability >





Transparency RoHS/REACh

## Well-being performance



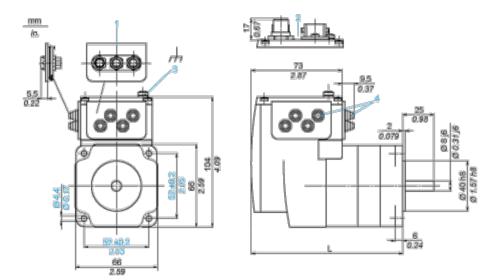
#### **Certifications & Standards**

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
<b>Environmental Disclosure</b>	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 without Gearing**

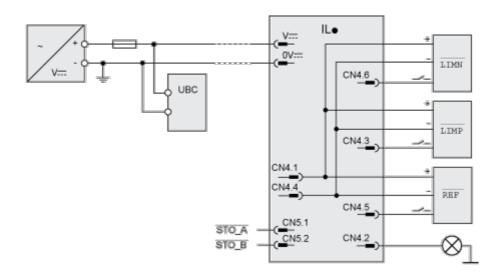
#### **Dimensions**



- 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 140 mm/4.80 in.

Connections and Schema

#### Connection Example with 4 I/O Signals

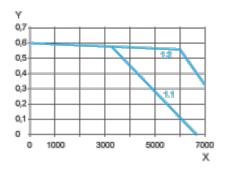


# Product data sheet

#### ILE2E662PC1A0

#### 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 48 V