# **Product data sheet**

Specifications





# brushless dc motor 24..48V-EtherCAT interface - L = 174 mm - 38:1

ILE2E661PC1A2

! Discontinued on: Jan 23, 2021



#### 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	48 V 24 V
Network Type	DC
Communication Interface	EtherCAT, Integrated
Length	6.85 in (174 mm)
Winding Type	Medium speed of rotation and medium torque
Electrical Connection	Industrial connector
Holding Brake	Without
Gear Box Type	Straight teeth gear, 3 stages
Reduction Ratio	38:1 (75:2)
Nominal Speed	107 rpm 24 V 133 rpm 48 V
Nominal Torque	64.61 lbf.in (7.3 N.m) 24 V 64.61 lbf.in (7.3 N.m) 48 V

## Complementary

Transmission Rate	100 Mbits
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)
Circle Diameter Of The Mounting Holes	2.90 in (73.54 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	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	1855.2 V
<b>Current Consumption</b>	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 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 Safe torque off Overload of output voltage
Maximum Supply Current	0.1 A power stage disabled)
	6.8 A 24 V 3.8 A 48 V
Nominal Output Power	
Nominal Output Power  Peak Stall Torque	3.8 A 48 V 119 W 48 V
	3.8 A 48 V 119 W 48 V 95 W 24 V 115.68 lbf.in (13.07 N.m) 24 V
Peak Stall Torque	3.8 A 48 V  119 W 48 V  95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V  115.68 lbf.in (13.07 N.m) 48 V
Peak Stall Torque  Continuous Stall Torque	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)
Peak Stall Torque  Continuous Stall Torque  Detent Torque	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution  Accuracy Error	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output  +/- 0.5 point
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution  Accuracy Error  Maximum Torsional Backlash	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output  +/- 0.5 point  1°
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution  Accuracy Error  Maximum Torsional Backlash  Rotor Inertia	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output  +/- 0.5 point  1°  211 kg.cm²
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution  Accuracy Error  Maximum Torsional Backlash  Rotor Inertia  Maximum Mechanical Speed	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output  +/- 0.5 point  1°  211 kg.cm²  133 rpm  200 N long-term operation)
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution  Accuracy Error  Maximum Torsional Backlash  Rotor Inertia  Maximum Mechanical Speed  Maximum Radial Force Fr	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output  +/- 0.5 point  1°  211 kg.cm²  133 rpm  200 N long-term operation) 200 N short-term operation)
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution  Accuracy Error  Maximum Torsional Backlash  Rotor Inertia  Maximum Mechanical Speed  Maximum Radial Force Fr  Maximum Axial Force Fa	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output  +/- 0.5 point  1°  211 kg.cm²  133 rpm  200 N long-term operation) 200 N short-term operation) 10 N long-term operation) 80 N short-term operation)
Peak Stall Torque  Continuous Stall Torque  Detent Torque  Speed Feedback Resolution  Accuracy Error  Maximum Torsional Backlash  Rotor Inertia  Maximum Mechanical Speed  Maximum Radial Force Fr  Maximum Axial Force Fa  Service Life In Hours	3.8 A 48 V  119 W 48 V 95 W 24 V  115.68 lbf.in (13.07 N.m) 24 V 115.68 lbf.in (13.07 N.m) 48 V  73.46 lbf.in (8.3 N.m)  26.55 lbf.in (3 N.m)  12 points/turn motor 0.8° gearbox output  +/- 0.5 point  1°  211 kg.cm²  133 rpm  200 N long-term operation) 200 N short-term operation) 10 N long-term operation) 2500 h bearing short-term operation 15000 h bearing long-term operation

## **Environment**

Standards	EN 50347 IEC 61800-3, Ed 2 EN/IEC 61800-3 EN 61800-3:2001, second environment IEC 60072-1 EN 61800-3: 2001-02 EN/IEC 50178
Product Certifications	cUL TÜV UL
Ambient Air Temperature For Operation	104131 °F (4055 °C) with power derating of 2 % per °C) 32104 °F (040 °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	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	18288-LEXIUM INTEGRATED DRIVES II	
Discount Schedule	PC56	
Gtin	03606485188904	
Returnability	No	
Country Of Origin	DE	

## **Contractual warranty**

Warranty 18 months

# Sustainability Green Premium

**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.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

#### Well-being performance

<b>Ø</b>	Mercury Free	
	Rohs Exemption Information	Yes
<b>②</b>	Pvc Free	

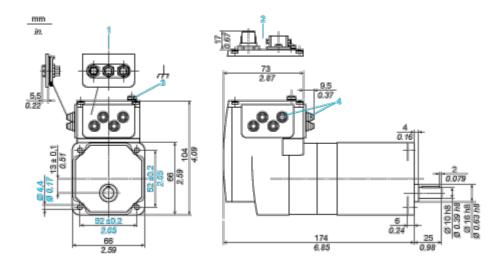
#### **Certifications & Standards**

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

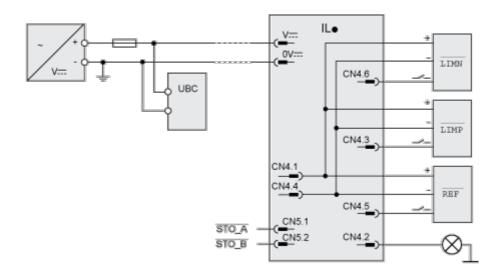
#### **Dimensions**



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

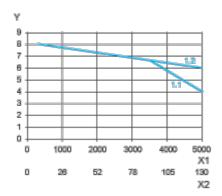
Connections and Schema

### 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