

# brushless dc motor 24..48 V - DeviceNet interface - L = 174 mm - 92:1

ILE2D661PB1A7

- ! Discontinued on: Mar 31, 2023
- ! To be end-of-service on: Dec 31, 2026

#### 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	DeviceNet, 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

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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
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 Overload of output voltage Safe torque off
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.cm²
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 61800-3, Ed 2 IEC 60072-1 EN/IEC 61800-3 EN 61800-3: 2001-02 EN/IEC 50178 EN 50347 EN 61800-3:2001, second environment	
Product Certifications	cUL UL TÜV	_

Ambient Air Temperature For Operation	4055 °C (with power derating of 2 % per °C) 040 °C (without derating)
Permissible Ambient Air Temperature Around The Device	105 °C power amplifier 110 °C motor
Ambient Air Temperature For Storage	-2570 °C
Operating Altitude	<= 1000 m without derating
Relative Humidity	1585 % without condensation
Vibration Resistance	20 m/s² (f= 10500 Hz) 10 cycles conforming to EN/IEC 60068-2-6
Shock Resistance	150 m/s² 1000 shocks conforming to 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

# **Packing Units**

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	9.0 cm
Package 1 Width	19.0 cm
Package 1 Length	38.5 cm
Package 1 Weight	2.25 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



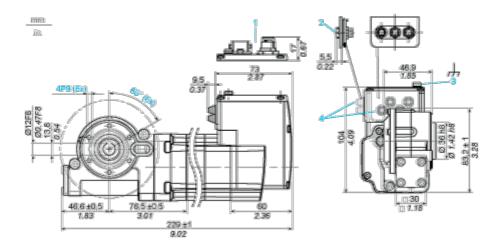
#### **Certifications & Standards**

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 with Worm Gear**

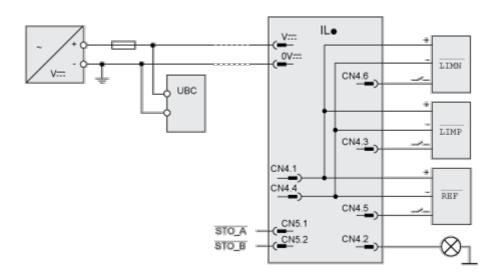
#### **Dimensions**



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

Connections and Schema

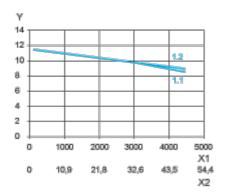
## Connection Example with 4 I/O Signals



## ILE2D661PB1A7

#### 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