# **Product data sheet**

Specifications





# brushless DC motor, Lexium ILA ILE ILS, 24..48 V, EtherCAT interface, L = 174mm, 24:1

ILE2E661PB1A5

! Discontinued on: Oct 9, 2023



Product availability: Non-Stock - Not normally stocked in distribution facility

#### 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	24 V 48 V	
network type	DC	
Communication interface	EtherCAT, Integrated	
Length	9.02 in (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, 2 stages	
Reduction ratio	24:1 (525:22)	
Nominal speed	168 rpm 24 V 168 rpm 48 V	
Nominal torque	33.6 lbf.in (3.8 N.m) 24 V 33.6 lbf.in (3.8 N.m) 48 V	

## Complementary

Transmission Rate	100 Mbits
Mounting Support	Flange
Motor flange size	2.6 in (66 mm)
Number of motor stacks	1
Centring collar diameter	1.4 in (36 mm)
Number of mounting holes	2
Mounting holes diameter	0.2 in (4.4 mm)
Feedback type	BLDC encoder
Shaft end	Hole

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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 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	45 W 24 V 66 W 48 V
Peak stall torque	54.79 lbf.in (6.19 N.m) 24 V 54.79 lbf.in (6.19 N.m) 48 V
Continuous stall torque	37.2 lbf.in (4.2 N.m)
Detent torque	25.7 lbf.in (2.9 N.m)
Speed feedback resolution	12 points/turn motor 1.26° gearbox output
Accuracy error	+/- 1 point
Rotor inertia	90 kg.cm²
Maximum mechanical speed	186 rpm
Maximum radial force Fr	200 N
Maximum axial force Fa	80 N
Service life in hours	3000 h bearing
marking	CE
Type of cooling	Natural convection
Net Weight	5.07 lb(US) (2.3 kg)
Environment	

Ot	
Standards	EN/IEC 61800-3
	IEC 61800-3, Ed 2
	EN/IEC 50178
	EN 50347
	IEC 60072-1
	EN 61800-3:2001, second environment
	EN 61800-3 : 2001-02
Product Certifications	TÜV
	cUL
	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	US1PC5618288
Discount Schedule	PC56
GTIN	3606485188843
Returnability	No
Country of origin	DE

# **Packing Units**

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.09 in (10.4 cm)
Package 1 Width	7.09 in (18.0 cm)
Package 1 Length	14.4 in (36.5 cm)
Package 1 Weight	5.07 lb(US) (2.3 kg)

# **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	

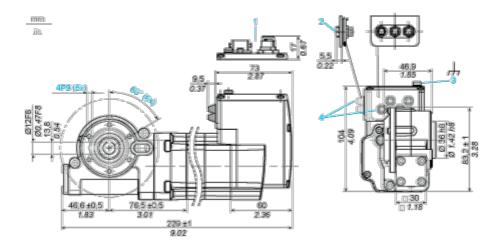
#### **Certifications & Standards**

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
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**

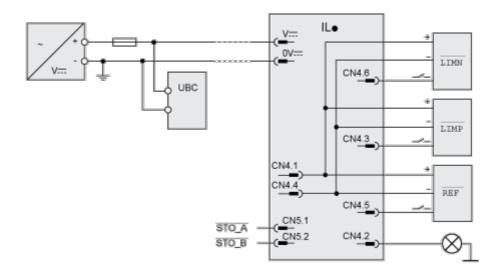


- 1 Option: industrial connectors
- 2 Accessories: I/O signal insert with industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries  $\emptyset = 3 \dots 9 \text{ mm/0.12} \dots 0.35 \text{ in.}$

### **ILE2E661PB1A5**

Connections and Schema

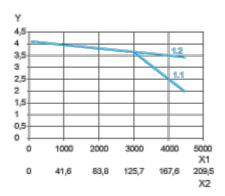
### Connection Example with 4 I/O Signals



### ILE2E661PB1A5

#### 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