# **Product datasheet**

Specifications





# brushless dc motor 24..36 V -RS485 interface - L = 174 mm -24:1

ILE1R661PB1A5

() Discontinued on: 9 Feb 2023

① Discontinued

EAN Code: 3389119222532

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	36 V 24 V
network type	DC
Communication interface	RS485, 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, 2 stages
Reduction ratio	24:1 (525:22)
Nominal speed	168 rpm at 24 V 168 rpm at 36 V
Nominal torque	2.5 N.m at 24 V 3.5 N.m at 36 V

## Complementary

Transmission rate	9.6, 19.2 and 38.4 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	1840 V
Current consumption	7000 mA peak 5500 mA maximum continuous
Associated fuse rating	10 A
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	Safe torque off Overload of output voltage Short circuit of the output voltage
Maximum supply current	5.1 A at 36 V 0.1 A (power stage disabled) 6.8 A at 24 V
Nominal output power	45 W at 24 V 61 W at 36 V
Peak stall torque	3.74 N.m at 24 V 5.18 N.m at 36 V
Continuous stall torque	4.2 N.m
Detent torque	2.9 N.m
Speed feedback resolution	12 points/turn motor 1.26° gearbox output
Accuracy error	+/- 1 point
Maximum torsional backlash	1.5 °
Rotor inertia	90 kg.cm <sup>2</sup>
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	2.3 kg

## Environment

Standards	IEC 50178 IEC 60072-1 IEC 61800-3, Ed 2 EN 61800-3 : 2001-02 IEC 61800-3 EN 61800-3:2001, second environment IEC 50347
Product certifications	TÜV cUL UL
Ambient air temperature for operation	5065 °C (with power derating of 2 % per °C) 050 °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/s <sup>2</sup> (f= 10500 Hz) 10 cycles conforming to IEC 60068-2-6
Shock resistance	150 m/s <sup>2</sup> 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	11.000 cm
Package 1 Width	19.000 cm
Package 1 Length	39.500 cm
Package 1 Weight	2.599 kg
Unit Type of Package 2	S04
Number of Units in Package 2	4
Package 2 Height	30.000 cm
Package 2 Width	40.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	11.046 kg
Unit Type of Package 3	P06
Number of Units in Package 3	16
Package 3 Height	75.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	52.184 kg

## **Contractual warranty**

Warranty

18 months

# Sustainability Screen 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



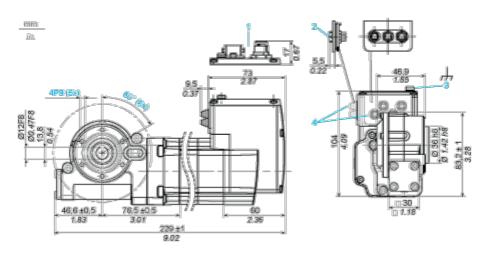
## **Certifications & Standards**

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

### **Dimensions Drawings**

#### Integrated Drive with Worm Gear

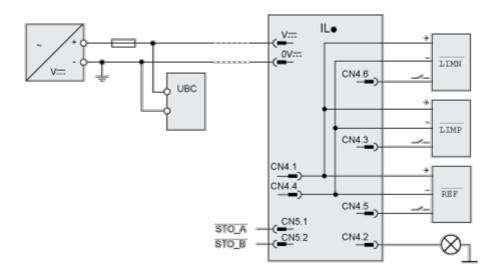
#### Dimensions



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

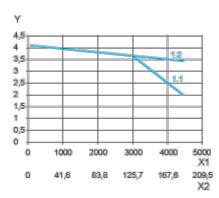
Connections and Schema

### Connection Example with 4 I/O Signals



#### 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