

# Product datasheet

Specifications



brushless dc motor 24..36 V -  
CANopen DS301 interface - L = 174  
mm - 18:1

ILE1F661PC1A1

EAN Code: 3389119222402

## 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	36 V 24 V
Network type	DC
Communication interface	CANopen DS301, integrated
Length	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	18:1 (160:9)
Nominal speed	225 rpm at 24 V 270 rpm at 36 V
Nominal torque	3.1 N.m at 24 V 3.5 N.m at 36 V

## Complementary

Transmission rate	50, 100, 125, 250, 500, 800 and 1000 kbauds
Mounting support	Flange
Motor flange size	66 mm
Number of motor stacks	1
Centring collar diameter	16 mm
centring collar depth	4 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	Keyed
Second shaft	Without second shaft end
Shaft diameter	10 mm
Shaft length	25 mm
key width	16 mm
Supply voltage limits	18...40 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	-3...4.5 V
Voltage state 1 guaranteed	15...30 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	23...25 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	0.06 A at 36 V (power stage disabled) 0.1 A at 24 V (power stage disabled) 4 A at 36 V 4.5 A at 24 V
Nominal output power	74 W at 24 V 98 W at 36 V
Peak stall torque	3.74 N.m at 24 V 5.18 N.m at 36 V
Continuous stall torque	4.3 N.m
Detent torque	1.1 N.m
Speed feedback resolution	1.667° gearbox output 12 points/turn motor
Accuracy error	+/- 1 point
Maximum torsional backlash	1 °
Rotor inertia	48 kg.cm²
Maximum mechanical speed	281 rpm
Maximum radial force Fr	200 N (long-term operation) 200 N (short-term operation)
Maximum axial force Fa	10 N (long-term operation) 80 N (short-term operation)
Service life in hours	2500 h bearing short-term operation 15000 h bearing long-term operation
Marking	CE
type of cooling	Natural convection
Net weight	1.85 kg

## Environment

<b>Standards</b>	IEC 61800-3, Ed 2 IEC 60072-1 IEC 61800-3 EN 61800-3:2001, second environment IEC 50178 EN 61800-3 : 2001-02 IEC 50347
<b>Product certifications</b>	TÜV UL cUL
<b>Ambient air temperature for operation</b>	50...65 °C (with power derating of 2 % per °C) 0...50 °C (without derating)
<b>Permissible ambient air temperature around the device</b>	105 °C power amplifier 110 °C motor
<b>Ambient air temperature for storage</b>	-25...70 °C
<b>Operating altitude</b>	<= 1000 m without derating
<b>Relative humidity</b>	15...85 % without condensation
<b>Vibration resistance</b>	20 m/s <sup>2</sup> (f= 10...500 Hz) 10 cycles conforming to IEC 60068-2-6
<b>Shock resistance</b>	150 m/s <sup>2</sup> 1000 shocks conforming to IEC 60068-2-29
<b>IP degree of protection</b>	IP41 shaft bushing: conforming to IEC 60034-5 IP54 total except shaft bushing: conforming to IEC 60034-5

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	8.0 cm
<b>Package 1 Width</b>	18.5 cm
<b>Package 1 Length</b>	35.5 cm
<b>Package 1 Weight</b>	2.25 kg

## Logistical informations

<b>Country of origin</b>	DE
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## Contractual warranty

<b>Warranty</b>	18 months
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Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

Carbon footprint (kg.eq.CO2 per CR, Total Life cycle) **924**

Environmental Disclosure [Product Environmental Profile](#)

### Use Better

#### Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Pro-active compliance (Product out of EU RoHS legal scope)**

SCIP Number **C2ce416c-ac1e-4e66-863f-bde9b6d94d11**

REACH Regulation [REACH Declaration](#)

PVC free **Yes**

### Use Again

#### Repack and remanufacture

Circularity Profile [End of Life Information](#)

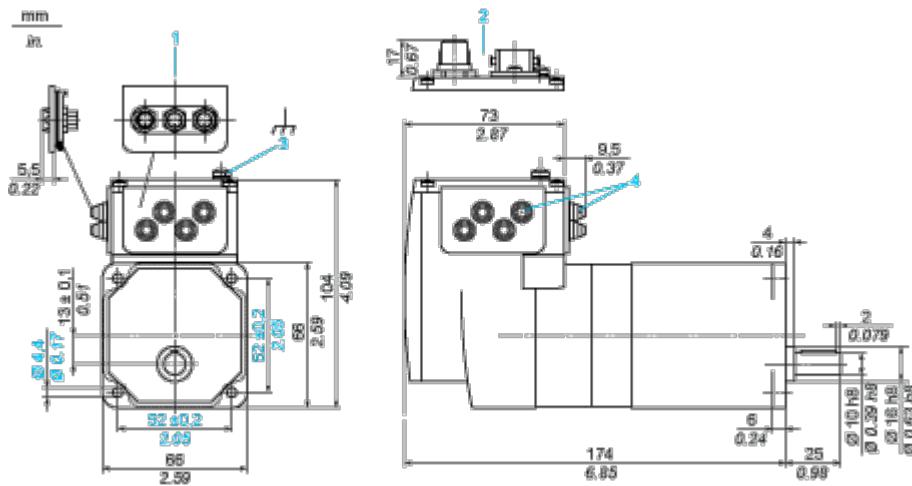
Take-back **No**

WEEE **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins**

## Dimensions Drawings

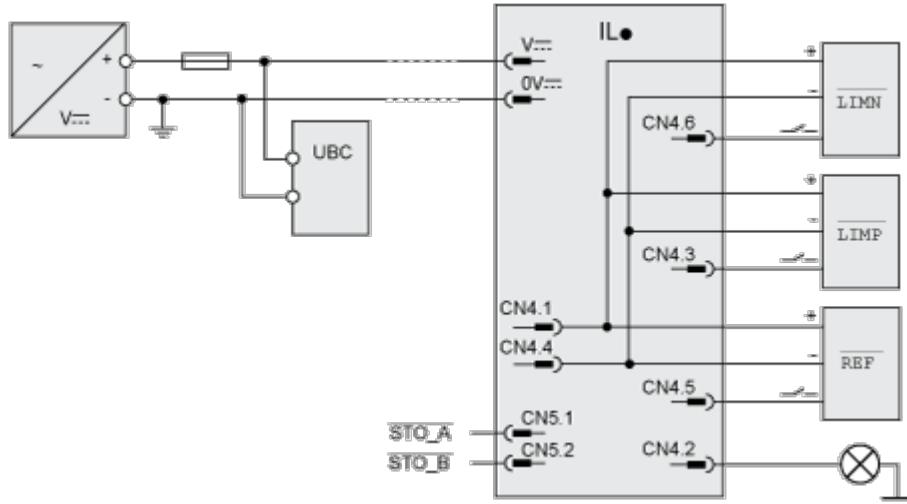
Integrated Drive with Straight Teeth Gear

## Dimensions

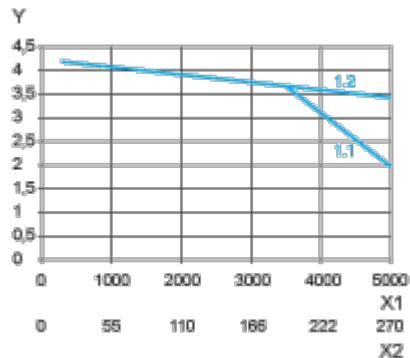


- 1 Accessories: I/O signal insert with industrial connectors
- 2 Option: industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries  $\varnothing = 3 \dots 9$  mm/0.12 ... 0.35 in.

## 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