## Product data sheet Characteristics

## ILE1F661PC1A4

brushless DC motor, Lexium ILA ILE ILS, 24 to 36V, CANopen DS301 interface, industrial connector, 174mm, straight teeth gear, 115:1





#### 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	36 V 24 V
Network type	DC
Communication interface	CANopen DS301, 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, 4 stages
Reduction ratio	115:1 (3675:32)
Nominal speed	35 rpm 24 V 42 rpm 36 V
Nominal torque	88.51 Lbf.ln (10 N.m) 24 V 97.36 lbf.in (11 N.m) 36 V

#### Complementary

125, 250, 500, 800 and 1000 kbauds 66 mm) 16 mm) 4 mm)
16 mm)
16 mm)
,
,
4 mm)
4.4 mm)
73.54 mm)
ncoder
second shaft end
10 mm)
25 mm)
16 mm)
V
A peak A maximum continuous
s (each be used as input or output)
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	Safe torque off Short circuit of the output voltage Overload of output voltage
Maximum supply current	0.06 A 36 V power stage disabled) 0.1 A 24 V power stage disabled) 2.1 A 36 V 2.6 A 24 V
Nominal output power	38 W 24 V 48 W 36 V
Peak stall torque	132.32 Lbf.In (14.95 N.m) 24 V 183.21 lbf.in (20.7 N.m) 36 V
Continuous stall torque	123.91 lbf.in (14 N.m)
Detent torque	70.81 lbf.in (8 N.m)
Speed feedback resolution	12 points/turn motor 0.26° gearbox output
Accuracy error	+/- 1 point
Maximum torsional backlash	1°
Rotor inertia	1962 kg.cm²
Maximum mechanical speed	44 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	4.08 lb(US) (1.85 kg)

#### Environment

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Standards	IEC 61800-3 IEC 61800-3, Ed 2 IEC 60072-1 EN 61800-3:2001, second environment EN 61800-3: 2001-02 IEC 50347 IEC 50178
Product Certifications	UL[RETURN]TÜV[RETURN]cUL
Ambient air temperature for operation	122149 °F (5065 °C) with power derating of 2 % per °C) 32122 °F (050 °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 IEC 60068-2-6
Shock resistance	150 m/s² 1000 shocks IEC 60068-2-29
IP degree of protection	Shaft bushing IP41 IEC 60034-5 Total except shaft bushing IP54 IEC 60034-5

## Ordering and shipping details

Category	18288-LEXIUM INTEGRATED DRIVES II
Discount Schedule	PC56
GTIN	3389119222433
Returnability	No
Country of origin	DE

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.33 in (11 cm)
Package 1 Width	7.48 in (19 cm)
Package 1 Length	15.35 in (39 cm)
Package 1 Weight	5.21 lb(US) (2.364 kg)
Unit Type of Package 2	S04
Number of Units in Package 2	4
Package 2 Height	11.81 in (30 cm)
Package 2 Width	15.75 in (40 cm)
Package 2 Length	23.62 in (60 cm)
Package 2 Weight	23.61 lb(US) (10.708 kg)

## Offer Sustainability

Sustainable offer status	Green Premium product
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
REACh Regulation	☑ REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	€Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
PVC free	Yes

#### Contractual warranty

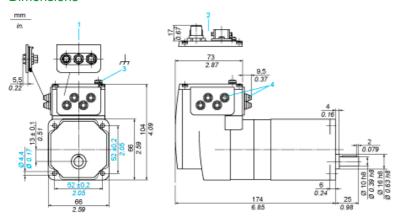
Warranty	18 months	

## Product data sheet **Dimensions Drawings**

## ILE1F661PC1A4

## Integrated Drive with Straight Teeth Gear

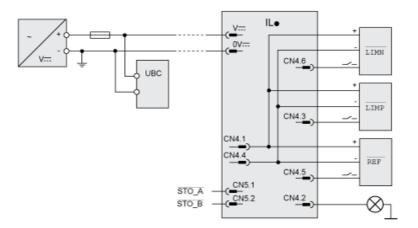
#### **Dimensions**



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

# ILE1F661PC1A4

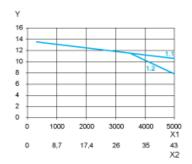
## Connection Example with 4 I/O Signals



# Product data sheet Performance Curves

# ILE1F661PC1A4

## **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