## ILE1F661PC1A7

brushless DC motor, Lexium ILA ILE ILS, 24 to 36V, CANopen DS301 interface, industrial connector, 174mm, 92:1





#### 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
Network number of phases	Single phase
[Us] rated supply	36 V
voltage	24 V
Network type	DC
Communication interface	CANopen DS301, integrated
Length	229 mm
Winding type	Medium speed of rotation and medium torque
Electrical connection	Industrial 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 36 V
Nominal torque	9 N.M at 24 V
	9.2 N.m at 36 V

#### Complementary

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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	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	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 at 24 V
	3.8 A at 36 V
Nominal output power	41 W at 24 V
	42 W at 36 V
Peak stall torque	11.96 N.M at 24 V
	16.56 N.m at 36 V
Continuous stall torque	11.7 N.m
Detent torque	12.3 N.m
Speed feedback resolution	12 points/turn motor
	0.33° gearbox output
Accuracy error	+/- 1 point
Maximum torsional backlash	1°
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 50347
	IEC 50178
	IEC 61800-3
	IEC 61800-3, Ed 2
	EN 61800-3 : 2001-02
	EN 61800-3:2001, second environment
	IEC 60072-1
Product certifications	UL[RETURN]TÜV[RETURN]¢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	105 °C power amplifier
device	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 IEC 60068-2-6
Shock resistance	150 m/s² 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	9.0 cm	
Package 1 Width	19.0 cm	
Package 1 Length	38.5 cm	
Package 1 Weight	2.25 kg	



#### Offer Sustainability

Sustainable offer status	Green Premium product
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

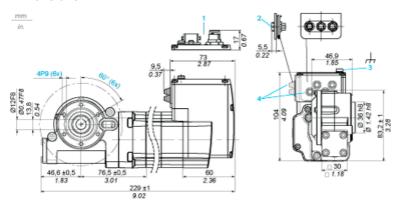
Warranty	18 months	

## Product data sheet **Dimensions Drawings**

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## Integrated Drive with Worm Gear

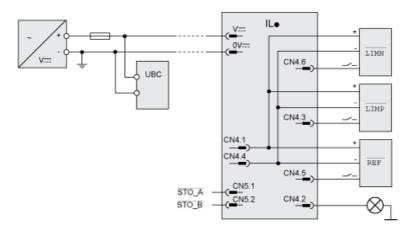
#### **Dimensions**



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

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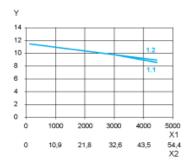
## Connection Example with 4 I/O Signals



# Product data sheet Performance Curves

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## **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