



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

ILE1F661PB1A1

! Discontinued on: 9 Feb 2023

① Discontinued

EAN Code: 3389119222310

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	Printed circuit board 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	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	Overload of output voltage Safe torque off Short circuit of the 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

Standards	EN 61800-3 : 2001-02 IEC 50178 IEC 61800-3 IEC 50347 EN 61800-3:2001, second environment IEC 61800-3, Ed 2 IEC 60072-1
Product certifications	cUL TÜV 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/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	11.0 cm
Package 1 Width	18.6 cm
Package 1 Length	39.4 cm
Package 1 Weight	2.276 kg
Unit Type of Package 2	P06
Number of Units in Package 2	24
Package 2 Height	77.0 cm
Package 2 Width	60.0 cm
Package 2 Length	80.0 cm
Package 2 Weight	63.124 kg

Logistical informations

Country of origin DE

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

Ø	Mercury Free	
	Rohs Exemption Information	Yes
②	Pvc Free	

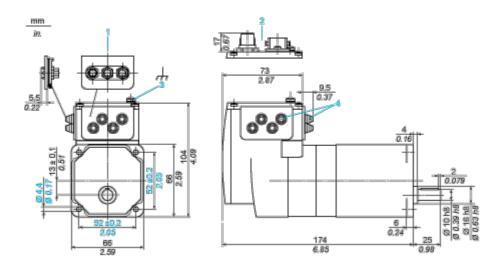
Certifications & Standards

Reach Regulation	REACh Declaration
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 Straight Teeth Gear

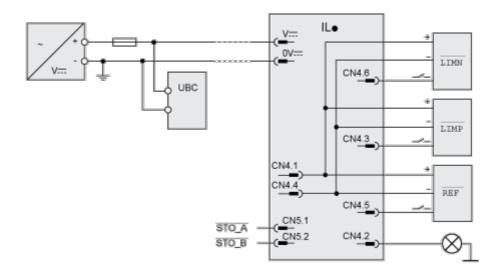
Dimensions



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

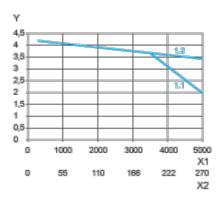
Connections and Schema

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