

# ILE2K661PB1A6

brushless DC motor, Lexium ILA ILE ILS, 24 to 48V, EtherNet IP interface, 174mm, 54:1



## 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 voltage	48 V 24 V
Network type	DC
Communication interface	Ethernet/IP, 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, 3 stages
Reduction ratio	54:1 (1715:32)
Nominal speed	75 rpm at 24 V 75 rpm at 48 V
Nominal torque	6 N.m at 24 V 6 N.m at 48 V

## Complementary

Transmission rate	125, 250, 500 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	18...55.2 V
Current consumption	7000 mA peak 5500 mA maximum continuous
Associated fuse rating	16 A
Commissioning interface	RS485 Modbus TCP (9.6, 19.2 and 38.4 kbauds)
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	Safe torque off Short circuit of the output voltage Overload of output voltage
Maximum supply current	0.1 A (power stage disabled) 6.8 A at 24 V 2.7 A at 48 V
Nominal output power	45 W at 24 V 47 W at 48 V
Peak stall torque	13.93 N.M at 24 V 13.93 N.m at 48 V
Continuous stall torque	8 N.m
Detent torque	6.5 N.m
Speed feedback resolution	12 points/turn motor 0.56° gearbox output
Accuracy error	+/- 1 point
Rotor inertia	430 kg.cm <sup>2</sup>
Maximum mechanical speed	93 rpm
Maximum radial force Fr	200 N
Maximum axial force Fa	80 N
Service life in hours	6000 h bearing
Marking	CE
Type of cooling	Natural convection
Net weight	2.3 kg



## Environment

Standards	EN 61800-3 : 2001-02 IEC 61800-3, Ed 2 EN 61800-3:2001, second environment IEC 60072-1 IEC 50347 IEC 61800-3 IEC 50178
Product certifications	cUL[RETURN]UL[RETURN]TÜV
Ambient air temperature for operation	40...55 °C (with power derating of 2 % per °C) 0...40 °C (without derating)
Permissible ambient air temperature around the device	105 °C power amplifier 110 °C motor
Ambient air temperature for storage	-25...70 °C
Operating altitude	<= 1000 m without derating
Relative humidity	15...85 % without condensation
Vibration resistance	20 m/s <sup>2</sup> (f= 10...500 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	10.4 cm
Package 1 Width	18.0 cm
Package 1 Length	36.5 cm
Package 1 Weight	2.3 kg

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	 <a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	 <a href="#">China RoHS Declaration</a>

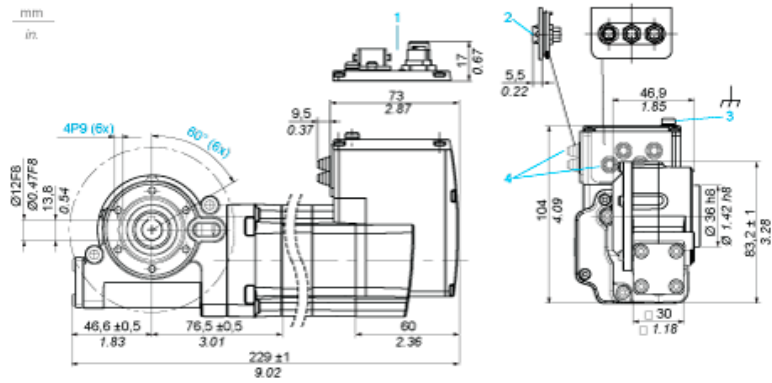
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

### Contractual warranty

Warranty	18 months
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Integrated Drive with Worm Gear

Dimensions

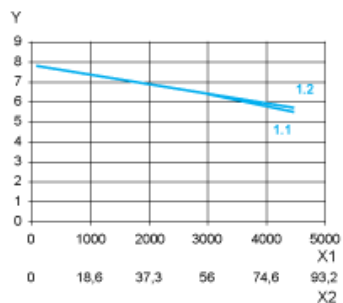


- 1 Option: industrial connectors
- 2 Accessories: I/O signal insert with industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries  $\varnothing = 3 \dots 9 \text{ mm} / 0.12 \dots 0.35 \text{ in.}$

## Connection Example with 4 I/O Signals



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 48 V