

# ILE2K661PB1A8

brushless DC motor, Lexium ILA ILE ILS, 24 to 48V, EtherNet IP interface, 174mm, 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	48 V 24 V
Network type	DC
Communication interface	Ethernet/IP, Integrated
Length	9.02 in (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	115:1 (3675:32)
Nominal speed	35 rpm 24 V 35 rpm 48 V
Nominal torque	93.82 Lbf.in (10.6 N.m) 24 V 93.82 lbf.in (10.6 N.m) 48 V

## Complementary

Transmission Rate	125, 250, 500 kbauds
Mounting Support	Flange
Motor flange size	2.60 in (66 mm)
Number of motor stacks	1
Centring collar diameter	1.42 in (36 mm)
Number of mounting holes	2
Mounting holes diameter	0.17 in (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 safety input 3 MA at 24 V on/STO_B safety input 2 mA at 24 V 24 V signal interface
Discrete output voltage	23...25 V
Maximum switching current	100 MA per output 200 mA total

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Protection Type	Overload of output voltage Safe torque off Short circuit of the output voltage
Maximum supply current	0.1 A power stage disabled) 6.8 A 24 V 2.9 A 48 V
Nominal output power	37 W 24 V 39 W 48 V
Peak stall torque	218.79 Lbf.in (24.72 N.m) 24 V 218.79 lbf.in (24.72 N.m) 48 V
Continuous stall torque	123.91 lbf.in (14 N.m)
Detent torque	147.81 lbf.in (16.7 N.m)
Speed feedback resolution	12 points/turn motor 0.26° gearbox output
Accuracy error	+/- 1 point
Rotor inertia	1980 kg.cm <sup>2</sup>
Maximum mechanical speed	44 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	5.07 lb(US) (2.3 kg)

## Environment

Standards	IEC 50347 EN 61800-3:2001, second environment IEC 60072-1 EN 61800-3 : 2001-02 IEC 61800-3, Ed 2 IEC 61800-3 IEC 50178
Product Certifications	UL[RETURN]cUL[RETURN]TÜV
Ambient air temperature for operation	104...131 °F (40...55 °C) with power derating of 2 % per °C) 32...104 °F (0...40 °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	-13...158 °F (-25...70 °C)
Operating altitude	<= 3280.84 ft (1000 m) without derating
Relative humidity	15...85 % without condensation
Vibration resistance	20 m/s <sup>2</sup> 10...500 Hz) 10 cycles IEC 60068-2-6
Shock resistance	150 m/s <sup>2</sup> 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	3606485204758
Returnability	No
Country of origin	DE

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.09 in (10.4 cm)
Package 1 Width	7.09 in (18.0 cm)
Package 1 Length	14.37 in (36.5 cm)
Package 1 Weight	5.07 lb(US) (2.3 kg)

## Offer Sustainability

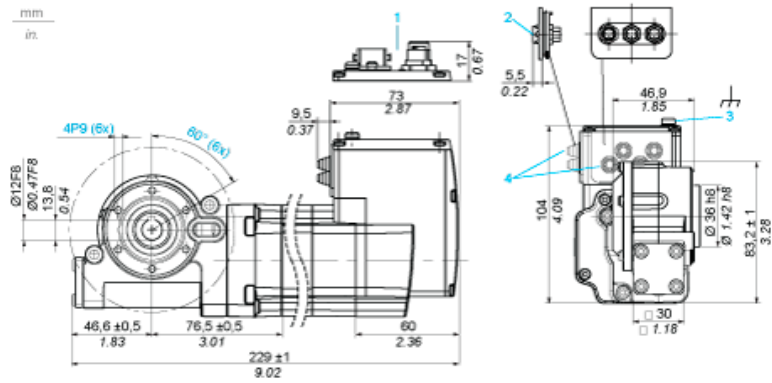
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
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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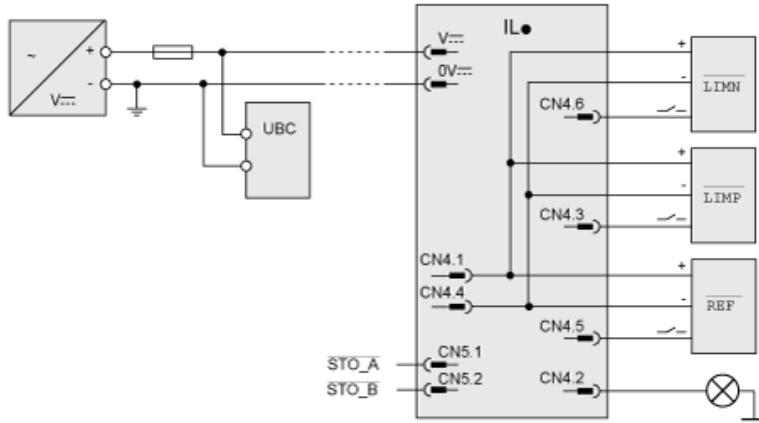
Integrated Drive with Worm Gear

Dimensions

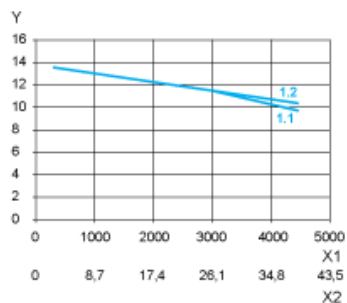


- 1 Option: industrial connectors
- 2 Accessories: I/O signal insert with industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries  $\varnothing = 3 \dots 9 \text{ mm} / 0.12 \dots 0.35 \text{ in.}$

## 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