

# ILE2E661PB1A0

brushless DC motor, Lexium ILA ILE ILS, 24 to 48V, EtherCAT interface, 122mm, without gearbox



## 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	24 V 48 V
Network type	DC
Communication interface	EtherCAT, Integrated
Length	4.80 in (122 mm)
Winding type	Medium speed of rotation and medium torque
Electrical Connection	Printed circuit board connector
Holding brake	Without
Gear box type	Without
Reduction ratio	1:1
Nominal speed	4800 rpm 24 V 6000 rpm 48 V
Nominal torque	2.30 Lbf.in (0.26 N.m) 24 V 2.30 lbf.in (0.26 N.m) 48 V

## Complementary

Transmission Rate	100 Mbits
Mounting Support	Flange
Motor flange size	2.60 in (66 mm)
Number of motor stacks	1
Centring collar diameter	1.57 in (40 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.17 in (4.4 mm)
Circle diameter of the mounting holes	2.90 in (73.54 mm)
Feedback type	BLDC encoder
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	0.31 in (8 mm)
Shaft length	0.98 in (25 mm)
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

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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
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 24 V 3.8 A 48 V
Nominal output power	131 W 24 V 163 W 48 V
Peak stall torque	3.81 lbf.in (0.43 N.m) 24 V 3.81 lbf.in (0.43 N.m) 48 V
Continuous stall torque	2.48 lbf.in (0.28 N.m)
Detent torque	0.71 lbf.in (0.08 N.m)
Speed feedback resolution	12 points/turn
Accuracy error	+/- 0.5 °
Rotor inertia	0.17 kg.cm <sup>2</sup>
Maximum mechanical speed	6500 Rpm 7000 rpm
Maximum radial force Fr	80 N
Maximum axial force Fa	30 N force pressure) 30 N tensile force)
Service life in hours	20000 h bearing
Marking	CE
Type of cooling	Natural convection
Net Weight	3.09 lb(US) (1.4 kg)

## Environment

Standards	IEC 61800-3, Ed 2 IEC 61800-3 IEC 60072-1 EN 61800-3 : 2001-02 EN 61800-3:2001, second environment IEC 50347 IEC 50178
Product Certifications	TÜV[RETURN]UL[RETURN]cUL
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	3606485188799
Returnability	No
Country of origin	DE

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.13 in (10.5 cm)
Package 1 Width	6.69 in (17 cm)
Package 1 Length	9.45 in (24 cm)
Package 1 Weight	3.68 lb(US) (1.668 kg)
Unit Type of Package 2	S03
Number of Units in Package 2	4
Package 2 Height	11.81 in (30 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	16.27 lb(US) (7.381 kg)
Unit Type of Package 3	S04
Number of Units in Package 3	8
Package 3 Height	11.81 in (30 cm)
Package 3 Width	15.75 in (40 cm)
Package 3 Length	23.62 in (60 cm)
Package 3 Weight	32.18 lb(US) (14.596 kg)

## Offer Sustainability

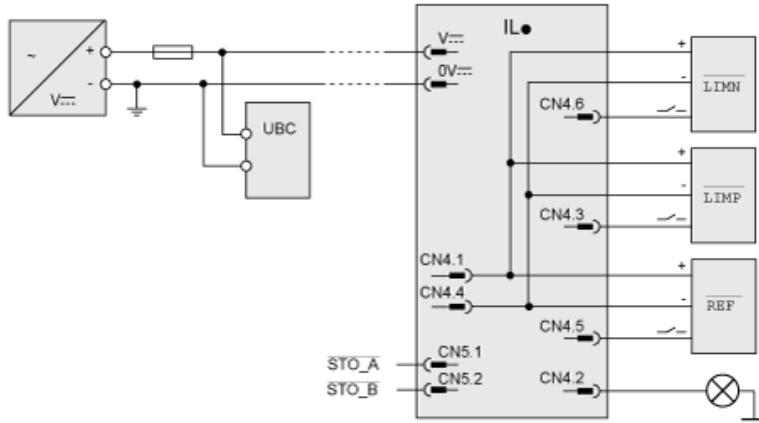
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</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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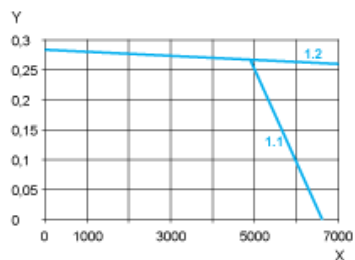
## Connection Example with 4 I/O Signals



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Torque Characteristics

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- X Speed of rotation in rpm  
Y Torque in Nm  
1.1 Max. torque at 24 V  
1.2 Max. torque at 48 V