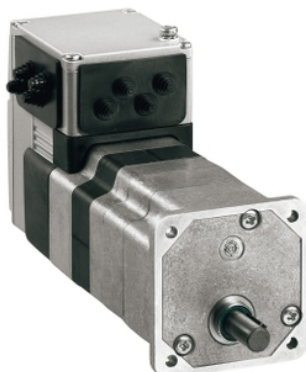


# ILE1R661PB1A0

brushless DC motor, Lexium ILA ILE ILS,  
24..36 V, RS485 interface, L = 122mm, w/o  
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<br>36 V  |
| Network type              | DC  |
| Communication interface   | RS485, 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             | 4000 rpm 24 V<br>4800 rpm 36 V                              |
| Nominal torque            | 1.55 lbf.in (0.175 N.m) 24 V<br>2.12 lbf.in (0.24 N.m) 36 V |

## Complementary

|                                       |   |
|---------------------------------------|---|
| Transmission Rate                     | 9.6, 19.2 and 38.4 kbauds                   |
| 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...40 V                                   |
| Current consumption                   | 7000 mA peak<br>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            | -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<br>3 MA at 24 V on/STO_B safety input<br>2 mA at 24 V 24 V signal interface |
| Discrete output voltage   | 23...25 V   |
| Maximum switching current | 100 MA per output<br>200 mA total   |
| Protection Type           | Short circuit of the output voltage<br>Safe torque off<br>Overload of output voltage                            |
| Maximum supply current    | 0.06 A 36 V power stage disabled)<br>0.1 A 24 V power stage disabled)<br>4.7 A 24 V<br>5.1 A 36 V               |
| Nominal output power      | 117 W 36 V<br>74 W 24 V   |
| Peak stall torque         | 2.30 Lbf.in (0.26 N.m) 24 V<br>3.19 lbf.in (0.36 N.m) 36 V  |
| Continuous stall torque   | 2.39 lbf.in (0.27 N.m)  |
| Detent torque             | 0.71 lbf.in (0.08 N.m)  |
| Speed feedback resolution | 12 points/turn  |
| Accuracy error            | +/- 1 °   |
| Rotor inertia             | 0.149 kg.cm <sup>2</sup>  |
| Maximum mechanical speed  | 5000 rpm  |
| Maximum radial force Fr   | 80 N  |
| Maximum axial force Fa    | 30 N force pressure)<br>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   | EN 61800-3 : 2001-02<br>EN/IEC 61800-3<br>EN 50347<br>IEC 60072-1<br>EN/IEC 50178<br>EN 61800-3:2001, second environment<br>IEC 61800-3, Ed 2 |
| Product Certifications                                | UL<br>TÜV<br>cUL  |
| Ambient air temperature for operation                 | 122...149 °F (50...65 °C) with power derating of 2 % per °C)<br>32...122 °F (0...50 °C) without derating)                                     |
| Permissible ambient air temperature around the device | 221 °F (105 °C) power amplifier<br>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 EN/IEC 60068-2-6   |
| Shock resistance                                      | 150 m/s <sup>2</sup> 1000 shocks EN/IEC 60068-2-29  |
| IP degree of protection                               | Shaft bushing IP41 EN/IEC 60034-5<br>Total except shaft bushing IP54 EN/IEC 60034-5   |

## Ordering and shipping details

|                   |                                   |
|-------------------|-----------------------------------|
| Category          | 18288-LEXIUM INTEGRATED DRIVES II |
| Discount Schedule | PC56                              |
| GTIN              | 3389119222488                     |
| 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) (1.67 kg)    |
| Unit Type of Package 2       | S04                      |
| Number of Units in Package 2 | 8                        |
| Package 2 Height             | 11.81 in (30 cm)         |
| Package 2 Width              | 15.75 in (40 cm)         |
| Package 2 Length             | 23.62 in (60 cm)         |
| Package 2 Weight             | 31.98 lb(US) (14.508 kg) |
| Package 3 Height             | 11.81 in (30.0 cm)       |

## 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) <a href="#">EU RoHS Declaration</a>  |
| 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 |
|----------|-----------|



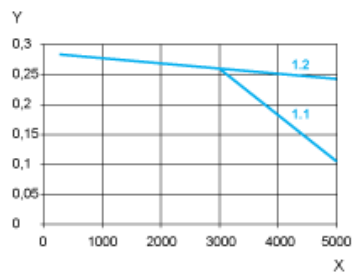
## Connection Example with 4 I/O Signals



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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 36 V