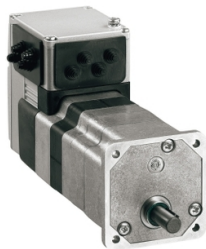


# Product datasheet

Specifications



## brushless dc motor 24..48 V - DeviceNet interface - L = 174 mm - 54:1

ILE2D661PB1A6

⚠ Discontinued - Service only

⚠ Discontinued on: 15 Jun 2023

⚠ To be end-of-service on: 31 Dec 2026

### 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 | 24 V<br>48 V                               |
| Network type              | DC                                         |
| Communication interface   | DeviceNet, 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<br>75 rpm at 48 V           |
| Nominal torque            | 6 N.m at 24 V<br>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                 |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Second shaft               | Without second shaft end                                                                                                    |
| Supply voltage limits      | 18...55.2 V                                                                                                                 |
| Current consumption        | 7000 mA peak<br>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<br>3 mA at 24 V on/STO_B for safety input<br>2 mA at 24 V for 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>Overload of output voltage<br>Safe torque off                                        |
| Maximum supply current     | 0.1 A (power stage disabled)<br>6.8 A at 24 V<br>2.7 A at 48 V                                                              |
| Nominal output power       | 45 W at 24 V<br>47 W at 48 V                                                                                                |
| Peak stall torque          | 13.93 N.m at 24 V<br>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<br>0.56° gearbox output                                                                                |
| Accuracy error             | +/- 1 point                                                                                                                 |
| Rotor inertia              | 430 kg.cm²                                                                                                                  |
| 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              | IEC 60072-1<br>IEC 61800-3, Ed 2<br>EN/IEC 61800-3<br>EN 61800-3 : 2001-02<br>EN 50347<br>EN/IEC 50178<br>EN 61800-3:2001, second environment |
| Product certifications | TÜV<br>UL<br>cUL                                                                                                                              |

|                                                       |                                                                                                                   |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Ambient air temperature for operation                 | 40...55 °C (with power derating of 2 % per °C)<br>0...40 °C (without derating)                                    |
| Permissible ambient air temperature around the device | 105 °C power amplifier<br>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/s² (f= 10...500 Hz) 10 cycles conforming to EN/IEC 60068-2-6                                                 |
| Shock resistance                                      | 150 m/s² 1000 shocks conforming to EN/IEC 60068-2-29                                                              |
| IP degree of protection                               | IP41 shaft bushing: conforming to EN/IEC 60034-5<br>IP54 total except shaft bushing: conforming to EN/IEC 60034-5 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 9.0 cm  |
| Package 1 Width              | 19.0 cm |
| Package 1 Length             | 38.5 cm |
| Package 1 Weight             | 2.25 kg |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

Environmental Disclosure

[Product Environmental Profile](#)

## Use Better



### Materials and Substances

[EU RoHS Directive](#)

Pro-active compliance (Product out of EU RoHS legal scope)

SCIP Number

C2ce416c-ac1e-4e66-863f-bde9b6d94d11

REACH Regulation

[REACH Declaration](#)

PVC free

Yes

## Use Longer



### Lifetime extension

Repair

No

## Use Again



### Repack and remanufacture

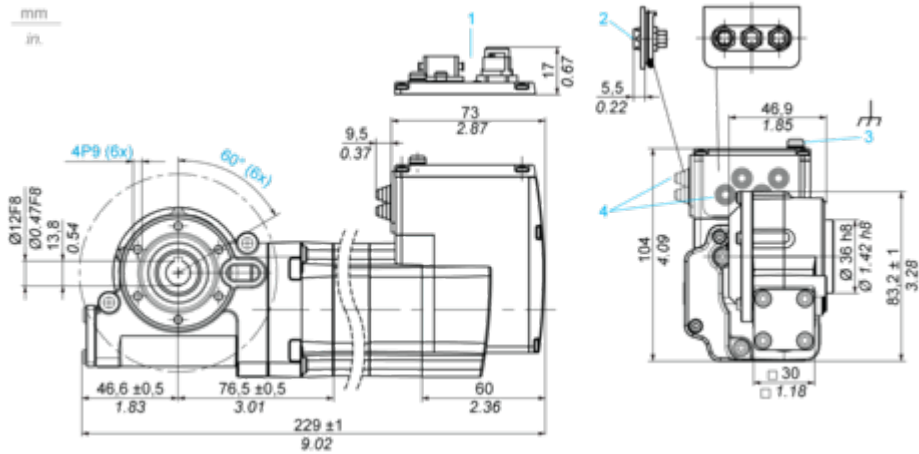
End of life manual availability

[End of Life Information](#)

Dimensions

Integrated Drive with Worm Gear

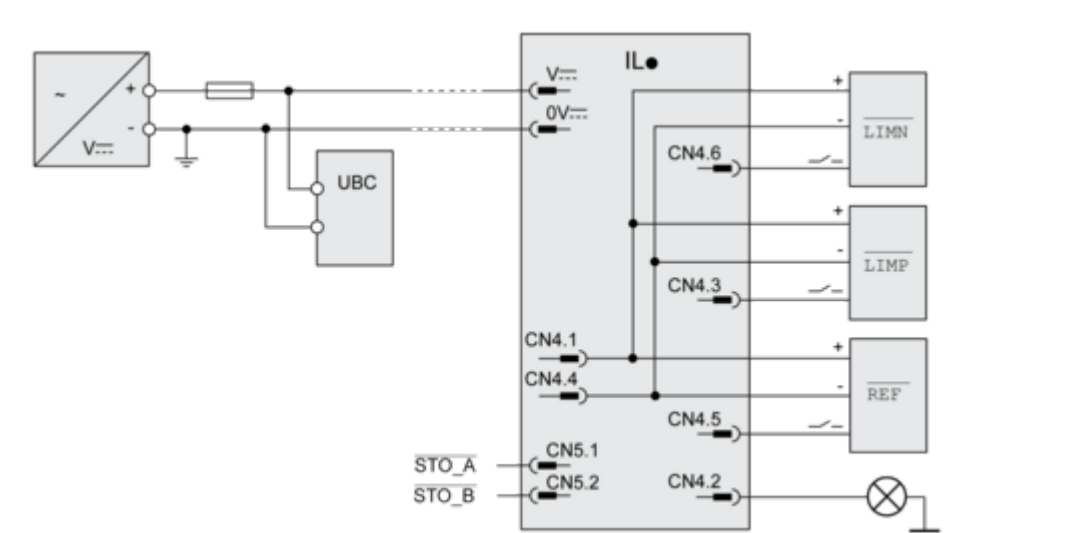
Dimensions



- 1 Option: industrial connectors
- 2 Accessories: I/O signal insert with industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries Ø = 3 ... 9 mm/0.12 ... 0.35 in.

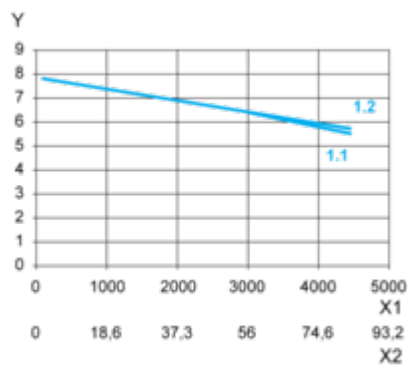
Wiring

Connection Example with 4 I/O Signals



PerformanceCurves

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