



## 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   | Integrated Ethernet Powerlink              |
| Length                    | 174 mm                                     |
| Winding type              | Medium speed of rotation and medium torque |
| Electrical connection     | Printed circuit board connector            |
| Holding brake             | Without                                    |
| Gear box type             | Straight teeth gear, 4 stages              |
| Reduction ratio           | 54:1 (490:9)                               |
| Nominal speed             | 92 rpm at 48 V<br>73 rpm at 24 V           |
| Nominal torque            | 10 N.m at 48 V<br>10 N.m at 24 V           |

## Complementary

|                                       |                                                |
|---------------------------------------|------------------------------------------------|
| Transmission rate                     | 100 Mbits                                      |
| Mounting support                      | Flange                                         |
| Motor flange size                     | 66 mm                                          |
| Number of motor stacks                | 1                                              |
| Centring collar diameter              | 16 mm                                          |
| Centring collar depth                 | 4 mm                                           |
| Number of mounting holes              | 4                                              |
| Mounting holes diameter               | 4.4 mm                                         |
| Circle diameter of the mounting holes | 73.54 mm                                       |
| Feedback type                         | BLDC encoder                                   |
| Shaft end                             | Keyed                                          |
| Second shaft                          | Without second shaft end                       |
| Shaft diameter                        | 10 mm                                          |
| Shaft length                          | 25 mm                                          |
| Key width                             | 16 mm                                          |
| Supply voltage limits                 | 18...55.2 V                                    |
| Current consumption                   | 5500 mA (maximum continuous)<br>7000 mA (peak) |
| 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     | 2 mA at 24 V for 24 V signal interface<br>≤ 3 mA at 24 V on/STO_B for safety input<br>≤ 10 mA at 24 V on/STO_A for safety input |
| Discrete output voltage    | 23...25 V                                                                                                                       |
| Maximum switching current  | 200 mA total<br>100 mA per output                                                                                               |
| Protection type            | Overload of output voltage<br>Safe torque off<br>Short circuit of the output voltage                                            |
| Supply current             | Supply: 3.8 A, 48 V<br>Supply: 6.8 A, 24 V<br>Supply: 0.1 A, power stage disabled                                               |
| Nominal output power       | 90 W at 24 V<br>112 W at 48 V                                                                                                   |
| Peak stall torque          | 20.9 N.m at 48 V<br>20.9 N.m at 24 V                                                                                            |
| Continuous stall torque    | 11.6 N.m                                                                                                                        |
| Detent torque              | 4.36 N.m                                                                                                                        |
| Speed feedback resolution  | 0.55° (gearbox output)<br>12 points/turn (motor)                                                                                |
| Accuracy error             | +/- 0.5 point                                                                                                                   |
| Torsional backlash         | ≤ 1 °                                                                                                                           |
| Rotor inertia              | 441 kg.cm <sup>2</sup>                                                                                                          |
| Maximum mechanical speed   | 92 rpm                                                                                                                          |
| Maximum radial force Fr    | 200 N (short-term operation)<br>200 N (long-term operation)                                                                     |
| Maximum axial force Fa     | 80 N (short-term operation)<br>10 N (long-term operation)                                                                       |
| Service life in hours      | 15000 h of bearing : (long-term operation)<br>2500 h of bearing : (short-term operation)                                        |
| Marking                    | CE                                                                                                                              |
| Type of cooling            | Natural convection                                                                                                              |
| Product weight             | 1.85 kg                                                                                                                         |

## Environment

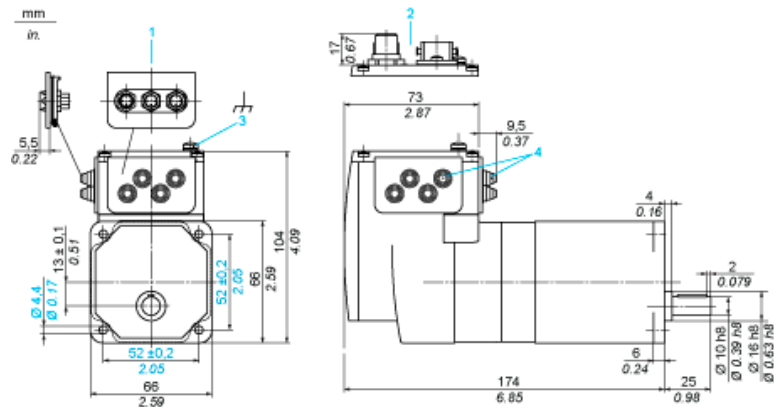
|                                                       |                                                                                                                                               |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | EN 50347<br>EN 61800-3:2001, second environment<br>EN 61800-3 : 2001-02<br>EN/IEC 50178<br>EN/IEC 61800-3<br>IEC 60072-1<br>IEC 61800-3, Ed 2 |
| Product certifications                                | CUL<br>TÜV<br>UL                                                                                                                              |
| Ambient air temperature for operation                 | 0...40 °C without derating<br>> 40...55 °C with power derating of 2 % per °C                                                                  |
| Permissible ambient air temperature around the device | 110 °C (motor)<br>105 °C (power amplifier)                                                                                                    |
| 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) for 10 cycles conforming to EN/IEC 60068-2-6                                                            |
| Shock resistance                                      | 150 m/s <sup>2</sup> for 1000 shocks conforming to EN/IEC 60068-2-29                                                                          |
| IP degree of protection                               | IP54 total except shaft bushing conforming to EN/IEC 60034-5<br>IP41 shaft bushing conforming to EN/IEC 60034-5                               |

## Offer Sustainability

|                                  |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                                 |
| RoHS (date code: YYWW)           | Compliant - since 0910 - <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold                                     |
| Product environmental profile    | Available <a href="#">Download Product Environmental</a>                              |
| Product end of life instructions | Available <a href="#">Download End Of Life Manual</a>                                 |

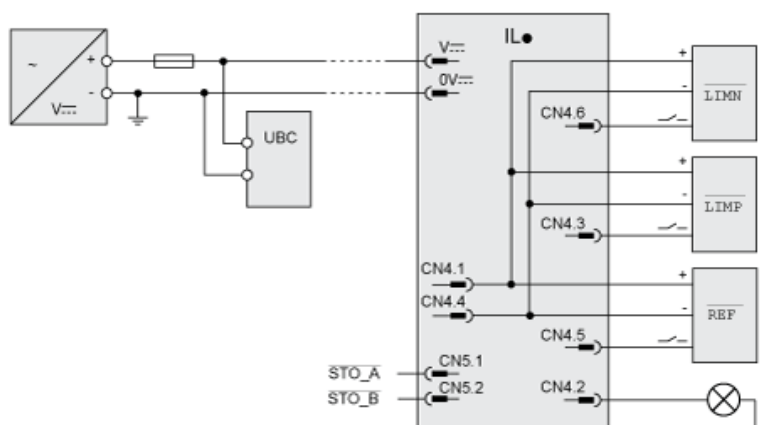
Integrated Drive with Straight Teeth Gear

Dimensions

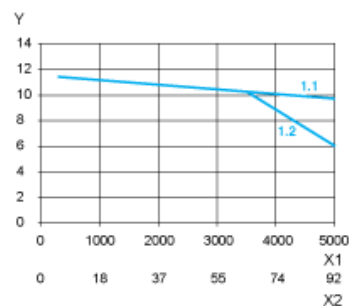


- 1 Accessories: I/O signal insert with industrial connectors
- 2 Option: industrial connectors
- 3 Earth (ground) terminal
- 4 Accessories: cable entries  $\varnothing = 3 \dots 9 \text{ mm} / 0.12 \dots 0.35 \text{ in.}$

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 36 V