



brushless dc motor 24..36 V - CANopen DS301 interface - L = 174 mm - 38:1

ILE1F661PB1A2

! Discontinued on: 9 Feb 2023

! Discontinued

EAN Code: 3389119222327

Main

| Lexium integrated drive |
|--|
| |
| Motion integrated drive |
| ILE |
| Brushless DC motor |
| 6 |
| Single phase |
| 24 V 36 V |
| DC |
| CANopen DS301, integrated |
| 174 mm |
| Medium speed of rotation and medium torque |
| Printed circuit board connector |
| Without |
| Straight teeth gear, 3 stages |
| 38:1 (75:2) |
| 107 rpm at 24 V 128 rpm at 36 V |
| 5.8 N.m at 24 V 6 N.m at 36 V |
| |

Complementary

| Transmission rate | 50, 100, 125, 250, 500, 800 and 1000 kbauds |
|---------------------------------------|---|
| 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 | 1840 V |
| Current consumption | 7000 mA peak 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 | -34.5 V |
| Voltage state 1 guaranteed | 1530 V |
| Discrete input current | 10 mA at 24 V on/STO_A for safety input 3 mA at 24 V on/STO_B for safety input 2 mA at 24 V for 24 V signal interface |
| Discrete output voltage | 2325 V |
| Maximum switching current | 100 mA per output 200 mA total |
| Protection type | Safe torque off Overload of output voltage Short circuit of the output voltage |
| Maximum supply current | 0.06 A at 36 V (power stage disabled) 0.1 A at 24 V (power stage disabled) 4 A at 24 V 3.4 A at 36 V |
| Nominal output power | 65 W at 24 V 81 W at 36 V |
| Peak stall torque | 10.94 N.m at 36 V 7.9 N.m at 24 V |
| Continuous stall torque | 8.2 N.m |
| Detent torque | 3 N.m |
| Speed feedback resolution | 12 points/turn motor 0.8° gearbox output |
| Accuracy error | +/- 1 point |
| Maximum torsional backlash | 1° |
| Rotor inertia | 211 kg.cm² |
| Maximum mechanical speed | 133 rpm |
| Maximum radial force Fr | 200 N (long-term operation) 200 N (short-term operation) |
| Maximum axial force Fa | 10 N (long-term operation) 80 N (short-term operation) |
| Service life in hours | 2500 h bearing short-term operation 15000 h bearing long-term operation |
| marking | CE |
| Type of cooling | Natural convection |
| Net weight | 1.85 kg |

Environment

| Standards | IEC 50178 IEC 61800-3 IEC 60072-1 EN 61800-3:2001, second environment IEC 50347 IEC 61800-3, Ed 2 EN 61800-3: 2001-02 | |
|---|---|--|
| Product certifications | cUL TÜV UL | |
| Ambient air temperature for operation | 5065 °C (with power derating of 2 % per °C) 050 °C (without derating) | |
| Permissible ambient air temperature around the device | 105 °C power amplifier 110 °C motor | |
| Ambient air temperature for storage | -2570 °C | |
| Operating altitude | <= 1000 m without derating | |
| Relative humidity | 1585 % without condensation | |
| Vibration resistance | 20 m/s² (f= 10500 Hz) 10 cycles conforming to IEC 60068-2-6 | |
| Shock resistance | 150 m/s² 1000 shocks conforming to IEC 60068-2-29 | |
| IP degree of protection | IP41 shaft bushing: conforming to IEC 60034-5 IP54 total except shaft bushing: conforming to IEC 60034-5 | |

Packing Units

| Unit Type of Package 1 | PCE |
|------------------------------|-----------|
| Number of Units in Package 1 | 1 |
| Package 1 Height | 11.5 cm |
| Package 1 Width | 19.0 cm |
| Package 1 Length | 39.5 cm |
| Package 1 Weight | 2.277 kg |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 12 |
| Package 2 Height | 77.0 cm |
| Package 2 Width | 80.0 cm |
| Package 2 Length | 60.0 cm |
| Package 2 Weight | 35.824 kg |

Contractual warranty

Warranty 18 months



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Transparency RoHS/REACh

Well-being performance

| | Mercury Free | |
|----------|----------------------------|-----|
| ② | Rohs Exemption Information | Yes |
| | Pvc Free | |

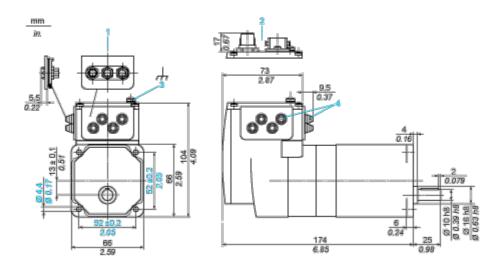
Certifications & Standards

| Reach Regulation | REACh Declaration |
|---------------------------------|---|
| Eu Rohs Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| China Rohs Regulation | China RoHS declaration |
| Environmental Disclosure | Product Environmental Profile |
| Weee | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile | End of Life Information |

Dimensions Drawings

Integrated Drive with Straight Teeth Gear

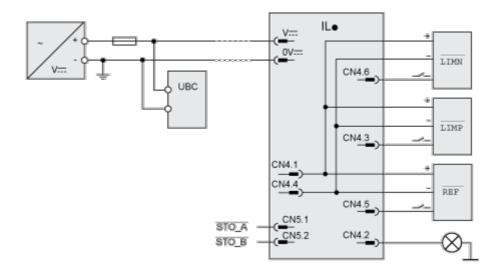
Dimensions



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

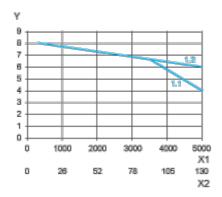
Connections and Schema

Connection Example with 4 I/O Signals



Performance Curves

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