Product data sheet

Specifications





brushless dc motor 24..36 V -Profibus DP interface - L = 174 mm - 18:1

ILE1B661PC1A1

() Discontinued on: Jun 19, 2023

() To be end-of-service on: Dec 31, 2026

Product availability: Non-Stock - Not normally stocked in distribution facility

Main

in an i		
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	36 V 24 V	
network type	DC	
Communication interface	Profibus DP, Integrated	
Length	6.9 in (174 mm)	
Winding type	Medium speed of rotation and medium torque	
Electrical Connection	Industrial connector	
Holding brake	Without	
Gear box type	Straight teeth gear, 3 stages	
Reduction ratio	18:1 (160:9)	
Nominal speed	225 rpm 24 V 270 rpm 36 V	
Nominal torque	27.4 lbf.in (3.1 N.m) 24 V 31.0 lbf.in (3.5 N.m) 36 V	

Complementary

Transmission Rate	9.6, 19.2, 45.45, 93.75, 187.5, 500, 1500, 3000, 6000 and 12000 kbauds	
Mounting Support	Flange	
Motor flange size	2.6 in (66 mm)	
Number of motor stacks	1	
Centring collar diameter	0.6 in (16 mm)	
Centring collar depth	0.2 in (4 mm)	
Number of mounting holes	4	
Mounting holes diameter	0.2 in (4.4 mm)	

Price is "List Price" and may be subject to a trade discount - check with your local distributor or retailer for actual price.

Circle diameter of the mounting holes	2.90 in (73.54 mm)	
Feedback type	BLDC encoder	
Shaft end	Keyed	
Second shaft	Without second shaft end	
Shaft diameter	0.4 in (10 mm)	
Shaft length	1.0 in (25 mm)	
Key width	0.6 in (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 safety input 3 mA at 24 V on/STO_B safety input 2 mA at 24 V 24 V signal interface	
Discrete output voltage	2325 V	
Maximum switching current	100 mA per output 200 mA total	
Protection Type	Overload of output voltage Short circuit of the output voltage Safe torque off	
Maximum supply current	0.06 A 36 V power stage disabled) 0.1 A 24 V power stage disabled) 4 A 36 V 4.5 A 24 V	
Nominal output power	74 W 24 V 98 W 36 V	
Peak stall torque	33.10 lbf.in (3.74 N.m) 24 V 45.85 lbf.in (5.18 N.m) 36 V	
Continuous stall torque	38.06 lbf.in (4.3 N.m)	
Detent torque	9.7 lbf.in (1.1 N.m)	
Speed feedback resolution	1.667° gearbox output 12 points/turn motor	
Accuracy error	+/- 1 point	
Accuracy error Maximum torsional backlash	+/- 1 point 1 °	
Maximum torsional backlash	1°	
Maximum torsional backlash Rotor inertia	1 ° 48 kg.cm ²	
Maximum torsional backlash Rotor inertia Maximum mechanical speed	1° 48 kg.cm ² 281 rpm 200 N long-term operation)	
Maximum torsional backlash Rotor inertia Maximum mechanical speed Maximum radial force Fr	1° 48 kg.cm ² 281 rpm 200 N long-term operation) 200 N short-term operation) 10 N long-term operation)	
Maximum torsional backlash Rotor inertia Maximum mechanical speed Maximum radial force Fr Maximum axial force Fa	1° 48 kg.cm² 281 rpm 200 N long-term operation) 200 N short-term operation) 10 N long-term operation) 80 N short-term operation) 2500 h bearing short-term operation	
Maximum torsional backlash Rotor inertia Maximum mechanical speed Maximum radial force Fr Maximum axial force Fa Service life in hours	1° 48 kg.cm² 281 rpm 200 N long-term operation) 200 N short-term operation) 10 N long-term operation) 80 N short-term operation) 2500 h bearing short-term operation 15000 h bearing long-term operation	

Environment

Standards	EN/IEC 50178 EN 61800-3:2001, second environment IEC 61800-3, Ed 2 EN/IEC 61800-3 EN 50347 IEC 60072-1 EN 61800-3 : 2001-02	
Product Certifications	UL cUL TÜV	
Ambient air temperature for operation	122149 °F (5065 °C) with power derating of 2 % per °C) 32122 °F (050 °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	-13158 °F (-2570 °C)	
Operating altitude	<= 3280.84 ft (1000 m) without derating	
Relative humidity	1585 % without condensation	
Vibration resistance	20 m/s² 10500 Hz) 10 cycles EN/IEC 60068-2-6	
Shock resistance	150 m/s² 1000 shocks EN/IEC 60068-2-29	
IP degree of protection	IP41 shaft bushing: conforming to EN/IEC 60034-5 IP54 total except shaft bushing: conforming to EN/IEC 60034-5	

Ordering and shipping details

Category	US1PC5618288	
Discount Schedule	PC56	
GTIN	3389119222228	
Returnability	No	
Country of origin	DE	

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.1 in (8.0 cm)
Package 1 Width	7.3 in (18.5 cm)
Package 1 Length	14.0 in (35.5 cm)
Package 1 Weight	4.96 lb(US) (2.25 kg)

Contractual warranty

Warranty

18 months

Sustainability Screen Premium

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO₂ products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

Well-being performance

Mercury Free
Rohs Exemption Information Yes
Pvc Free

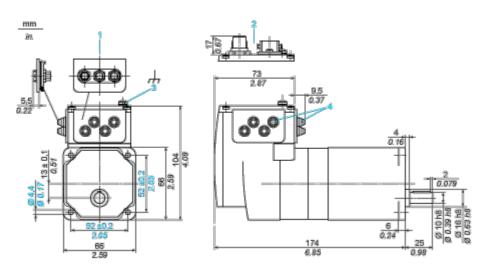
Certifications & Standards

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
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 www.P65Warnings.ca.gov

Dimensions Drawings

Integrated Drive with Straight Teeth Gear

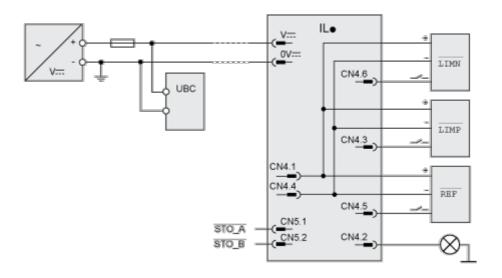
Dimensions



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

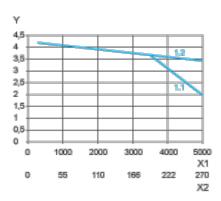
Connections and Schema

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