Product data sheet
Characteristics

ILS2K853PC1F0
integrated drive ILS with stepper motor - 24..48 V - EtherNet/IP - 5 A

Main

Range of Product	Lexium integrated drive
Product or Component Type	Motion integrated drive
Device short name	ILS
Motor Type	3-phase stepper motor
Number of motor poles	6
Phase	Single phase
[Us] rated supply voltage	24 V 48 V
Network type	DC
Communication interface	Ethernet/IP, Integrated
Length	9.7 in (247.3 mm)
Winding type	Medium speed of rotation and medium torque
Electrical Connection	Industrial connector
Holding brake	With
Gear box type	Without
Nominal speed	100 rpm 24 V 200 rpm 48 V
Nominal torque	53.1 lbf.in (6 N.m)
Holding torque	53.1 Lbf.In (6 N.m) holding brake 53.1 lbf.in (6 N.m)

Complementary

Transmission Rate	125, 250, 500 kbauds
Mounting Support	Flange
Motor flange size	3.3 in (85 mm)
Number of motor stacks	3
Centring collar diameter	2.4 in (60 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.3 in (6.5 mm)
Circle diameter of the mounting holes	3.9 in (99 mm)
Feedback type	Index pulse
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	0.6 in (14 mm)
Shaft length	1.2 in (30 mm)
Supply voltage limits	18…55 V
Current consumption	5000 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 safety input 2 mA at 24 V 24 V signal interface

Discrete output voltage	23...25 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
Peak stall torque	53.1 lbf.in (6 N.m)
Continuous stall torque	53.1 lbf.in (6 N.m)
Speed feedback resolution	20000 points/turn
Accuracy error	+/- 6 arc min
Rotor inertia	3.5 kg.cm²
Maximum mechanical speed	2000 rpm
Maximum radial force Fr	110 N
Maximum axial force Fa	170 N tensile force) 30 N force pressure)
Service life in hours	20000 h bearing
Brake pull-in power	22 W
Brake release time	40 ms
Brake application time	20 ms
Marking	CE
Type of cooling	Natural convection
Net Weight	14.3 lb(US) (6.5 kg)

Environment

Standards	IEC 50347 IEC 61800-3 IEC 60072-1 EN 61800-3:2001, second environment IEC 50178 EN 61800-3 : 2001-02 IEC 61800-3, Ed 2
Product Certifications	UL[RETURN]TÜV[RETURN]cUL
Ambient air temperature for operation	104…131 °F (40…55 °C) with power derating of 2 % per °C) 32…104 °F (0…40 °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	-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/s² 10…500 Hz) 10 cycles IEC 60068-2-6
Shock resistance	150 m/s² 1000 shocks 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

Ordering and shipping details

Category	US1PC5618288
Discount Schedule	PC56
GTIN	3606485205045
Returnability	No
Country of origin	DE

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.09 in (10.4 cm)
Package 1 Width	7.09 in (18.0 cm)
Package 1 Length	14.4 in (36.5 cm)
Package 1 Weight	13.2 lb(US) (6.0 kg)

Offer Sustainability

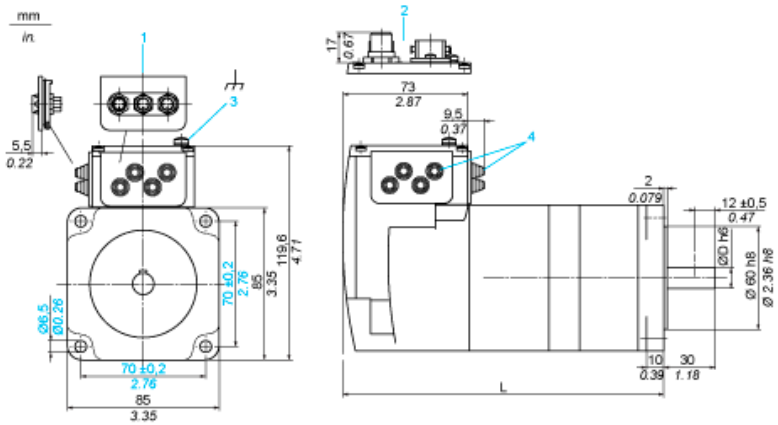
Sustainable offer status	Green Premium product
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
REACh Regulation	REACh Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	China RoHS Declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End Of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Contractual warranty

Warranty	18 months

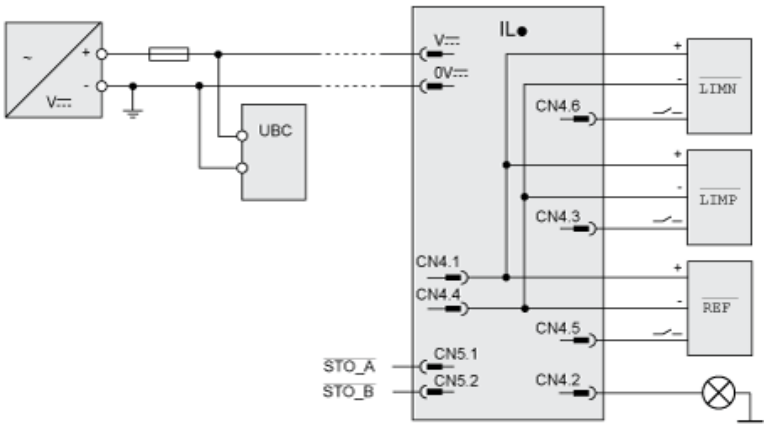
Integrated Drive with Holding Brake

Dimensions

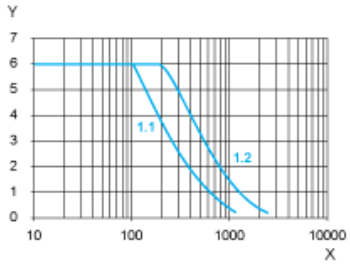


1 Accessories: I/O signal insert with industrial connectors
2 Option: industrial connectors
3 Earth (ground) terminal
4 Accessories: cable entries Ø = 3 ... 9 mm/0.12 ... 0.35 in.
L 247.3 mm/9.74 in.
D 14 mm/0.55 in.

Connection Example with 4 I/O Signals



Torque Characteristics



X Speed of rotation in rpm
Y Torque in Nm
1.1 Max. torque at 24 V
1.2 Max. torque at 48 V