Product data sheet
Characteristics

ILS1F853PC1A0
integrated drive ILS with stepper motor - 24..36 V - CANopen DS301 - 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
Network number of phases	Single phase
[Us] rated supply voltage	24 V 36 V
Network type	DC
Communication interface	CANopen DS301, integrated
Length	200.6 Mm
Winding type	Medium speed of rotation and medium torque
Electrical connection	Industrial connector
Holding brake	Without
Gear box type	Without
Nominal speed	120 rpm at 36 V 60 rpm at 24 V
Nominal torque	6 N.M
Holding torque	6 N.M

Complementary

Transmission rate	50, 100, 125, 250, 500, 800 and 1000 kbauds
Mounting support	Flange 85 mm
Motor flange size	85 Mm
Number of motor stacks	3
Centring collar diameter	60 Mm
Centring collar depth	2 Mm
Number of mounting holes	4
Mounting holes diameter	6.5 Mm
Circle diameter of the mounting holes	99 Mm
Feedback type	Index pulse
Shaft end	Untapped
Second shaft	Without second shaft end
Shaft diameter	14 Mm
Shaft length	30 Mm
Supply voltage limits	18…40 V
Current consumption	5000 mA maximum

Associated fuse rating	10 A
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 3 MA at 24 V on/STO_B for safety input 2 MA at 24 V for 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 Short circuit of the output voltage Overload of output voltage
Peak stall torque	6 N.M
Continuous stall torque	6 N.M
Speed feedback resolution	20000 points/turn
Accuracy error	+/- 6 arc min
Rotor inertia	3.3 Kg.Cm²
Maximum mechanical speed	1000 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
Marking	CE
Type of cooling	Natural convection
Net weight	4.7 Kg

Environment

Standards	IEC 50178 IEC 61800-3, Ed 2 IEC 60072-1 EN 61800-3:2001, second environment EN 61800-3 : 2001-02 IEC 50347 IEC 61800-3
Product certifications	UL[RETURN]TÜV[RETURN]cUL
Ambient air temperature for operation	50…65 °C (with power derating of 2 % per °C) 0…50 °C (without derating)
Permissible ambient air temperature around the device	105 °C power amplifier 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 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	10.5 Cm
Package 1 Width	19.0 Cm
Package 1 Length	39.0 Cm
Package 1 Weight	5.1 Kg

Offer Sustainability

Recyclability potential, in %	85
Total lifecycle Carbon footprint	753 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	60.69166080198889
Carbon footprint of the manufacturing phase [A1 to A3]	61 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	7.533353304145811
Carbon footprint of the distribution phase [A4]	8 kg CO2 eq.
Carbon footprint of the installation phase [A5]	2.698645730336541
Carbon footprint of the installation phase [A5]	3 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	677.1228396132719
Carbon footprint of the use phase [B2, B3, B4, B6]	677 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	5.421297158367538
Carbon footprint of the end-of-life phase [C1 to C4]	5 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	753
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	F800009a-26ea-46d4-b613-164e8055f98f
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, wh
PVC free	Yes
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised