Product datasheet Characteristics

ILS1V852PB1A0





Main

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 36 V
Network type	DC
Communication interface	Integrated pulse/direction 5 V without RS422
Length	6.72 in (170.6 mm)
Winding type	Medium speed of rotation and medium torque
Electrical connection	Printed circuit board connector
Holding brake	Without
Gear box type	Without
Nominal speed	100 rpm at 24 V 200 rpm at 36 V
Nominal torque	35.4 lbf.in (4 N.m)
Holding torque	35.4 lbf.in (4 N.m)

Complementary

Complementary	
Mounting support	Flange
Motor flange size	3.35 in (85 mm)
Number of motor stacks	2
Centring collar diameter	2.36 in (60 mm)
Centring collar depth	0.08 in (2 mm)
Number of mounting holes	4
Mounting holes diameter	0.26 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	0.47 in (12 mm)
Shaft length	1.18 in (30 mm)
Supply voltage limits	1840 V
Current consumption	5000 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 for safety input
Discrete output voltage	2325 V
Maximum switching current	100 mA per output 200 mA total
Protection type	Overload of output voltage Safe torque off Short circuit of the output voltage
Peak stall torque	35.4 lbf.in (4 N.m)



Continuous stall torque	35.4 lbf.in (4 N.m)	
Speed feedback resolution	1.8°, 0.9°, 0.72°, 0.36°, 0.18°, 0.09°, 0.072°, 0.036° 200, 400, 500, 1000, 2000, 4000, 5000, 10000 steps	
Accuracy error	+/- 6 arc min	
Rotor inertia	2.2 kg.cm ²	
Maximum mechanical speed	1500 rpm	
Maximum radial force Fr	100 N	
Maximum axial force Fa	30 N (force pressure) 170 N (tensile force)	
Service life in hours	20000 h of bearing:	
Marking	CE	
Type of cooling	Natural convection	
Product weight	7.94 lb(US) (3.6 kg)	

Environment

standards	EN 50347 EN 61800-3:2001, second environment EN 61800-3 : 2001-02 EN/IEC 50178 EN/IEC 61800-3 IEC 60072-1 IEC 61800-3, Ed 2
product certifications	CUL TÜV UL
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/s ² (f = 10500 Hz) for 10 cycles conforming to EN/IEC 60068-2-6
shock resistance	150 m/s ² 1000 shocks conforming to 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

Offer Sustainability

Green Premium product	Green Premium product
Compliant - since 0922 - Schneider Electric declaration of conformity	Compliant - since 0922 - Schneider Electric declaration of conformity
Reference not containing SVHC above the threshold	Reference not containing SVHC above the threshold
Available	Available
Available	Available

Integrated Drive without Holding Brake

Dimensions





- 1 Earth (ground) terminal
- 2 Accessories: cable entries $\emptyset = 3 \dots 9 \text{ mm}/0.12 \dots 0.35 \text{ in}.$
- L 170.6 mm/6.72 in.
- D 12 mm/0.47 in.

Multifunction Interface

Input Wiring Diagram



(1) Opto-isolated signals

The reference pulses are supplied via two of the signal inputs, either as pulse/ direction signals or as A/B signals. The other signal inputs have the functions "power amplifier enable/pulse blocking" and "step size switching/PWM motor current control".

Torque Characteristics



X1 Frequency in kHz

- X2 Speed of rotation in rpm
- Y Torque in Nm
- 1.1 Max. torque at 24 V
- 1.2 Max. torque at 36 V

