Product datasheet

Specifications

integrated drive ILA with servo motor - 24..48 V - Modbus TCP - PCB connector

ILA2T571TB2A0

Main

Range of product	Lexium integrated drive
Product or component type	Motion integrated drive
Device short name	ILA
Motor type	AC synchronous servo motor
Number of motor poles	6
Network number of phases	Single phase
[Us] rated supply voltage	48 V 24 V
Network type	DC
Communication interface	Modbus TCP, integrated
Length	189.3 mm
Winding type	High speed of rotation and medium torque
Electrical connection	Printed circuit board connector
Holding brake	Without
Gear box type	Without
Nominal speed	5000 rpm at 24 V 7000 rpm at 48 V
Nominal torque	0.31 N.m

Complementary

Transmission rate	10, 100 Mbits
Mounting support	Flange
Motor flange size	57 mm
Number of motor stacks	1
Centring collar diameter	50 mm
Centring collar depth	1.6 mm
Number of mounting holes	4
Mounting holes diameter	5.2 mm
Circle diameter of the mounting holes	66.6 mm
Feedback type	Multi turn encoder
Shaft end	Untapped
Second shaft	Without second shaft end

Shaft diameter	9 mm
Shaft length	20 mm
Supply voltage limits	18…55.2 V
Current consumption	11000 mA peak 7500 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 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	Overload of output voltage Safe torque off Short circuit of the output voltage
Peak stall torque	0.45 N.m
Continuous stall torque	0.31 N.m
Speed feedback resolution	16384 points/turn x 4096 turns
Accuracy error	+/- 0.05 °
Rotor inertia	0.095 kg.cm²
Maximum radial force Fr	89 N
Maximum axial force Fa	104 N (force pressure) 104 N (tensile force)
Service life in hours	20000 h bearing
Marking	CE
Type of cooling	Natural convection
Product weight	1.4 kg

Environment

Standards	EN/IEC 50178 IEC 61800-3, Ed 2 IEC 60072-1 EN/IEC 61800-3 EN 50347 EN 61800-3 : 2001-02 EN 61800-3:2001, second environment
Product certifications	TÜV UL cUL
Ambient air temperature for operation	40…55 °C (with power derating of 2 % per °C) 0…40 °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 EN/IEC 60068-2-6
Shock resistance	150 m/s² 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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	11.000 cm
Package 1 Width	19.000 cm
Package 1 Length	39.500 cm
Package 1 Weight	1.982 kg
Unit Type of Package 2	S04
Number of Units in Package 2	2
Package 2 Height	30 cm
Package 2 Width	40 cm
Package 2 Length	60 cm
Package 2 Weight	4.614 kg
Unit Type of Package 3	P06
Number of Units in Package 3	8
Package 3 Height	75.000 cm
Package 3 Width	80.000 cm
Package 3 Length	60.000 cm
Package 3 Weight	26.456 kg

Contractual warranty

Warranty (in months)	18

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Total lifecycle Carbon footprint	**553 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**21 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0.3 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**531 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0.3 kg CO2 eq.**
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	**Yes**
Packaging without single use plastic	**No**
EU RoHS Directive	Compliant By Exemption
REACh Regulation	Reference contains Substances of Very High Concern above the threshold

Use Longer

Lifetime extension

Repair	**No**

Use Again

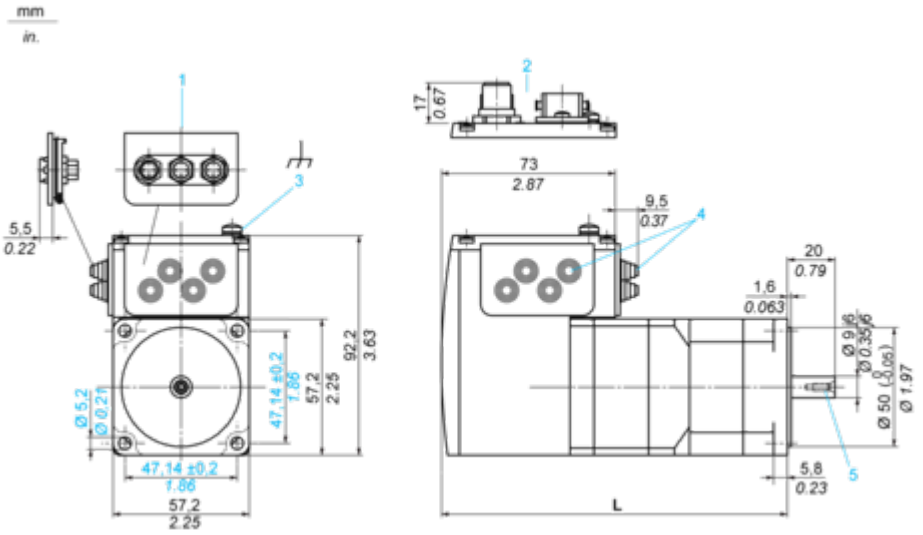
Repack and remanufacture

End of life manual availability	End of Life Information
Take-back	**No**

Dimensions

Integrated Drive without Holding Brake

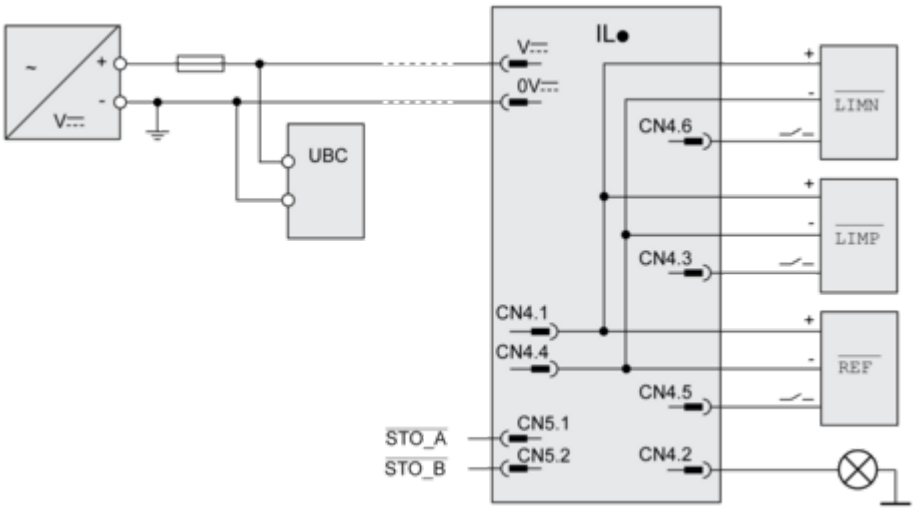
Dimensions



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.
5 Centring hole DIN 332 - DS M3
L : 178.8 mm/7.04 in.

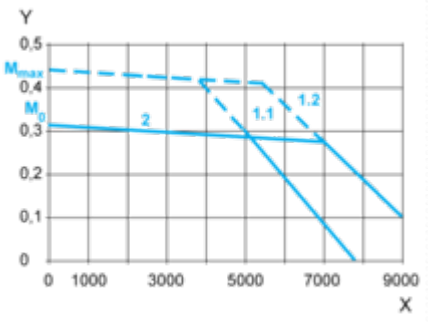
Wiring

Connection Example with 4 I/O Signals



PerformanceCurves

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
2 Continuous torque