



Main

Range of product	Lexium 23 Plus
Product or component type	Motion servo drive
Device short name	LXM23

Complementary

Format of the drive	Book
Network number of phases	3 phases Single phase
[Us] rated supply voltage	220 V (- 10...15 %) single phase 220 V (- 20...15 %) 3 phases
Supply voltage limits	200...255 V single phase 170...255 V 3 phases
Supply frequency	50/60 Hz (- 5...5 %)
Network frequency limits	47.5...63 Hz
Continuous output current	2.6 A
Continuous power	400 W at 220 V
Nominal power	0.4 kW at 220 V
Leakage current	> 3.5 mA
Output voltage	<= power supply voltage
Electrical isolation	Between power and control
Type of cable	Twisted shielded pairs cable (single or double) at 0...55 °C
Electrical connection	Terminal 1.3 mm ² / AWG 16 (L1-L2) Terminal 2.1 mm ² / AWG 14 (R, S, T) Terminal 0.82 mm ² / AWG 18 (U, V, W) Terminal 2.1 mm ² / AWG 14 (PA/+, PBe)
Tightening torque	1.4 N.m (PE (ground))
Discrete input number	8 programmable
Discrete input type	Programmable (CN1)
Discrete input voltage	12...24 V DC logic

Discrete input logic	Positive or negative logic (CN1)
Discrete output number	5
Discrete output type	(CN1) logic output 12...24 V DC
Discrete output voltage	12...24 V DC
Analogue input number	2
Absolute accuracy error	0.01 %
Analogue input type	Voltage analog input (T_REF) - 10...10 V input impedance: 10 kOhm Voltage analog input (V_REF) - 10...10 V input impedance: 10 kOhm
Control signal type	Servo motor encoder feedback
Protection type	Overcurrent for motor Overvoltage for motor Undervoltage for motor Overheating for motor Overload for motor Overspeed for motor Abnormal pulse control command for drive Against reverse polarity for inputs signal Against short-circuits for outputs signal
Communication interface	Integrated CANopen Integrated CANmotion
Connector type	RJ45 (CN3) for CANopen, CANopen Motionbus
Method of access	Slave
Physical interface	2-wire RS485 multidrop for Modbus
Transmission rate	125 kbps - for bus length of > 250...500 m for CANopen, CANmotion 250 kbps - for bus length of > 100...250 m for CANopen, CANmotion 500 kbps - for bus length of > 4...100 m for CANopen, CANmotion 1 Mbps - for bus length of ≤ 4 m for CANopen, CANmotion
Number of addresses	1...127, addresses for CANopen, CANmotion
Status LED	1 LED function: charge LED
Signalling function	Servo status and fault codes for five 7-segment display units
Marking	CE
Type of cooling	Natural convection
Operating position	Vertical
Width	60 mm
Height	162 mm
Depth	146 mm
Product weight	1.7 kg

Environment

EMC filter	Without EMC filter
Electromagnetic compatibility	EMC immunity with additional EMC filter conforming to EN/IEC 61800-3 environments 1 and 2 EMC immunity (level 3) conforming to EN/IEC 61000-4-2 EMC immunity (level 3) conforming to EN/IEC 61000-4-3 EMC immunity (level 3) conforming to EN/IEC 61000-4-5 EMC immunity (level 4) conforming to EN/IEC 61000-4-4 Conducted and radiated emissions with additional EMC filter conforming to EN/IEC 61800-3 environments 1 and 2 category C2, C3
Standards	EN/IEC 61800-5-1
Product certifications	C-Tick CULus 508
IP degree of protection	IP20 for on upper part without protective cover IP41 for on upper part with protective cover
Vibration resistance	0.075 mm peak to peak (f = 10...57 Hz) conforming to IEC 60068-2-6 1 gn (f = 57...150 Hz) conforming to IEC 60068-2-6
Shock resistance	15 gn for 11 ms conforming to IEC 60068-2-27
Relative humidity	Class 3K3 (5 to 85 %) without condensation or dripping water conforming to IEC 60721-3-3
Ambient air temperature for operation	0...55 °C conforming to UL
Ambient air temperature for storage	-20...65 °C
Operating altitude	> 1000...2000 m with continuous power derating of 1 % per 100 m

<= 1000 m without derating

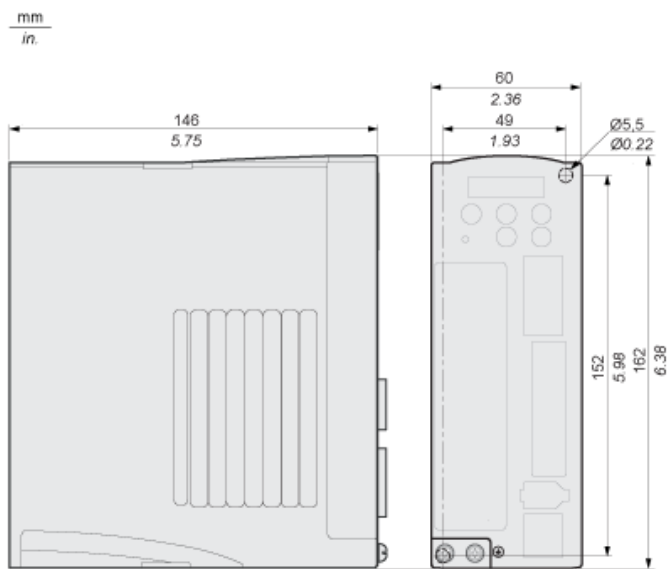
Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 0943 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product end of life instructions	Available

Contractual warranty

Warranty period	18 months
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Dimensions

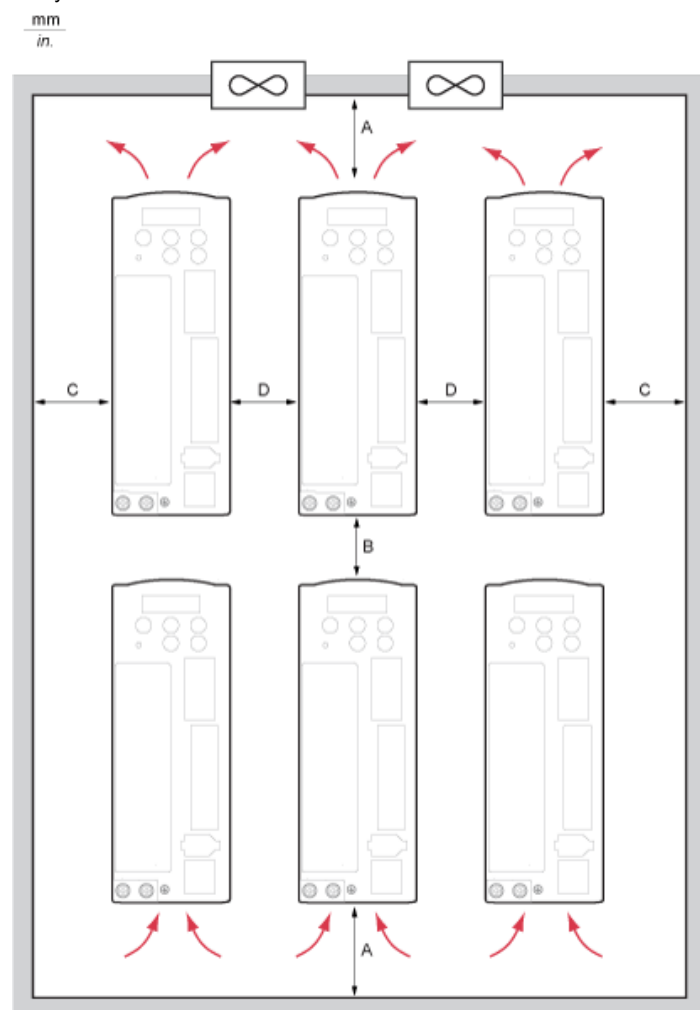


Mounting Recommendations

Mount the device in a vertical position ($\pm 10^\circ$). This is required for cooling the device.

Clearance

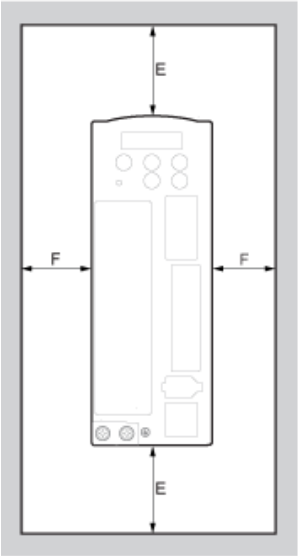
Many Devices in a cabinet



A ≥ 100 mm (≥ 4 in.)	Free space above/below devices
B ≥ 80 mm (≥ 3.2 in.)	Free space between devices
C ≥ 40 mm (≥ 1.6 in.)	Free space between devices and cabinet
D ≥ 10 mm (≥ 0.4 in.)	Free space between devices

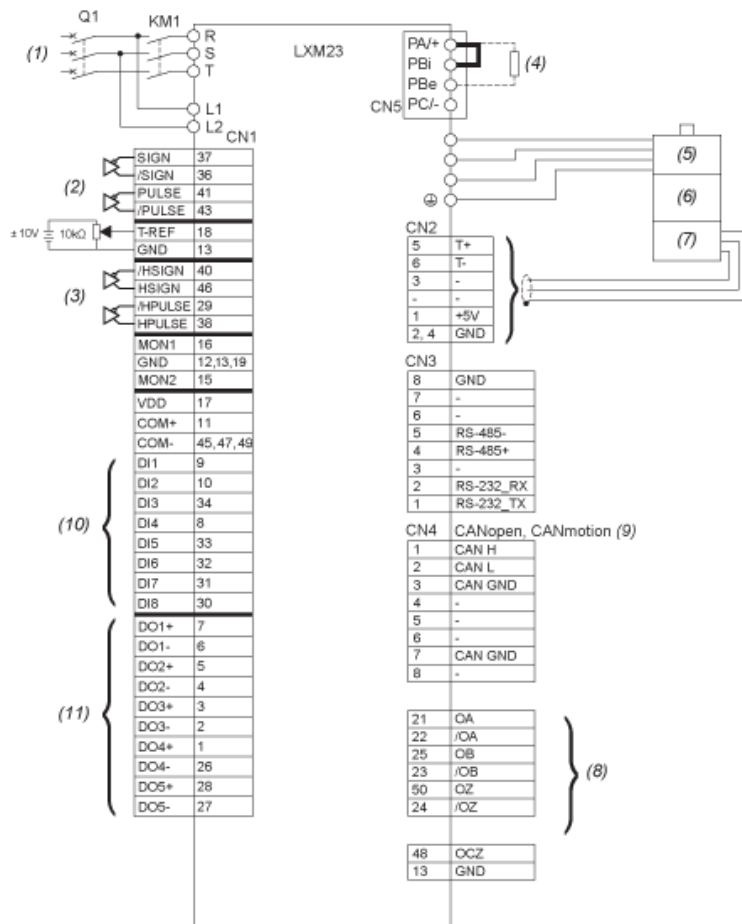
One Device in a cabinet

mm
in.



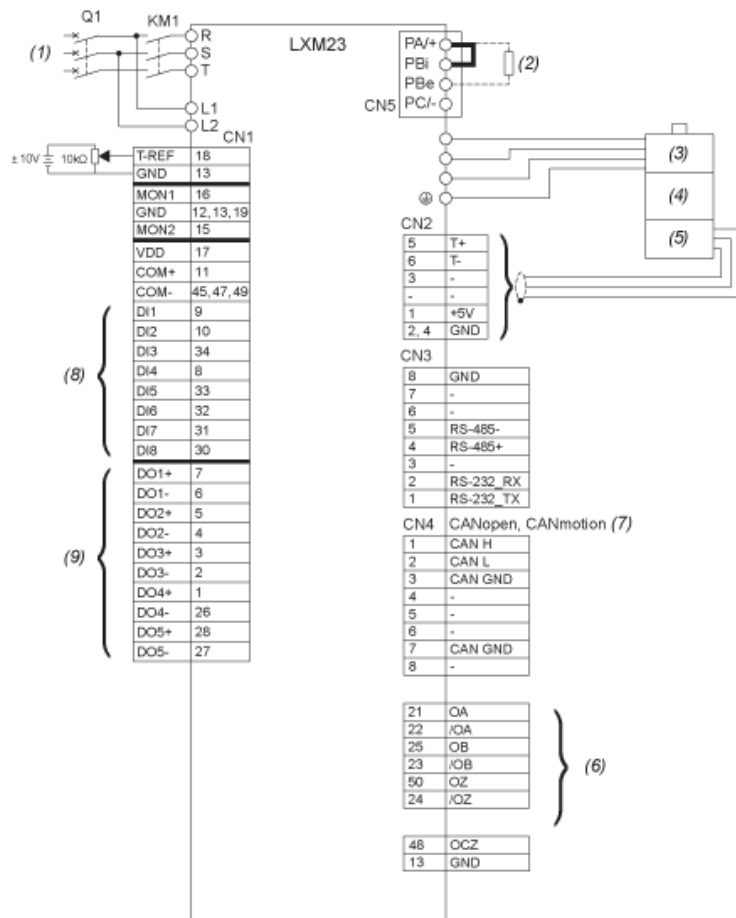
E ≥ 50 mm (≥ 2 in.)	Free space above/below the device
F ≥ 20 mm (≥ 0.8 in.)	Free space between device and cabinet

Position Control Mode Wiring Diagram (Pulse Control)



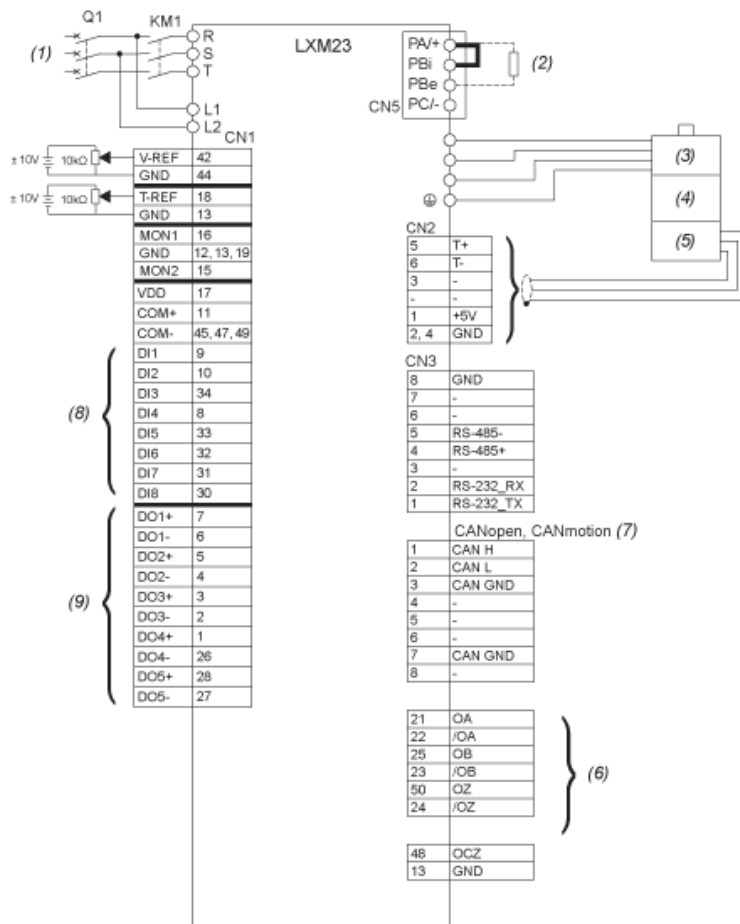
- KM1 Line Contactor
- Q1 Circuit breaker
- (1) AC 220 / 230 V Single Phase or Three Phase 50 / 60 Hz
- (2) Pulse Input (Line Driver)
- (3) High-Speed Pulse Input (Line Receiver)
- (4) External Braking Resistor
- (5) Power Supply
- (6) Holding Brake
- (7) Encoder
- (8) Encoder Pulse Output
- (9) Only LXM23A models
- (10) Digital inputs
- (11) Digital outputs

Position Control Mode Wiring Diagram (Build-In Motion Sequence)



- KM1 Line Contactor
- Q1 Circuit breaker
- (1) AC 220 / 230 V Single Phase or Three Phase 50 / 60 Hz
- (2) External Braking Resistor
- (3) Power Supply
- (4) Holding Brake
- (5) Encoder
- (6) Encoder Pulse Output
- (7) Only LXM23A models
- (8) Digital inputs
- (9) Digital outputs

Speed Control Mode Wiring Diagram



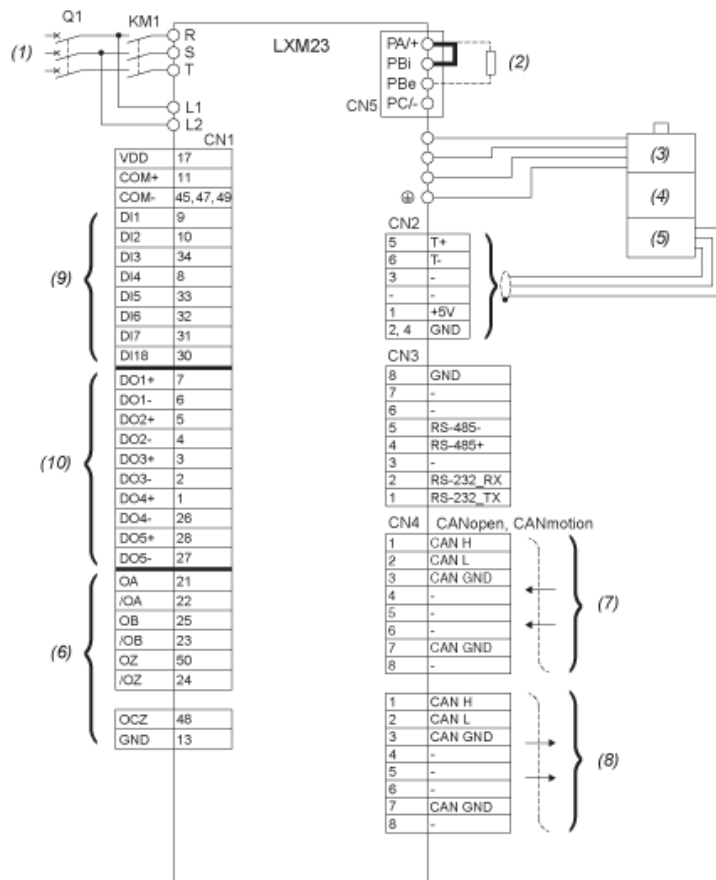
- KM1 Line Contactor
- Q1 Circuit breaker
- (1) AC 220 / 230 V Single Phase or Three Phase 50 / 60 Hz
- (2) External Braking Resistor
- (3) Power Supply
- (4) Holding Brake
- (5) Encoder
- (6) Encoder Pulse Output
- (7) Only LXM23A models
- (8) Digital inputs
- (9) Digital outputs

Figure 1 illustrates the pin connections for the LXM23 module. The diagram shows the LXM23 module with various pins connected to external components. The connections are as follows:

- (1) Q1 and KM1 connections:** Q1 is connected to the LXM23 module. KM1 is connected to the LXM23 module.
- (2) PAH, PBI, PBe, and PC/ connections:** PAH, PBI, PBe, and PC/ are connected to the LXM23 module.
- (3) CANopen, CANmotion module:** The LXM23 module is connected to the CANopen, CANmotion module.
- (4) RS-485 module:** The LXM23 module is connected to the RS-485 module.
- (5) RS-232 module:** The LXM23 module is connected to the RS-232 module.
- (6) CANopen, CANmotion module:** The LXM23 module is connected to the CANopen, CANmotion module.
- (7) CANopen, CANmotion module:** The LXM23 module is connected to the CANopen, CANmotion module.
- (8) CANopen, CANmotion module:** The LXM23 module is connected to the CANopen, CANmotion module.
- (9) CANopen, CANmotion module:** The LXM23 module is connected to the CANopen, CANmotion module.

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CANopen Control Mode Wiring Diagram



- KM1 Line Contactor
- Q1 Circuit breaker
- (1) AC 220 / 230 V Single Phase or Three Phase 50 / 60 Hz
- (2) External Braking Resistor
- (3) Power Supply
- (4) Holding Brake
- (5) Encoder
- (6) Encoder Pulse Output
- (7) Data Input
- (8) Data Output
- (9) Digital inputs
- (10) Digital outputs