

X86 Industrial intelligent controller

| XSA series

Based on the X86 platform, Intel high-performance processor, and the response speed is faster. The self-developed XS Studio programming platform, which can reference many standard function libraries, adopt the IEC61131-3 programming standard, support six programming languages (ST, SFC, FBD, CFC, LD, IL), and develop Xinje proprietary function blocks, instruction libraries and system libraries, which can significantly improve user programming efficiency.

- ① 128M program capacity
- ② EtherCAT motion control
- ③ EtherCAT remote IO
- ④ Ethernet communication
- ⑤ Online downloading
- ⑥ Simulation function
- ⑦ With SCADA screen, built-in super capacitor and UPS



| Performance specification

Product series XSA-		330-W	530-W
Programming method		IL,LD,FBD,ST,SFC,CFC	
Program capacity		128MB	
Data capacity		128MB (include power-off holding 6MB)	
Power supply		Rated voltage DC24V	
I/O	Total points	32	
	Input points	NPN	16
		PNP	16
Output points	Transistor	16	
		Relay	-
High speed input	Encoder input	Single phase	2 channels (max 1MHz)
		AB phase	2 channels (max 1MHz)
	OC input	Single phase	2 channels (max 200kHz)
		AB phase	2 channels (max 200kHz)
Expansion ability		Only support ECAT remote expansions	
Interrupt	External interrupt	16	
Communication function	Communication port	4 channels RJ45 (2 channels EtherCAT, 2 channels Ethernet) 2 channels USB2.0, 2 channels USB3.0 2 channels RS232/RS485 (isolated) BIOS control	6 channels RJ45 (2 channels EtherCAT, 4 channels Ethernet) 4 channels USB3.0 2 channels RS232/RS485 (isolated) BIOS control
	Communication protocol	Modbus RTU, Modbus TCP, Ethernet IP, TCP/IP, UDP, OPC UA, free format protocol, etc.	
Bus function		EtherCAT bus (128 nodes)	EtherCAT bus (256 nodes), CANopen bus
Data power-off holding function		Supported	
RTC function		Supported	
Motion control	Single axis motion		Supported
	Axis group motion		Supported
	Electronic cam		Supported

*Note: XSA series use EtherCAT remote expansion (LC3-AP).

| XSA series product list

	Model					
	AC power			DC power		
	Relay output	Transistor output	Transistor relay mixed output	Relay output	Transistor output	Transistor relay mixed output
NPN	-	-	-	-	XSA330-W	-
	-	-	-	-	XSA530-W	-
PNP	-	-	-	-	XSA330-W	-
	-	-	-	-	XSA530-W	-

Slim (card type)

| XSLH series

Support PLCopen programming specification, reference many standard function library functions, and develop proprietary function blocks and instruction libraries.

- ① EtherCAT motion control
- ② EtherCAT remote IO
- ③ 32 channels electronic cam
- ④ Ethernet communication
- ⑤ Online downloading



| Performance specification

Product series XSLH-		30A32
I/O	Total points	30
	Input points	14
	Output points	16
Max I/O points		542
High speed positioning	Normal pulse output	4-axis (not supported temporarily)
	Differential pulse output	-
High speed input	Single/AB phase	4 channels
	Input mode	2 channels differential signal + 2 channels OC
Expansion ability	Right expansion module	16
	Left expansion module	1
	BD board	-
External interrupt		10
Communication function	Communication port	1 channel RS232, 1 channel RS485, 1 channel CAN port, 2 channels RJ45 port
	Communication protocol	Standard Modbus ASCII/RTU, Ethernet IP, TCP/IP, UDP, OPC UA, free format protocol, CANbus
Bus function		EtherCAT bus control (max 32 nodes)
Programming method		ST, SFC, FBD, CFC, LD, IL
Main processor		Cortex-A8, dominant frequency 1GHz
User program capacity		32MB
Data capacity		32MB (include power-off holding 6MB)

*Note: XSLH series use XL series expansion modules.

| XSLH series product list

	Model					
	AC power			DC power		
	Relay output	Transistor output	Transistor relay mixed output	Relay output	Transistor output	Transistor relay mixed output
NPN	-	-	-	-	XSLH-30A32	-

Small-sized

| XSDH series

Support PLCopen programming specification, reference many standard function libraries, and develop proprietary function blocks and instruction libraries.

- ① EtherCAT motion control
- ② EtherCAT remote IO
- ③ 32 channels electronic cam
- ④ Ethernet communication
- ⑤ Online downloading



| Performance specification

Product series XSDH-		60A32
I/O	Total points	60
	Input points	36
	Output points	24
Max I/O points		572
High speed positioning	Normal pulse output	4-axis (not supported temporarily)
	Differential pulse output	-
High speed input	Single/AB phase	4 channels
	Input mode	OC
Expansion ability	Right expansion module	16
	Left expansion module	1
	BD board	1
External interrupt		10
Communication function	Communication port	1 channel RS232, 1 channel RS485, 2 channels RJ45 port
	Communication protocol	Standard Modbus ASCII/RTU, Ethernet IP, TCP/IP, UDP, OPC UA, free format protocol
Bus function		EtherCAT bus control (max 32 nodes)
Programming method		ST, SFC, FBD, CFC, LD, IL
Main processor		Cortex-A8, dominant frequency 1GHz
User program capacity		32MB
Data capacity		32MB (include power-off holding 6MB)

*Note: XSDH series use XD series expansion modules.

| XSDH series product list

	Model					
	AC power			DC power		
	Relay output	Transistor output	Transistor relay mixed output	Relay output	Transistor output	Transistor relay mixed output
NPN	-	XSDH-60A32-E	-	-	-	-
PNP	-	XSDH-60PA32-E	-	-	-	-

Medium-sized

| XS3 series

Support PLCopen programming specification, reference many standard function libraries, and develop proprietary function blocks and instruction libraries.

- ① EtherCAT motion control
- ② EtherCAT remote IO
- ③ 32 channels electronic cam
- ④ Ethernet communication
- ⑤ Online downloading



| Performance specification

Product series XS3-		26T4
I/O	Total points	26
	Input points	18
	Output points	8
Max I/O points		1050
High speed positioning	Normal pulse output	4-axis, up to 100K (not supported temporarily)
	Differential pulse output	-
High speed input	Single/AB phase	4 channels, up to 200K
	Input mode	Differential input
Expansion ability	Right expansion module	16
	Left expansion module	-
	BD board	-
Interrupt		10
Communication function	Rs232	1 port, can connect HMI and other devices
	Rs485	2 ports, Modbus, can connect HMI, communication devices, etc.
	Rj45-1	LAN1: Ethernet IP, TCP/IP, UDP, OPC UA, free format protocol, support program upload/download and monitor
	Rj45-2	LAN2: EtherCAT bus master station
Bus function		EtherCAT bus control, 32-axis
Electronic cam		EtherCAT bus control, 32-axis
Pulse width modulation PWM		-
Frequency measurement		-
Precise timing		-
Multi-station control		-
Programming method		ST, SFC, FBD, CFC, LD, IL
Main processor		Dominant frequency 800MHz
User program capacity		32MB
Data capacity		32MB (include power-off holding 6MB)

*Note: "-" in the list means this model doesn't have this function; XS3 series use XG series expansion modules.

| XS3 series model list

	Model					
	AC power			DC power		
	Relay output	Transistor output	Transistor relay mixed output	Relay output	Transistor output	Transistor relay mixed output
NPN	-	-	-	-	XS3-26T4	-

General specification

General specification

Item	Specification
Insulation voltage	Above DC500V 2MΩ
Anti-noise	Noise voltage 1000Vp-p 1us pulse 1 minute
Air	No corrosive and combustible gas
Ambient temperature	0°C~60°C
Ambient humidity	5%~95% (no condensation)
Installation	It can be fixed with M3 screws or directly installed on the guide rail
Grounding (FG)	The third kind of grounding (cannot be grounded with the strong current system)

Input specification

XSA input specification

XSA supports NPN and PNP input mode.

Item	Specification
Input signal voltage	DC24V±10%
Input signal current	7mA/DC24V
Input ON current	Below 4.5mA
Input OFF current	Above 1.5mA
Input response time	About 10ms
Input signal format	Contact input or NPN or PNP open collector transistor
Circuit insulation	Photoelectric coupling insulation

XS3, XSLH input specification

XS3, XSLH support NPN and differential input mode.

NPN mode specification

Item	Specification
Input signal voltage	DC24V±10%
Input signal current	7mA/DC24V
Input ON current	Above 4.5mA
Input OFF current	Below 1.5mA
Input response time	About 10ms
Input signal format	Contact input NPN open collector transistor
Circuit insulation	Photoelectric coupling insulation
Input action display	LED lights up when input ON

XSDH input specification

XSDH supports NPN and PNP input mode.

NPN mode specification

Item	Specification
Input signal voltage	DC24V±10%
Input signal current	7mA/DC24V
Input ON current	Above 4.5mA
Input OFF current	Below 1.5mA
Input response time	About 10ms
Input signal format	Contact input or NPN open collector transistor
Circuit insulation	Photoelectric coupling insulation
Input action display	LED lights up when input ON

Power supply specification

XSA, XS3, XSLH power supply specification

Item	Specification
Rated voltage	DC24V
Allowable range of voltage	DC21.6V~26.4V
Input current (only for basic unit)	120mA DC24V
Permissible instantaneous power-off time	10ms DC24V
Impact current	10A DC26.4V
Maximum power consumption	XSA is 60W~70W, XSLH is 30W, XS3 is 12W
Power supply for sensor	24VDC±10%

XSDH power supply specification

Item	Specification
Rated voltage	AC100V~240V
Allowable range of voltage	AC90V~265V
Rated power	50/60Hz
Permissible instantaneous power-off time	Interruption time≤0.5 AC cycle space≥1s
Impact current	Max 40A 5ms/AC100V Max 60A 5ms/AC200V
Maximum power consumption	XSDH is 30W
Power supply for sensor	24VDC±10% 400mA

- *Note: ① Please use more than 2mm² wire for power cable to prevent voltage drop;
 ② Even if there is a power failure within 10ms, the PLC can continue to work. When the power is cut off for a long time or the voltage drops abnormally, the PLC will stop working and the output will also be in the OFF state. When the power is restored, the PLC will automatically start running;
 ③ The grounding terminals of the basic unit and expansion module are recommended to be connected with each other and reliably grounded.

Differential signal mode specification

Item	Specification
Input signal voltage	DC5V±10%
Input signal current	12mA/DC5V
Input ON current	Above 4.5mA
Input OFF current	Below 1.5mA
Input response feature	Max 200KHz
Input signal format	Differential input
Circuit insulation	Photoelectric coupling insulation
Input action display	LED lights up when input ON

PNP mode specification

Item	Specification
Input signal voltage	DC24V±10%
Input signal current	7mA/DC24V
Input ON current	Above 4.5mA
Input OFF current	Below 1.5mA
Input response time	About 10ms
Input signal format	Contact input or PNP open collector transistor
Circuit insulation	Photoelectric coupling insulation
Input action display	LED lights up when input ON

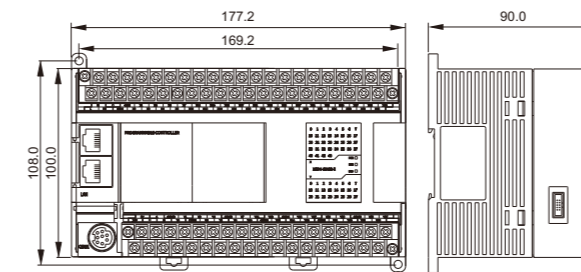
Output specification

Transistor output

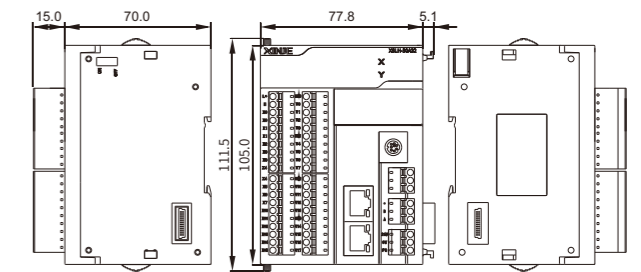
External power supply	Below DC5~30V	
Circuit insulation	Photoelectric coupling insulation	
Action indicator	LED indicator	
Max load	Resistive load	0.3A
	Inductive load	7.2W/DC24V
	Light load	1.5W/DC24V
Min load	DC5V 2mA	
Open circuit leakage current	Below 0.1mA	
Response time	OFF→ON	Below 0.2ms
	ON→OFF	Below 0.2ms

Dimension (unit:mm)

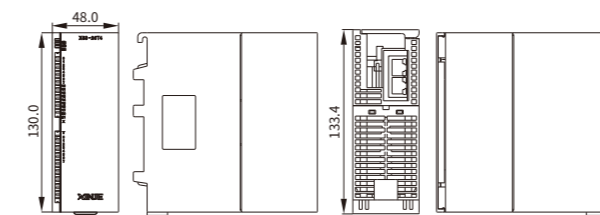
XSDH series dimension



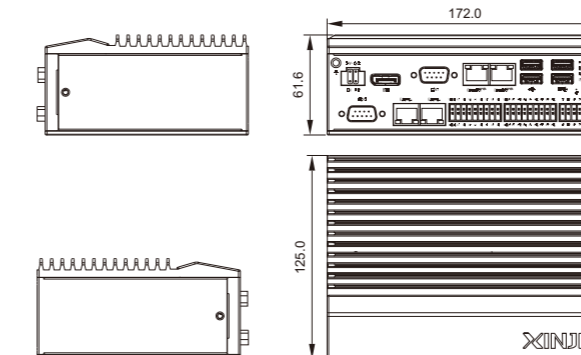
XSLH series dimension



Xs3 series dimension



XSA330-W series dimension



XSA530-W series dimension

