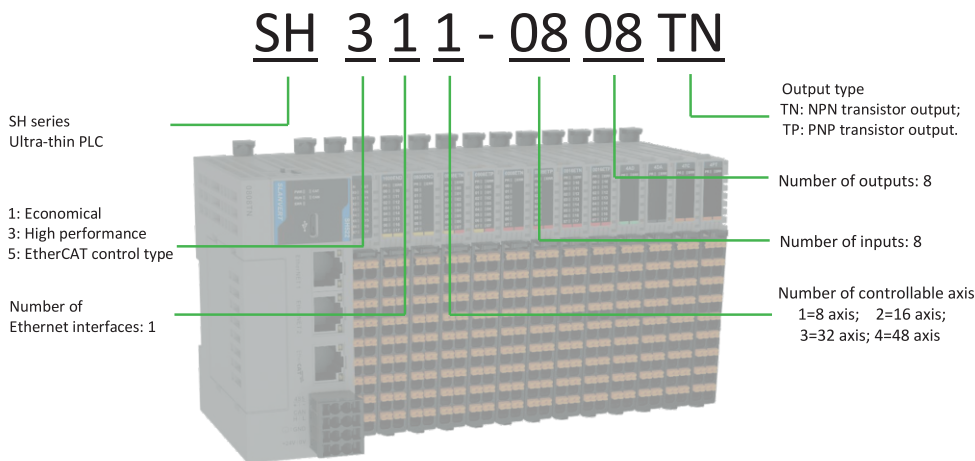


Model Description

SH Series PLC



Features

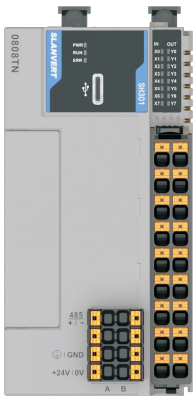
- BUS + PULSE, motion control + process control Flying shear and following cut function
- Expansion module, flexible optional expansion (expansion module for SH300/500)
- Easy to use, modular standard instructions, easy programming
- SH300/SH500 integrated E-CAM, linear and circular interpolation
- New generation upgraded processor and ultra-thin structure design
- Light-weight structure, greatly optimized assembly efficiency

SH100/200 Series*

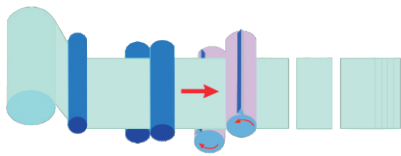
Model	SH100-0808TN/P	SH210-0808TN/P	SH210-0808TN/P1
Features	8 NPN/PNP input 8 NPN or PNP output	8 NPN/PNP input 8 NPN or PNP output	8 NPN/PNP points, 8 NPN or PNP output 1 channel AD and DA, 0-20mA, ±1%
Supply voltage	DC24V		
Program storage capacity	16k steps	32k steps	
Basic instruction execution time	0.2 μs		
Power-off retention	FLASH permanent storage, maximum 2K Bytes	84k Bytes user software components 20k Bytes power-off data retention	
Programming language	LD, IL, SFC		
Digital input type	NPN and PNP		
Rated Voltage	DC24V, 4mA		
Logic 1 (voltage range)	>15V DC		
Logic 0 (voltage range)	<5V DC		
Filter	X0~X7 have digital filtering function, filtering time 0~60ms Other terminals adopt hardware filter, about 10ms		
High-speed counter	X0/X1: 50kHz, X2-X7: 10kHz	X0/X1: 50kHz, X2-X7: 10 kHz	
Highest pulse output (transistor)	3 channel 100kHz: Y0-Y2	4 channels 100kHz: Y0-Y3	
Interface	Port 0: RS232; Port 1: RS485; 1 USB		Port 0: RS232; Port 1: RS485; 1 USB, 1 Ethernet (ModbusTCP, master or slave)
Baud rate	1.2kbps~115.2kbps	1.2kbps~115.2kbps	
Communication protocol	Modbus/Free port/N:N		
USB communication	USB2.0, Type C. Supports program upload and download, monitoring, solid-state software upgrade.		

SH300 series

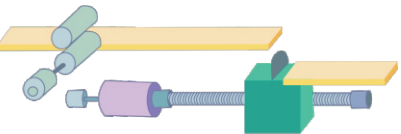
Motion control



Flying shear



Trailing-edge shear



Model	SH301-0808TN	SH301-0808TP	SH311-0808TN	SH311-0808TP
Features	8 points DC24V input 8 points NPN output 1 serial port 1 USB 8*200kHz input/output	8 points DC24V input 8 points PNP output 1 serial port 1 USB 8*200kHz input/output	8 points DC24V input 8 points NPN output 1 serial port 1 USB 1 CANopen 1 Ethernet 8*200kHz input/output	8 points DC24V input 8 points PNP output 1 serial port 1 USB 1 CANopen 1 Ethernet 8*200kHz input/output
Supply voltage	DC24V			
Program storage capacity	200K Bytes			
Power-off retention	128K Bytes user soft components, about 84K Bytes power off retention; 1M Bytes custom variables, of which 128K Bytes power-off retention			
Programming language	LD, FBD, ST, SFC			
Right-side expansion	Max 16 pcs SH series right-side expansion module			
Left-side expansion	Max. 1 pc SH series left-side expansion module			
Real-time clock	PLC without real-time clock, can be extended with 1pc left-side RTC expansion module			
SD card	SD card can be used to upgrade the firmware update program.			
USB	USB2.0, Type C. Supports program upload and download, monitoring, solid-state software upgrade.			
Input	8-channel 200kHz high-speed pulse input, Support single-phase, dual-phase (Up/Down) AB phase (1x and 4x) counting.			
Output	8-channel 200kHz high-speed pulse output, supporting positioning control instruction group			
RS-485	bps	1.2kbps~115.2kbps		
	Protocol	With 1 communication interface, support 2 expansions, supporting Modbus/Freeport/N:N communication protocol		
	Terminal resistor	With terminal resistor, can be used as master or slave, supports up to 31 Modbus-RTU slaves		
CAN	No		Support CANopen master, supports up to 31 slaves	
EtherNET	No		Support ModbusTCP master-slave protocol, program upload, download and monitoring, support 16 slaves and 4 masters at the same time, TCP free protocol, support 4 connections	
Motion control	Support positioning control instruction group support linear and circular interpolation, electronic gear, E-CAM motion control.			

15 *: SH100 not support expansion module, SH200/300/500 support expansion module.

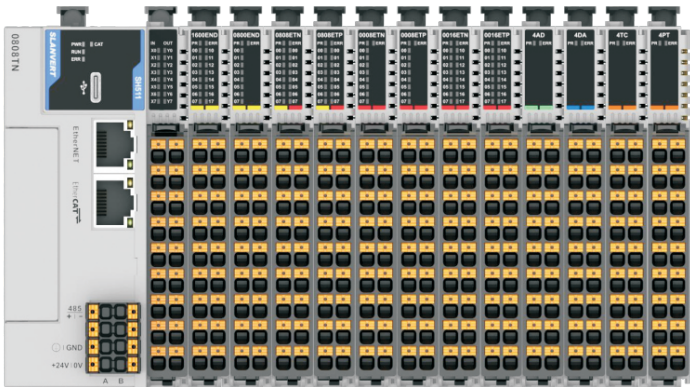
SH500 series

Motion control



Model		SH511-0808TN	SH511-0808TP	SH522-0808TN	SH522-0808TP	SH523-0808TN	SH523-0808TP
Feature		8-point DC24V input, 8-point NPN transistor output, 1 serial port, 1 USB, 1 Ethernet, 1 EtherCAT bus, maximum 8 axis	8-point DC24V input, 8-point PNP transistor output, 1 serial port, 1 USB, 1 Ethernet, 1 EtherCAT bus, maximum 8 axis	8-point DC24V input, 8-point NPN transistor output, 1 serial port, 1 USB, 1 CANopen, 2 Ethernet, 1 EtherCAT bus, maximum 16 axis	8-point DC24V input, 8-point PNP transistor output, 1 serial port, 1 USB, 1 CANopen , 2 Ethernet, 1 EtherCAT bus, maximum 16 axis	8-point DC24V input, 8-point NPN transistor output, 1 serial port, 1 USB, 1 CANopen , 2 Ethernet, 1 EtherCAT bus, maximum 32 axis	8-point DC24V input, 8-point PNP transistor output, 1 serial port, 1 USB, 1 CANopen , 2 Ethernet, 1 EtherCAT bus, maximum 32 axis
Supply voltage		DC24V					
Program storage capacity		200K Bytes					
Power-off retention		128K Bytes user soft components, about 84K Bytes power-off retention; 1M Bytes custom variables of which 128K Bytes power-off retention					
Programming language		LD, FBD, ST, SFC					
Right-side expansion		Max. 16 pcs SH series right-side expansion module					
Left-side expansion		Max. 1 pc SH series left-side expansion module					
Real-time clock		PLC without real-time clock, can be extended with 1pc left-side RTC expansion module					
SD card		SD card can be used to upgrade the firmware update program.					
USB		USB2.0, Type C. Supports program upload and download, monitoring, solid-state software upgrade.					
Input		8 channel normal inputs		8-channel 200kHz high-speed pulse input support single-phase, dual-phase (Up/Down), AB phase (1x and 4x) counting.			
Output		8 channel normal output		8-channel 200kHz high-speed pulse output supporting positioning control instruction group			
RS485	Protocol	With 1 communication interface, support 2 expansions, supporting Modbus/Freeport/N:N communication protocol					
	Terminal resistor	With terminal resistor, can be used as master or slave, supports up to 31 Modbus-RTU slaves					
CAN		No		Supports CAN open master, supports up to 31 slaves			
Ether NET	Number of network ports	Single network port		Dual Ethernet ports correspond to single network card, two Ethernet ports share one IP, support network switching function			
	Protocol	Support Modbus TCP master-slave protocol, support program upload, download and monitoring, support 16 slaves and 4 masters at the same time. TCP free protocol, support 4 connections.					
Motion control		Support positioning control instruction group, support linear and circular interpolation, electronic gear, electronic cam motion control.					
Ether CAT	Number of axis	8 axis		16 axis		32 axis	
	Number of slaves	Up to 72 slaves (including servo axis), including real axis and virtual axis, totaling 48 axis					
	Performance of axis	Communication cycle 250us~8ms, adjustable synchronization jitter time ±80ns					

Extension modules



Type	Model	Specification
Right-side Extension modules	SH-0808ETN	8 digital input module, 8 digital transistor NPN output module
	SH-0808ETP	8 digital input module, 8 digital transistor PNP output module
	SH-0016ETN	16 digital transistor NPN output module
	SH-0016ETP	16 digital transistor PNP output module
	SH-1600END	16 digital input module
	SH-0800END	8 digital input module
	SH-0008ETN	8-channel digital transistor NPN output module
	SH-0008ETP	8-channel digital transistor PNP output module
	SH-4AD	4-channel analog input module
	SH-4DA	4-channel analog output module
	SH-4PT	4-channel input thermal resistance temperature detection module
	SH-4TC	4-channel input thermocouple temperature detection module
Left-side Extension modules	SH-RS485	2 channel RS485
	SH-RS485-RTC	2 channel RS485 + Real-time clock
	SH-RS485-1	1 channel RS485
	SH-RS485-RTC-	1 channel RS485 + Real-time clock
	SH-RTC	Real-time clock