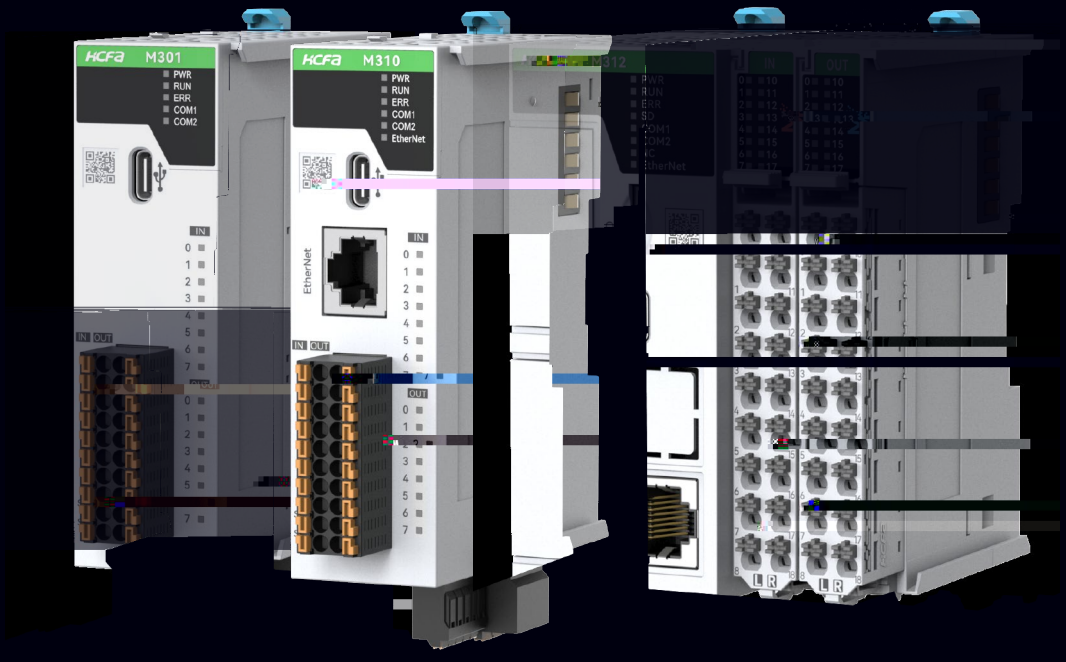

M301
PWR
RUN
ERR
COM1
COM2
M310
PWR
RUN
ERR
COM1
COM2
EtherNet
IN
OUT
L R

M300

M300 M300

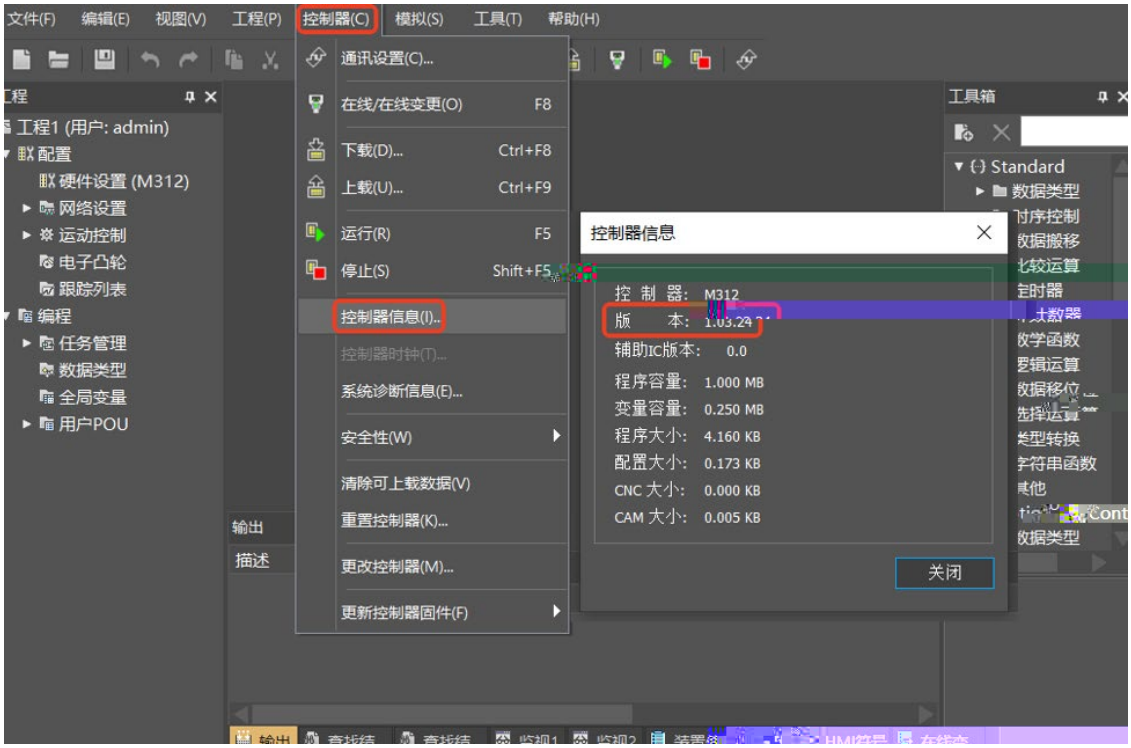
PLC 6

2 16 IO

		IO	
M CPU	HCM301-16MT4-D	8 8	CPU

	POWER INPUT
	DI x16 16 24V DC Sink/Source 24V
	DO x16 16 Sink 24V 24V DC 0.5A 0.5A/
	P/N S/N

→



V1.0	

CPU	I/O M300 HCM3 □ □ - □ □ □ □ - □
	Sysctrl Studio
	Sysctrl Studio
	PLCopen

-
-
- 400@hcfa.cn

..... 2

..... 2

..... 2

..... 3

..... 3

..... 4

..... 5

..... 5

M

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1.2 M 11

1.3 12

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1 M

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1.1.1 11
1.2 M 11
1.3 12
1.3.1 12
1.3.2 12

1.1 M300

	IO				
					USB
M301	8 8	4	-	1*RS485 1*RS232	1
M302					
M310			1		
M311					
M312	16 16	6		2*RS485	

- M

  M M312 CAN CAN IO

- USB/Type-C

  PC Sysctrl Studio USB/Type-C CPU

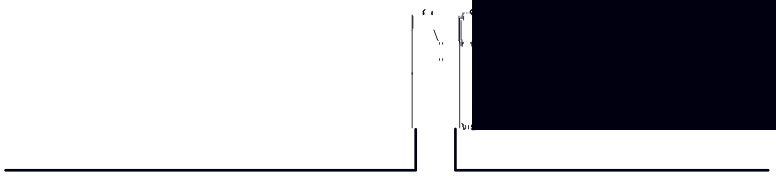
- EtherNet

  PC Sysctrl Studio

modbus TCP

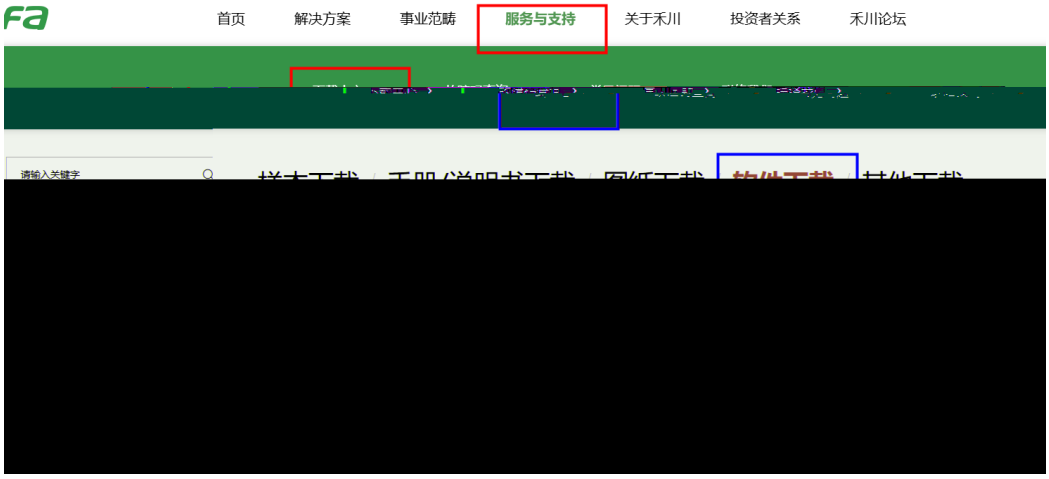
1.3

M300



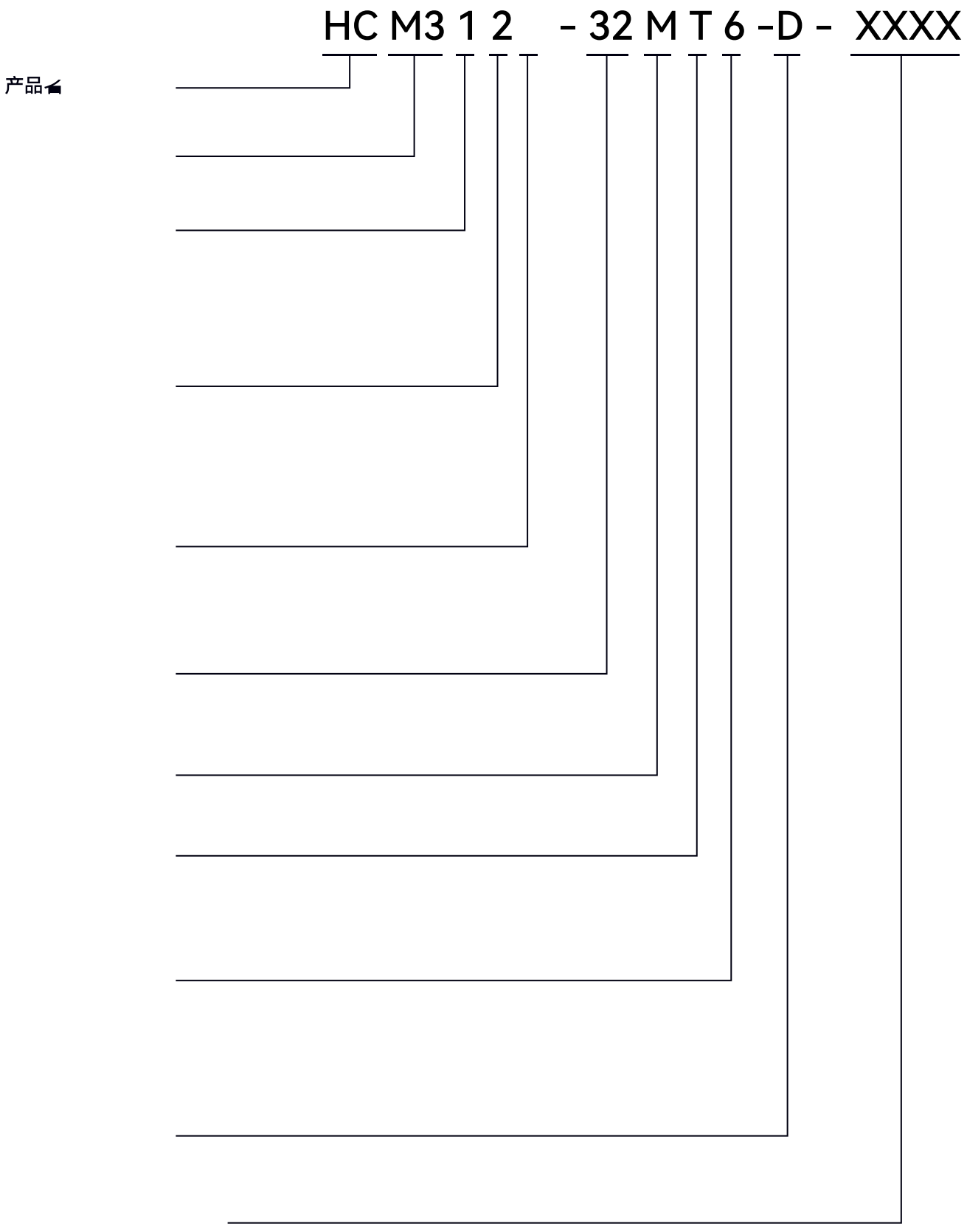
https://www.hcfa.cn →

→ M →



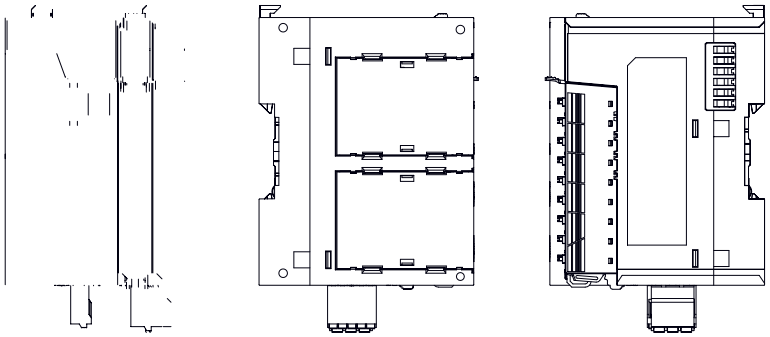
2 CPU

2.1



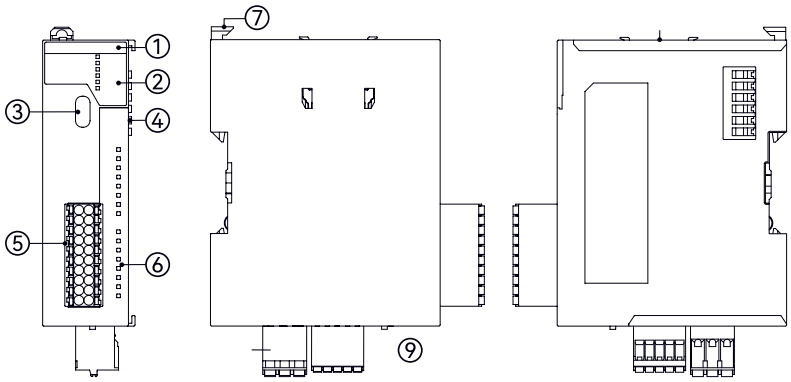
2.2

M312 CPU

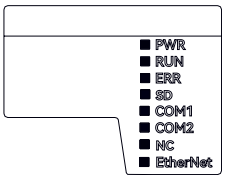


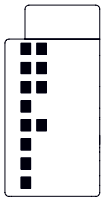
1		
2		CPU
3	Type-C	PLC
4		
5	RJ45	EtherNet
6	20Pin IO	
7		2.2.2
8		DIN
9	DC24V	CPU DC24V
10	5Pin	5.2.3
11	RTC	-
12		
13	RUN/STOP	CPU

M301/ M302 CPU



M312 CPU

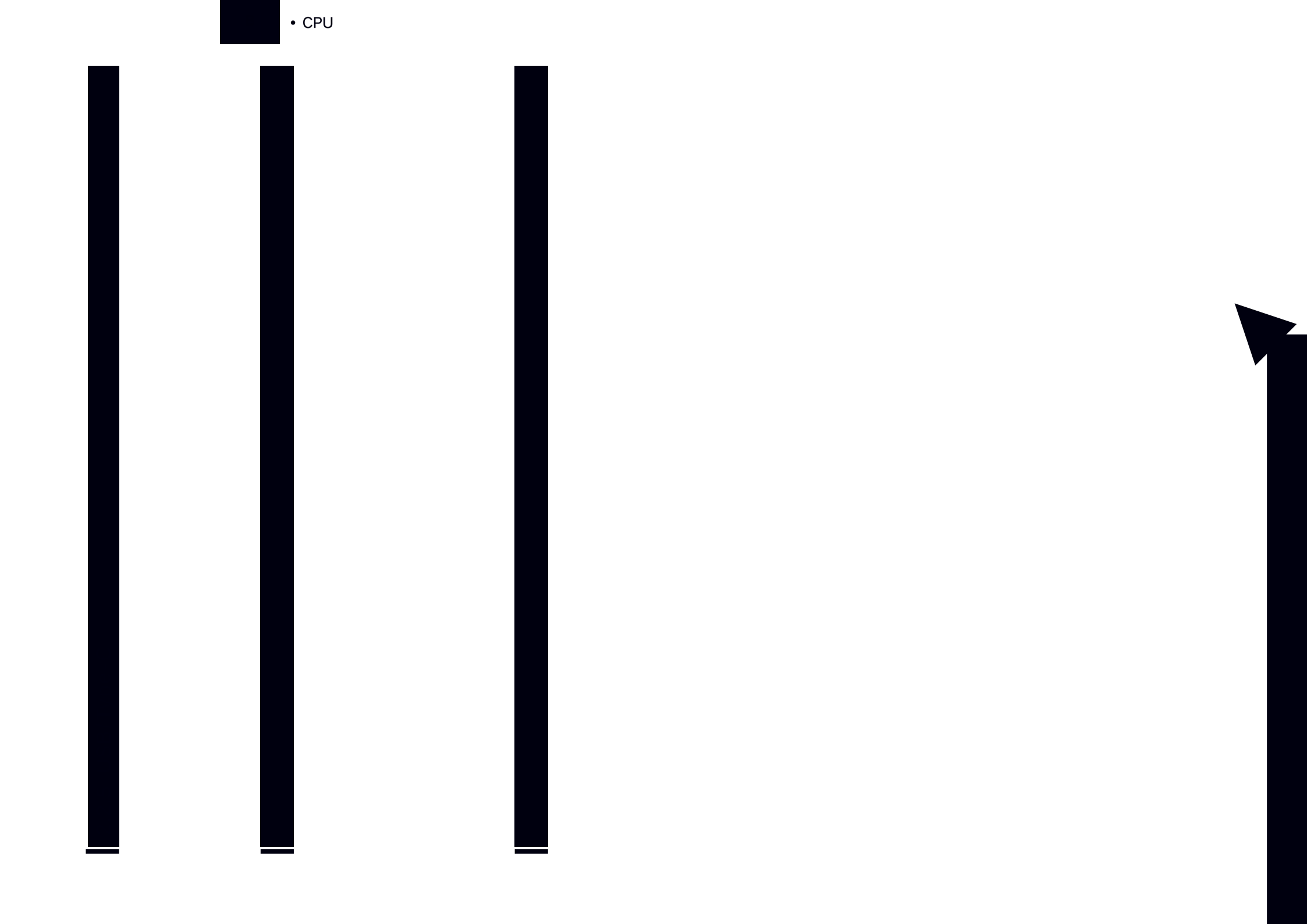




M301/ M302 CPU

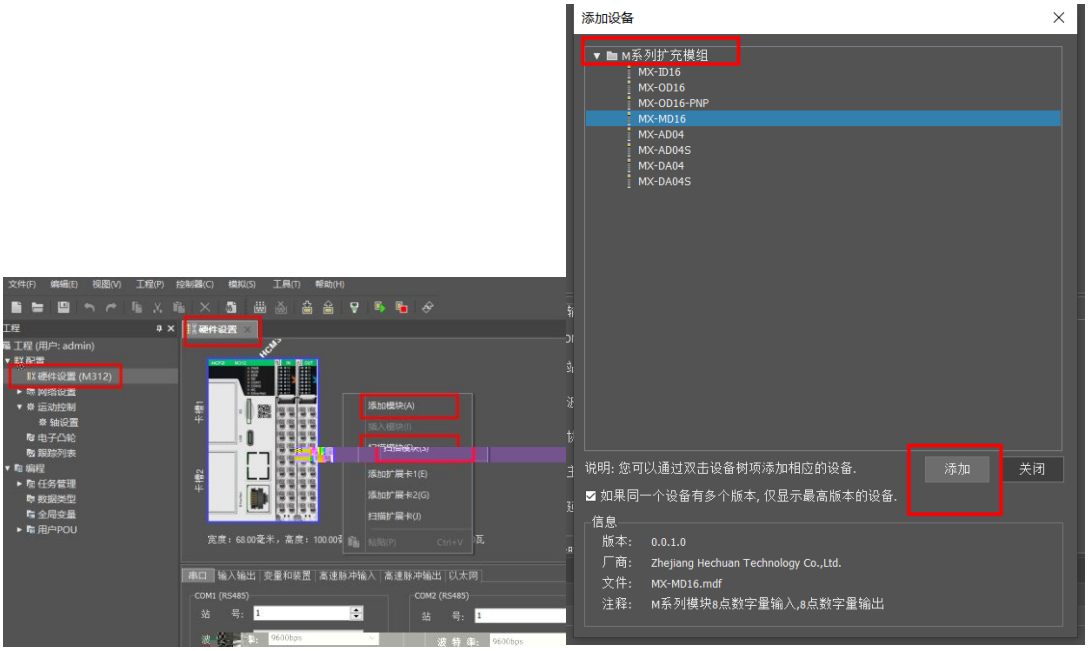
M301/M302

IN
0 ■
1 ■
2 ■
3 ■
4 ■
5 ■
6 ■
7 ■
OUT
0 ■
■
■
■
■
■
■
■

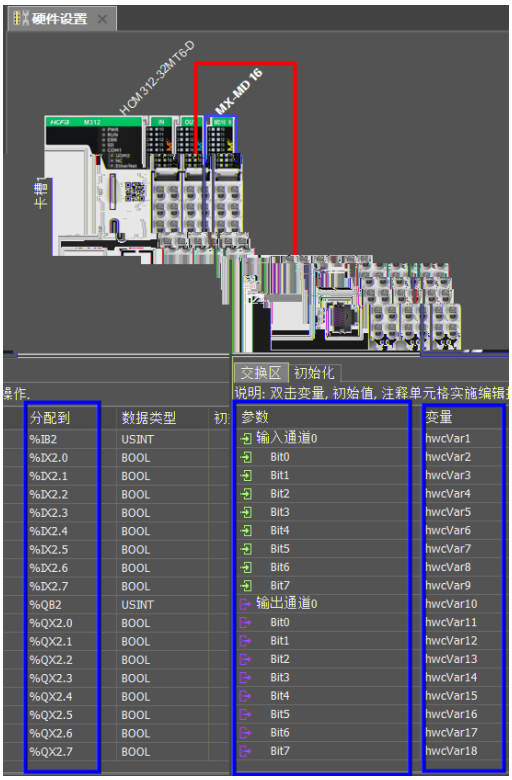

• CPU

CPU sysctrl studio →

M



IO



3

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3.5.2 RS485 27

3.5.3 CAN 27

3.1

		M312 235g M300 M312 145g
		M312 70.3 mm(W) *104.5 mm(H)*80.2 mm(D) M300 M312) 32.3 mm(W) *104.5 mm(H)*80.2 mm(D)
		0~55
		-25~70
		10 ~95%
	/	2000 m (80kPa)
		1500Vp-p 1μs 50ms IEC IEC61000-4-2/3/4/6
		Hz / m/s² / mm / X Y Z 10 DIN: 10~57 / 0.035 57~150 / 4.9 / 80
		150m/s² 11ms X Y Z 2
		IP20
		PPE
		CE

3.2

	DC20.4V~28.8V -15%~+20%
	5W
	500V 1min 10mA

3.3

			M301	M302	M310	M311	M312
			256KBytes		512KBytes		
			256KBytes (16KBytes)		256KBytes (32KBytes)		
	I %I		128Bytes				
	Q %Q		128Bytes				
	M %M		128KBytes				
			LD ST C/C++				
			4 100K		4 200K		6 200K
			2				
			≤ 16				
			≤ 16				
		+ +	≤ 16				
			16				
RTC							HCMXB-RTC-BD
			-				2
IO			8				16
			8 2 100K (AB +)		8 2 200K (AB +)		
			8				16
			4 100K (+)		4 200K (+)		6 200K (+)
			-	16	-	16	16
			-	32	-	32	32
			-	1 (8)	-	1 (8)	1 (8)
SD			-				1
USB			1 USB2.0 Type-C				
	RS485		1				4 2 HCMXB-2RS485-BD 2
			Modbus (ASCII/RTU)				
			32				
		bps	9600 19200 38400 57600 115200				
	RS232		1				HCMXB-2RS232-BD 2
			Modbus (ASCII/RTU)				
			1				
		bps	9600 19200 38400 57600 115200				

CAN		-	HCMXB-CAN-BD 1
		-	CANopen DS301 32
EtherNet		-	1
		-	
		-	100/10Mbps
	TCP	-	16(ModbusTCP+Socket + EtherNet/IP)
	Modbus TCP	-	(Client) (Se r er) 16 (Client) 16 (Se r er) 16
	Socket	-	:8, TCP/UDP
		-	
	Modbus TCP	✗ TCP ✗	

IO

		M312	M311/M310	M301/M302
		16		
		16 / 16 COM	8 / 8	COM
OFF		<10μA		
		0.5A/ 4A/		
		7.2W/ 24W/		
		5W/ 18W/		
		1mA / 5V		
	OFF -> ON	< 2.5μs		
	ON -> OFF	< 2.5μs		
		3.75kV		
		QX0.0~ QX0.7 QX1.0~ QX1.7	QX0.0~ QX0.7	

2 200 100

3.5

	RJ45
	100/10Mbps
	100m
	Modbus TCP EtherNet/IP Socket
IP	192.168.1.8

	5Pin
	9600 19200 38400 57600 115200bps
	500m 9600bps
	Modbus ASCII/RTU
	120Ω
	32

	RJ45
	1Mbps
	2500m 20kbit/s
	CANOpen
	120Ω
	32

4

4.1 29

4.1

1.

1-1	• DIN •	
1-2	•	

2.

2-1 EtherNet	• EtherNet/IP	
2-2 I/O	• I/O	
2-3 Sysctrl Studio	• USB • EtherNet/IP	

3.

3-1 IO	• • I/O •	CPU
3-2	•	
3-3	• /	
3-4	• —— • • /	
3-5	• POU •	

4.

4-1 Sysctrl Studio	• Sysctrl Studio	

5

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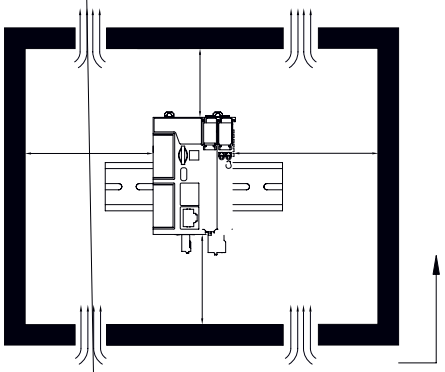
5.1

M312 CPU

20mm



M312 CPU

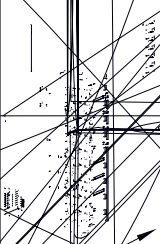
DIN

“ ”

DIN

“ ”

将双向联动卡扣上
部紧扣在DIN导轨上
并按压控制器下部



M

- 2

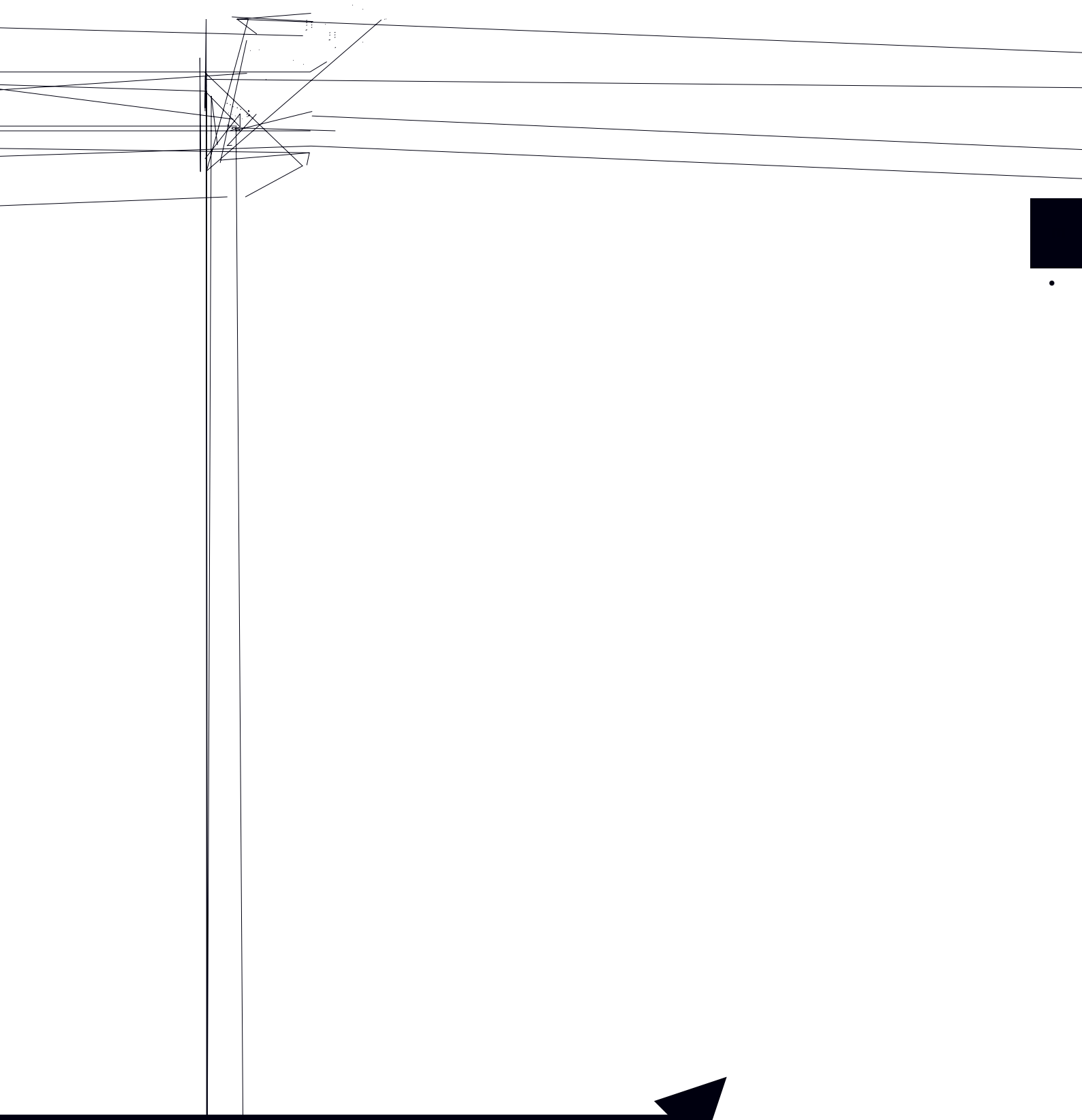
M312 CPU

-

RTC

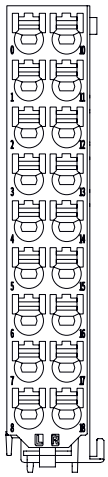
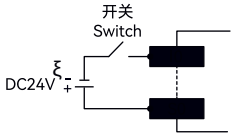
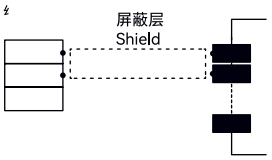
RTC

对准卡槽

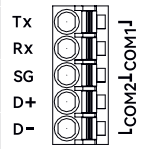
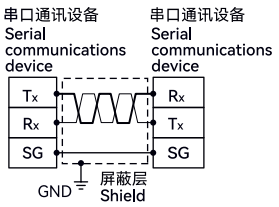
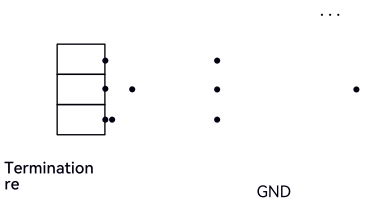


-

M312 CPU

			IN		OUT			IO	IO
0		10	I0	I10	Q0	Q10			

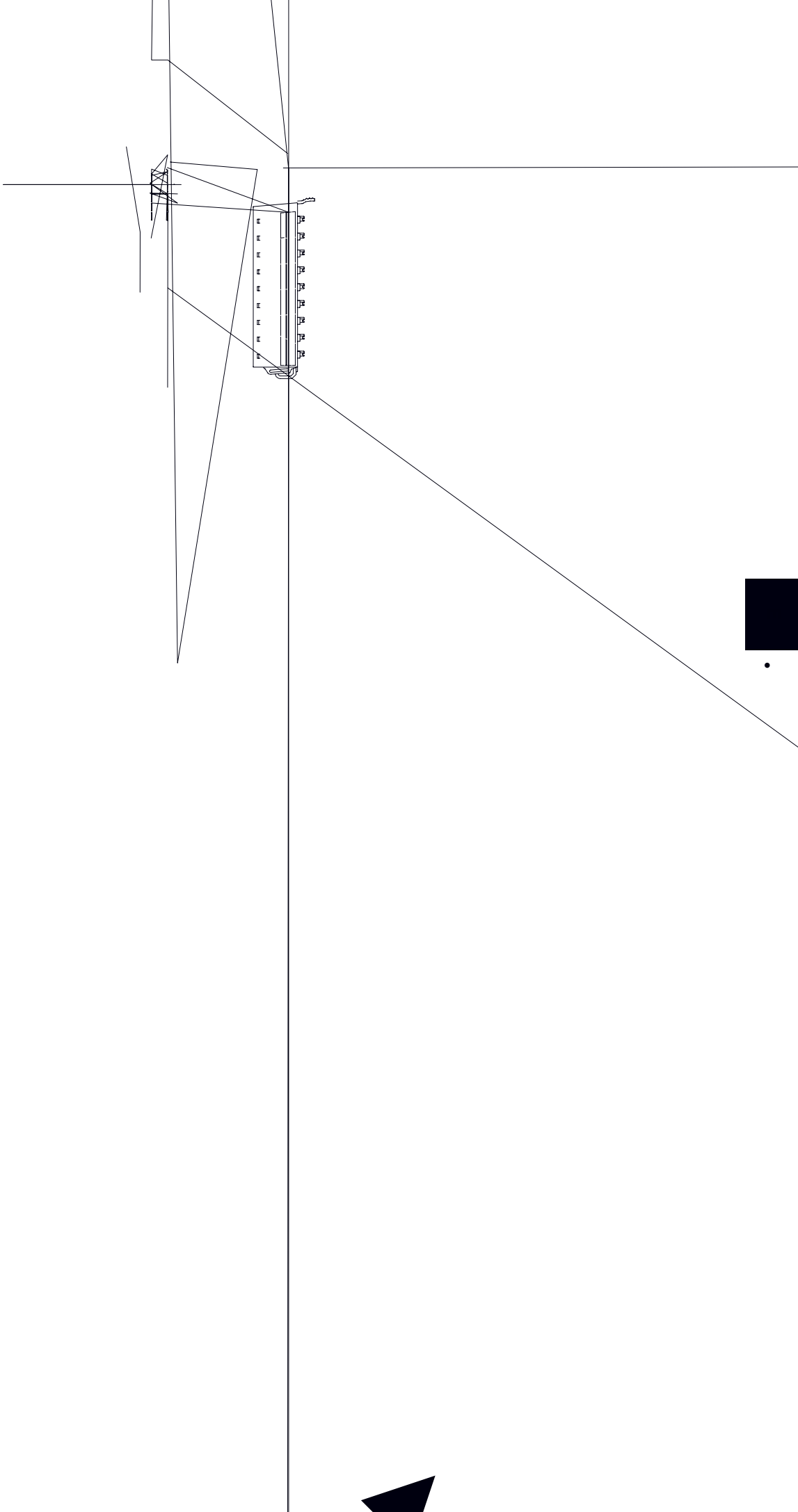
M300 CPU M312

5Pin			RS232	RS485
COM1 RS232	Tx			

M312 CPU

M300 CPU M312

W



6

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6.3.5 CANopen 50
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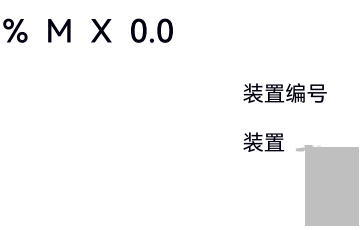
6.4.1 RS485 50
6.4.2 RS485 50
6.4.3 RS485 51
6.4.4 RS485 51
6.4.5 RS485 51
6.5 RS232 52
6.5.1 RS232 52
6.5.2 RS232 53
6.5.3 RS232 53
6.5.4 RS232 53
6.5.5 RS232 53

6.1 Modbus



MODBUS 03/06/10/01/02/05/0F RS232 RS485

%QX50.0~%QX127.7

			Modbus
I	bit	%IX0.0~%IX0.7	0x6000~0x6007
		%IX1.0~%IX1.7	0x6008~0x600F
		%IX127.0~%IX127.7	0x63F8~0x63FF
	word	%IW0~%IW63	0x8000~0x803F
Q	bit	%QX0.0~%QX0.7	0xA000~0xA007
		%QX1.0~%QX1.7	0xA008~0xA00F
		%QX127.0~%QX127.7	0xA3F8~0xA3FF
	word	%QW0~%QW63	0xA000~0xA03F
M	word	%MW0~%MW32767	0x0000~0x7FFF

QX MODBUS :

QXA.B A*8+B 16 +16#A000

%QX50.1 Modbus 0xA191 50*8+1=401=16#191

16#191+16#A0000=0xA191

6.2 EtherNet

Ethernet IP 192.168.1.8 y

				Modbus TCP EtherNet/IP Socket
				100
Modbus TCP EtherNet/IP Socket				16
Modbus TCP	Client Se r er			16
Socket	TCP UDP			

* PDO PDO 8

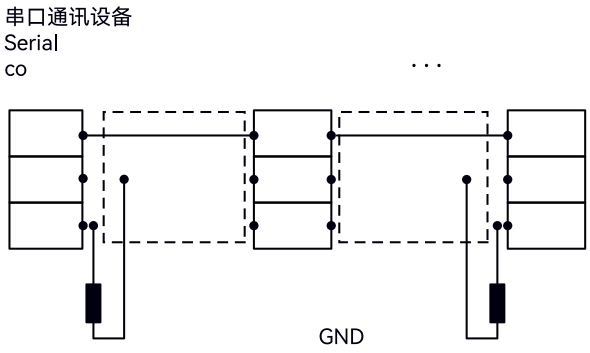
SDO

PDO SDO

8	SINT USINT BYTE
16	INT UINT WORD
32	DINT UDINT REAL DWORD

ˇÍ Z 1-65535ms **& î T E ȯ ¡ ȯ &**

M300 RS485 Modbus Modbus
PLC Modbus M300 RS485
32 RS485 1~255



	0x03			100	%MW,%QW,%IW
	0x04	M 04		100	%MW,%QW,%IW
	0x06			1	%MW,%QW
	0x10			100	%MW,%QW
	0x17			100	%MW,%QW, %IW

M300 RS485

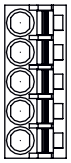
1		
2	Modbus	Modbus
3		WORD 100 WORD bit 256
7		

6.5 RS232

M312 RS232 1 RS232 RS232 1 RS232 HCMXB-2RS232-BD RS232

RS232			RS232 1	RS232 2
RS232 1	Tx1		串口通	

M300 RS232 RS485 RS232

		RS232
Tx		串口通讯设备 Seria

M300 RS232

				/	
	0x01	M 01		256	%IX,%QX
	0x02	M 02		256	%IX,%QX
	0x05			1	%QX
	0x0F			256	%QX
	0x03			100	%MW,%QW,%IW
	0x04	M 04		100	%MW,%QW,%IW
	0x06			1	%MW,%QW
	0x10			100	%MW,%QW
	0x17			100	%MW,%QW, %IW

M300 RS232

1		
2	Modbus	Modbus
3		WORD 100 WORD bit 256
7		