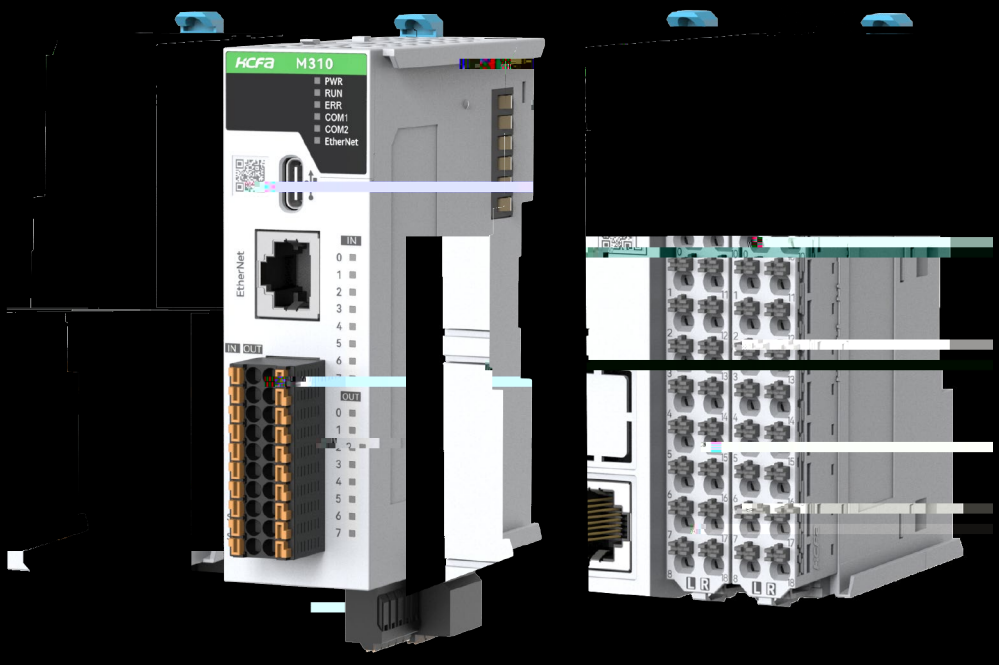

HCFa
M310
PWR
RUN
ERR
COM1
COM2
EtherNet
IN
OUT
L R

[redacted]

[redacted]

[redacted]

[redacted]

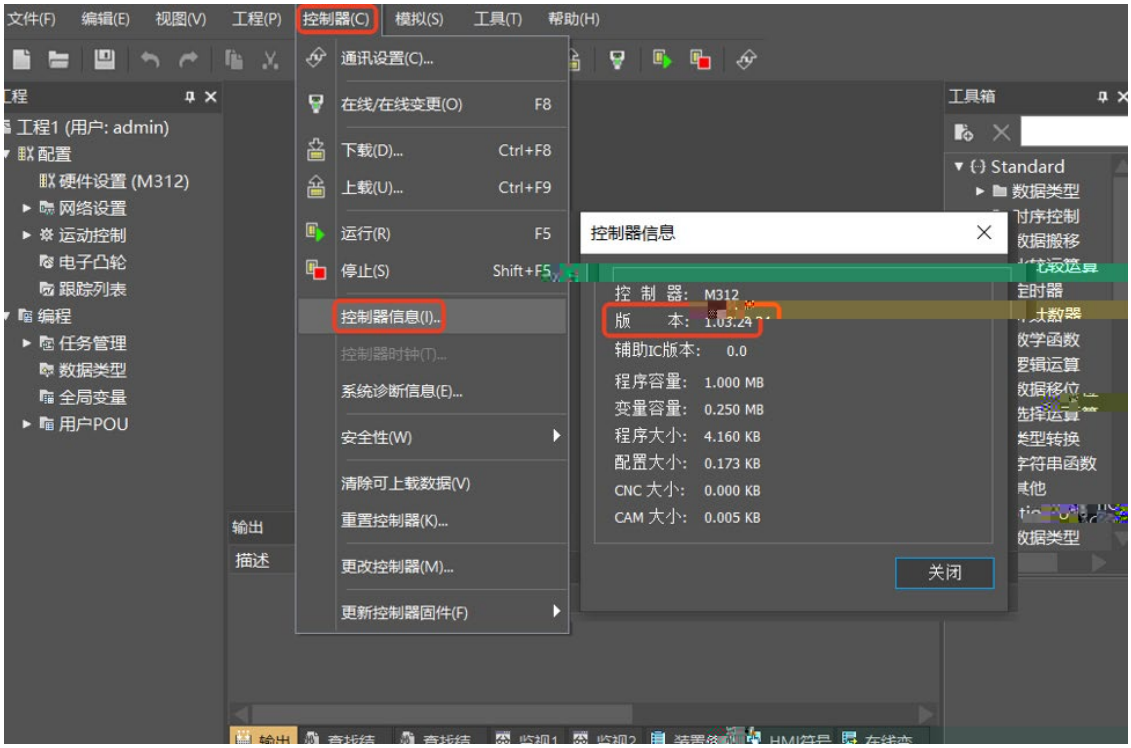
[redacted]

[redacted]

[redacted]

	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

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1.1 M300

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					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

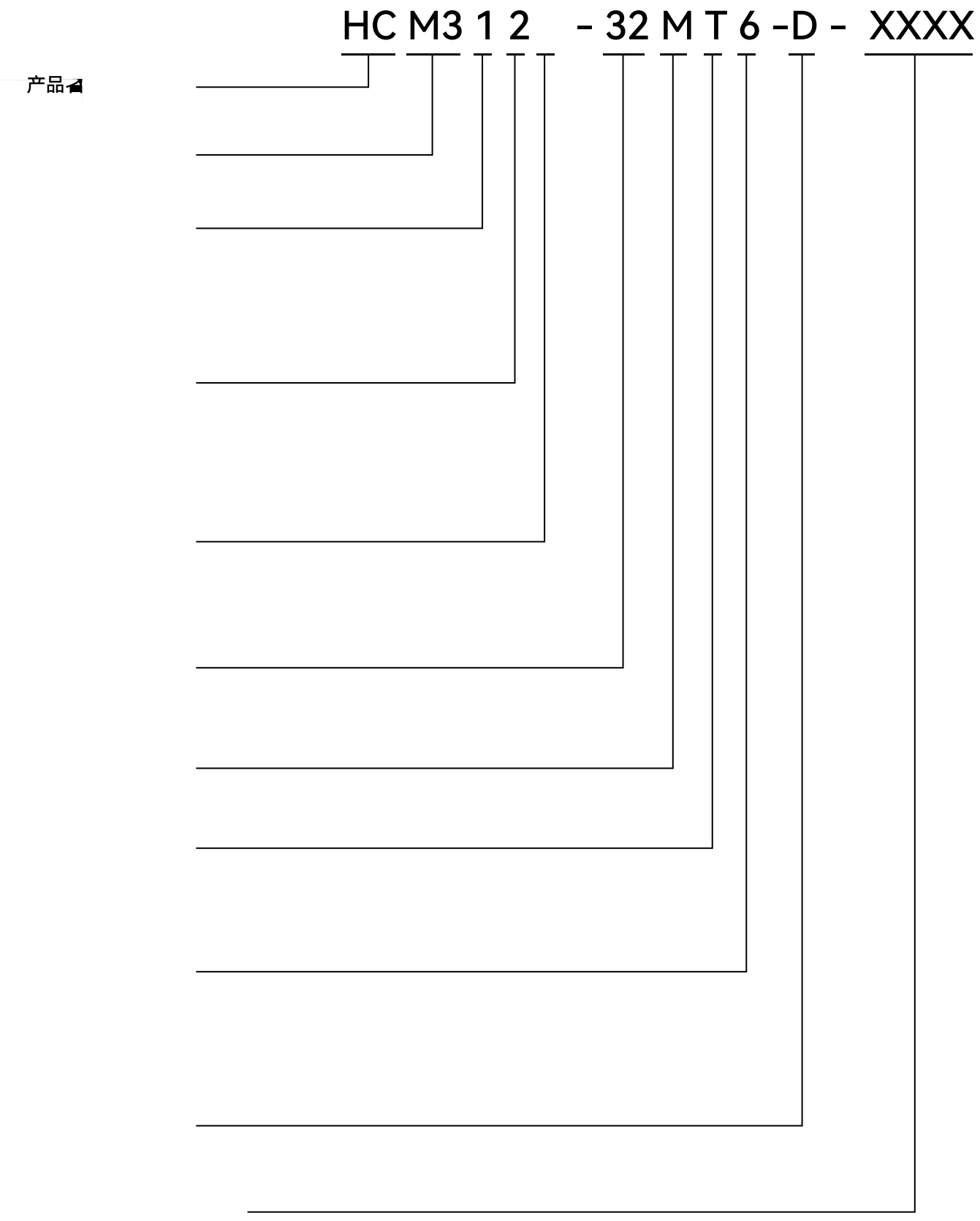
  PC Sysctrl Studio

modbus TCP

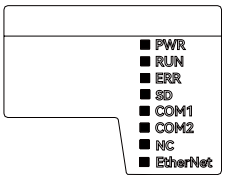
2 CPU

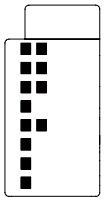
Ó— 2

2.1



M312 CPU





CPU sysctrl studio →

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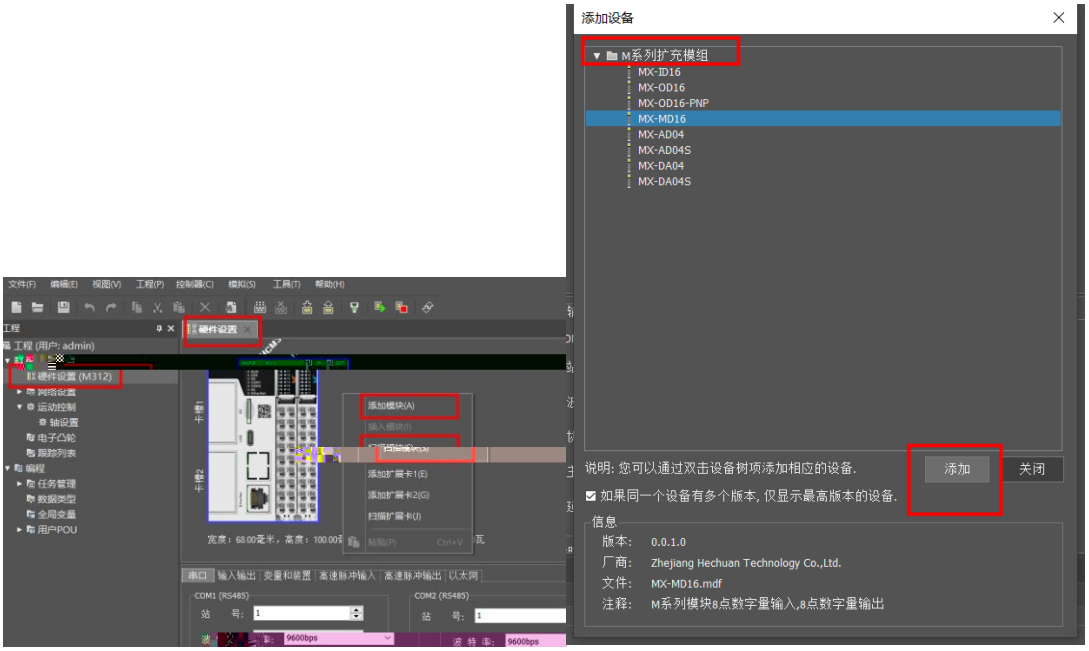
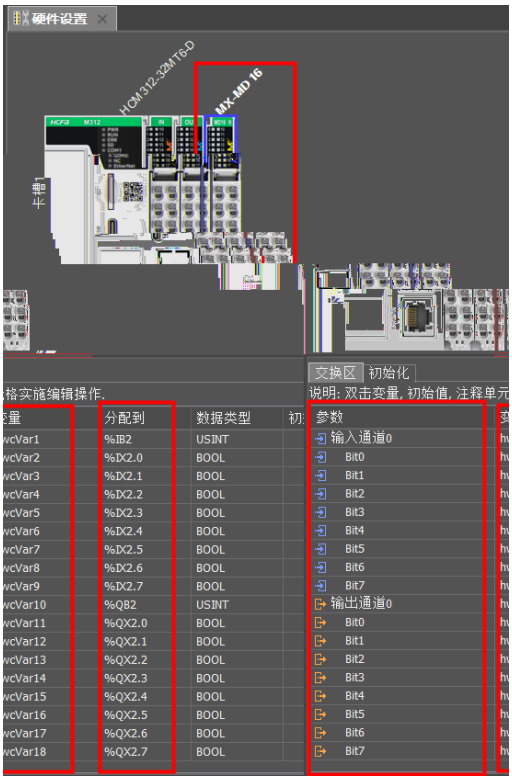


IO



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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
		150m/s² 11ms X Y Z 2
		IP20
		PPE
		CE

	Hz	m/s²	mm	X Y Z 10 80	
DIN	10~57		0.035		
	57~150	4.9			

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
		-	

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	

			M311/M310	M301/M302
		2		
		200KHZ		
AB		1 IX0.0~IX0.1	2 IX0.2~IX0.3	
		1 IX0.0	2 IX0.2	
		IX0.0~IX0.7		
	+	1 IX0.0 IX0.1	2 IX0.2 IX0.3	
		6	4	
	+	QX0.0~ QX0.7 QX1.0~ QX1.3	QX0.0~ QX0.7	

M311/M310	M301/M302

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 •	

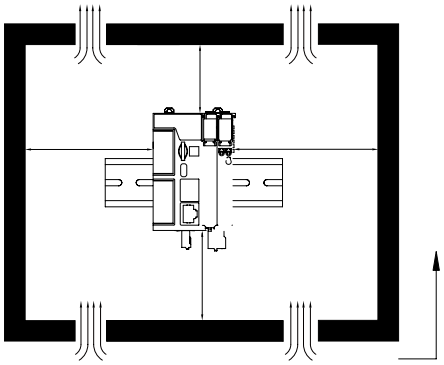
4.

4-1 Sysctrl Studio	• Sysctrl Studio	

5.1

M312 CPU

20mm



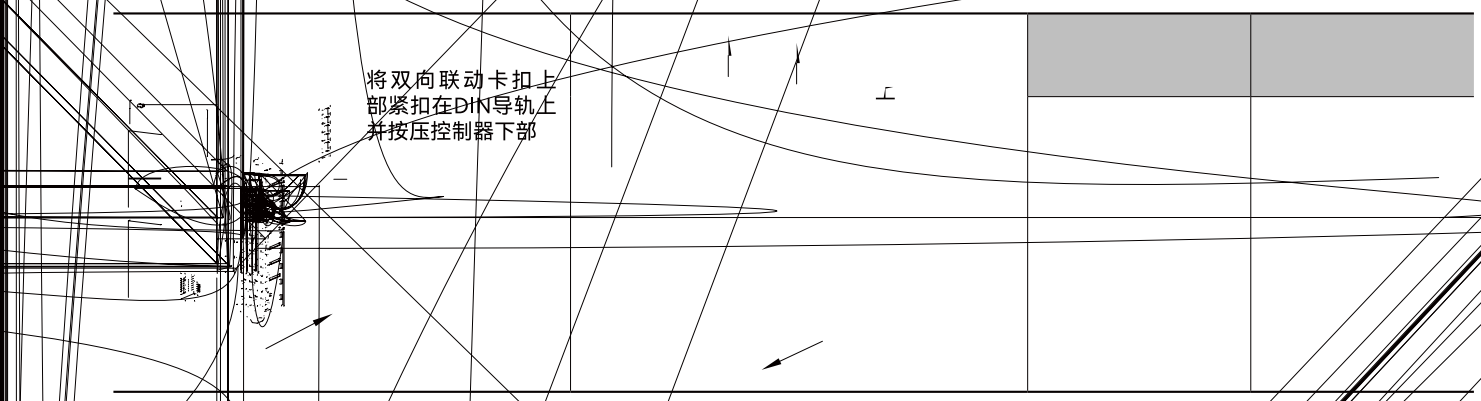
M312 CPU

DIN

“ ”

DIN

“ ”



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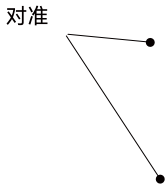


- 2

M312 CPU

•

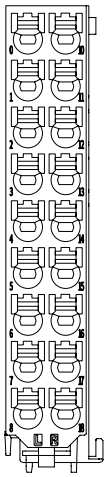
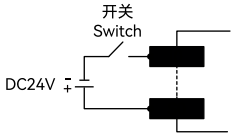
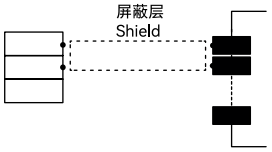
RTC

RTC

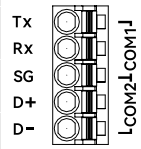
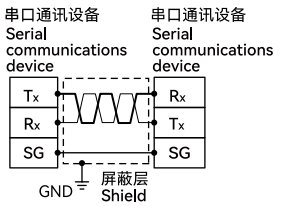
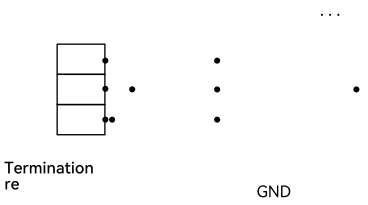
对准卡槽

•

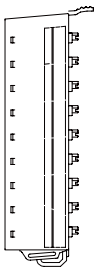
M312 CPU

			IN		OUT			IO	IO
0		10	I0	I10	Q0	Q10			

M300 CPU M312

5Pin			RS232	RS485
COM1 RS232	Tx			

M312 CPU



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6.5.3 RS232 53
6.5.4 RS232 53
6.5.5 RS232 53

6.1 Modbus

[redacted]

％ Ｍ Ｘ 0.0

装置编号

装置

%MB8~%MB15 %MW4~%MW7 , %MH ไ ؤ f Ꭾ %MH

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.

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

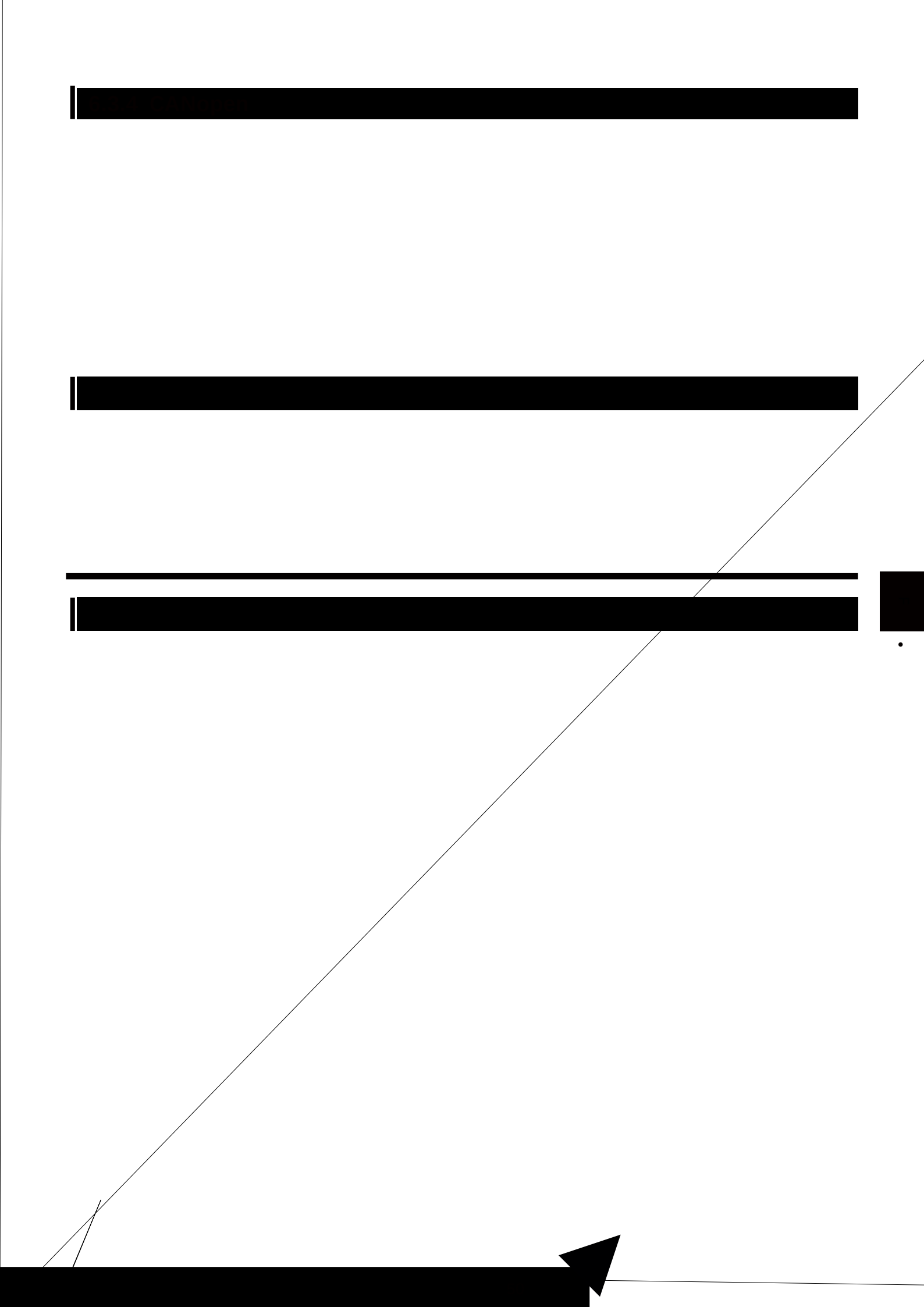
* PDO PDO 8

SDO

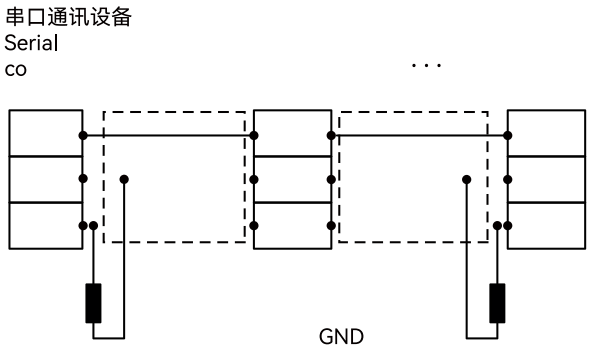
PDO SDO

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

1-65535ms



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

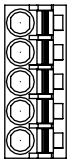
1		
2	Modbus	Modbus
3		WORD 100 WORD bit 256
7		

6.5 RS232

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

RS232			RS232 1	RS232 2
RS232 1	Tx1	Tx1 Rx1 SG SG Tx2 Rx2	串口通	

M300 RS232 RS485 RS232

		RS232
Tx		串口通讯设备 Seri

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		