变频器调试手册

一面板的手动调试工作

使用面板调试 g120 的注意事项，变频器此时采用端子控制。

调试流程。

1. 变频器的复位工作

防止由于未知的原因造成的变频器参数的不正确的现象。

2. 快速调试（p10=1 处于快速调试中）

调试基本的参数

P1300 v/f 控制

P100 50hz

P304 电机的电压 380v

P305 电机的额定工作电流 1.21a

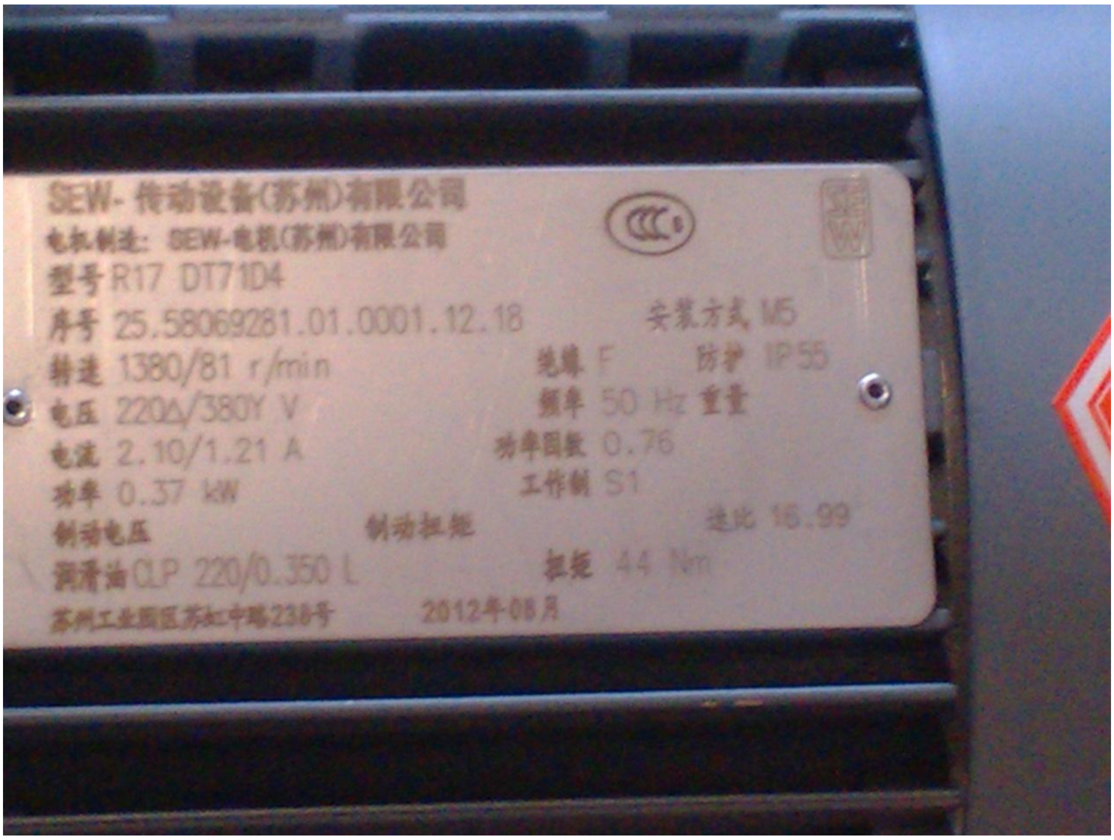
P307 电机的功率 0.37kw

P308 电机的功率因数 0.76

P311 电机的额定转速 1380r

P1900 为 0（不采用静态和动态的优化）

P15 宏的选择，选择为 1（根据自己的审定自行选择）



SEW-传动设备(苏州)有限公司
电机制造：SEW-电机(苏州)有限公司
型号 R17 DT71D4
序号 25.58069281.01.0001.12.18 安装方式 M5
转速 1380/81 r/min 绝缘 F 防护 IP55
电压 220Δ/380Y V 频率 50 Hz 重量
电流 2.10/1.21 A 功率因数 0.76
功率 0.37 kW 工作制 S1
制动电压 制动扭矩 速比 16.99
润滑油 CLP 220/0.350 L 扭矩 44 Nm
苏州工业园区苏虹中路238号 2012年08月

3. 根据自己的端口的定义进行新的设定

DI0 启动 r722.0 p840

Di1 反转 r722.1 p1113

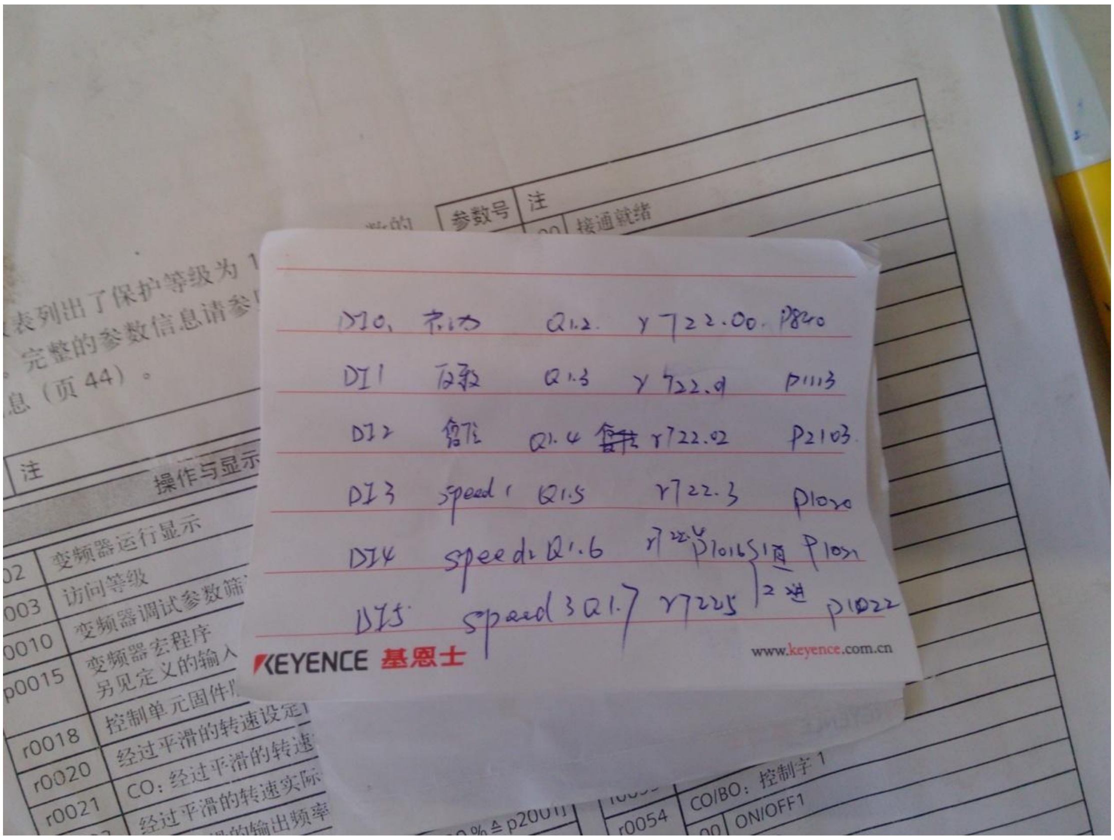
Di2 复位 r722.2 p2103

Di3 高速 r722.3 p1020
Di4 中速 r722.4 p1021
Di5 低速 r722.5 p1022

以上修改的方法是，将你的参数调整大 p840，然后将其内容修改为 r722.0，其余的类似。

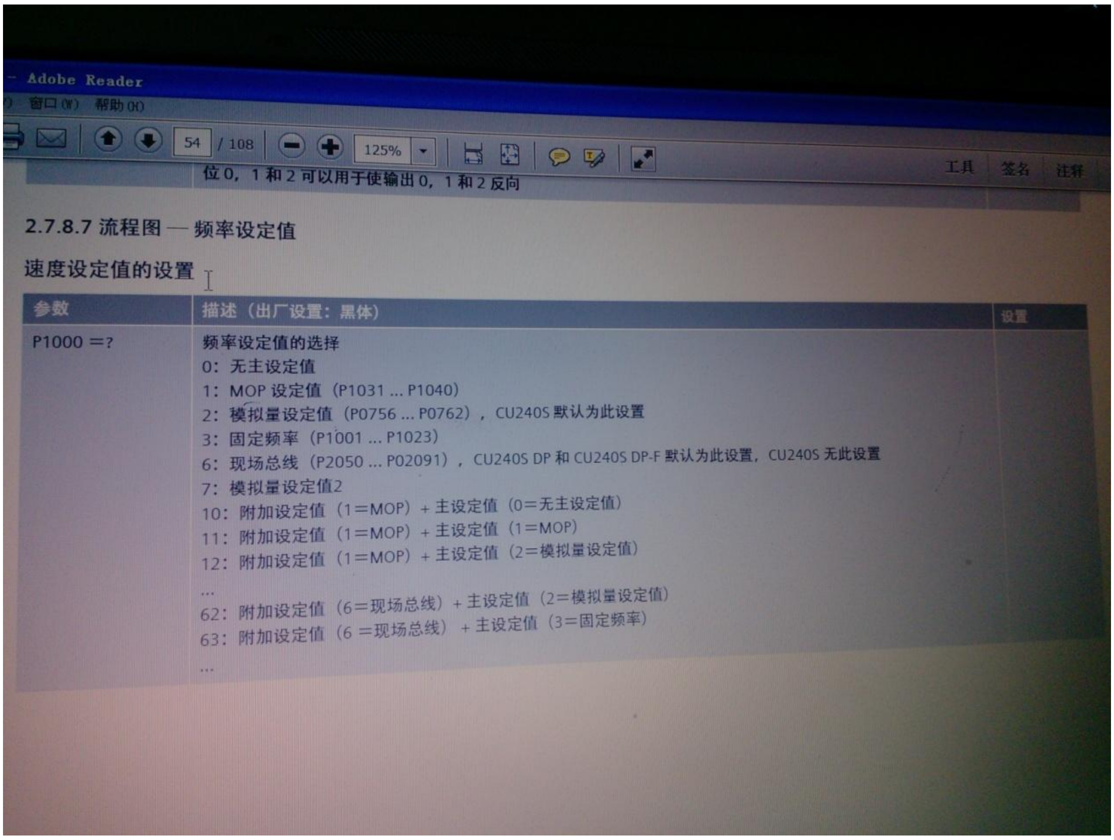
其中速度设定 p1001=1380
P1002=1100
P1003=900

检查部分参数 p1000=3 端子控制
P1016=1 直接选择速度



DI0、	启动	Q1.2.	r722.00.	p840
DI1	复位	Q1.3	r722.1	p1113
DI2	急停	Q1.4 ~~急停~~	r722.02	p2103
DI3	speed1	Q1.5	r722.3	p1020
DI4	speed2	Q1.6	r722.4 p1016 1直 2进	p1021
DI5	speed3	Q1.7	r722.5	p1022

KEYENCE 基恩士 www.keyence.com.cn



位 0，1 和 2 可以用于使输出 0，1 和 2 反向

2.7.8.7 流程图 — 频率设定值

速度设定值的设置

参数	描述（出厂设置：黑体）	设置
P1000 =?	频率设定值的选择 0：无主设定值 1：MOP 设定值（P1031 ... P1040） 2：模拟量设定值（P0756 ... P0762），CU240S 默认为此设置 3：固定频率（P1001 ... P1023） 6：现场总线（P2050 ... P02091），CU240S DP 和 CU240S DP-F 默认为此设置，CU240S 无此设置 7：模拟量设定值2 10：附加设定值（1=MOP）+ 主设定值（0=无主设定值） 11：附加设定值（1=MOP）+ 主设定值（1=MOP） 12：附加设定值（1=MOP）+ 主设定值（2=模拟量设定值） ... 62：附加设定值（6=现场总线）+ 主设定值（2=模拟量设定值） 63：附加设定值（6 =现场总线） + 主设定值（3=固定频率） ...	

4. 测试（通过 plc 进行简单的测试）

注意你的接线问题，首先因为你需要使用的是外部的 24v，因此你需要将外界的 M 与变频器的 DIcom 连接。

通过 plc 建立变量表，然后通过强制的方式进行相应的测试，例如

激活高速和启动，测试高速

激活中速和启动，测试中速

激活低速和启动，测试低速

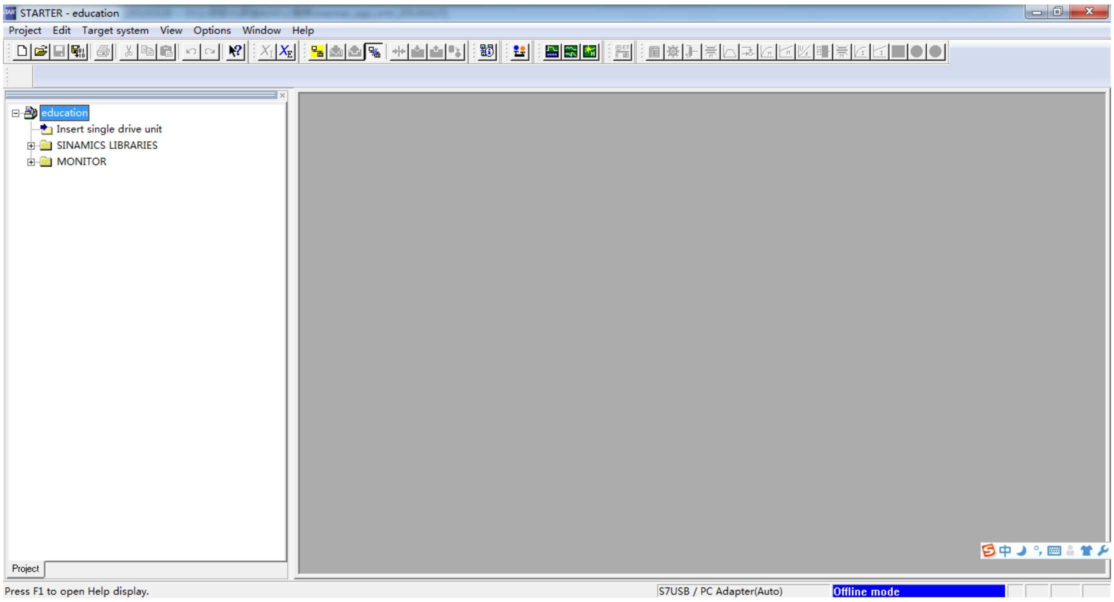
激活高速 反向 启动，测试反向的高速

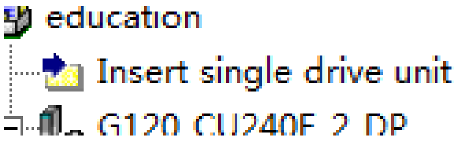
将输出的电机接线其中的一项摘除，注意将拿下的电缆进行绝缘处理，然后选择一种方式激活电机，这时变频器会报警，通过复位点进行复位的测试。

二 STARTER 调试

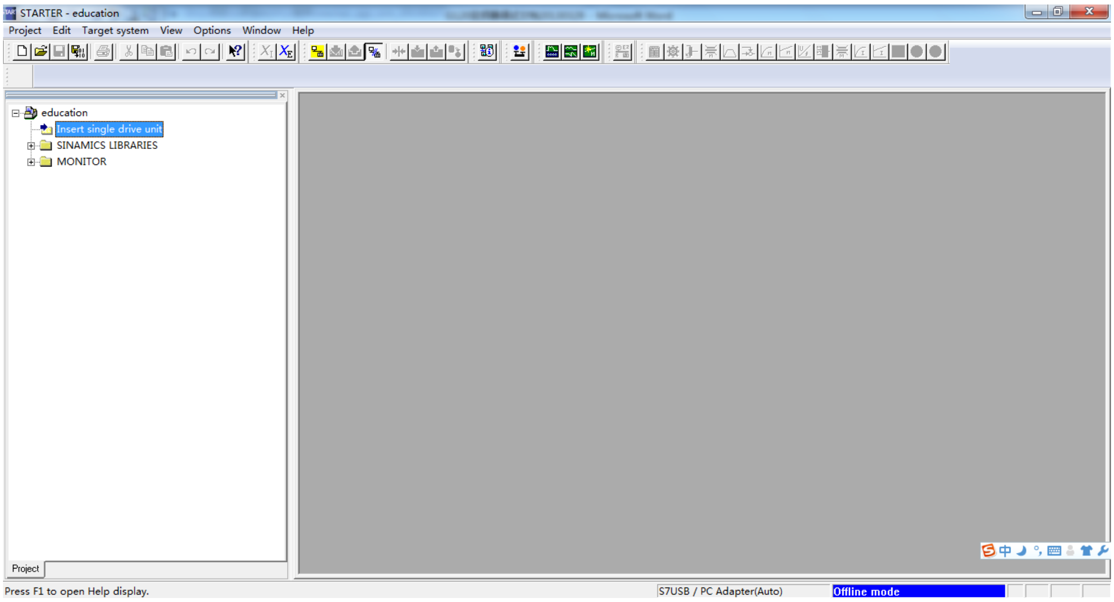
通过 starter 软件实现上述的功能

1. 首先你新建一个 education 的项目

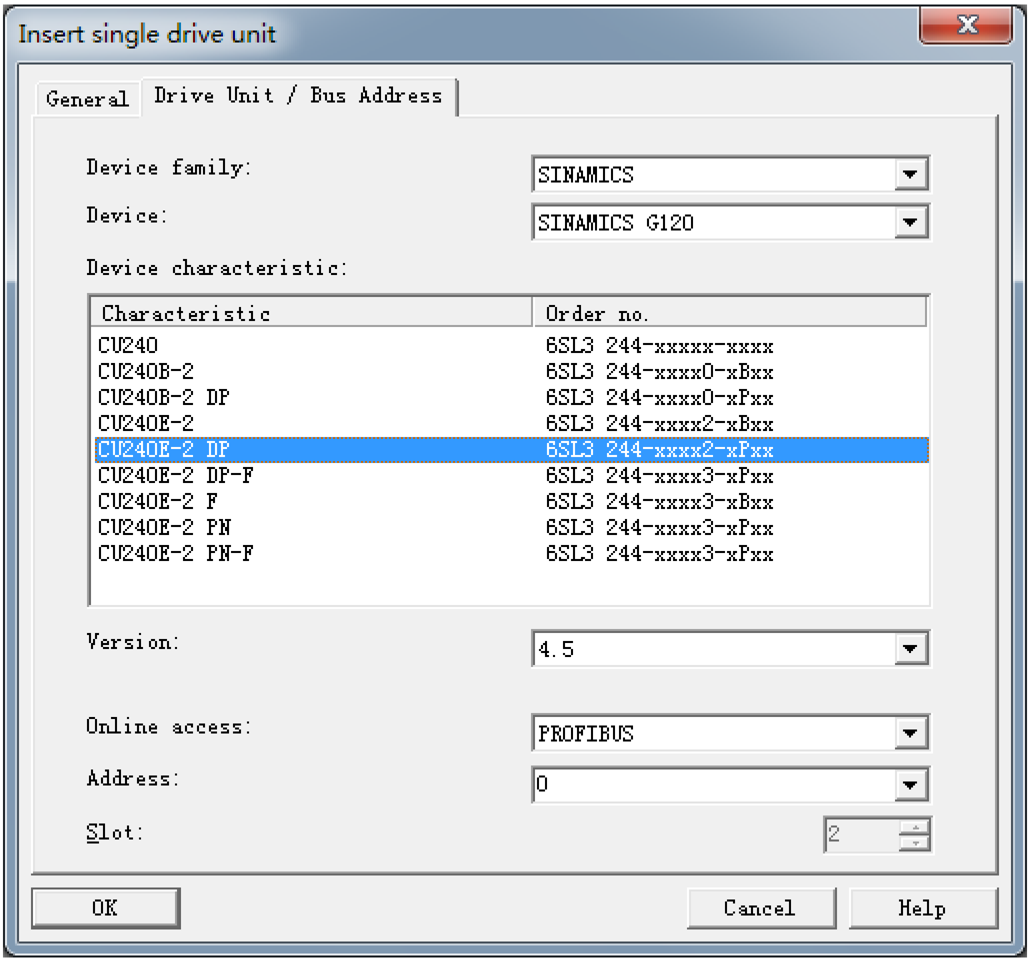

STARTER - education
Project Edit Target system View Options Window Help
education
Insert single drive unit
SINAMICS LIBRARIES
MONITOR
Project
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

2. 双击  insert single drive unit

education
Insert single drive unit
G120 CU240E 2 DP


STARTER - education
Project Edit Target system View Options Window Help
education
Insert single drive unit
SINAMICS LIBRARIES
MONITOR
Project
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

3. 然后出现如下图所示内容，根据你的变频器选择控制单元为 cu240e-2dp


Insert single drive unit
General
Drive Unit / Bus Address
OK
Cancel
Help

Device family: SINAMICS

Device: SINAMICS G120

Device characteristic:

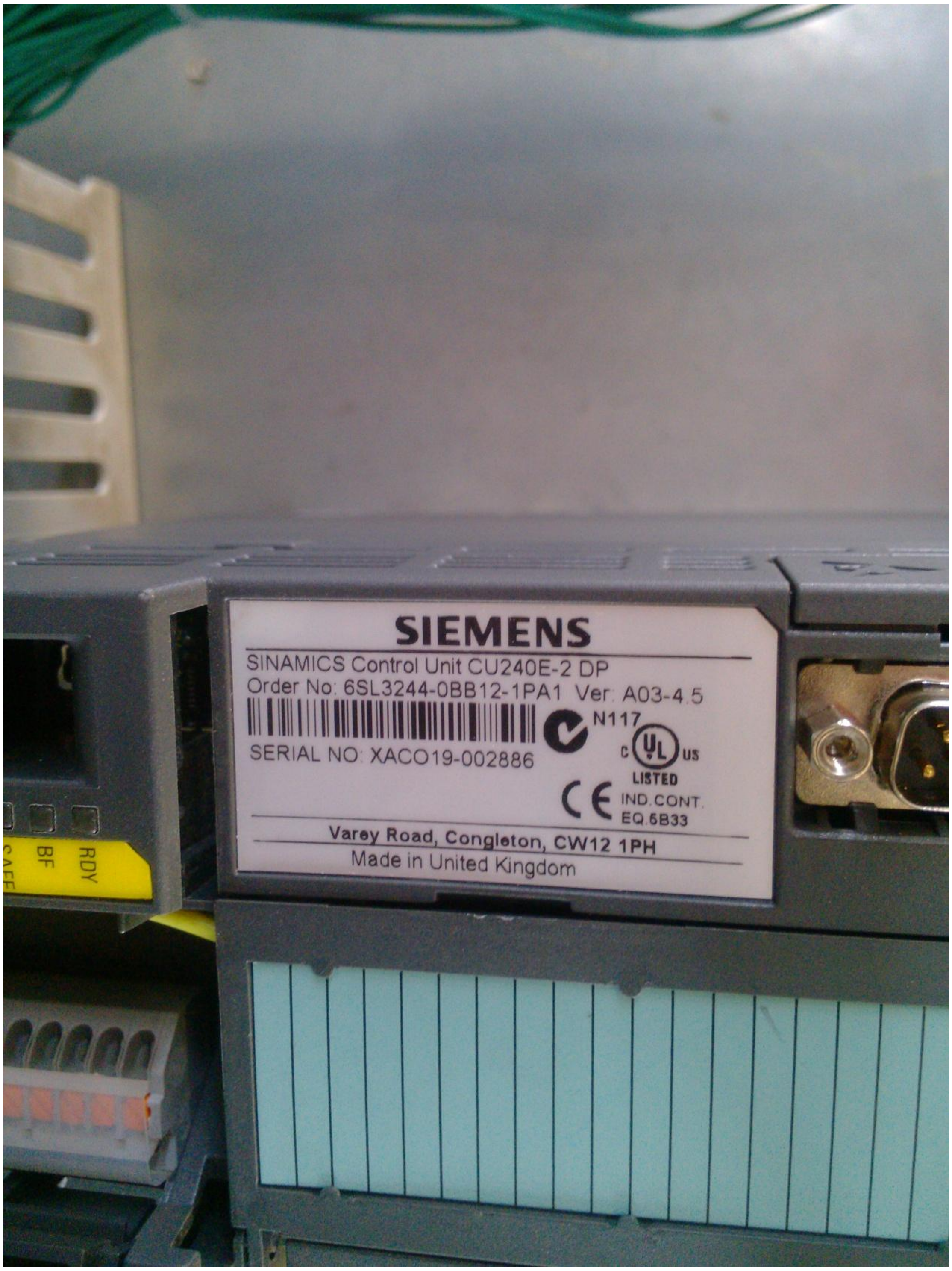
Characteristic	Order no.
CU240	6SL3 244-xxxxx-xxxx
CU240B-2	6SL3 244-xxxx0-xBxx
CU240B-2 DP	6SL3 244-xxxx0-xPxx
CU240E-2	6SL3 244-xxxx2-xBxx
CU240E-2 DP	6SL3 244-xxxx2-xPxx
CU240E-2 DP-F	6SL3 244-xxxx3-xPxx
CU240E-2 F	6SL3 244-xxxx3-xBxx
CU240E-2 PN	6SL3 244-xxxx3-xPxx
CU240E-2 PN-F	6SL3 244-xxxx3-xPxx

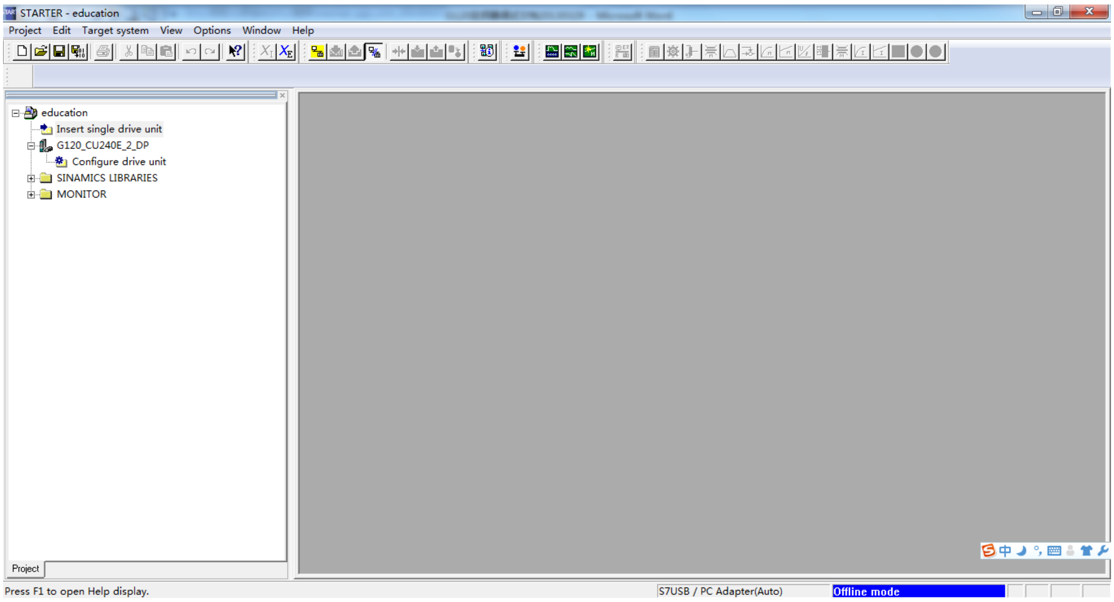
Version: 4.5

Online access: PROFIBUS

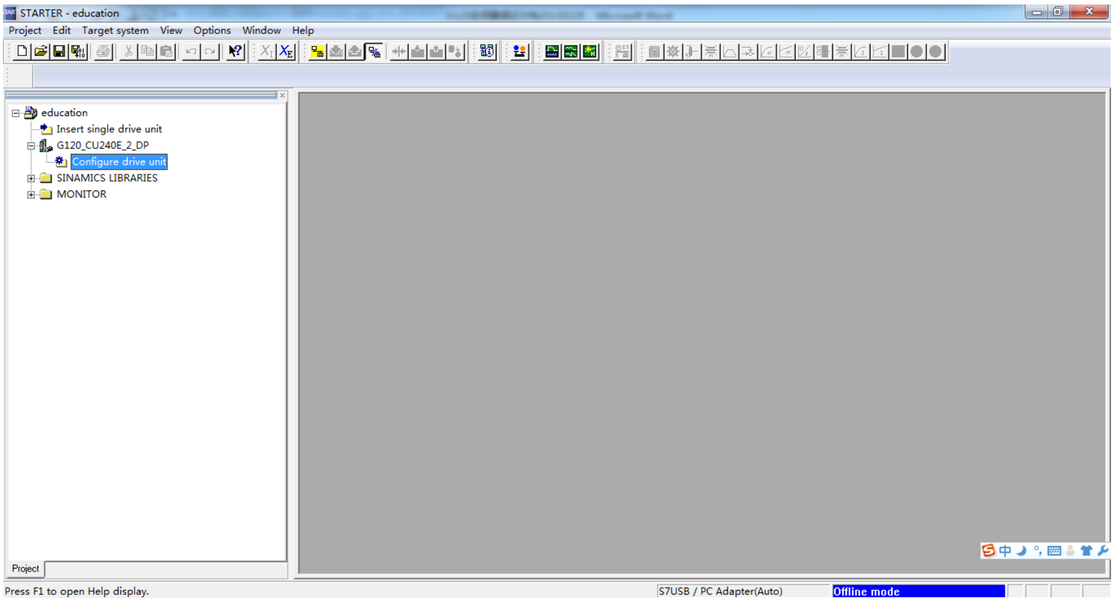
Address: 0

Slot: 2

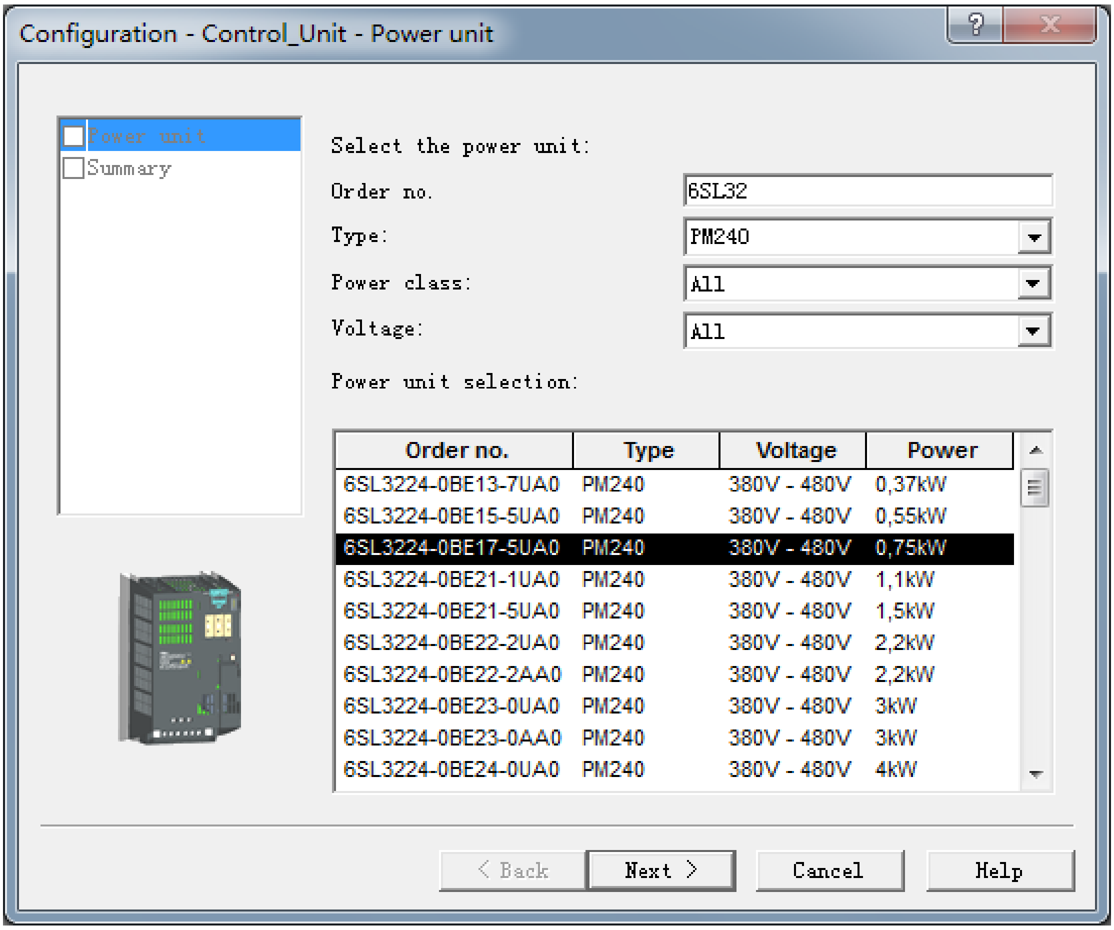

SIEMENS
SINAMICS Control Unit CU240E-2 DP
Order No: 6SL3244-0BB12-1PA1 Ver: A03-4.5
N117
SERIAL NO: XACO19-002886
LISTED
IND.CONT.
EQ.5B33
Varey Road, Congleton, CW12 1PH
Made in United Kingdom
RDY
BF
SAFE


STARTER - education
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
SINAMICS LIBRARIES
MONITOR
Project
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

4. 双击 configure drive unit


STARTER - education
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
SINAMICS LIBRARIES
MONITOR
Project
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

5. 选择与变频器匹配的功率模块


Configuration - Control_Unit - Power unit
? X
☐ Power unit
☐ Summary
‹ Back
Next ›
Cancel
Help

Select the power unit:

Order no.: 6SL32

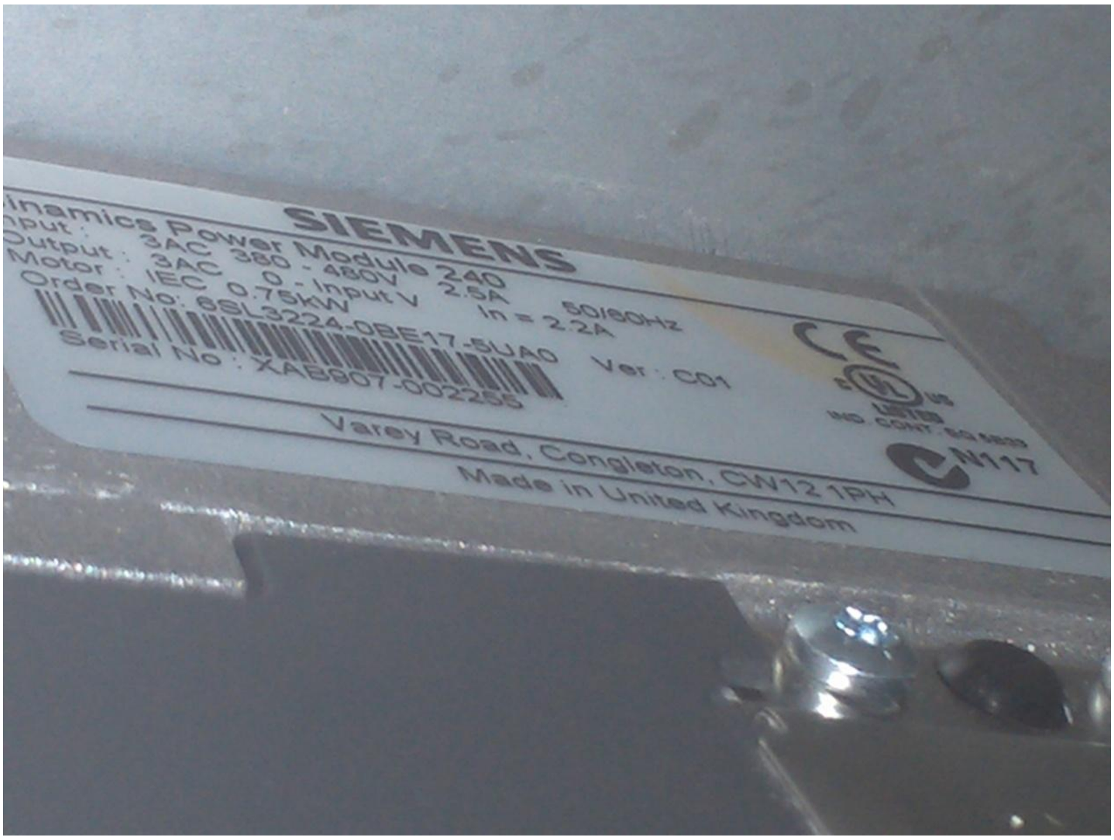
Type: PM240

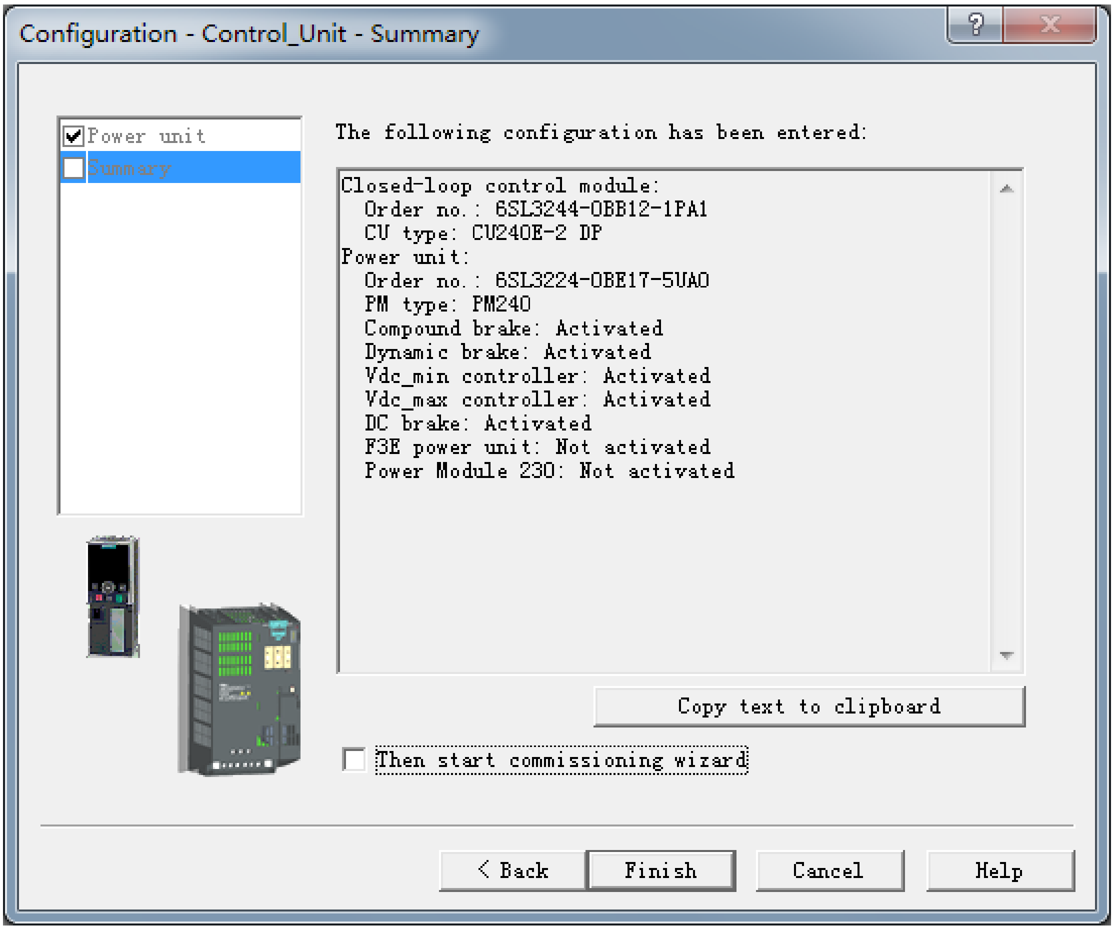
Power class: All

Voltage: All

Power unit selection:

Order no.	Type	Voltage	Power
6SL3224-0BE13-7UA0	PM240	380V - 480V	0,37kW
6SL3224-0BE15-5UA0	PM240	380V - 480V	0,55kW
6SL3224-0BE17-5UA0	PM240	380V - 480V	0,75kW
6SL3224-0BE21-1UA0	PM240	380V - 480V	1,1kW
6SL3224-0BE21-5UA0	PM240	380V - 480V	1,5kW
6SL3224-0BE22-2UA0	PM240	380V - 480V	2,2kW
6SL3224-0BE22-2AA0	PM240	380V - 480V	2,2kW
6SL3224-0BE23-0UA0	PM240	380V - 480V	3kW
6SL3224-0BE23-0AA0	PM240	380V - 480V	3kW
6SL3224-0BE24-0UA0	PM240	380V - 480V	4kW


SIEMENS
inamics Power Module 240
nput : 3AC 380 - 480V 2.5A 50/60Hz
Output : 3AC 0 - Input V In = 2.2A
Motor : IEC 0.75kW
Order No: 6SL3224-0BE17-5UA0 Ver : C01
Serial No : XAB907-002255
Varey Road, Congleton, CW12 1PH
Made in United Kingdom
N117



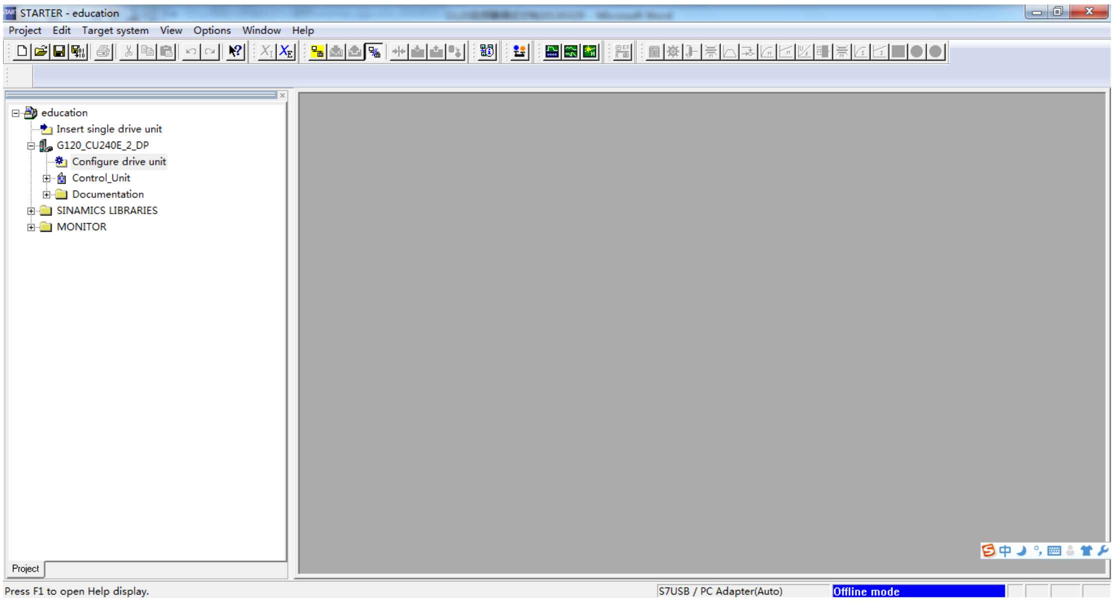
Configuration - Control_Unit - Summary

The following configuration has been entered:

```
Closed-loop control module:
  Order no.: 6SL3244-0BB12-1PA1
  CU type: CU240E-2 DP
Power unit:
  Order no.: 6SL3224-0BE17-5UA0
  PM type: PM240
  Compound brake: Activated
  Dynamic brake: Activated
  Vdc_min controller: Activated
  Vdc_max controller: Activated
  DC brake: Activated
  F3E power unit: Not activated
  Power Module 230: Not activated
```

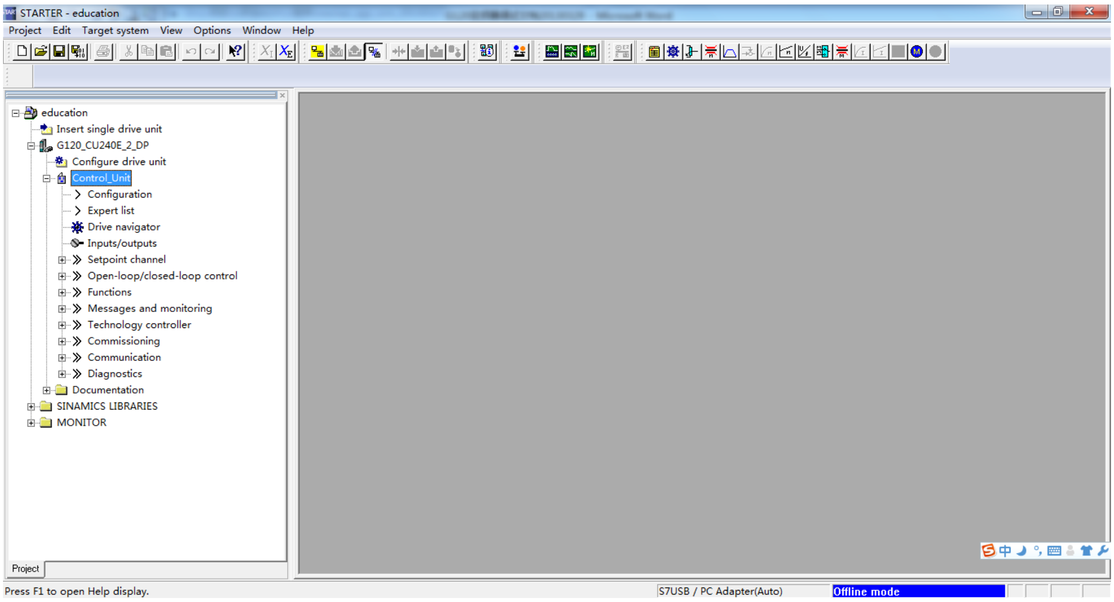
☐ Then start commissioning wizard

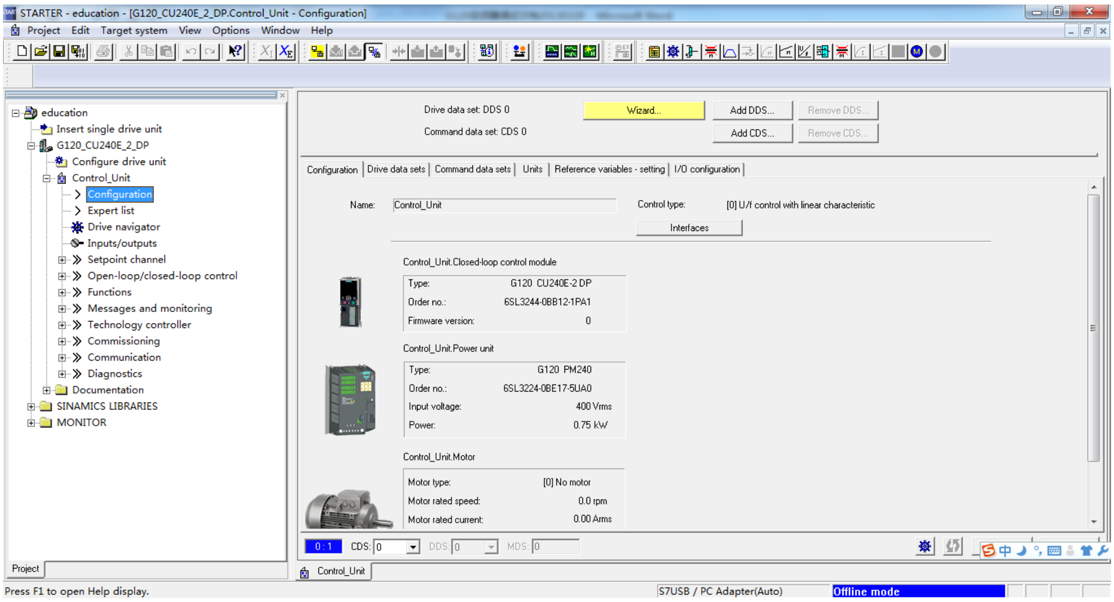
☑ Power unit
☐ Summary
Copy text to clipboard
< Back
Finish
Cancel
Help



STARTER - education
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

6. 单机 control unit，选择其中的 configuration


STARTER - education
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Configuration]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Wizard...
Add DDS...
Remove DDS...
Add CDS...
Remove CDS...
Configuration
Drive data sets
Command data sets
Units
Reference variables - setting
I/O configuration
Interfaces
Control_Unit
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

Drive data set: DDS 0
Command data set: CDS 0

Name: Control_Unit
Control type: [0] U/f control with linear characteristic

Control_Unit.Closed-loop control module

Type: G120 CU240E-2 DP
Order no.: 6SL3244-0BB12-1PA1
Firmware version: 0

Control_Unit.Power unit

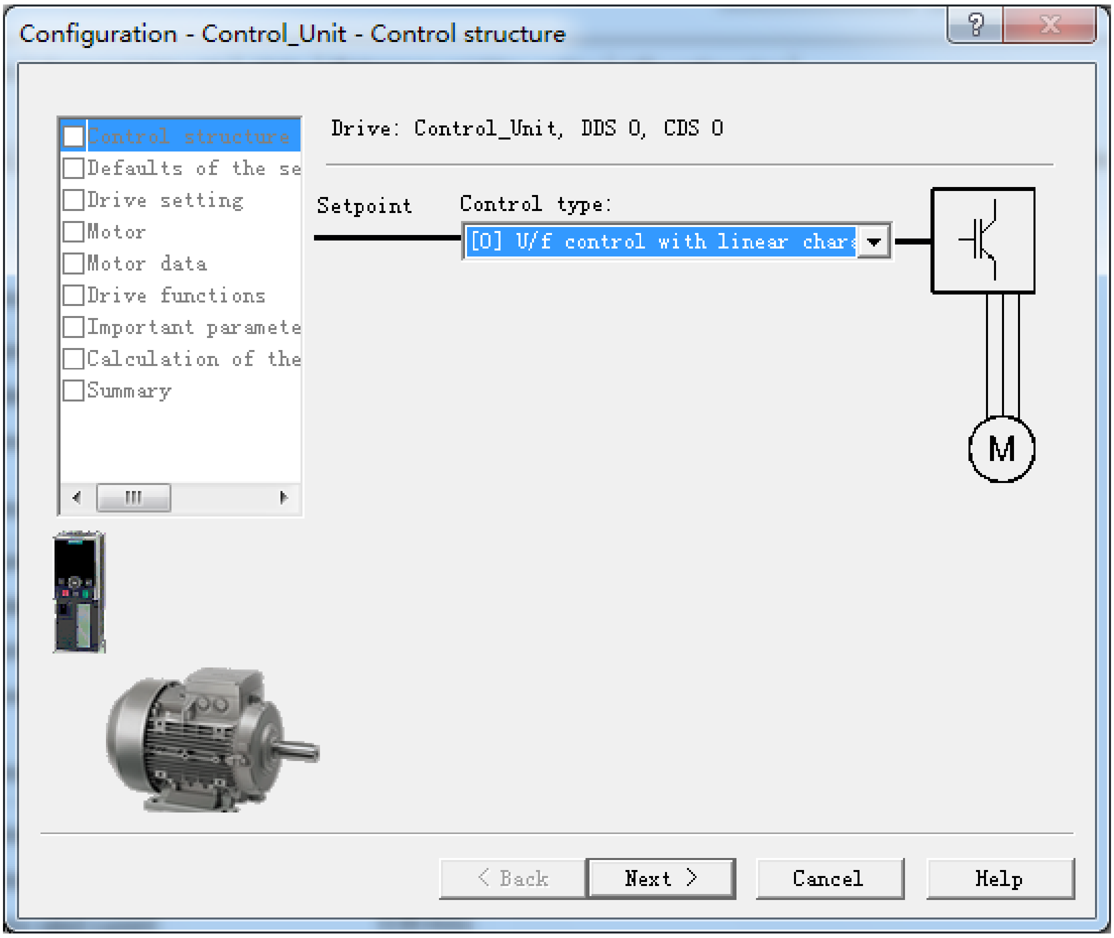
Type: G120 PM240
Order no.: 6SL3224-0BE17-5UA0
Input voltage: 400 Vrms
Power: 0.75 kW

Control_Unit.Motor

Motor type: [0] No motor
Motor rated speed: 0.0 rpm
Motor rated current: 0.00 Arms

0 : 1 CDS: 0 DDS: 0 MDS: 0

7. 单机 Wizard，进行快速调试工作



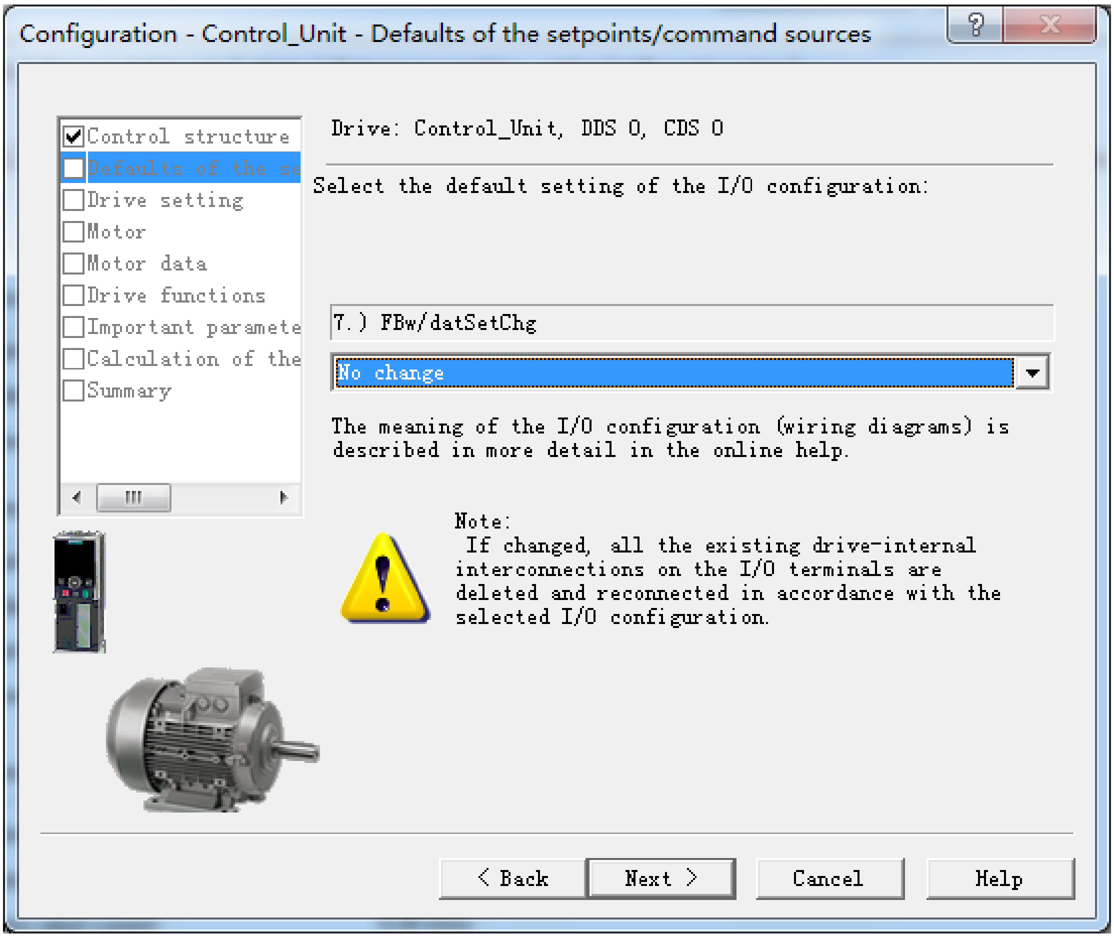
Configuration - Control_Unit - Control structure

☐ Control structure
☐ Defaults of the se
☐ Drive setting
☐ Motor
☐ Motor data
☐ Drive functions
☐ Important paramete
☐ Calculation of the
☐ Summary

Drive: Control_Unit, DDS 0, CDS 0

Setpoint

Control type: [0] U/f control with linear char



Configuration - Control_Unit - Defaults of the setpoints/command sources

☑ Control structure
☐ Defaults of the se
☐ Drive setting
☐ Motor
☐ Motor data
☐ Drive functions
☐ Important paramete
☐ Calculation of the
☐ Summary

Drive: Control_Unit, DDS 0, CDS 0

Select the default setting of the I/O configuration:

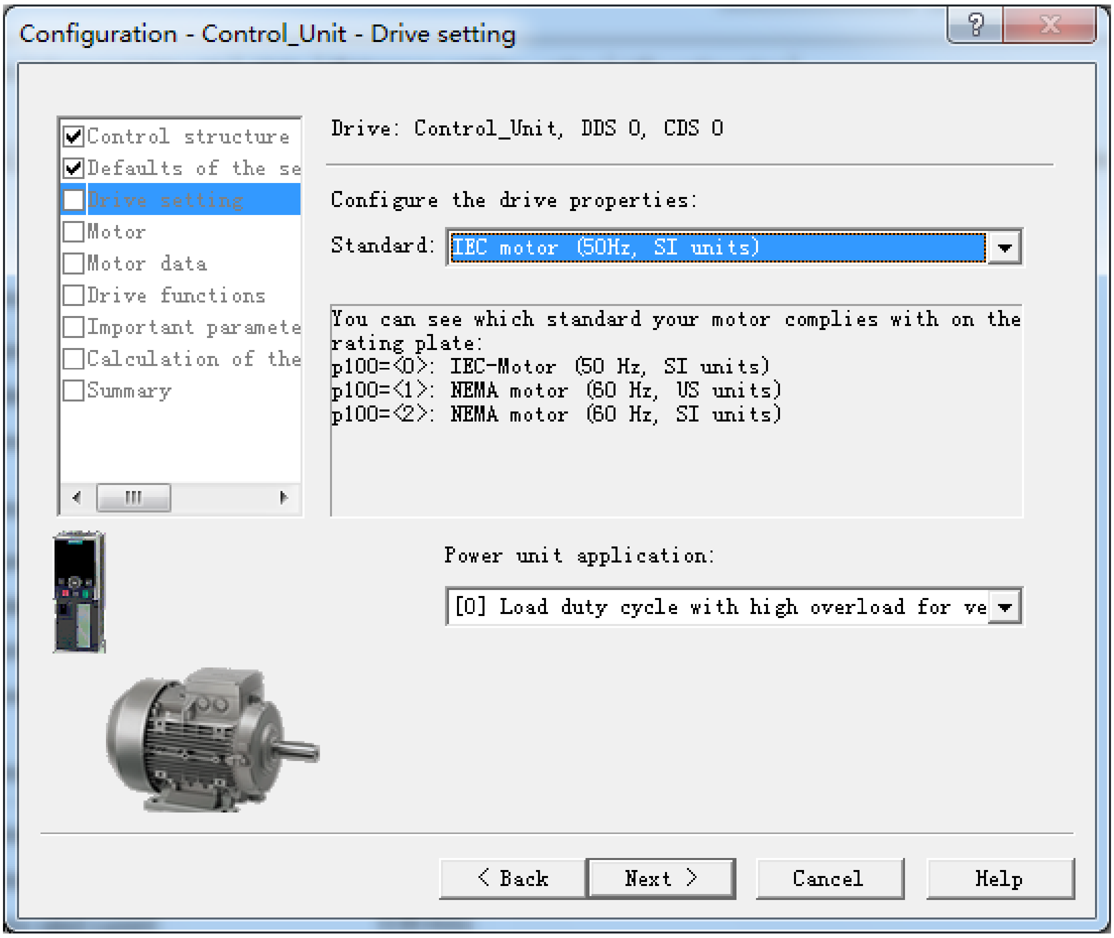
7.) FBw/datSetChg

No change

The meaning of the I/O configuration (wiring diagrams) is described in more detail in the online help.

Note:
If changed, all the existing drive-internal interconnections on the I/O terminals are deleted and reconnected in accordance with the selected I/O configuration.

< Back
Next >
Cancel
Help


Configuration - Control_Unit - Drive setting
☑ Control structure
☑ Defaults of the se
☐ Drive setting
☐ Motor
☐ Motor data
☐ Drive functions
☐ Important paramete
☐ Calculation of the
☐ Summary
< Back
Next >
Cancel
Help

Drive: Control_Unit, DDS 0, CDS 0

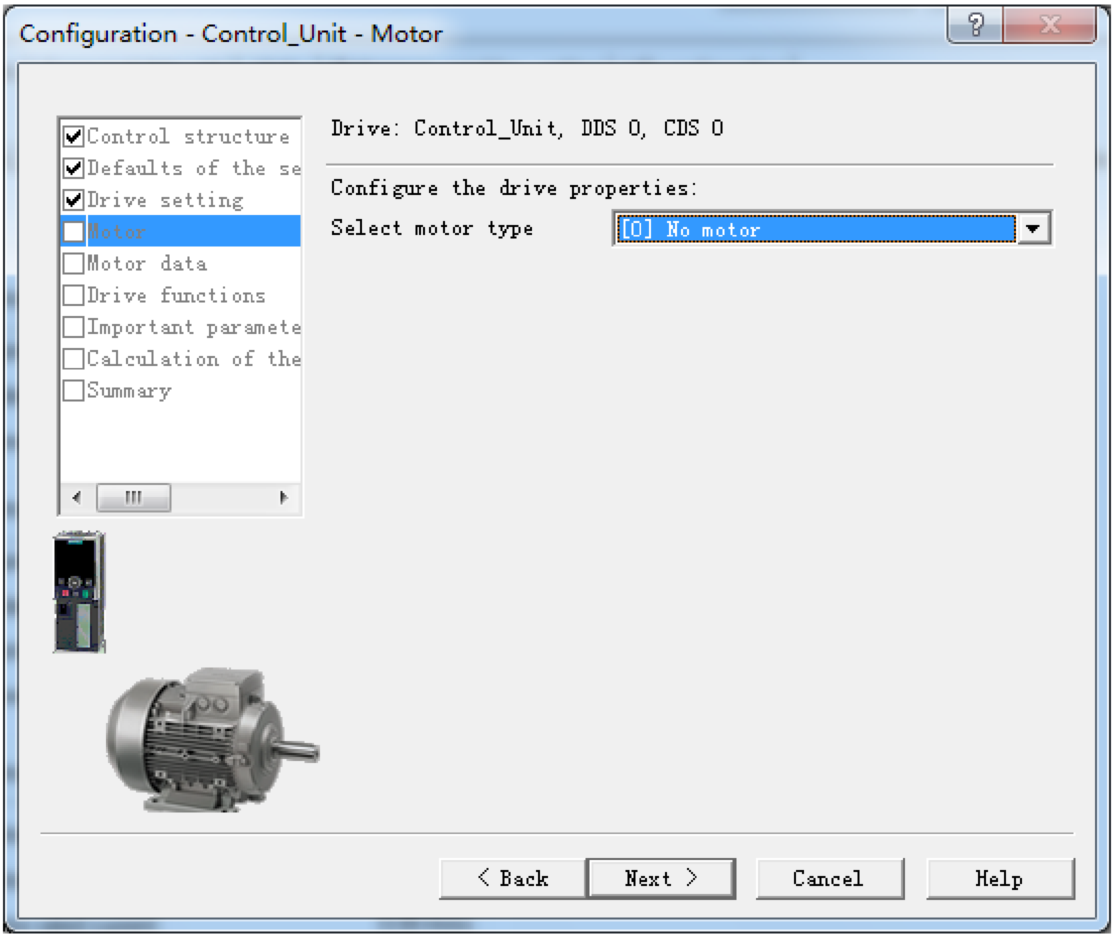
Configure the drive properties:

Standard: IEC motor (50Hz, SI units)

You can see which standard your motor complies with on the rating plate:
p100=<0>: IEC-Motor (50 Hz, SI units)
p100=<1>: NEMA motor (60 Hz, US units)
p100=<2>: NEMA motor (60 Hz, SI units)

Power unit application:

[0] Load duty cycle with high overload for ve



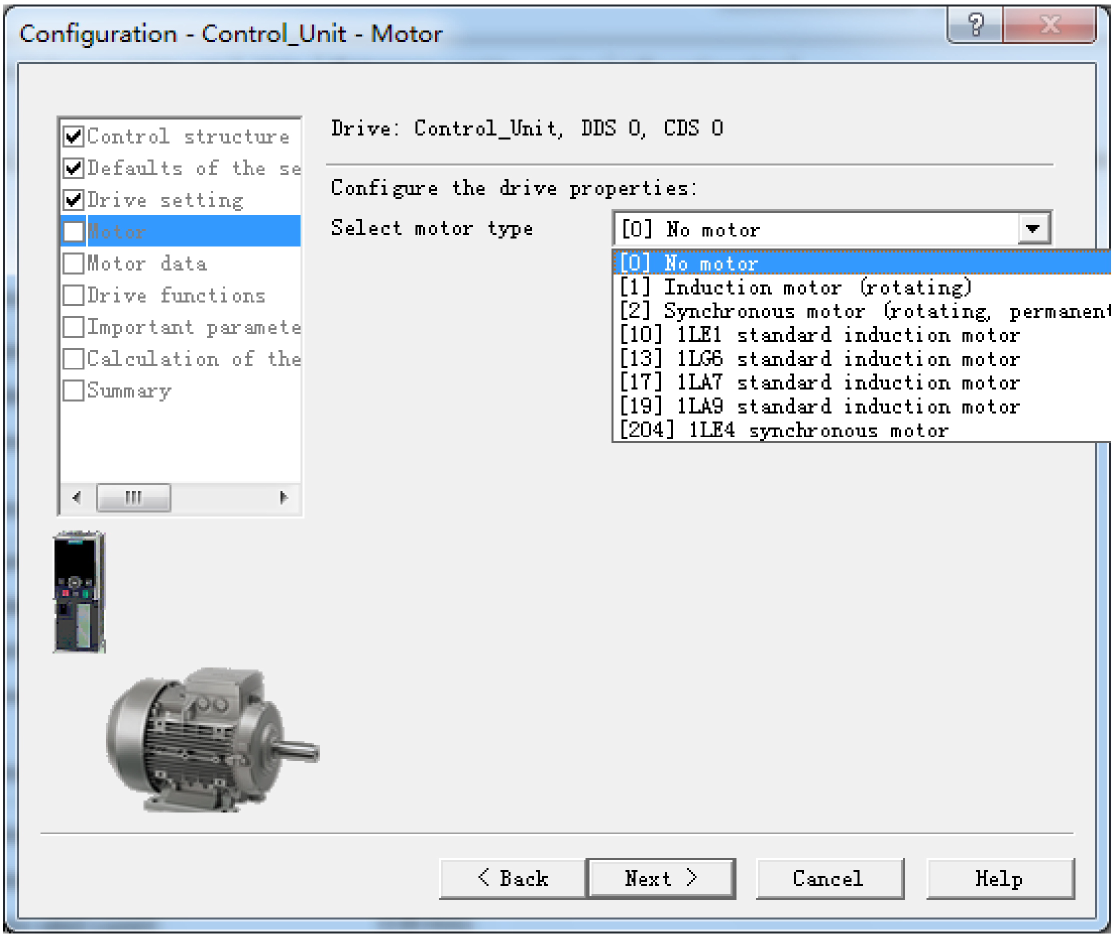
Configuration - Control_Unit - Motor

☑ Control structure
☑ Defaults of the se
☑ Drive setting
☐ Motor
☐ Motor data
☐ Drive functions
☐ Important paramete
☐ Calculation of the
☐ Summary

Drive: Control_Unit, DDS 0, CDS 0

Configure the drive properties:

Select motor type: [0] No motor



Configuration - Control_Unit - Motor

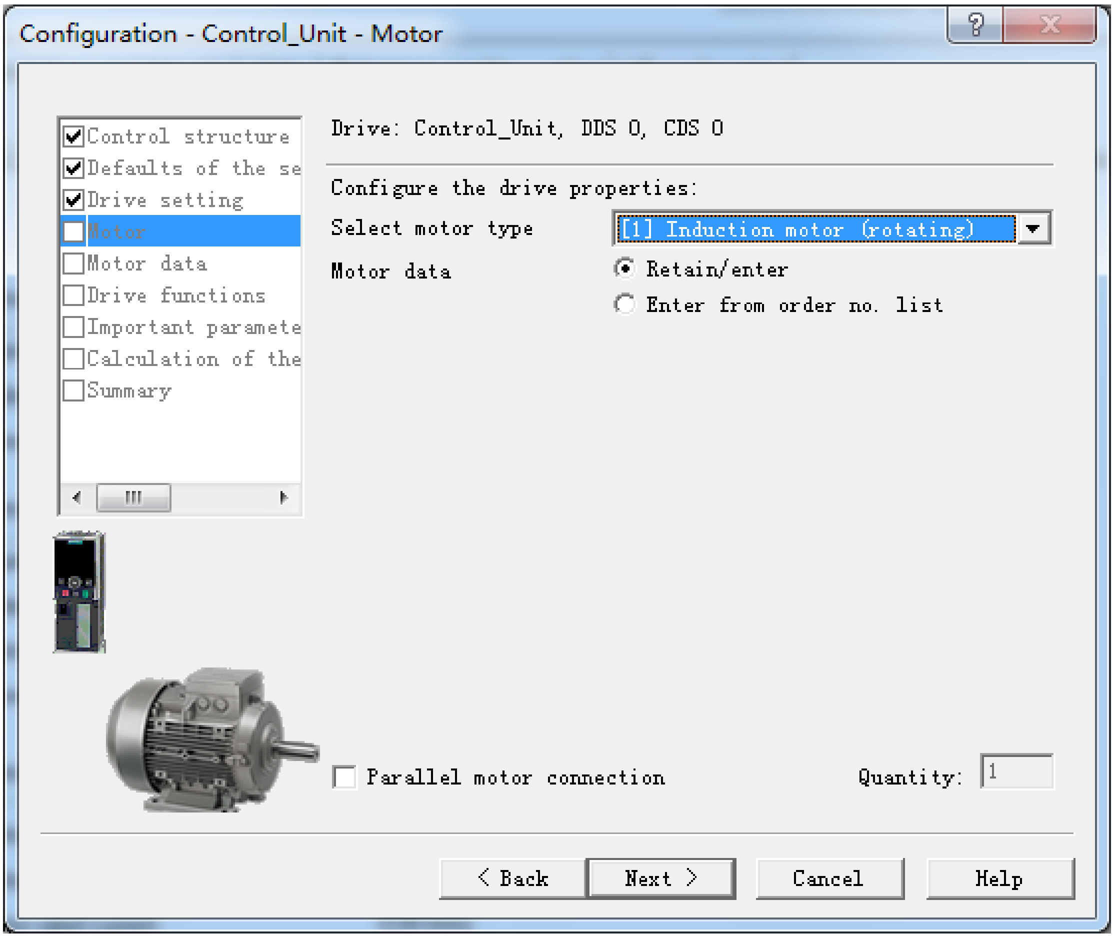
☑ Control structure
☑ Defaults of the se
☑ Drive setting
☐ Motor
☐ Motor data
☐ Drive functions
☐ Important paramete
☐ Calculation of the
☐ Summary

Drive: Control_Unit, DDS 0, CDS 0

Configure the drive properties:

Select motor type: [0] No motor

[0] No motor
[1] Induction motor (rotating)
[2] Synchronous motor (rotating, permanent
[10] 1LE1 standard induction motor
[13] 1LG6 standard induction motor
[17] 1LA7 standard induction motor
[19] 1LA9 standard induction motor
[204] 1LE4 synchronous motor
< Back
Next >
Cancel
Help



Configuration - Control_Unit - Motor

Drive: Control_Unit, DDS 0, CDS 0

Configure the drive properties:

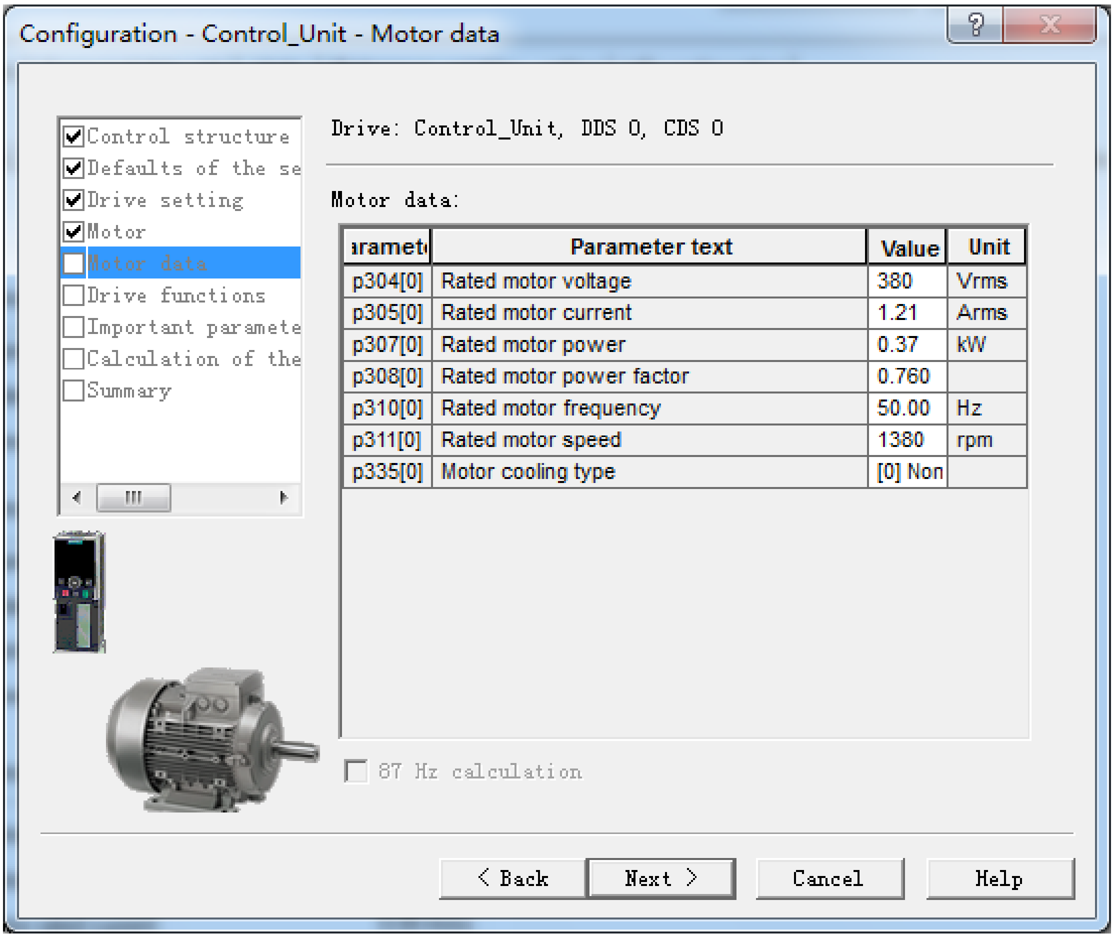
Select motor type: [1] Induction motor (rotating)

Motor data: ● Retain/enter ○ Enter from order no. list

☐ Parallel motor connection

Quantity: 1

☑ Control structure
☑ Defaults of the se
☑ Drive setting
☐ Motor
☐ Motor data
☐ Drive functions
☐ Important paramete
☐ Calculation of the
☐ Summary
< Back
Next >
Cancel
Help



Configuration - Control_Unit - Motor data

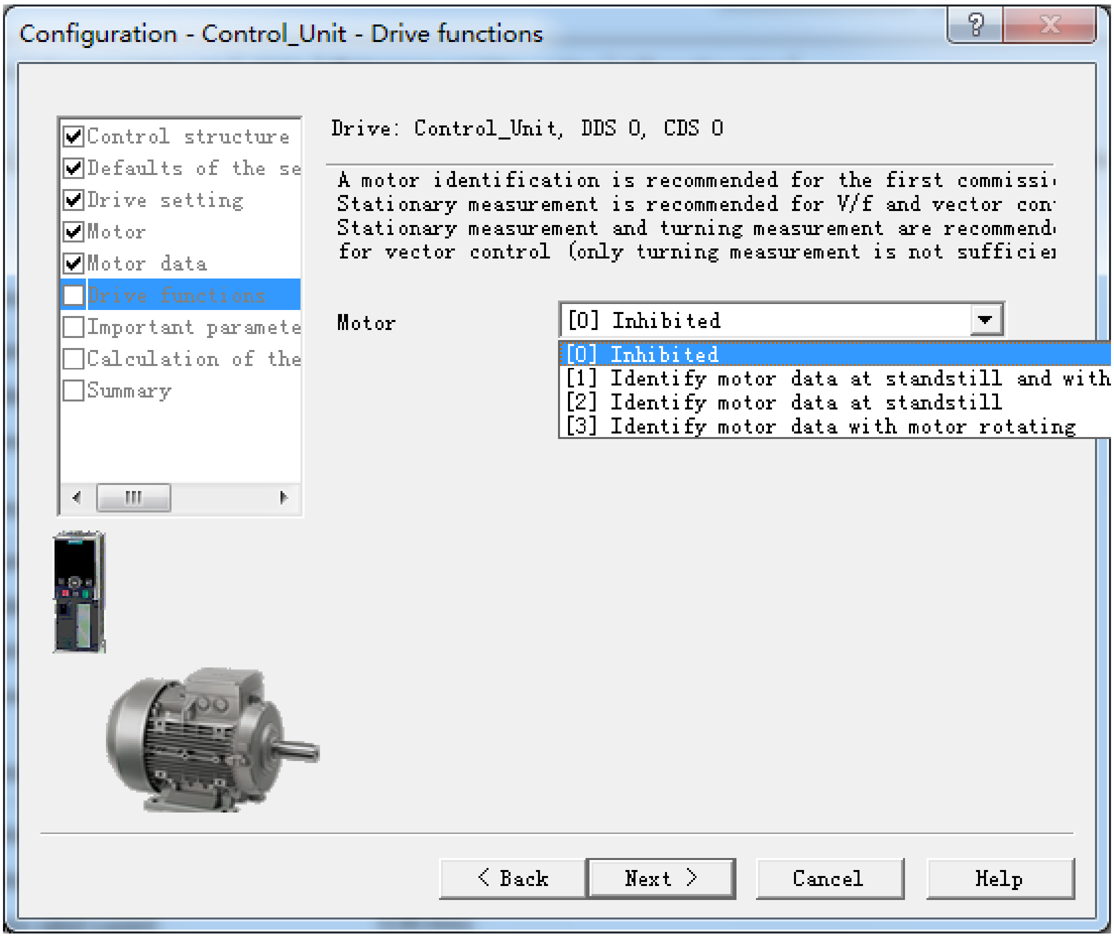
☑ Control structure
☑ Defaults of the se
☑ Drive setting
☑ Motor
☐ Motor data
☐ Drive functions
☐ Important paramete
☐ Calculation of the
☐ Summary

Drive: Control_Unit, DDS 0, CDS 0

Motor data:

arameté	Parameter text	Value	Unit
p304[0]	Rated motor voltage	380	Vrms
p305[0]	Rated motor current	1.21	Arms
p307[0]	Rated motor power	0.37	kW
p308[0]	Rated motor power factor	0.760	
p310[0]	Rated motor frequency	50.00	Hz
p311[0]	Rated motor speed	1380	rpm
p335[0]	Motor cooling type	[0] Non	

☐ 87 Hz calculation



Configuration - Control_Unit - Drive functions

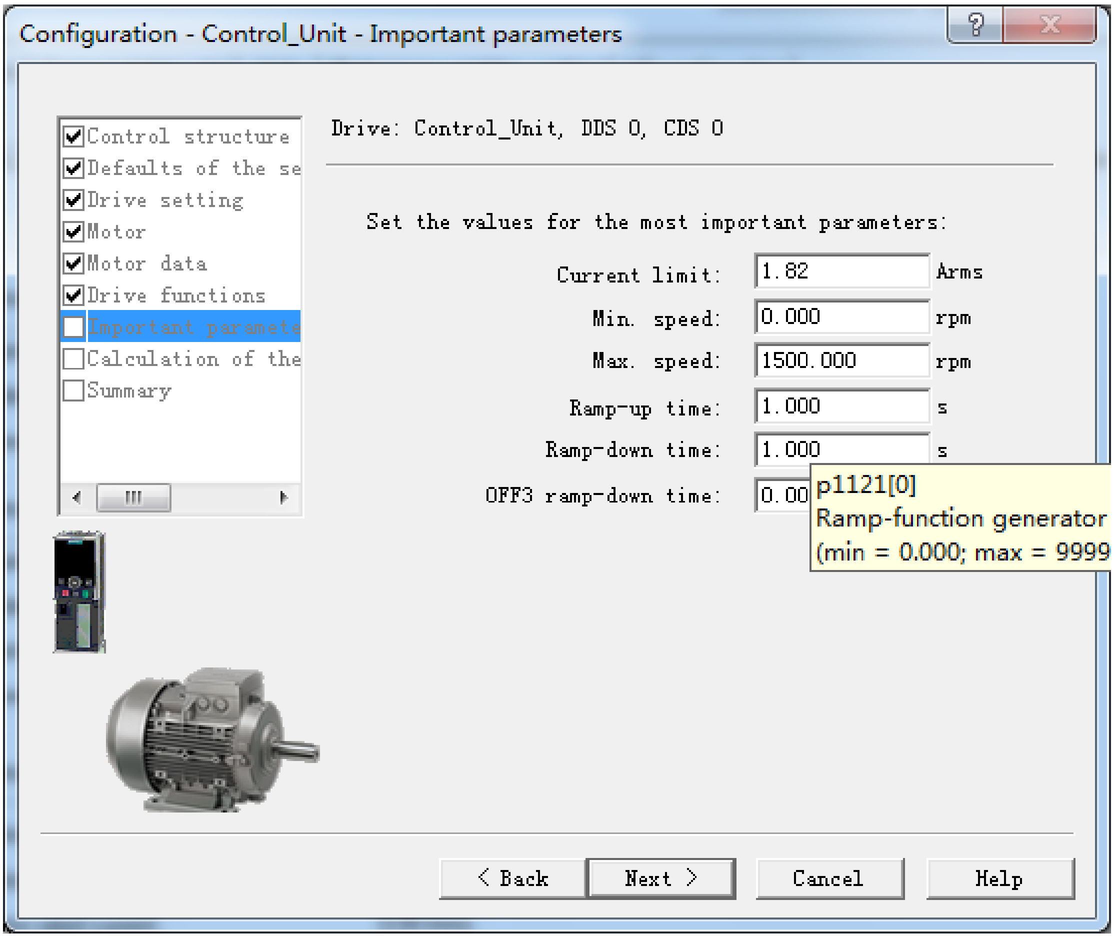
- ☑ Control structure
- ☑ Defaults of the se
- ☑ Drive setting
- ☑ Motor
- ☑ Motor data
- ☐ Drive functions
- ☐ Important paramete
- ☐ Calculation of the
- ☐ Summary

Drive: Control_Unit, DDS 0, CDS 0

A motor identification is recommended for the first commissi
Stationary measurement is recommended for V/f and vector con
Stationary measurement and turning measurement are recommend
for vector control (only turning measurement is not sufficie

Motor: [0] Inhibited

- [0] Inhibited
- [1] Identify motor data at standstill and with
- [2] Identify motor data at standstill
- [3] Identify motor data with motor rotating



Configuration - Control_Unit - Important parameters

- ☑ Control structure
- ☑ Defaults of the se
- ☑ Drive setting
- ☑ Motor
- ☑ Motor data
- ☑ Drive functions
- ☐ Important paramete
- ☐ Calculation of the
- ☐ Summary

Drive: Control_Unit, DDS 0, CDS 0

Set the values for the most important parameters:

Current limit: 1.82 Arms

Min. speed: 0.000 rpm

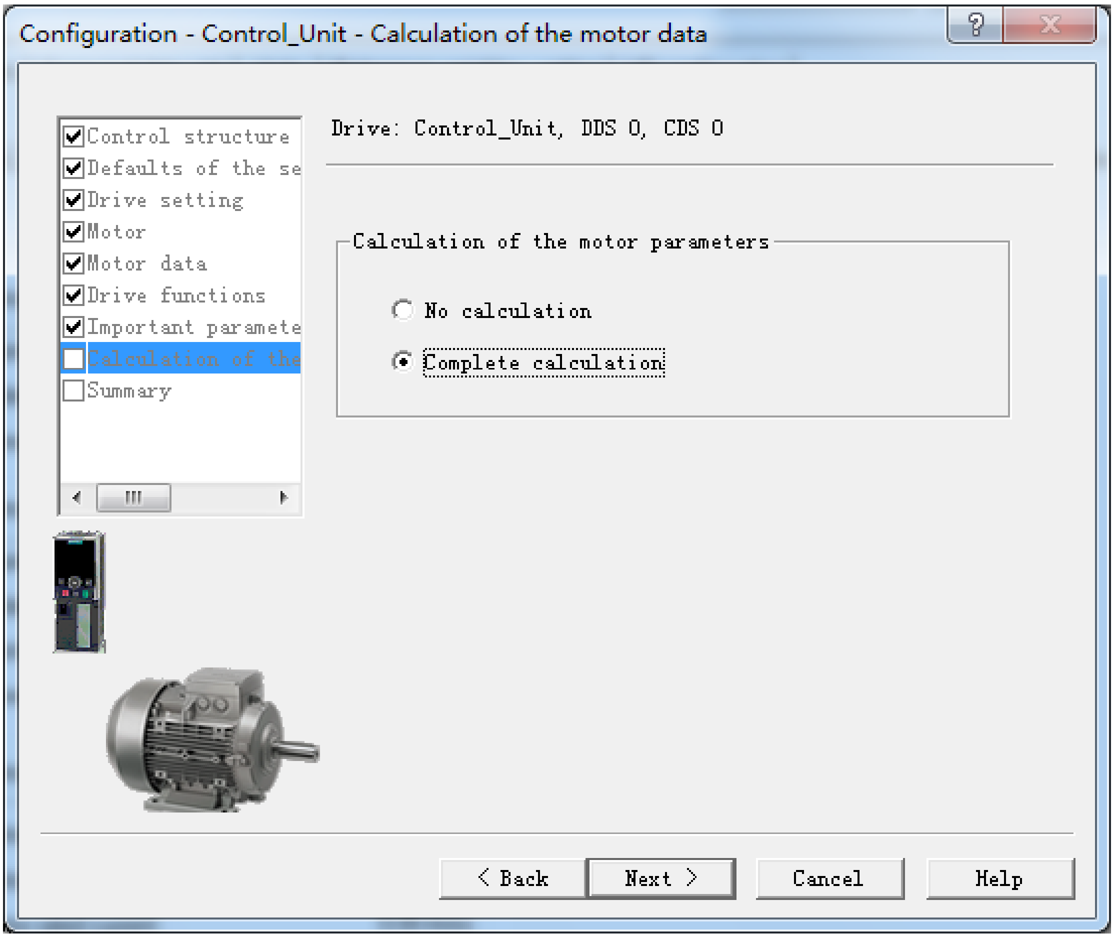
Max. speed: 1500.000 rpm

Ramp-up time: 1.000 s

Ramp-down time: 1.000 s

OFF3 ramp-down time: 0.00

p1121[0]
Ramp-function generator
(min = 0.000; max = 9999



Configuration - Control_Unit - Calculation of the motor data

☑ Control structure
☑ Defaults of the se
☑ Drive setting
☑ Motor
☑ Motor data
☑ Drive functions
☑ Important paramete
☐ Calculation of the
☐ Summary

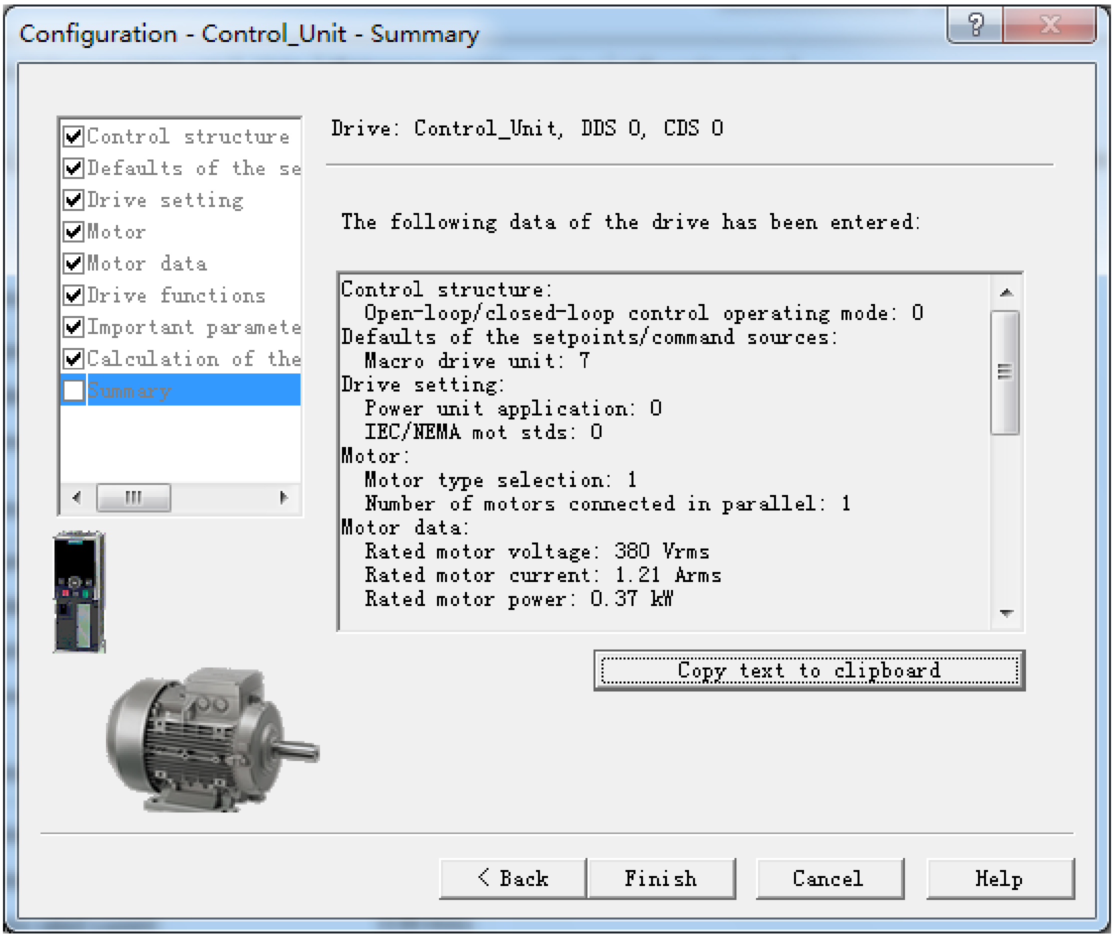
Drive: Control_Unit, DDS 0, CDS 0

Calculation of the motor parameters

○ No calculation

● Complete calculation

< Back
Next >
Cancel
Help

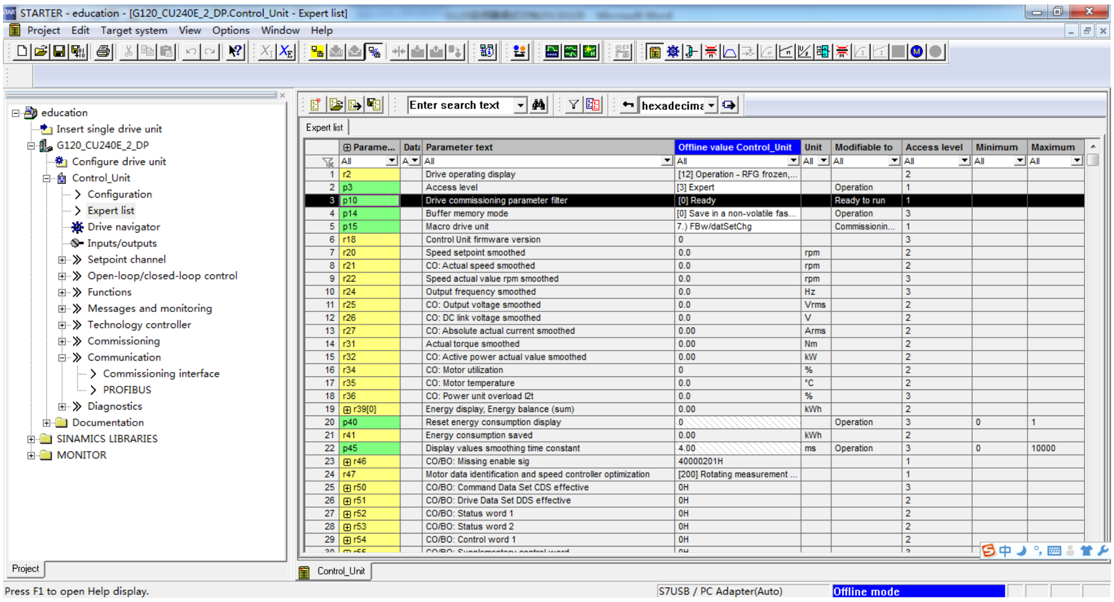

Configuration - Control_Unit - Summary
☑ Control structure
☑ Defaults of the se
☑ Drive setting
☑ Motor
☑ Motor data
☑ Drive functions
☑ Important paramete
☑ Calculation of the
☐ Summary
Copy text to clipboard
< Back
Finish
Cancel
Help

Drive: Control_Unit, DDS 0, CDS 0

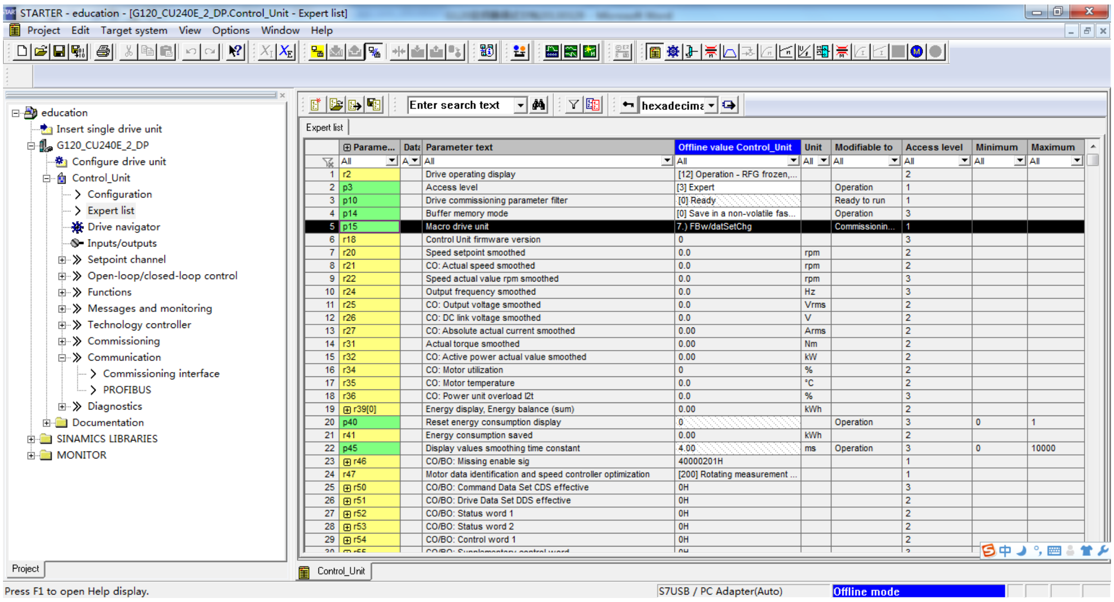
The following data of the drive has been entered:

```
Control structure:
  Open-loop/closed-loop control operating mode: 0
Defaults of the setpoints/command sources:
  Macro drive unit: 7
Drive setting:
  Power unit application: 0
  IEC/NEMA mot stds: 0
Motor:
  Motor type selection: 1
  Number of motors connected in parallel: 1
Motor data:
  Rated motor voltage: 380 Vrms
  Rated motor current: 1.21 Arms
  Rated motor power: 0.37 kW
```

8.　根据选择需要的宏的类型（本系统原有默认的为 7，更改为 1）


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project　Edit　Target system　View　Options　Window　Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
1	r2		Drive operating display	[12] Operation - RFG frozen,...			2		
2	p3		Access level	[3] Expert		Operation	1		
3	p10		Drive commissioning parameter filter	[0] Ready		Ready to run	1		
4	p14		Buffer memory mode	[0] Save in a non-volatile fas...		Operation	3		
5	p15		Macro drive unit	7.) FBw/datSetChg		Commissionin...	1		
6	r18		Control Unit firmware version	0			3		
7	r20		Speed setpoint smoothed	0.0	rpm		2		
8	r21		CO: Actual speed smoothed	0.0	rpm		2		
9	r22		Speed actual value rpm smoothed	0.0	rpm		3		
10	r24		Output frequency smoothed	0.0	Hz		3		
11	r25		CO: Output voltage smoothed	0.0	Vrms		2		
12	r26		CO: DC link voltage smoothed	0.0	V		2		
13	r27		CO: Absolute actual current smoothed	0.00	Arms		2		
14	r31		Actual torque smoothed	0.00	Nm		2		
15	r32		CO: Active power actual value smoothed	0.00	kW		2		
16	r34		CO: Motor utilization	0	%		2		
17	r35		CO: Motor temperature	0.0	°C		2		
18	r36		CO: Power unit overload I2t	0.0	%		3		
19	⊞ r39[0]		Energy display, Energy balance (sum)	0.00	kWh		2		
20	p40		Reset energy consumption display	0		Operation	3	0	1
21	r41		Energy consumption saved	0.00	kWh		2		
22	p45		Display values smoothing time constant	4.00	ms	Operation	3	0	10000
23	⊞ r46		CO/BO: Missing enable sig	40000201H			1		
24	r47		Motor data identification and speed controller optimization	[200] Rotating measurement ...			1		
25	⊞ r50		CO/BO: Command Data Set CDS effective	0H			3		
26	⊞ r51		CO/BO: Drive Data Set DDS effective	0H			2		
27	⊞ r52		CO/BO: Status word 1	0H			2		
28	⊞ r53		CO/BO: Status word 2	0H			2		
29	⊞ r54		CO/BO: Control word 1	0H			2		

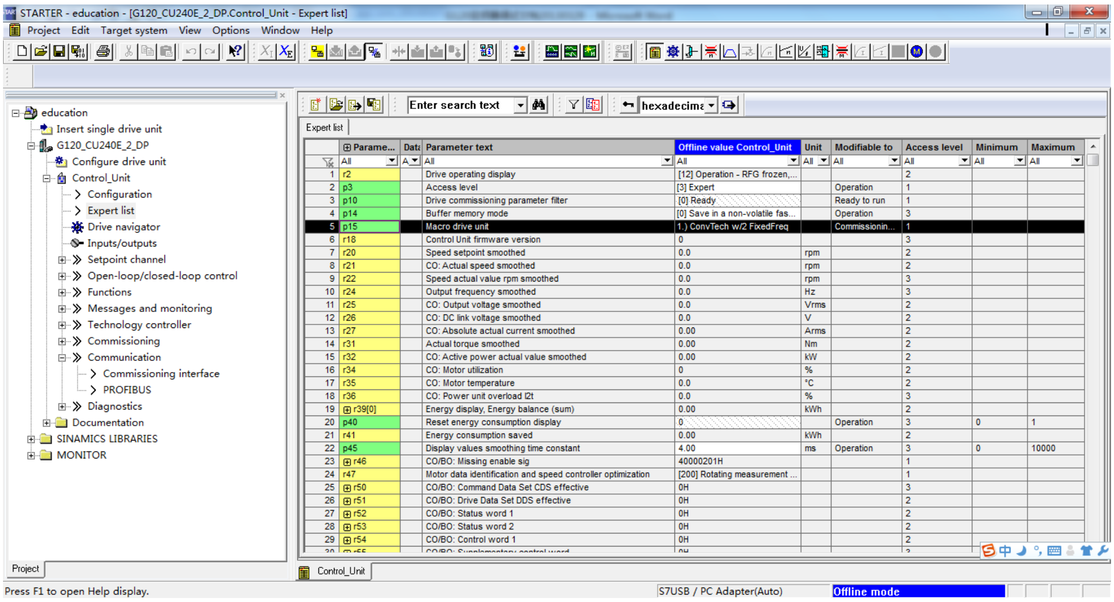

STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
1	r2		Drive operating display	[12] Operation - RFG frozen,...			2		
2	p3		Access level	[3] Expert		Operation	1		
3	p10		Drive commissioning parameter filter	[0] Ready		Ready to run	1		
4	p14		Buffer memory mode	[0] Save in a non-volatile fas...		Operation	3		
5	p15		Macro drive unit	7.) FBw/datSetChg		Commissionin...	1		
6	r18		Control Unit firmware version	0			3		
7	r20		Speed setpoint smoothed	0.0	rpm		2		
8	r21		CO: Actual speed smoothed	0.0	rpm		2		
9	r22		Speed actual value rpm smoothed	0.0	rpm		3		
10	r24		Output frequency smoothed	0.0	Hz		3		
11	r25		CO: Output voltage smoothed	0.0	Vrms		2		
12	r26		CO: DC link voltage smoothed	0.0	V		2		
13	r27		CO: Absolute actual current smoothed	0.00	Arms		2		
14	r31		Actual torque smoothed	0.00	Nm		2		
15	r32		CO: Active power actual value smoothed	0.00	kW		2		
16	r34		CO: Motor utilization	0	%		2		
17	r35		CO: Motor temperature	0.0	°C		2		
18	r36		CO: Power unit overload I2t	0.0	%		3		
19	⊞ r39[0]		Energy display, Energy balance (sum)	0.00	kWh		2		
20	p40		Reset energy consumption display	0		Operation	3	0	1
21	r41		Energy consumption saved	0.00	kWh		2		
22	p45		Display values smoothing time constant	4.00	ms	Operation	3	0	10000
23	⊞ r46		CO/BO: Missing enable sig	40000201H			1		
24	r47		Motor data identification and speed controller optimization	[200] Rotating measurement ...			1		
25	⊞ r50		CO/BO: Command Data Set CDS effective	0H			3		
26	⊞ r51		CO/BO: Drive Data Set DDS effective	0H			2		
27	⊞ r52		CO/BO: Status word 1	0H			2		
28	⊞ r53		CO/BO: Status word 2	0H			2		
29	⊞ r54		CO/BO: Control word 1	0H			2		

Press F1 to open Help display.

S7USB / PC Adapter(Auto)

Offline mode


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit

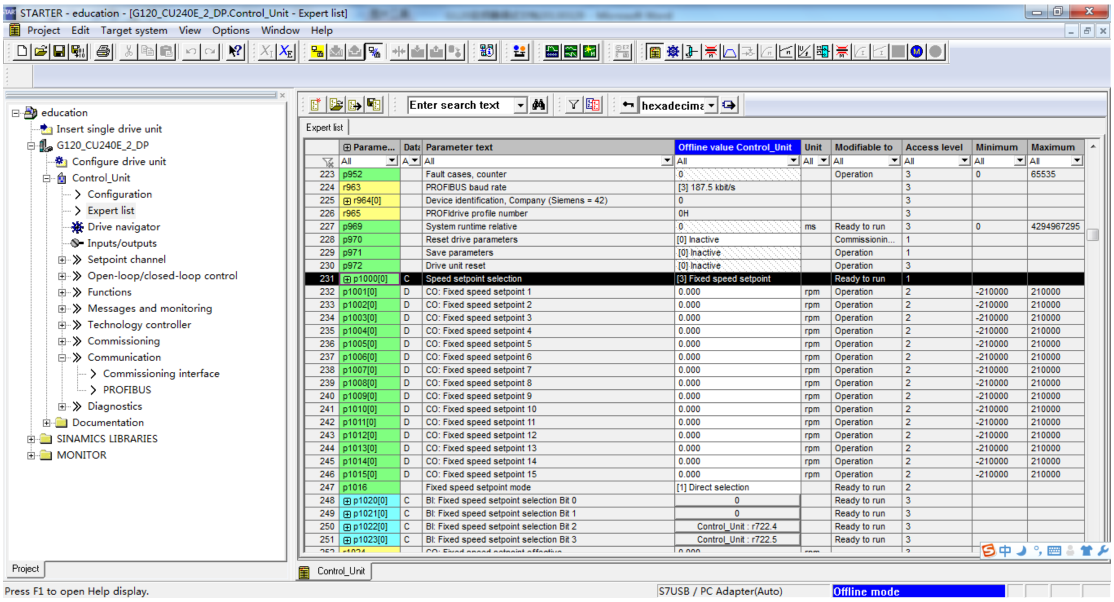
	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
1	r2		Drive operating display	[12] Operation - RFG frozen,...			2		
2	p3		Access level	[3] Expert		Operation	1		
3	p10		Drive commissioning parameter filter	[0] Ready		Ready to run	1		
4	p14		Buffer memory mode	[0] Save in a non-volatile fas...		Operation	3		
5	p15		Macro drive unit	1.) ConvTech w/2 FixedFreq		Commissionin...	1		
6	r18		Control Unit firmware version	0			3		
7	r20		Speed setpoint smoothed	0.0	rpm		2		
8	r21		CO: Actual speed smoothed	0.0	rpm		2		
9	r22		Speed actual value rpm smoothed	0.0	rpm		3		
10	r24		Output frequency smoothed	0.0	Hz		3		
11	r25		CO: Output voltage smoothed	0.0	Vrms		2		
12	r26		CO: DC link voltage smoothed	0.0	V		2		
13	r27		CO: Absolute actual current smoothed	0.00	Arms		2		
14	r31		Actual torque smoothed	0.00	Nm		2		
15	r32		CO: Active power actual value smoothed	0.00	kW		2		
16	r34		CO: Motor utilization	0	%		2		
17	r35		CO: Motor temperature	0.0	°C		2		
18	r36		CO: Power unit overload I2t	0.0	%		3		
19	⊞ r39[0]		Energy display, Energy balance (sum)	0.00	kWh		2		
20	p40		Reset energy consumption display	0		Operation	3	0	1
21	r41		Energy consumption saved	0.00	kWh		2		
22	p45		Display values smoothing time constant	4.00	ms	Operation	3	0	10000
23	⊞ r46		CO/BO: Missing enable sig	40000201H			1		
24	r47		Motor data identification and speed controller optimization	[200] Rotating measurement ...			1		
25	⊞ r50		CO/BO: Command Data Set CDS effective	0H			3		
26	⊞ r51		CO/BO: Drive Data Set DDS effective	0H			2		
27	⊞ r52		CO/BO: Status word 1	0H			2		
28	⊞ r53		CO/BO: Status word 2	0H			2		
29	⊞ r54		CO/BO: Control word 1	0H			2		

Press F1 to open Help display.

S7USB / PC Adapter(Auto)

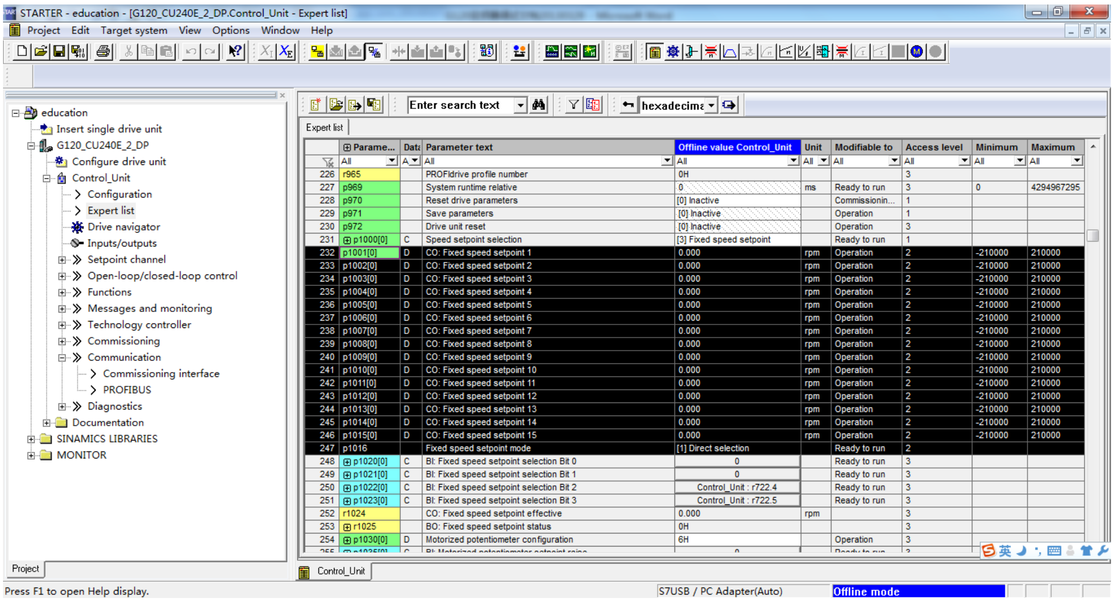
Offline mode

9. 相应的 p1000 的参数自动更改为 3，命令源来源于端子

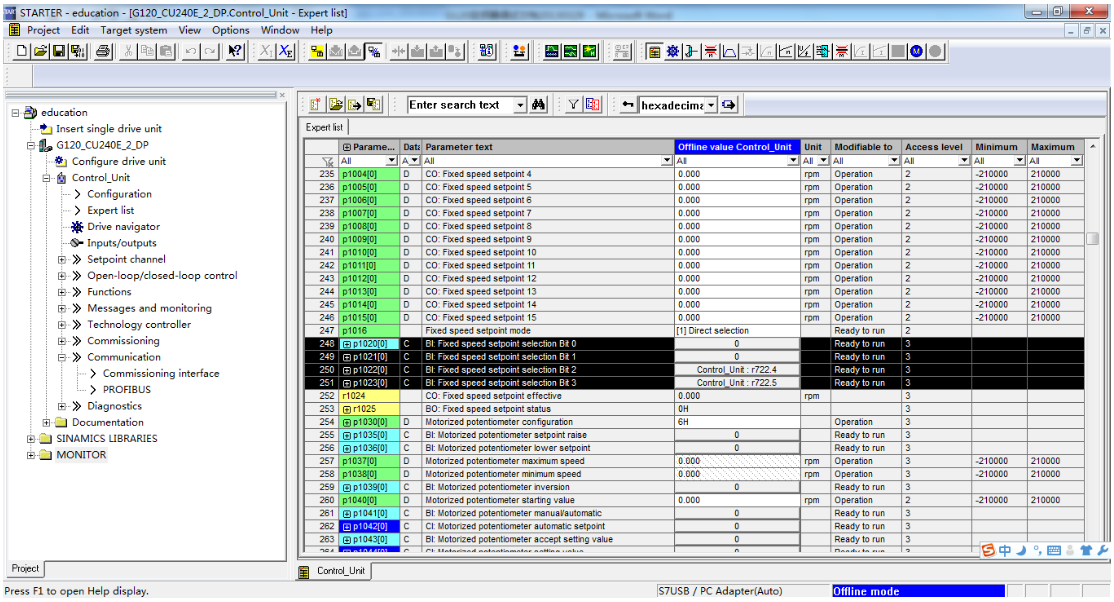

STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
Enter search text
hexadecima
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Expert list
Control_Unit
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
223	p952		Fault cases, counter	0		Operation	3	0	65535
224	r963		PROFIBUS baud rate	[3] 187.5 kbit/s			3		
225	r964[0]		Device identification, Company (Siemens = 42)	0			3		
226	r965		PROFIdrive profile number	0H			3		
227	p969		System runtime relative	0	ms	Ready to run	3	0	4294967295
228	p970		Reset drive parameters	[0] Inactive		Commissionin...	1		
229	p971		Save parameters	[0] Inactive		Operation	1		
230	p972		Drive unit reset	[0] Inactive		Operation	3		
231	p1000[0]	C	Speed setpoint selection	[3] Fixed speed setpoint		Ready to run	1		
232	p1001[0]	D	CO: Fixed speed setpoint 1	0.000	rpm	Operation	2	-210000	210000
233	p1002[0]	D	CO: Fixed speed setpoint 2	0.000	rpm	Operation	2	-210000	210000
234	p1003[0]	D	CO: Fixed speed setpoint 3	0.000	rpm	Operation	2	-210000	210000
235	p1004[0]	D	CO: Fixed speed setpoint 4	0.000	rpm	Operation	2	-210000	210000
236	p1005[0]	D	CO: Fixed speed setpoint 5	0.000	rpm	Operation	2	-210000	210000
237	p1006[0]	D	CO: Fixed speed setpoint 6	0.000	rpm	Operation	2	-210000	210000
238	p1007[0]	D	CO: Fixed speed setpoint 7	0.000	rpm	Operation	2	-210000	210000
239	p1008[0]	D	CO: Fixed speed setpoint 8	0.000	rpm	Operation	2	-210000	210000
240	p1009[0]	D	CO: Fixed speed setpoint 9	0.000	rpm	Operation	2	-210000	210000
241	p1010[0]	D	CO: Fixed speed setpoint 10	0.000	rpm	Operation	2	-210000	210000
242	p1011[0]	D	CO: Fixed speed setpoint 11	0.000	rpm	Operation	2	-210000	210000
243	p1012[0]	D	CO: Fixed speed setpoint 12	0.000	rpm	Operation	2	-210000	210000
244	p1013[0]	D	CO: Fixed speed setpoint 13	0.000	rpm	Operation	2	-210000	210000
245	p1014[0]	D	CO: Fixed speed setpoint 14	0.000	rpm	Operation	2	-210000	210000
246	p1015[0]	D	CO: Fixed speed setpoint 15	0.000	rpm	Operation	2	-210000	210000
247	p1016		Fixed speed setpoint mode	[1] Direct selection		Ready to run	2		
248	p1020[0]	C	BI: Fixed speed setpoint selection Bit 0	0		Ready to run	3		
249	p1021[0]	C	BI: Fixed speed setpoint selection Bit 1	0		Ready to run	3		
250	p1022[0]	C	BI: Fixed speed setpoint selection Bit 2	Control_Unit : r722.4		Ready to run	3		
251	p1023[0]	C	BI: Fixed speed setpoint selection Bit 3	Control_Unit : r722.5		Ready to run	3		

10. 更改 DI 端子的功能前 list 的参数数值

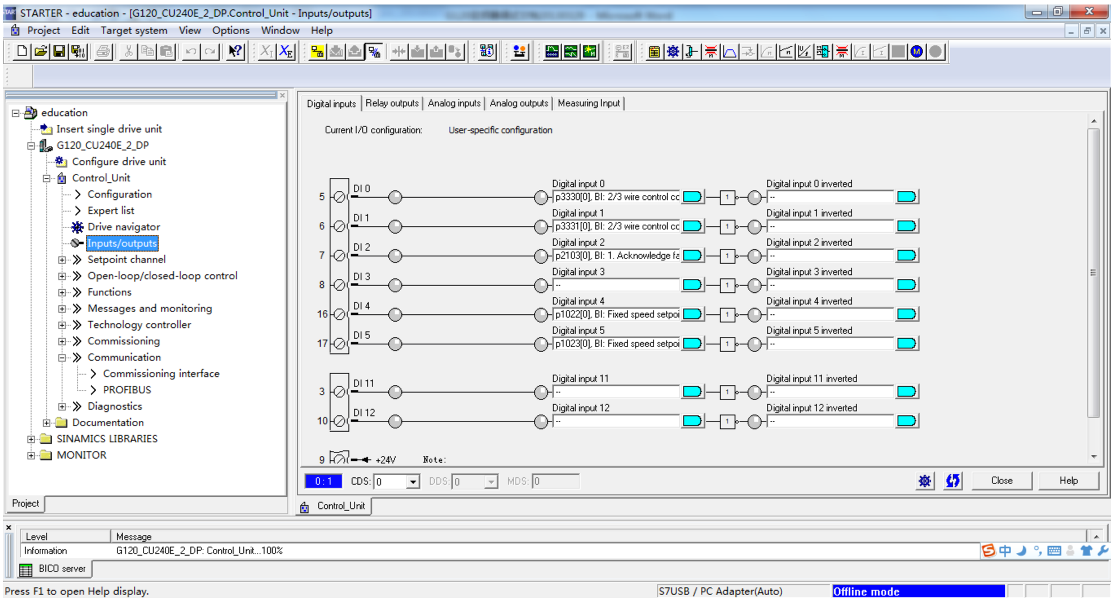

STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
Enter search text
hexadecima
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Expert list
Control_Unit
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
226	r965		PROFIdrive profile number	0H			3		
227	p969		System runtime relative	0	ms	Ready to run	3	0	4294967295
228	p970		Reset drive parameters	[0] Inactive		Commissionin...	1		
229	p971		Save parameters	[0] Inactive		Operation	1		
230	p972		Drive unit reset	[0] Inactive		Operation	3		
231	p1000[0]	C	Speed setpoint selection	[3] Fixed speed setpoint		Ready to run	1		
232	p1001[0]	D	CO: Fixed speed setpoint 1	0.000	rpm	Operation	2	-210000	210000
233	p1002[0]	D	CO: Fixed speed setpoint 2	0.000	rpm	Operation	2	-210000	210000
234	p1003[0]	D	CO: Fixed speed setpoint 3	0.000	rpm	Operation	2	-210000	210000
235	p1004[0]	D	CO: Fixed speed setpoint 4	0.000	rpm	Operation	2	-210000	210000
236	p1005[0]	D	CO: Fixed speed setpoint 5	0.000	rpm	Operation	2	-210000	210000
237	p1006[0]	D	CO: Fixed speed setpoint 6	0.000	rpm	Operation	2	-210000	210000
238	p1007[0]	D	CO: Fixed speed setpoint 7	0.000	rpm	Operation	2	-210000	210000
239	p1008[0]	D	CO: Fixed speed setpoint 8	0.000	rpm	Operation	2	-210000	210000
240	p1009[0]	D	CO: Fixed speed setpoint 9	0.000	rpm	Operation	2	-210000	210000
241	p1010[0]	D	CO: Fixed speed setpoint 10	0.000	rpm	Operation	2	-210000	210000
242	p1011[0]	D	CO: Fixed speed setpoint 11	0.000	rpm	Operation	2	-210000	210000
243	p1012[0]	D	CO: Fixed speed setpoint 12	0.000	rpm	Operation	2	-210000	210000
244	p1013[0]	D	CO: Fixed speed setpoint 13	0.000	rpm	Operation	2	-210000	210000
245	p1014[0]	D	CO: Fixed speed setpoint 14	0.000	rpm	Operation	2	-210000	210000
246	p1015[0]	D	CO: Fixed speed setpoint 15	0.000	rpm	Operation	2	-210000	210000
247	p1016		Fixed speed setpoint mode	[1] Direct selection		Ready to run	2		
248	p1020[0]	C	BI: Fixed speed setpoint selection Bit 0	0		Ready to run	3		
249	p1021[0]	C	BI: Fixed speed setpoint selection Bit 1	0		Ready to run	3		
250	p1022[0]	C	BI: Fixed speed setpoint selection Bit 2	Control_Unit : r722.4		Ready to run	3		
251	p1023[0]	C	BI: Fixed speed setpoint selection Bit 3	Control_Unit : r722.5		Ready to run	3		
252	r1024		CO: Fixed speed setpoint effective	0.000	rpm		3		
253	r1025		BO: Fixed speed setpoint status	0H			3		
254	p1030[0]	D	Motorized potentiometer configuration	6H		Operation	3		


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
235	p1004[0]	D	CO: Fixed speed setpoint 4	0.000	rpm	Operation	2	-210000	210000
236	p1005[0]	D	CO: Fixed speed setpoint 5	0.000	rpm	Operation	2	-210000	210000
237	p1006[0]	D	CO: Fixed speed setpoint 6	0.000	rpm	Operation	2	-210000	210000
238	p1007[0]	D	CO: Fixed speed setpoint 7	0.000	rpm	Operation	2	-210000	210000
239	p1008[0]	D	CO: Fixed speed setpoint 8	0.000	rpm	Operation	2	-210000	210000
240	p1009[0]	D	CO: Fixed speed setpoint 9	0.000	rpm	Operation	2	-210000	210000
241	p1010[0]	D	CO: Fixed speed setpoint 10	0.000	rpm	Operation	2	-210000	210000
242	p1011[0]	D	CO: Fixed speed setpoint 11	0.000	rpm	Operation	2	-210000	210000
243	p1012[0]	D	CO: Fixed speed setpoint 12	0.000	rpm	Operation	2	-210000	210000
244	p1013[0]	D	CO: Fixed speed setpoint 13	0.000	rpm	Operation	2	-210000	210000
245	p1014[0]	D	CO: Fixed speed setpoint 14	0.000	rpm	Operation	2	-210000	210000
246	p1015[0]	D	CO: Fixed speed setpoint 15	0.000	rpm	Operation	2	-210000	210000
247	p1016		Fixed speed setpoint mode	[1] Direct selection		Ready to run	2		
248	p1020[0]	C	BI: Fixed speed setpoint selection Bit 0	0		Ready to run	3		
249	p1021[0]	C	BI: Fixed speed setpoint selection Bit 1	0		Ready to run	3		
250	p1022[0]	C	BI: Fixed speed setpoint selection Bit 2	Control_Unit : r722.4		Ready to run	3		
251	p1023[0]	C	BI: Fixed speed setpoint selection Bit 3	Control_Unit : r722.5		Ready to run	3		
252	r1024		CO: Fixed speed setpoint effective	0.000	rpm		3		
253	r1025		BO: Fixed speed setpoint status	0H			3		
254	p1030[0]	D	Motorized potentiometer configuration	6H		Operation	3		
255	p1035[0]	C	BI: Motorized potentiometer setpoint raise	0		Ready to run	3		
256	p1036[0]	C	BI: Motorized potentiometer lower setpoint	0		Ready to run	3		
257	p1037[0]	D	Motorized potentiometer maximum speed	0.000	rpm	Operation	3	-210000	210000
258	p1038[0]	D	Motorized potentiometer minimum speed	0.000	rpm	Operation	3	-210000	210000
259	p1039[0]	C	BI: Motorized potentiometer inversion	0		Ready to run	3		
260	p1040[0]	D	Motorized potentiometer starting value	0.000	rpm	Operation	2	-210000	210000
261	p1041[0]	C	BI: Motorized potentiometer manual/automatic	0		Ready to run	3		
262	p1042[0]	C	CI: Motorized potentiometer automatic setpoint	0		Ready to run	3		
263	p1043[0]	C	BI: Motorized potentiometer accept setting value	0		Ready to run	3		

11. 对宏的端子的功能进行调整，下图为对应宏 1 的端子的功能


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Inputs/outputs]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Digital inputs
Relay outputs
Analog inputs
Analog outputs
Measuring Input
5
6
7
8
16
17
3
10
9
DI 0
DI 1
DI 2
DI 3
DI 4
DI 5
DI 11
DI 12
1
+24V
Note:
0 : 1
Close
Help
Control_Unit
BICO server
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

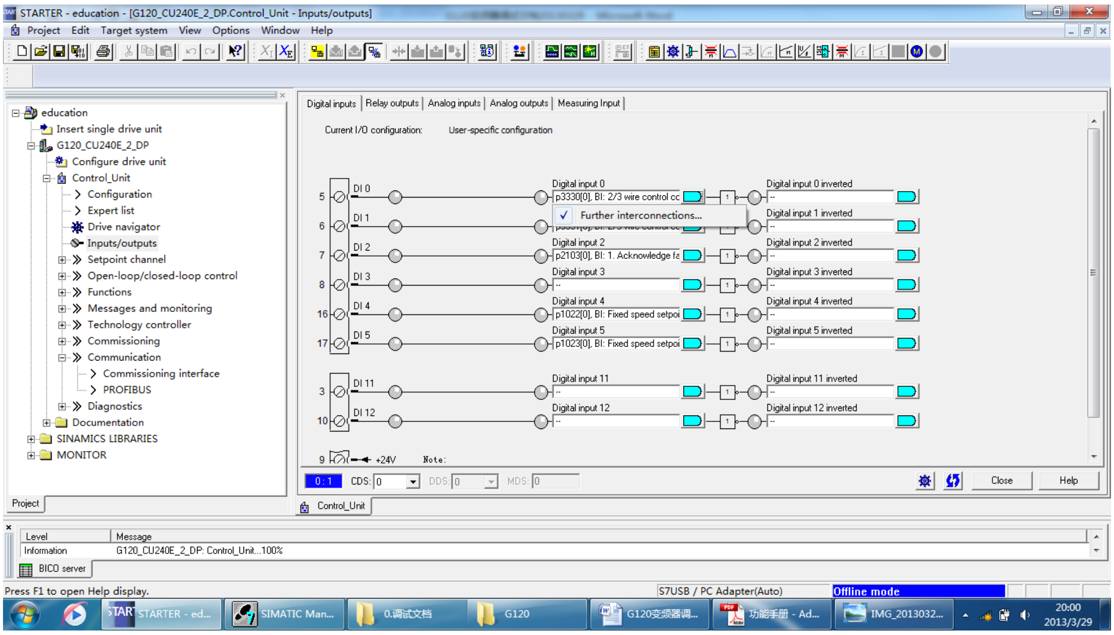
Current I/O configuration: User-specific configuration

Digital input 0: p3330[0], BI: 2/3 wire control cc
Digital input 0 inverted: --
Digital input 1: p3331[0], BI: 2/3 wire control cc
Digital input 1 inverted: --
Digital input 2: p2103[0], BI: 1. Acknowledge fa
Digital input 2 inverted: --
Digital input 3: --
Digital input 3 inverted: --
Digital input 4: p1022[0], BI: Fixed speed setpoi
Digital input 4 inverted: --
Digital input 5: p1023[0], BI: Fixed speed setpoi
Digital input 5 inverted: --
Digital input 11: --
Digital input 11 inverted: --
Digital input 12: --
Digital input 12 inverted: --

CDS: 0 DDS: 0 MDS: 0

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

12. 根据现场应用的需求修改端子的功能(注意在修改的过程中需要将端子原来的功能取消掉，对应端子新的功能)


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Inputs/outputs]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Digital inputs
Relay outputs
Analog inputs
Analog outputs
Measuring Input
DI 0
DI 1
DI 2
DI 3
DI 4
DI 5
DI 11
DI 12
5
6
7
8
16
17
3
10
9
+24V
Note:
Further interconnections...
Close
Help
Control_Unit
BICO server
Offline mode

Current I/O configuration: User-specific configuration

Digital input 0: p3330[0], BI: 2/3 wire control cc — Digital input 0 inverted: --

Digital input 1 — Digital input 1 inverted: --

Digital input 2: p2103[0], BI: 1. Acknowledge fa — Digital input 2 inverted: --

Digital input 3: -- — Digital input 3 inverted: --

Digital input 4: p1022[0], BI: Fixed speed setpoi — Digital input 4 inverted: --

Digital input 5: p1023[0], BI: Fixed speed setpoi — Digital input 5 inverted: --

Digital input 11: -- — Digital input 11 inverted: --

Digital input 12: -- — Digital input 12 inverted: --

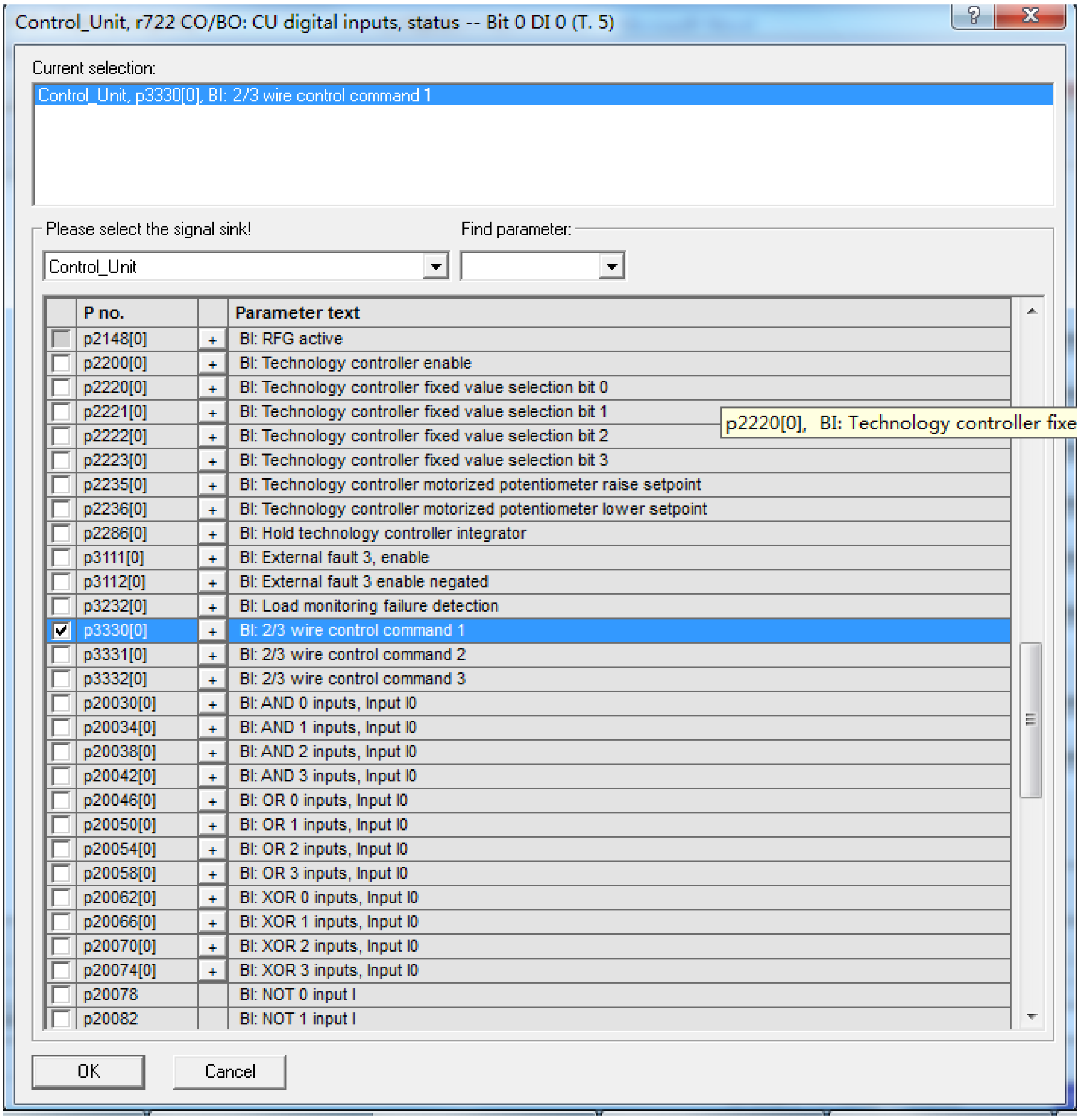
0 : 1 CDS: 0 DDS: 0 MDS: 0

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display.

S7USB / PC Adapter(Auto)

20:00 2013/3/29


Control_Unit, r722 CO/BO: CU digital inputs, status -- Bit 0 DI 0 (T. 5)

Current selection:

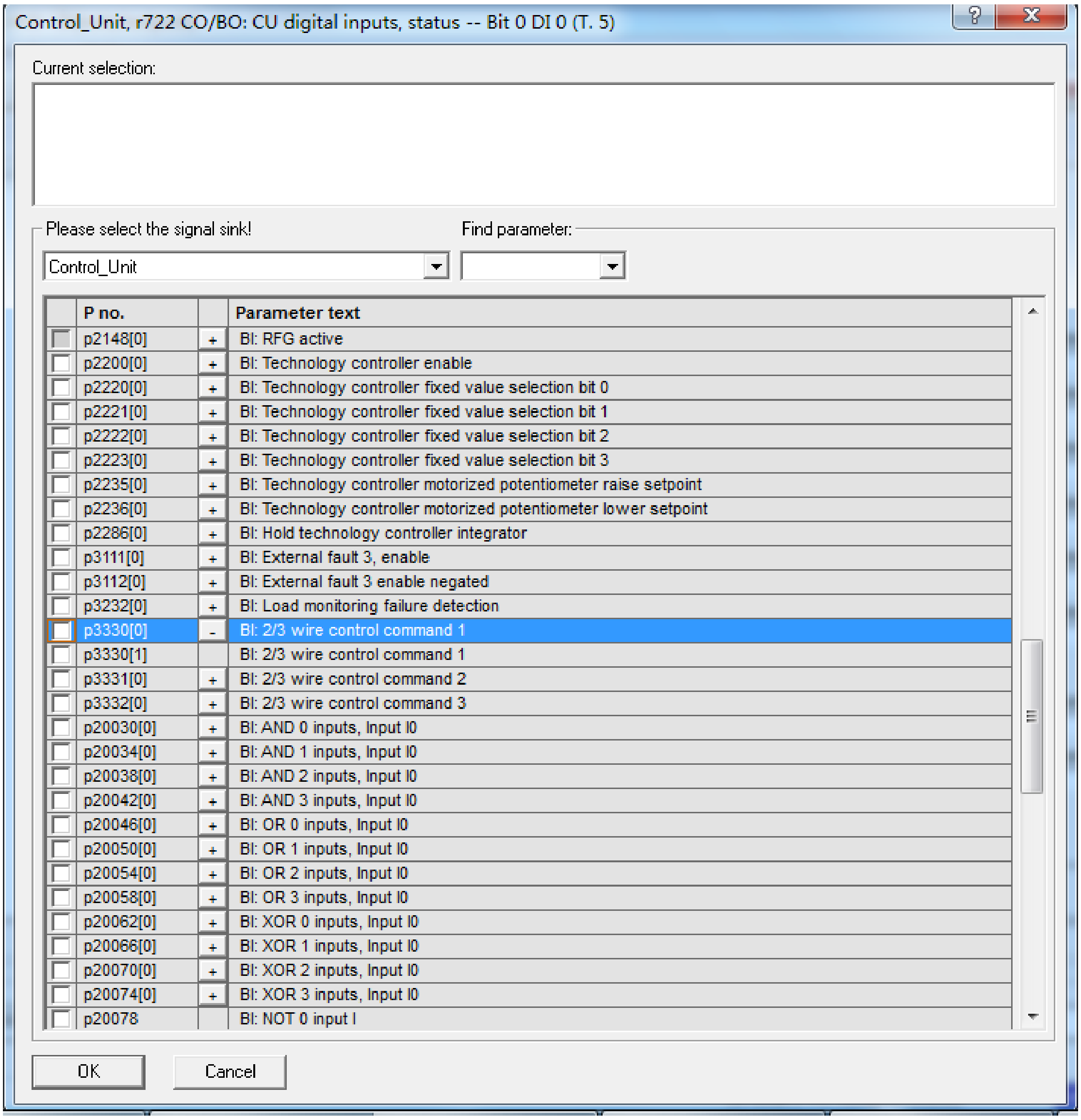
Control_Unit, p3330[0], BI: 2/3 wire control command 1

Please select the signal sink! Control_Unit

Find parameter:

p2220[0], BI: Technology controller fixe

	P no.		Parameter text
☐	p2148[0]	+	BI: RFG active
☐	p2200[0]	+	BI: Technology controller enable
☐	p2220[0]	+	BI: Technology controller fixed value selection bit 0
☐	p2221[0]	+	BI: Technology controller fixed value selection bit 1
☐	p2222[0]	+	BI: Technology controller fixed value selection bit 2
☐	p2223[0]	+	BI: Technology controller fixed value selection bit 3
☐	p2235[0]	+	BI: Technology controller motorized potentiometer raise setpoint
☐	p2236[0]	+	BI: Technology controller motorized potentiometer lower setpoint
☐	p2286[0]	+	BI: Hold technology controller integrator
☐	p3111[0]	+	BI: External fault 3, enable
☐	p3112[0]	+	BI: External fault 3 enable negated
☐	p3232[0]	+	BI: Load monitoring failure detection
☑	p3330[0]	+	BI: 2/3 wire control command 1
☐	p3331[0]	+	BI: 2/3 wire control command 2
☐	p3332[0]	+	BI: 2/3 wire control command 3
☐	p20030[0]	+	BI: AND 0 inputs, Input I0
☐	p20034[0]	+	BI: AND 1 inputs, Input I0
☐	p20038[0]	+	BI: AND 2 inputs, Input I0
☐	p20042[0]	+	BI: AND 3 inputs, Input I0
☐	p20046[0]	+	BI: OR 0 inputs, Input I0
☐	p20050[0]	+	BI: OR 1 inputs, Input I0
☐	p20054[0]	+	BI: OR 2 inputs, Input I0
☐	p20058[0]	+	BI: OR 3 inputs, Input I0
☐	p20062[0]	+	BI: XOR 0 inputs, Input I0
☐	p20066[0]	+	BI: XOR 1 inputs, Input I0
☐	p20070[0]	+	BI: XOR 2 inputs, Input I0
☐	p20074[0]	+	BI: XOR 3 inputs, Input I0
☐	p20078		BI: NOT 0 input I
☐	p20082		BI: NOT 1 input I



Control_Unit, r722 CO/BO: CU digital inputs, status -- Bit 0 DI 0 (T. 5)

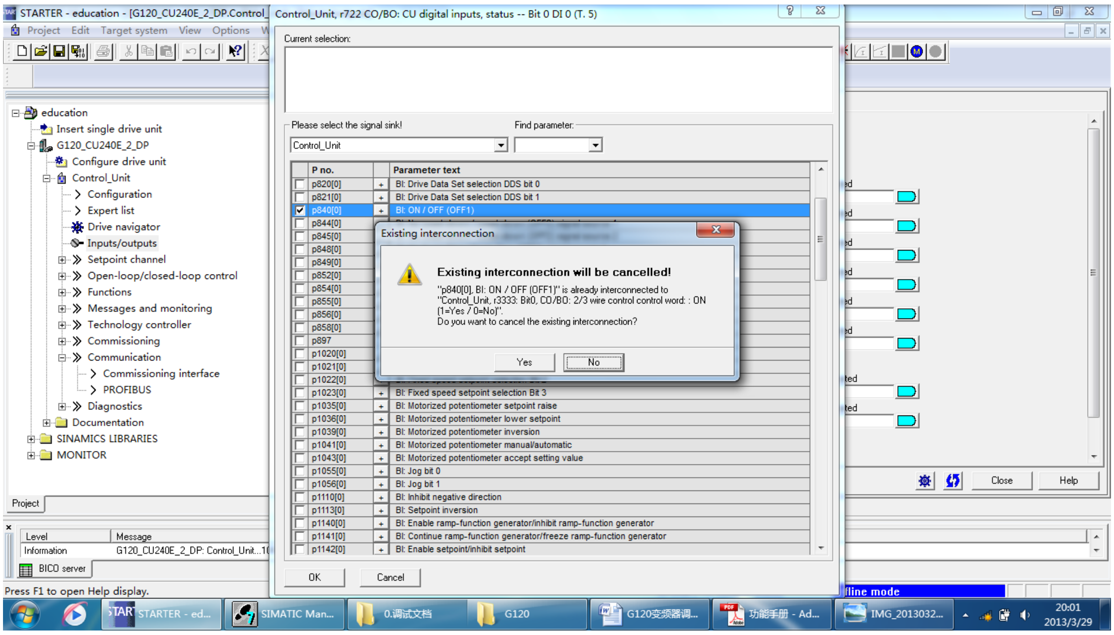
Current selection:

Please select the signal sink!　Control_Unit

Find parameter:

	P no.		Parameter text
☐	p2148[0]	+	BI: RFG active
☐	p2200[0]	+	BI: Technology controller enable
☐	p2220[0]	+	BI: Technology controller fixed value selection bit 0
☐	p2221[0]	+	BI: Technology controller fixed value selection bit 1
☐	p2222[0]	+	BI: Technology controller fixed value selection bit 2
☐	p2223[0]	+	BI: Technology controller fixed value selection bit 3
☐	p2235[0]	+	BI: Technology controller motorized potentiometer raise setpoint
☐	p2236[0]	+	BI: Technology controller motorized potentiometer lower setpoint
☐	p2286[0]	+	BI: Hold technology controller integrator
☐	p3111[0]	+	BI: External fault 3, enable
☐	p3112[0]	+	BI: External fault 3 enable negated
☐	p3232[0]	+	BI: Load monitoring failure detection
☐	p3330[0]	-	BI: 2/3 wire control command 1
☐	p3330[1]		BI: 2/3 wire control command 1
☐	p3331[0]	+	BI: 2/3 wire control command 2
☐	p3332[0]	+	BI: 2/3 wire control command 3
☐	p20030[0]	+	BI: AND 0 inputs, Input I0
☐	p20034[0]	+	BI: AND 1 inputs, Input I0
☐	p20038[0]	+	BI: AND 2 inputs, Input I0
☐	p20042[0]	+	BI: AND 3 inputs, Input I0
☐	p20046[0]	+	BI: OR 0 inputs, Input I0
☐	p20050[0]	+	BI: OR 1 inputs, Input I0
☐	p20054[0]	+	BI: OR 2 inputs, Input I0
☐	p20058[0]	+	BI: OR 3 inputs, Input I0
☐	p20062[0]	+	BI: XOR 0 inputs, Input I0
☐	p20066[0]	+	BI: XOR 1 inputs, Input I0
☐	p20070[0]	+	BI: XOR 2 inputs, Input I0
☐	p20074[0]	+	BI: XOR 3 inputs, Input I0
☐	p20078		BI: NOT 0 input I

OK
Cancel



STARTER - education - [G120_CU240E_2_DP.Control_
Project　Edit　Target system　View　Options
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Level　Message
Information　G120_CU240E_2_DP: Control_Unit...1
BICO server
Press F1 to open Help display.
Close
Help
fline mode
STARTER - ed...
SIMATIC Man...
0.调试文档
G120
G120变频器调...
功能手册 - Ad...
IMG_2013032...
20:01
2013/3/29

Control_Unit, r722 CO/BO: CU digital inputs, status -- Bit 0 DI 0 (T. 5)

Current selection:

Please select the signal sink!　Control_Unit

Find parameter:

	P no.		Parameter text
☐	p820[0]	+	BI: Drive Data Set selection DDS bit 0
☐	p821[0]	+	BI: Drive Data Set selection DDS bit 1
☑	p840[0]	+	BI: ON / OFF (OFF1)
☐	p844[0]		
☐	p845[0]		
☐	p848[0]		
☐	p849[0]		
☐	p852[0]		
☐	p854[0]		
☐	p855[0]		
☐	p856[0]		
☐	p858[0]		
☐	p897		
☐	p1020[0]		
☐	p1021[0]		
☐	p1022[0]		
☐	p1023[0]	+	BI: Fixed speed setpoint selection Bit 3
☐	p1035[0]	+	BI: Motorized potentiometer setpoint raise
☐	p1036[0]	+	BI: Motorized potentiometer lower setpoint
☐	p1039[0]	+	BI: Motorized potentiometer inversion
☐	p1041[0]	+	BI: Motorized potentiometer manual/automatic
☐	p1043[0]	+	BI: Motorized potentiometer accept setting value
☐	p1055[0]	+	BI: Jog bit 0
☐	p1056[0]	+	BI: Jog bit 1
☐	p1110[0]	+	BI: Inhibit negative direction
☐	p1113[0]	+	BI: Setpoint inversion
☐	p1140[0]	+	BI: Enable ramp-function generator/inhibit ramp-function generator
☐	p1141[0]	+	BI: Continue ramp-function generator/freeze ramp-function generator
☐	p1142[0]	+	BI: Enable setpoint/inhibit setpoint

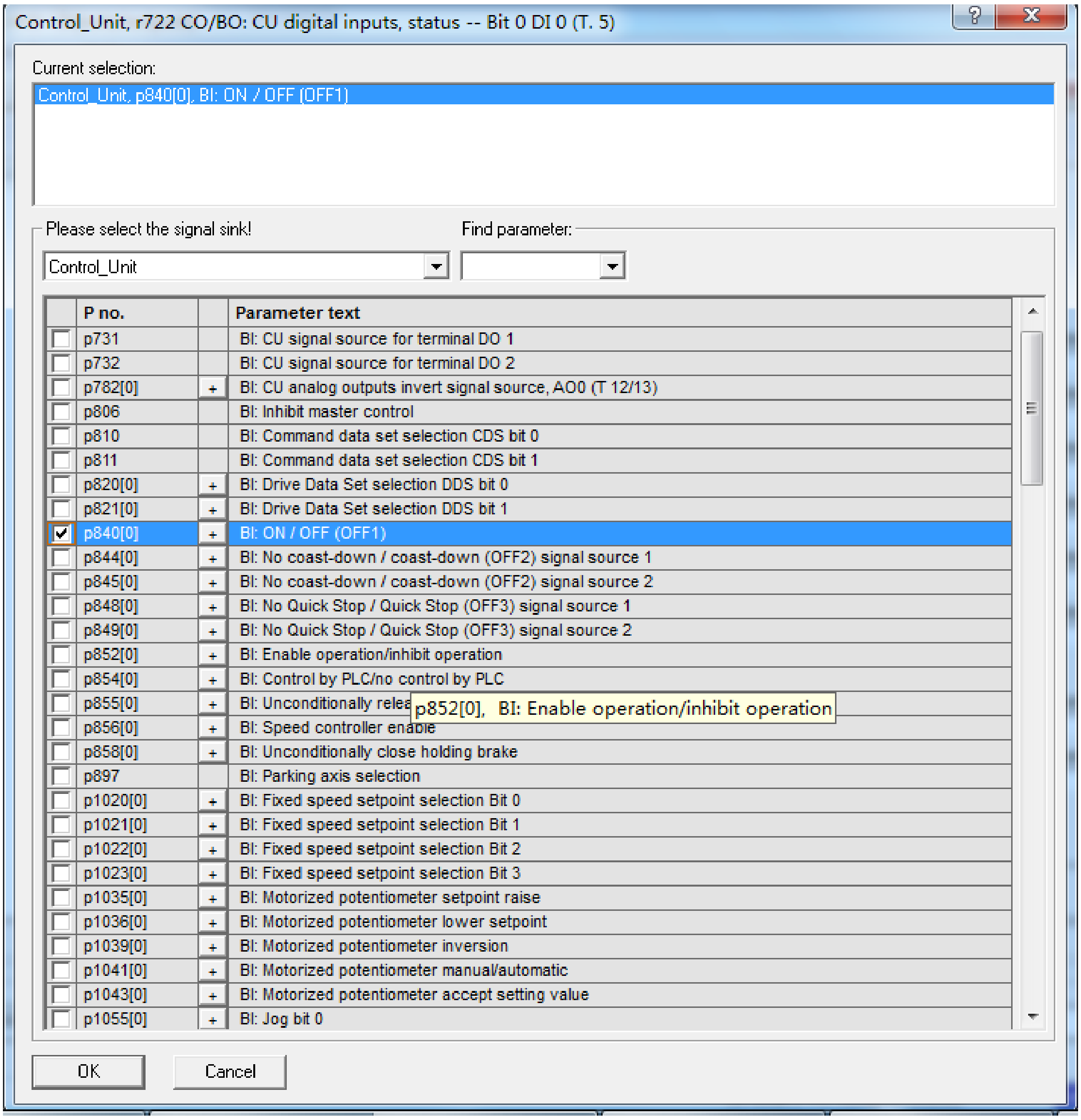
Existing interconnection

Existing interconnection will be cancelled!

"p840[0], BI: ON / OFF (OFF1)" is already interconnected to "Control_Unit, r3333: Bit0, CO/BO: 2/3 wire control control word: : ON (1=Yes / 0=No)".
Do you want to cancel the existing interconnection?

Yes
No
OK
Cancel

选择 Yes


Control_Unit, r722 CO/BO: CU digital inputs, status -- Bit 0 DI 0 (T. 5)

Current selection:

Control_Unit, p840[0], BI: ON / OFF (OFF1)

Please select the signal sink!

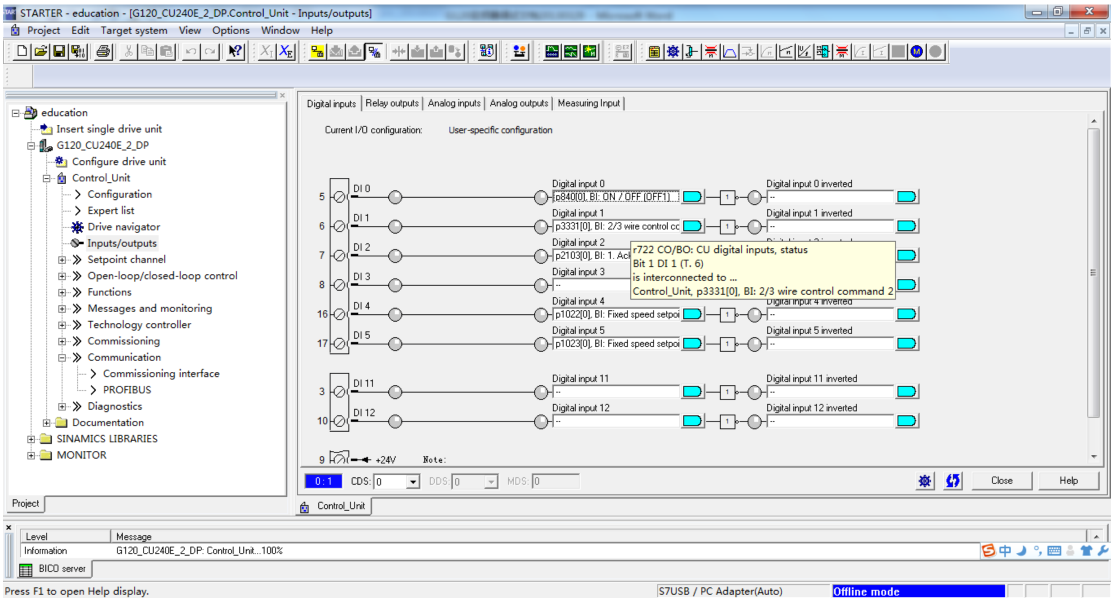
Control_Unit

Find parameter:

	P no.		Parameter text
☐	p731		BI: CU signal source for terminal DO 1
☐	p732		BI: CU signal source for terminal DO 2
☐	p782[0]	+	BI: CU analog outputs invert signal source, AO0 (T 12/13)
☐	p806		BI: Inhibit master control
☐	p810		BI: Command data set selection CDS bit 0
☐	p811		BI: Command data set selection CDS bit 1
☐	p820[0]	+	BI: Drive Data Set selection DDS bit 0
☐	p821[0]	+	BI: Drive Data Set selection DDS bit 1
☑	p840[0]	+	BI: ON / OFF (OFF1)
☐	p844[0]	+	BI: No coast-down / coast-down (OFF2) signal source 1
☐	p845[0]	+	BI: No coast-down / coast-down (OFF2) signal source 2
☐	p848[0]	+	BI: No Quick Stop / Quick Stop (OFF3) signal source 1
☐	p849[0]	+	BI: No Quick Stop / Quick Stop (OFF3) signal source 2
☐	p852[0]	+	BI: Enable operation/inhibit operation
☐	p854[0]	+	BI: Control by PLC/no control by PLC
☐	p855[0]	+	BI: Unconditionally relea
☐	p856[0]	+	BI: Speed controller enable
☐	p858[0]	+	BI: Unconditionally close holding brake
☐	p897		BI: Parking axis selection
☐	p1020[0]	+	BI: Fixed speed setpoint selection Bit 0
☐	p1021[0]	+	BI: Fixed speed setpoint selection Bit 1
☐	p1022[0]	+	BI: Fixed speed setpoint selection Bit 2
☐	p1023[0]	+	BI: Fixed speed setpoint selection Bit 3
☐	p1035[0]	+	BI: Motorized potentiometer setpoint raise
☐	p1036[0]	+	BI: Motorized potentiometer lower setpoint
☐	p1039[0]	+	BI: Motorized potentiometer inversion
☐	p1041[0]	+	BI: Motorized potentiometer manual/automatic
☐	p1043[0]	+	BI: Motorized potentiometer accept setting value
☐	p1055[0]	+	BI: Jog bit 0

p852[0], BI: Enable operation/inhibit operation

OK
Cancel


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Inputs/outputs]

Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Digital inputs
Relay outputs
Analog inputs
Analog outputs
Measuring Input
5
DI 0
6
DI 1
7
DI 2
8
DI 3
16
DI 4
17
DI 5
3
DI 11
10
DI 12
9
+24V
1
Close
Help
Control_Unit
BICO server

Current I/O configuration: User-specific configuration

Digital input 0: p840[0], BI: ON / OFF (OFF1)

Digital input 0 inverted: --

Digital input 1: p3331[0], BI: 2/3 wire control cc

Digital input 1 inverted: --

Digital input 2: p2103[0], BI: 1. Ack

Digital input 3: --

Digital input 4: p1022[0], BI: Fixed speed setpoi

Digital input 4 inverted: --

Digital input 5: p1023[0], BI: Fixed speed setpoi

Digital input 5 inverted: --

Digital input 11: --

Digital input 11 inverted: --

Digital input 12: --

Digital input 12 inverted: --

r722 CO/BO: CU digital inputs, status
Bit 1 DI 1 (T. 6)
is interconnected to ...
Control_Unit, p3331[0], BI: 2/3 wire control command 2

Note:

0 : 1 CDS: 0 DDS: 0 MDS: 0

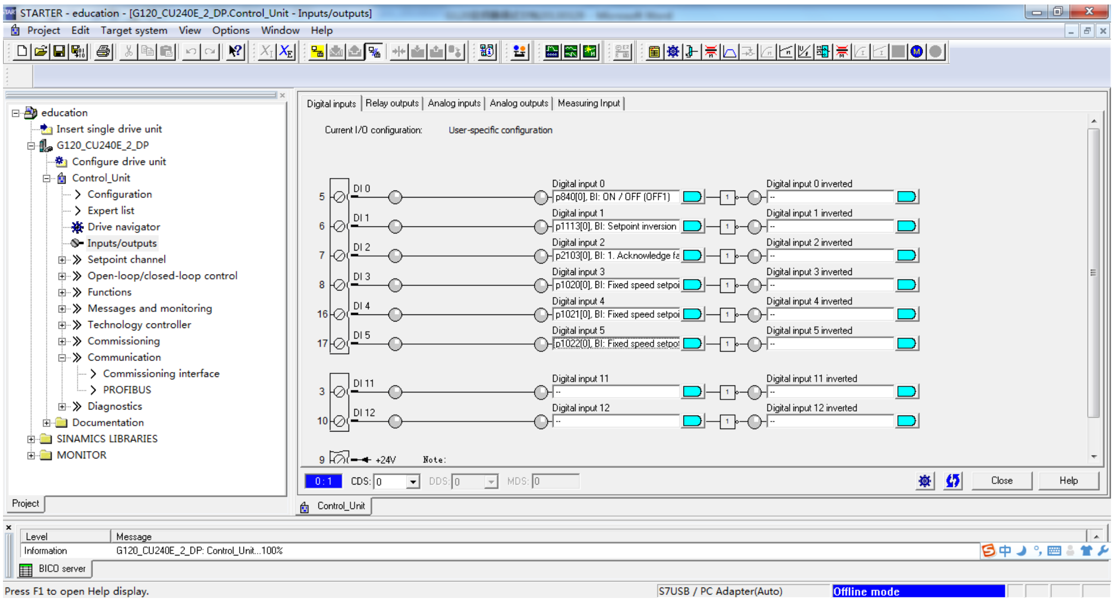
Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display.

S7USB / PC Adapter(Auto)

Offline mode

13. 完成修改后，各端子的功能


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Inputs/outputs]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Digital inputs
Relay outputs
Analog inputs
Analog outputs
Measuring Input
Note:
Close
Help
Control_Unit
BICO server
Press F1 to open Help display.

Current I/O configuration: User-specific configuration

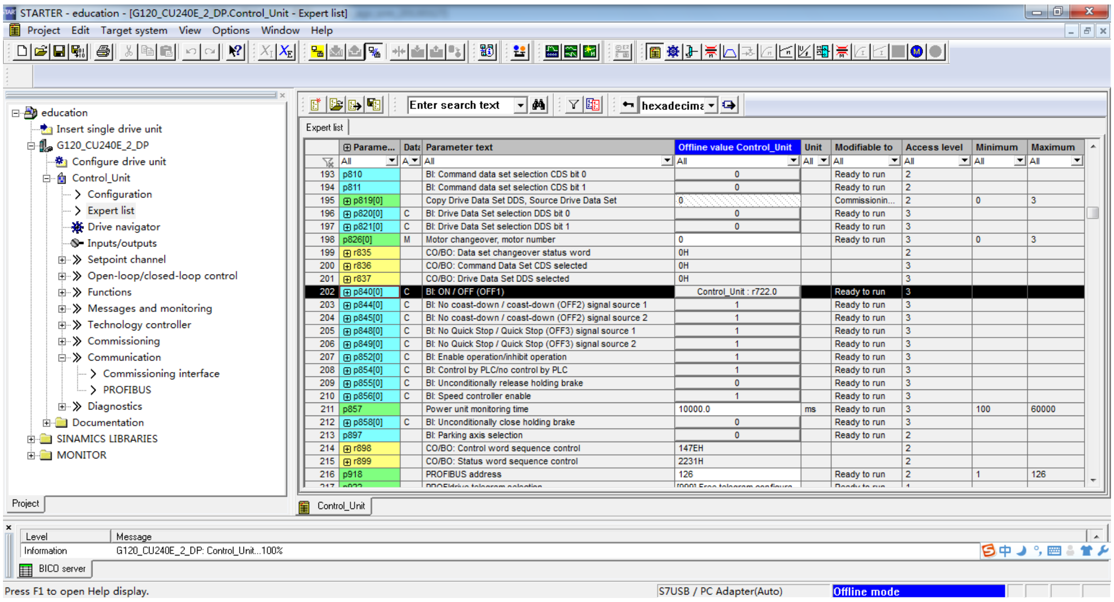
5 DI 0 — Digital input 0: p840[0], BI: ON / OFF (OFF1) — Digital input 0 inverted: --
6 DI 1 — Digital input 1: p1113[0], BI: Setpoint inversion — Digital input 1 inverted: --
7 DI 2 — Digital input 2: p2103[0], BI: 1. Acknowledge fa — Digital input 2 inverted: --
8 DI 3 — Digital input 3: p1020[0], BI: Fixed speed setpoi — Digital input 3 inverted: --
16 DI 4 — Digital input 4: p1021[0], BI: Fixed speed setpoi — Digital input 4 inverted: --
17 DI 5 — Digital input 5: p1022[0], BI: Fixed speed setpoi — Digital input 5 inverted: --
3 DI 11 — Digital input 11: -- — Digital input 11 inverted: --
10 DI 12 — Digital input 12: -- — Digital input 12 inverted: --
9 +24V

0 : 1 CDS: 0 DDS: 0 MDS: 0

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

S7USB / PC Adapter(Auto) Offline mode

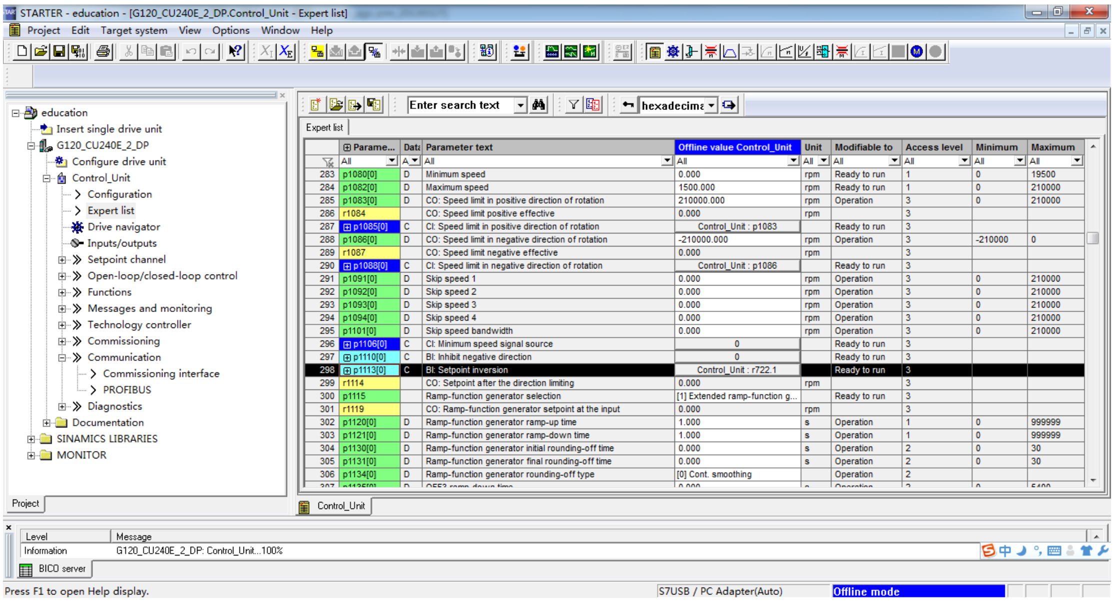
14. 完成修改后，list 中相应参数的变化


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit
BICO server
Press F1 to open Help display.

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
193	p810		BI: Command data set selection CDS bit 0	0		Ready to run	2		
194	p811		BI: Command data set selection CDS bit 1	0		Ready to run	2		
195	p819[0]		Copy Drive Data Set DDS, Source Drive Data Set	0		Commissionin...	2	0	3
196	p820[0]	C	BI: Drive Data Set selection DDS bit 0	0		Ready to run	3		
197	p821[0]	C	BI: Drive Data Set selection DDS bit 1	0		Ready to run	3		
198	p826[0]	M	Motor changeover, motor number	0		Ready to run	3	0	3
199	r835		CO/BO: Data set changeover status word	0H			2		
200	r836		CO/BO: Command Data Set CDS selected	0H			3		
201	r837		CO/BO: Drive Data Set DDS selected	0H			3		
202	p840[0]	C	BI: ON / OFF (OFF1)	Control_Unit : r722.0		Ready to run	3		
203	p844[0]	C	BI: No coast-down / coast-down (OFF2) signal source 1	1		Ready to run	3		
204	p845[0]	C	BI: No coast-down / coast-down (OFF2) signal source 2	1		Ready to run	3		
205	p848[0]	C	BI: No Quick Stop / Quick Stop (OFF3) signal source 1	1		Ready to run	3		
206	p849[0]	C	BI: No Quick Stop / Quick Stop (OFF3) signal source 2	1		Ready to run	3		
207	p852[0]	C	BI: Enable operation/inhibit operation	1		Ready to run	3		
208	p854[0]	C	BI: Control by PLC/no control by PLC	1		Ready to run	3		
209	p855[0]	C	BI: Unconditionally release holding brake	0		Ready to run	3		
210	p856[0]	C	BI: Speed controller enable	1		Ready to run	3		
211	p857		Power unit monitoring time	10000.0	ms	Ready to run	3	100	60000
212	p858[0]	C	BI: Unconditionally close holding brake	0		Ready to run	3		
213	p897		BI: Parking axis selection	0		Ready to run	2		
214	r898		CO/BO: Control word sequence control	147EH			2		
215	r899		CO/BO: Status word sequence control	2231H			2		
216	p918		PROFIBUS address	126		Ready to run	2	1	126

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

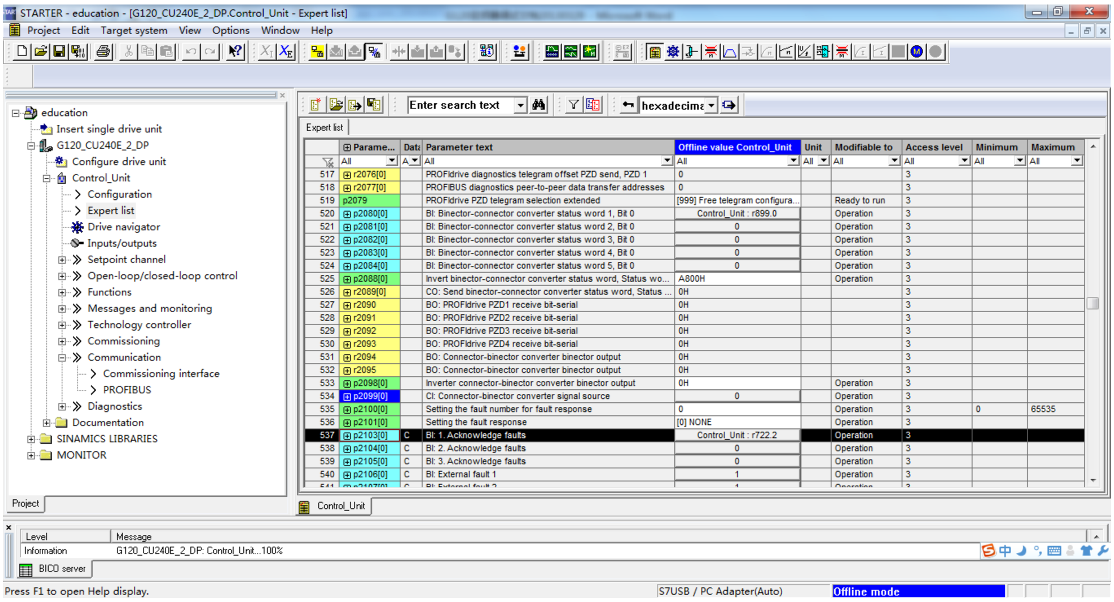
S7USB / PC Adapter(Auto) Offline mode


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit
BICO server
Level
Message

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
283	p1080[0]	D	Minimum speed	0.000	rpm	Ready to run	1	0	19500
284	p1082[0]	D	Maximum speed	1500.000	rpm	Ready to run	1	0	210000
285	p1083[0]	D	CO: Speed limit in positive direction of rotation	210000.000	rpm	Operation	3	0	210000
286	r1084		CO: Speed limit positive effective	0.000	rpm		3		
287	p1085[0]	C	CI: Speed limit in positive direction of rotation	Control_Unit : p1083		Ready to run	3		
288	p1086[0]	D	CO: Speed limit in negative direction of rotation	-210000.000	rpm	Operation	3	-210000	0
289	r1087		CO: Speed limit negative effective	0.000	rpm		3		
290	p1088[0]	C	CI: Speed limit in negative direction of rotation	Control_Unit : p1086		Ready to run	3		
291	p1091[0]	D	Skip speed 1	0.000	rpm	Operation	3	0	210000
292	p1092[0]	D	Skip speed 2	0.000	rpm	Operation	3	0	210000
293	p1093[0]	D	Skip speed 3	0.000	rpm	Operation	3	0	210000
294	p1094[0]	D	Skip speed 4	0.000	rpm	Operation	3	0	210000
295	p1101[0]	D	Skip speed bandwidth	0.000	rpm	Operation	3	0	210000
296	p1106[0]	C	CI: Minimum speed signal source	0		Ready to run	3		
297	p1110[0]	C	BI: Inhibit negative direction	0		Ready to run	3		
298	p1113[0]	C	BI: Setpoint inversion	Control_Unit : r722.1		Ready to run	3		
299	r1114		CO: Setpoint after the direction limiting	0.000	rpm		3		
300	p1115		Ramp-function generator selection	[1] Extended ramp-function g...		Ready to run	3		
301	r1119		CO: Ramp-function generator setpoint at the input	0.000	rpm		3		
302	p1120[0]	D	Ramp-function generator ramp-up time	1.000	s	Operation	1	0	999999
303	p1121[0]	D	Ramp-function generator ramp-down time	1.000	s	Operation	1	0	999999
304	p1130[0]	D	Ramp-function generator initial rounding-off time	0.000	s	Operation	2	0	30
305	p1131[0]	D	Ramp-function generator final rounding-off time	0.000	s	Operation	2	0	30
306	p1134[0]	D	Ramp-function generator rounding-off type	[0] Cont. smoothing		Operation	2		

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

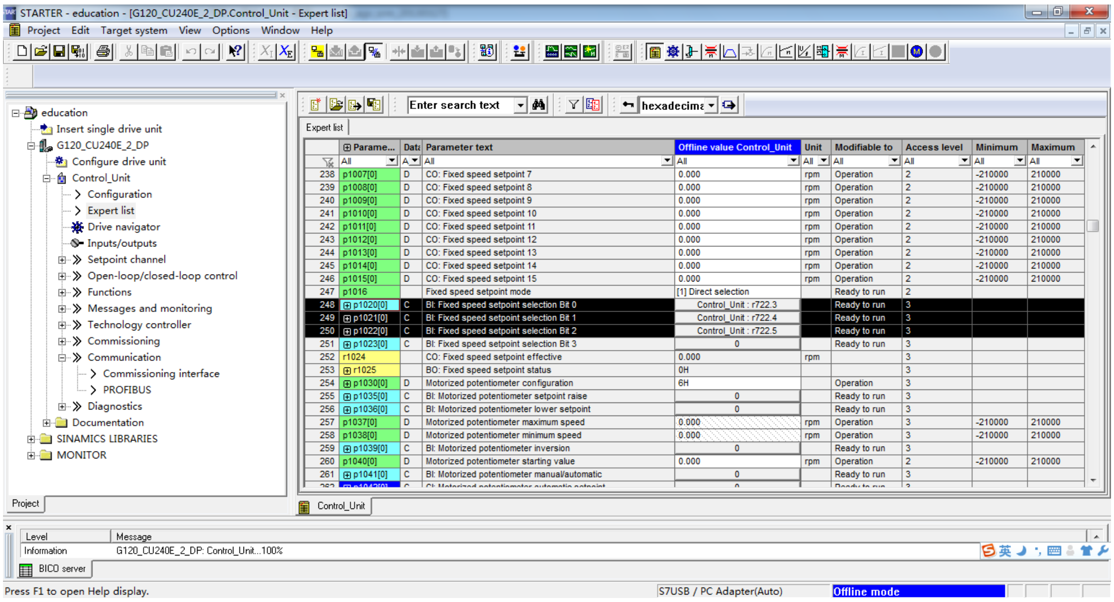
Press F1 to open Help display. S7USB / PC Adapter(Auto) Offline mode


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit
BICO server
Level
Message

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
517	r2076[0]		PROFIdrive diagnostics telegram offset PZD send, PZD 1	0			3		
518	r2077[0]		PROFIBUS diagnostics peer-to-peer data transfer addresses	0			3		
519	p2079		PROFIdrive PZD telegram selection extended	[999] Free telegram configura...		Ready to run	3		
520	p2080[0]		BI: Binector-connector converter status word 1, Bit 0	Control_Unit : r899.0		Operation	3		
521	p2081[0]		BI: Binector-connector converter status word 2, Bit 0	0		Operation	3		
522	p2082[0]		BI: Binector-connector converter status word 3, Bit 0	0		Operation	3		
523	p2083[0]		BI: Binector-connector converter status word 4, Bit 0	0		Operation	3		
524	p2084[0]		BI: Binector-connector converter status word 5, Bit 0	0		Operation	3		
525	p2088[0]		Invert binector-connector converter status word, Status wo...	A800H		Operation	3		
526	r2089[0]		CO: Send binector-connector converter status word, Status ...	0H			3		
527	r2090		BO: PROFIdrive PZD1 receive bit-serial	0H			3		
528	r2091		BO: PROFIdrive PZD2 receive bit-serial	0H			3		
529	r2092		BO: PROFIdrive PZD3 receive bit-serial	0H			3		
530	r2093		BO: PROFIdrive PZD4 receive bit-serial	0H			3		
531	r2094		BO: Connector-binector converter binector output	0H			3		
532	r2095		BO: Connector-binector converter binector output	0H			3		
533	p2098[0]		Inverter connector-binector converter binector output	0H		Operation	3		
534	p2099[0]		CI: Connector-binector converter signal source	0		Operation	3		
535	p2100[0]		Setting the fault number for fault response	0		Operation	3	0	65535
536	p2101[0]		Setting the fault response	[0] NONE		Operation	3		
537	p2103[0]	C	BI: 1. Acknowledge faults	Control_Unit : r722.2		Operation	3		
538	p2104[0]	C	BI: 2. Acknowledge faults	0		Operation	3		
539	p2105[0]	C	BI: 3. Acknowledge faults	0		Operation	3		
540	p2106[0]	C	BI: External fault 1	1		Operation	3		

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display. S7USB / PC Adapter(Auto) Offline mode

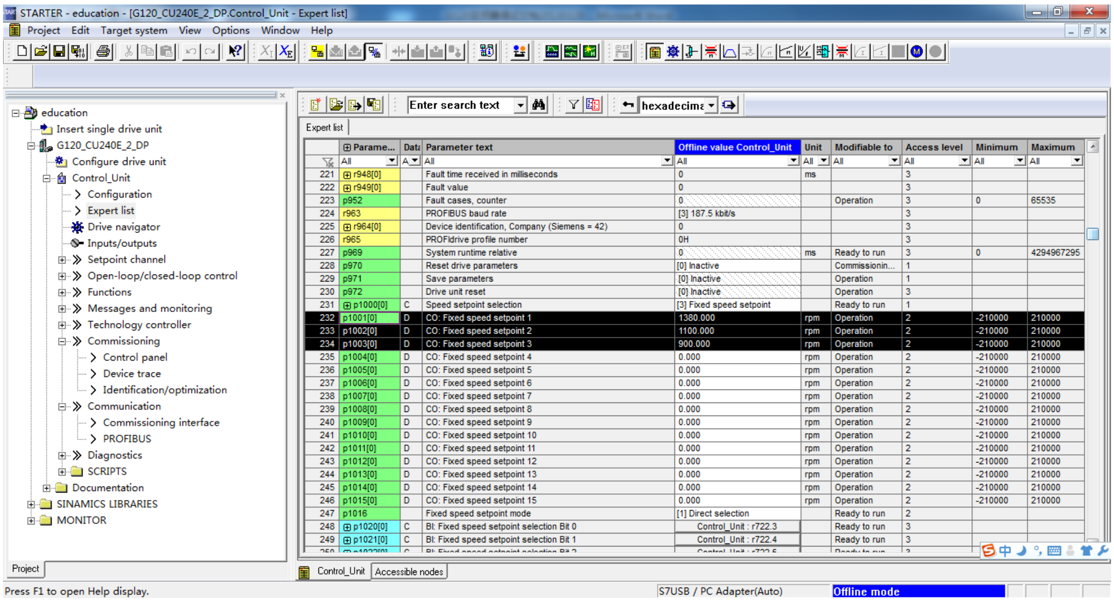

STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit
BICO server
Level
Message

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
238	p1007[0]	D	CO: Fixed speed setpoint 7	0.000	rpm	Operation	2	-210000	210000
239	p1008[0]	D	CO: Fixed speed setpoint 8	0.000	rpm	Operation	2	-210000	210000
240	p1009[0]	D	CO: Fixed speed setpoint 9	0.000	rpm	Operation	2	-210000	210000
241	p1010[0]	D	CO: Fixed speed setpoint 10	0.000	rpm	Operation	2	-210000	210000
242	p1011[0]	D	CO: Fixed speed setpoint 11	0.000	rpm	Operation	2	-210000	210000
243	p1012[0]	D	CO: Fixed speed setpoint 12	0.000	rpm	Operation	2	-210000	210000
244	p1013[0]	D	CO: Fixed speed setpoint 13	0.000	rpm	Operation	2	-210000	210000
245	p1014[0]	D	CO: Fixed speed setpoint 14	0.000	rpm	Operation	2	-210000	210000
246	p1015[0]	D	CO: Fixed speed setpoint 15	0.000	rpm	Operation	2	-210000	210000
247	p1016		Fixed speed setpoint mode	[1] Direct selection		Ready to run	2		
248	p1020[0]	C	BI: Fixed speed setpoint selection Bit 0	Control_Unit : r722.3		Ready to run	3		
249	p1021[0]	C	BI: Fixed speed setpoint selection Bit 1	Control_Unit : r722.4		Ready to run	3		
250	p1022[0]	C	BI: Fixed speed setpoint selection Bit 2	Control_Unit : r722.5		Ready to run	3		
251	p1023[0]	C	BI: Fixed speed setpoint selection Bit 3	0		Ready to run	3		
252	r1024		CO: Fixed speed setpoint effective	0.000	rpm		3		
253	r1025		BO: Fixed speed setpoint status	0H			3		
254	p1030[0]	D	Motorized potentiometer configuration	6H		Operation	3		
255	p1035[0]	C	BI: Motorized potentiometer setpoint raise	0		Ready to run	3		
256	p1036[0]	C	BI: Motorized potentiometer lower setpoint	0		Ready to run	3		
257	p1037[0]	D	Motorized potentiometer maximum speed	0.000	rpm	Operation	3	-210000	210000
258	p1038[0]	D	Motorized potentiometer minimum speed	0.000	rpm	Operation	3	-210000	210000
259	p1039[0]	C	BI: Motorized potentiometer inversion	0		Ready to run	3		
260	p1040[0]	D	Motorized potentiometer starting value	0.000	rpm	Operation	2	-210000	210000
261	p1041[0]	C	BI: Motorized potentiometer manual/automatic	0		Ready to run	3		

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display. S7USB / PC Adapter(Auto) Offline mode

15. 修改对应的固定速度的值

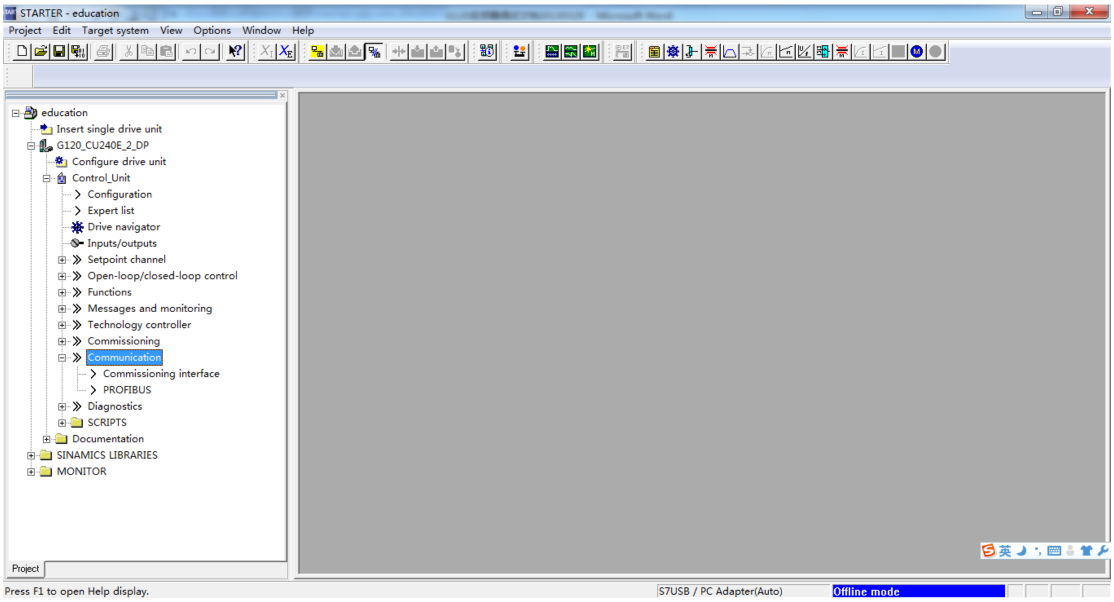

STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]

Project
Edit
Target system
View
Options
Window
Help
Enter search text
hexadecimal
Expert list
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Control panel
Device trace
Identification/optimization
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Control_Unit
Accessible nodes
S7USB / PC Adapter(Auto)
Offline mode

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
221	r948[0]		Fault time received in milliseconds	0	ms		3		
222	r949[0]		Fault value	0			3		
223	p952		Fault cases, counter	0		Operation	3	0	65535
224	r963		PROFIBUS baud rate	[3] 187.5 kbit/s			3		
225	r964[0]		Device identification, Company (Siemens = 42)	0			3		
226	r965		PROFIdrive profile number	0H			3		
227	p969		System runtime relative	0	ms	Ready to run	3	0	4294967295
228	p970		Reset drive parameters	[0] Inactive		Commissionin...	1		
229	p971		Save parameters	[0] Inactive		Operation	1		
230	p972		Drive unit reset	[0] Inactive		Operation	3		
231	p1000[0]	C	Speed setpoint selection	[3] Fixed speed setpoint		Ready to run	1		
232	p1001[0]	D	CO: Fixed speed setpoint 1	1380.000	rpm	Operation	2	-210000	210000
233	p1002[0]	D	CO: Fixed speed setpoint 2	1100.000	rpm	Operation	2	-210000	210000
234	p1003[0]	D	CO: Fixed speed setpoint 3	900.000	rpm	Operation	2	-210000	210000
235	p1004[0]	D	CO: Fixed speed setpoint 4	0.000	rpm	Operation	2	-210000	210000
236	p1005[0]	D	CO: Fixed speed setpoint 5	0.000	rpm	Operation	2	-210000	210000
237	p1006[0]	D	CO: Fixed speed setpoint 6	0.000	rpm	Operation	2	-210000	210000
238	p1007[0]	D	CO: Fixed speed setpoint 7	0.000	rpm	Operation	2	-210000	210000
239	p1008[0]	D	CO: Fixed speed setpoint 8	0.000	rpm	Operation	2	-210000	210000
240	p1009[0]	D	CO: Fixed speed setpoint 9	0.000	rpm	Operation	2	-210000	210000
241	p1010[0]	D	CO: Fixed speed setpoint 10	0.000	rpm	Operation	2	-210000	210000
242	p1011[0]	D	CO: Fixed speed setpoint 11	0.000	rpm	Operation	2	-210000	210000
243	p1012[0]	D	CO: Fixed speed setpoint 12	0.000	rpm	Operation	2	-210000	210000
244	p1013[0]	D	CO: Fixed speed setpoint 13	0.000	rpm	Operation	2	-210000	210000
245	p1014[0]	D	CO: Fixed speed setpoint 14	0.000	rpm	Operation	2	-210000	210000
246	p1015[0]	D	CO: Fixed speed setpoint 15	0.000	rpm	Operation	2	-210000	210000
247	p1016		Fixed speed setpoint mode	[1] Direct selection		Ready to run	2		
248	p1020[0]	C	BI: Fixed speed setpoint selection Bit 0	Control_Unit : r722.3		Ready to run	3		
249	p1021[0]	C	BI: Fixed speed setpoint selection Bit 1	Control_Unit : r722.4		Ready to run	3		

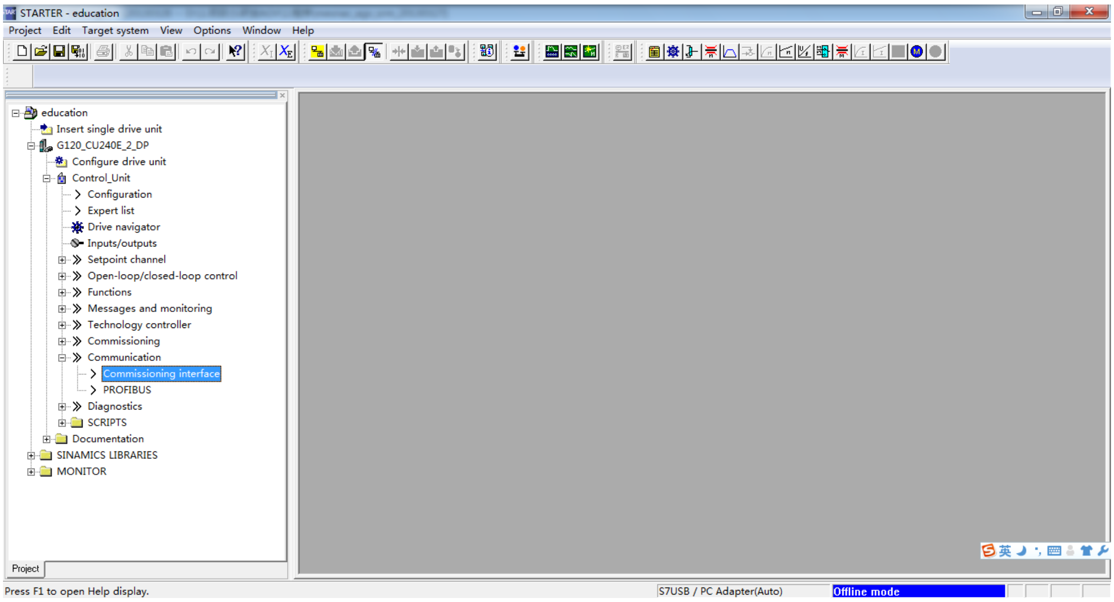
Press F1 to open Help display.

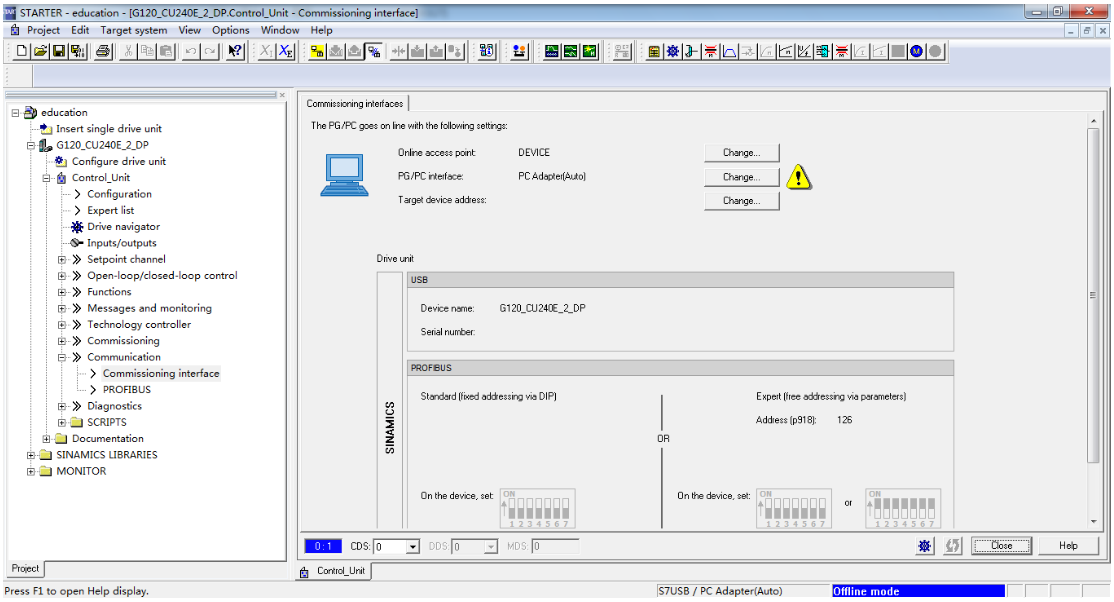
16. 对通讯的 pc/pg 借口进行设定，


STARTER - education

Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Documentation
SINAMICS LIBRARIES
MONITOR
Project
S7USB / PC Adapter(Auto)
Offline mode

Press F1 to open Help display.


STARTER - education
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Commissioning interface]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Commissioning interfaces
Change...
Change...
Change...
SINAMICS
OR
or
ON
1 2 3 4 5 6 7
0 : 1
Close
Help
Control_Unit
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

The PG/PC goes on line with the following settings:

Online access point: DEVICE

PG/PC interface: PC Adapter(Auto)

Target device address:

Drive unit

USB

Device name: G120_CU240E_2_DP

Serial number:

PROFIBUS

Standard (fixed addressing via DIP)

Expert (free addressing via parameters)

Address (p918): 126

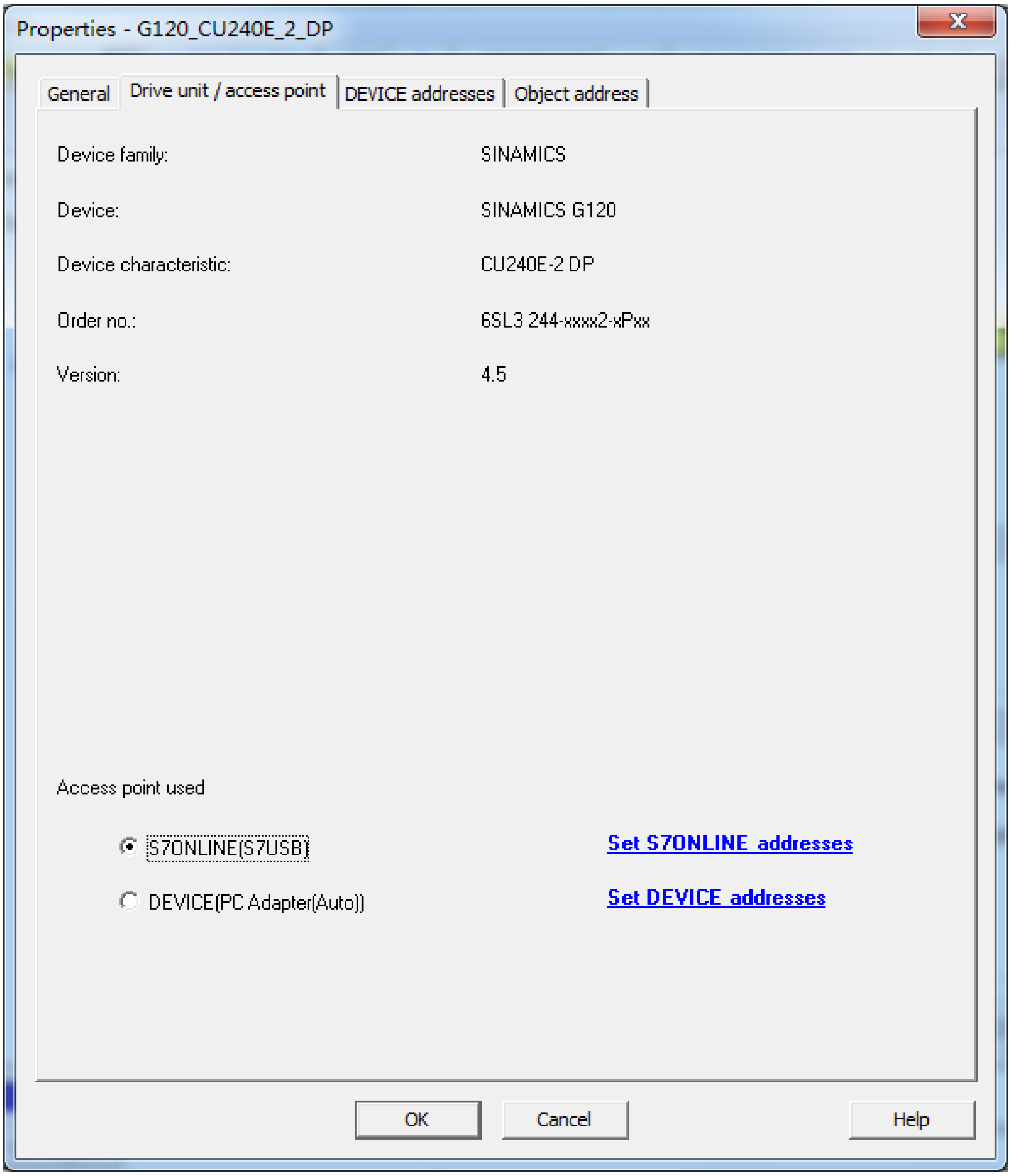
On the device, set:

On the device, set:

CDS: 0

DDS: 0

MDS: 0



Properties - G120_CU240E_2_DP
General
Drive unit / access point
DEVICE addresses
Object address

Device family: SINAMICS

Device: SINAMICS G120

Device characteristic: CU240E-2 DP

Order no.: 6SL3 244-xxxx2-xPxx

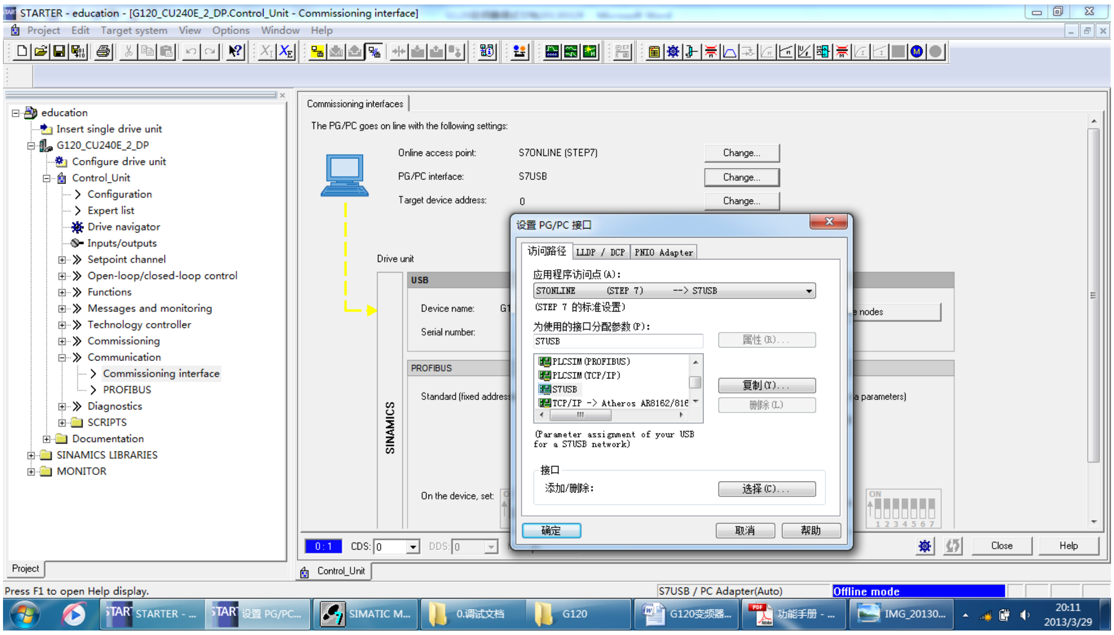
Version: 4.5

Access point used

● S7ONLINE(S7USB)

○ DEVICE(PC Adapter(Auto))

Set S7ONLINE addresses
Set DEVICE addresses
OK
Cancel
Help



STARTER - education - [G120_CU240E_2_DP.Control_Unit - Commissioning interface]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Commissioning interfaces
Change...
Change...
Change...
Drive unit
USB
Device name:
Serial number:
PROFIBUS
Standard (fixed address
SINAMICS
On the device, set:
nodes
a parameters)
设置 PG/PC 接口
访问路径
LLDP / DCP
PNIO Adapter
属性 (R)...
复制 (Y)...
删除 (L)
接口
添加/删除：
选择 (C)...
确定
取消
帮助
0:1
CDS:
DDS:
Close
Help
Control_Unit
Press F1 to open Help display.
Offline mode

The PG/PC goes on line with the following settings:

Online access point: S7ONLINE (STEP7)

PG/PC interface: S7USB

Target device address: 0

应用程序访问点 (A)：S7ONLINE (STEP 7) --> S7USB

(STEP 7 的标准设置)

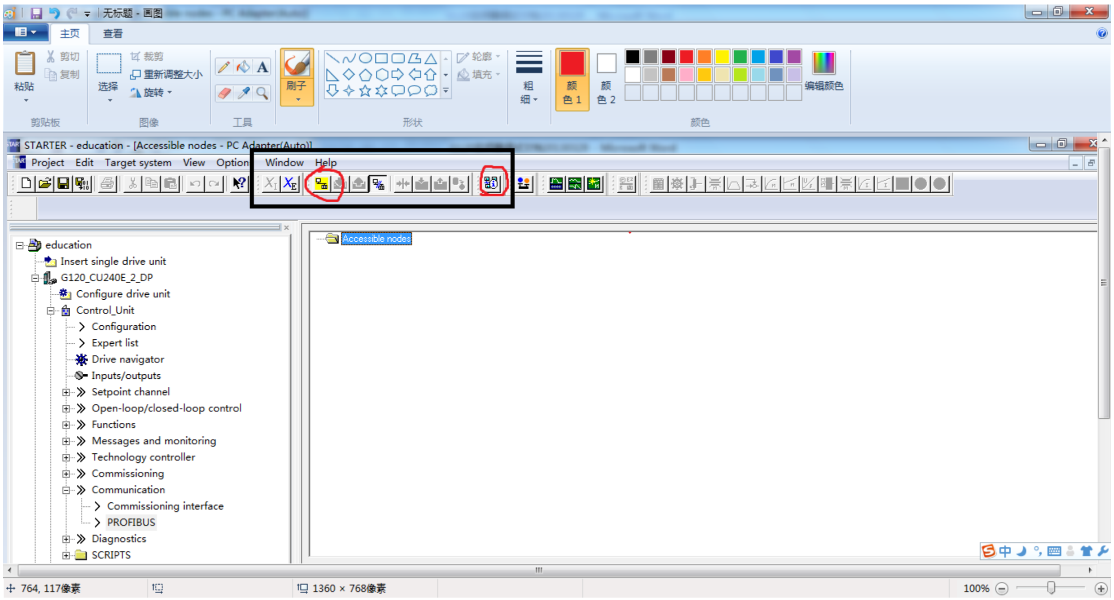
为使用的接口分配参数 (P)：S7USB

PLCSIM (PROFIBUS)
PLCSIM (TCP/IP)
S7USB
TCP/IP -> Atheros AR8162/816

(Parameter assignment of your USB for a S7USB network)

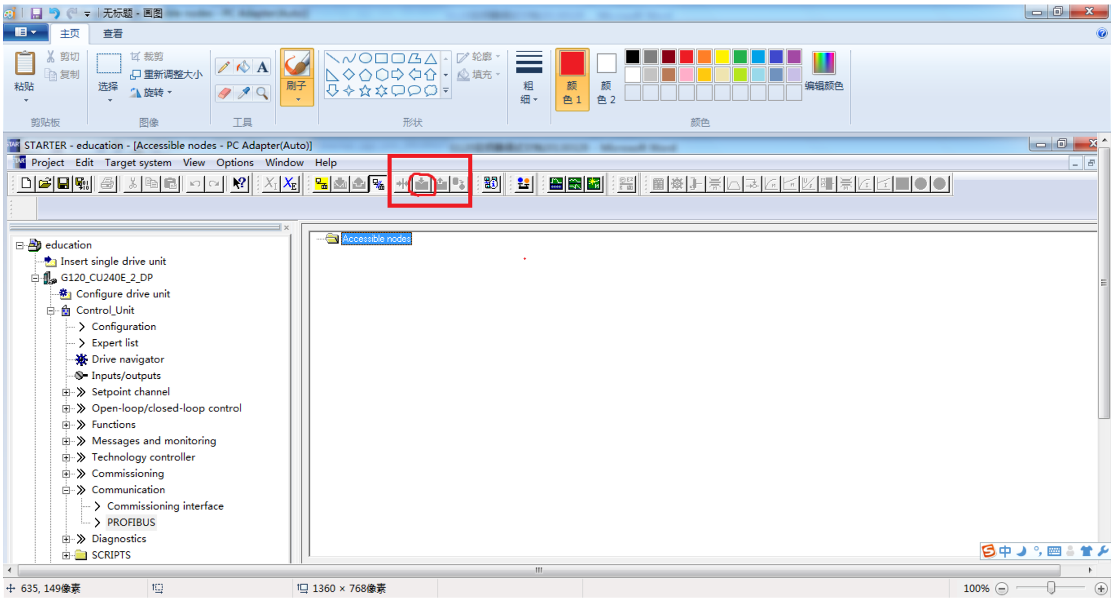
S7USB / PC Adapter(Auto)

17. 通过连接和可访问的借口可以进行对应的连接

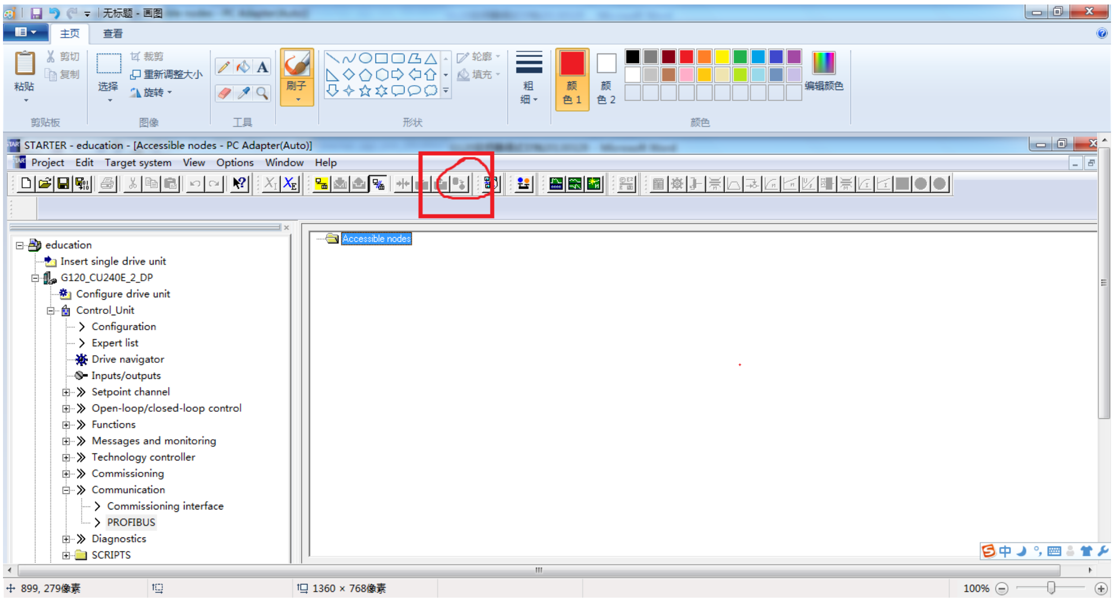


无标题 - 画图
主页
查看
粘贴
剪切
复制
选择
裁剪
重新调整大小
旋转
刷子
轮廓
填充
粗细
颜色 1
颜色 2
编辑颜色
剪贴板
图像
工具
形状
颜色
STARTER - education - [Accessible nodes - PC Adapter(Auto)]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Accessible nodes
764, 117像素
1360 × 768像素
100%

18. 通过下载将设定的内容传送到变频器


STARTER - education - [Accessible nodes - PC Adapter(Auto)]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Accessible nodes

19. 进行 copy ram to rom 的工作

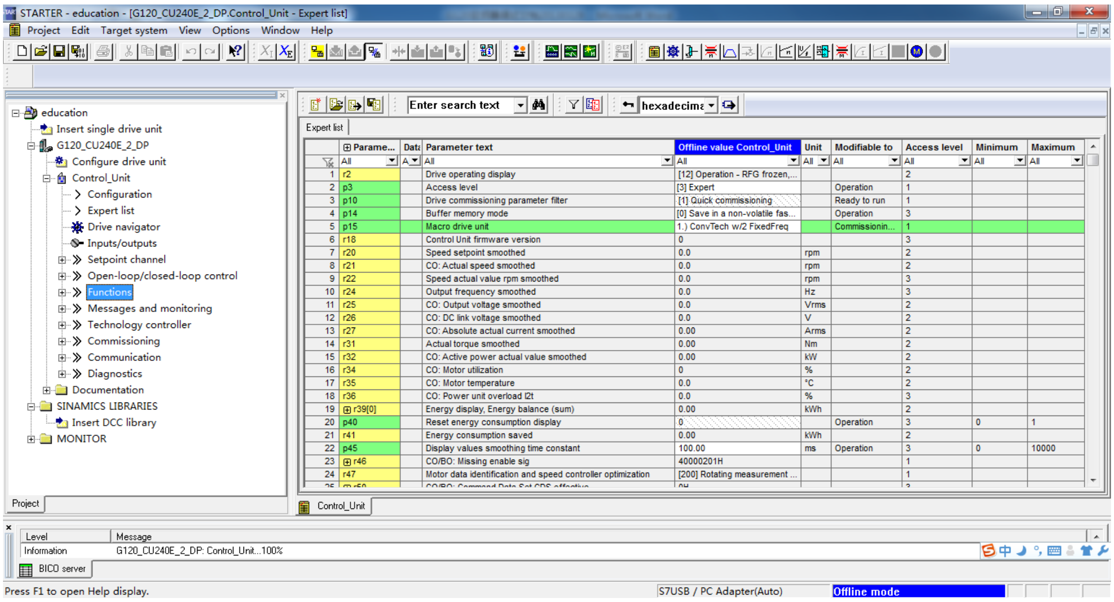

STARTER - education - [Accessible nodes - PC Adapter(Auto)]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Commissioning interface
PROFIBUS
Diagnostics
SCRIPTS
Accessible nodes

进行 copy RAM to ROM,如果不进行此项设定的话，那么出现的的效果是如果断电的情况下，变频器的参数不会被保存下来。

三抱闸的控制

采用 starter 控制抱闸的打开和闭合，具体流程如下所示

1. 选择 control-unit 中的 function，双击 function

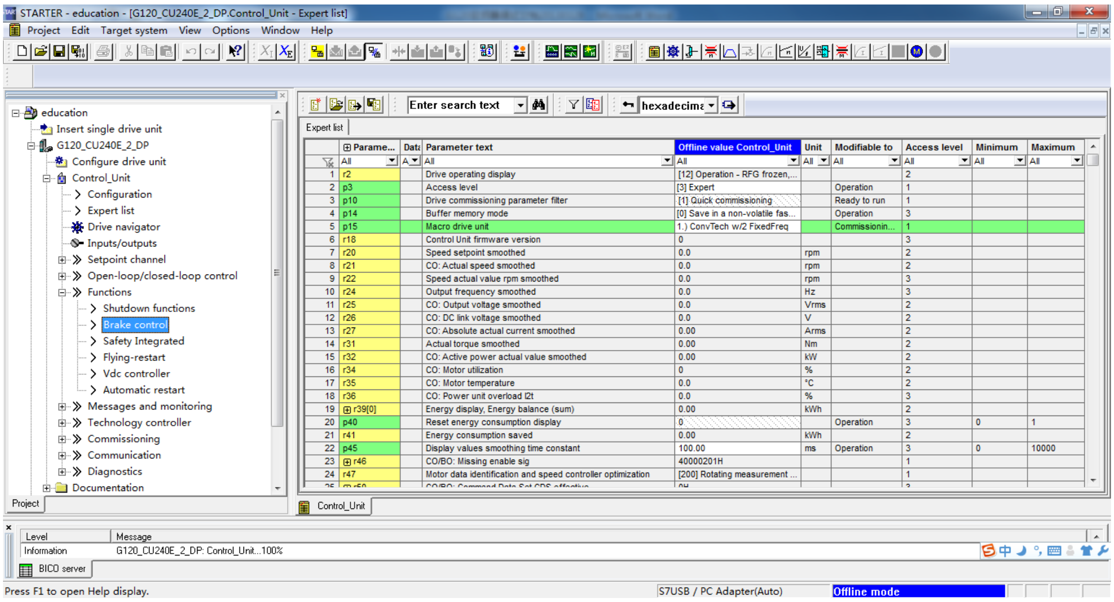

STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
SINAMICS LIBRARIES
Insert DCC library
MONITOR
Project
Enter search text
hexadecima
Expert list
Control_Unit
BICO server

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
1	r2		Drive operating display	[12] Operation - RFG frozen,...			2		
2	p3		Access level	[3] Expert		Operation	1		
3	p10		Drive commissioning parameter filter	[1] Quick commissioning		Ready to run	1		
4	p14		Buffer memory mode	[0] Save in a non-volatile fas...		Operation	3		
5	p15		Macro drive unit	1.) ConvTech w/2 FixedFreq		Commissionin...	1		
6	r18		Control Unit firmware version	0			3		
7	r20		Speed setpoint smoothed	0.0	rpm		2		
8	r21		CO: Actual speed smoothed	0.0	rpm		2		
9	r22		Speed actual value rpm smoothed	0.0	rpm		3		
10	r24		Output frequency smoothed	0.0	Hz		3		
11	r25		CO: Output voltage smoothed	0.0	Vrms		2		
12	r26		CO: DC link voltage smoothed	0.0	V		2		
13	r27		CO: Absolute actual current smoothed	0.00	Arms		2		
14	r31		Actual torque smoothed	0.00	Nm		2		
15	r32		CO: Active power actual value smoothed	0.00	kW		2		
16	r34		CO: Motor utilization	0	%		2		
17	r35		CO: Motor temperature	0.0	°C		2		
18	r36		CO: Power unit overload I2t	0.0	%		3		
19	⊞ r39[0]		Energy display, Energy balance (sum)	0.00	kWh		2		
20	p40		Reset energy consumption display	0		Operation	3	0	1
21	r41		Energy consumption saved	0.00	kWh		2		
22	p45		Display values smoothing time constant	100.00	ms	Operation	3	0	10000
23	⊞ r46		CO/BO: Missing enable sig	40000201H			1		
24	r47		Motor data identification and speed controller optimization	[200] Rotating measurement ...			1		

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display. S7USB / PC Adapter(Auto) Offline mode

2. 选择 brake control

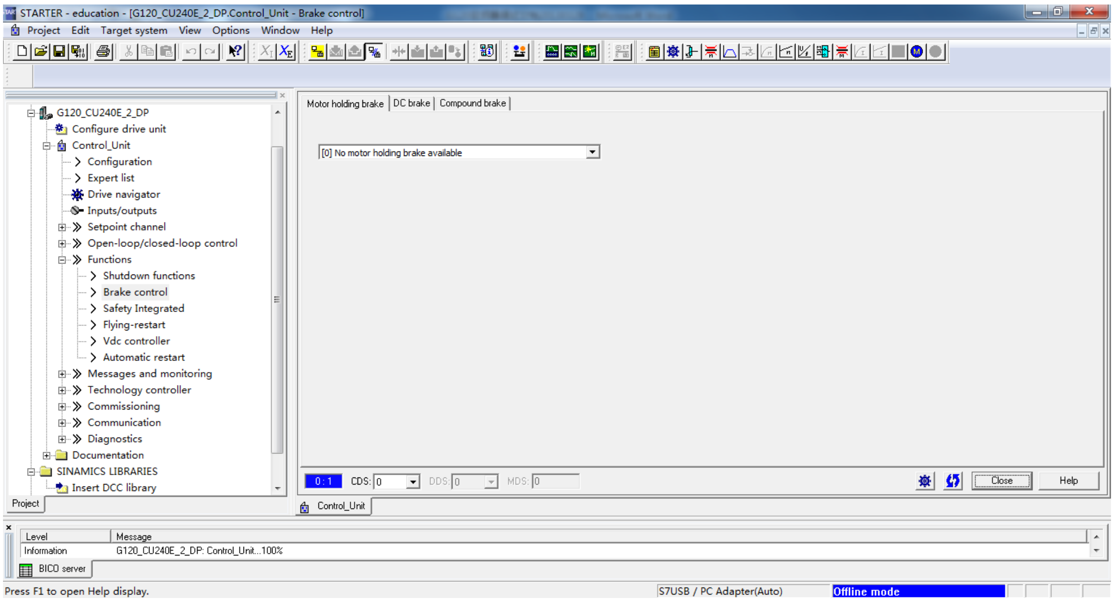

STARTER - education - [G120_CU240E_2_DP.Control_Unit - Expert list]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Shutdown functions
Brake control
Safety Integrated
Flying-restart
Vdc controller
Automatic restart
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
Project
Enter search text
hexadecima
Expert list
Control_Unit
BICO server

	Parame...	Data	Parameter text	Offline value Control_Unit	Unit	Modifiable to	Access level	Minimum	Maximum
	All	A	All	All	All	All	All	All	All
1	r2		Drive operating display	[12] Operation - RFG frozen,...			2		
2	p3		Access level	[3] Expert		Operation	1		
3	p10		Drive commissioning parameter filter	[1] Quick commissioning		Ready to run	1		
4	p14		Buffer memory mode	[0] Save in a non-volatile fas...		Operation	3		
5	p15		Macro drive unit	1.) ConvTech w/2 FixedFreq		Commissionin...	1		
6	r18		Control Unit firmware version	0			3		
7	r20		Speed setpoint smoothed	0.0	rpm		2		
8	r21		CO: Actual speed smoothed	0.0	rpm		2		
9	r22		Speed actual value rpm smoothed	0.0	rpm		3		
10	r24		Output frequency smoothed	0.0	Hz		3		
11	r25		CO: Output voltage smoothed	0.0	Vrms		2		
12	r26		CO: DC link voltage smoothed	0.0	V		2		
13	r27		CO: Absolute actual current smoothed	0.00	Arms		2		
14	r31		Actual torque smoothed	0.00	Nm		2		
15	r32		CO: Active power actual value smoothed	0.00	kW		2		
16	r34		CO: Motor utilization	0	%		2		
17	r35		CO: Motor temperature	0.0	°C		2		
18	r36		CO: Power unit overload I2t	0.0	%		3		
19	⊞ r39[0]		Energy display, Energy balance (sum)	0.00	kWh		2		
20	p40		Reset energy consumption display	0		Operation	3	0	1
21	r41		Energy consumption saved	0.00	kWh		2		
22	p45		Display values smoothing time constant	100.00	ms	Operation	3	0	10000
23	⊞ r46		CO/BO: Missing enable sig	40000201H			1		
24	r47		Motor data identification and speed controller optimization	[200] Rotating measurement ...			1		

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display. S7USB / PC Adapter(Auto) Offline mode

3. 双击 brake control


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Brake control]
Project
Edit
Target system
View
Options
Window
Help
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Shutdown functions
Brake control
Safety Integrated
Flying-restart
Vdc controller
Automatic restart
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
SINAMICS LIBRARIES
Insert DCC library
Project
Motor holding brake
DC brake
Compound brake
0 : 1
CDS:
DDS:
MDS:
Close
Help
Control_Unit
Level
Message
BICO server
S7USB / PC Adapter(Auto)
Offline mode

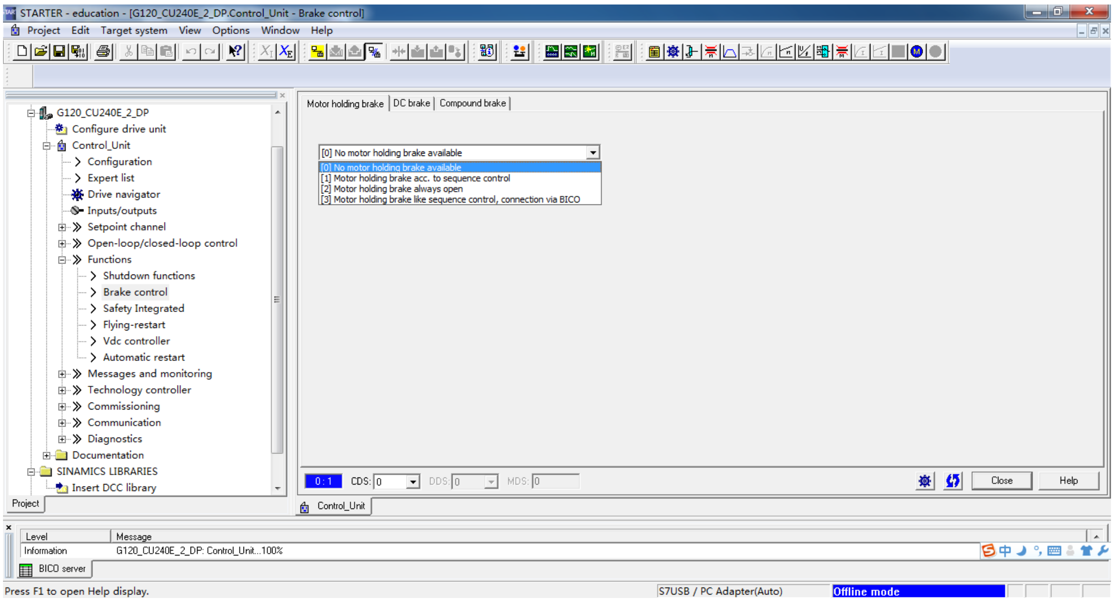
[0] No motor holding brake available

CDS: 0 DDS: 0 MDS: 0

Information G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display.

4. 在选项中选择合适的功能


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Brake control]
Project
Edit
Target system
View
Options
Window
Help
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Shutdown functions
Brake control
Safety Integrated
Flying-restart
Vdc controller
Automatic restart
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
SINAMICS LIBRARIES
Insert DCC library
Project
Motor holding brake
DC brake
Compound brake
0 : 1
CDS:
DDS:
MDS:
Close
Help
Control_Unit
Level
Message
BICO server
S7USB / PC Adapter(Auto)
Offline mode

[0] No motor holding brake available

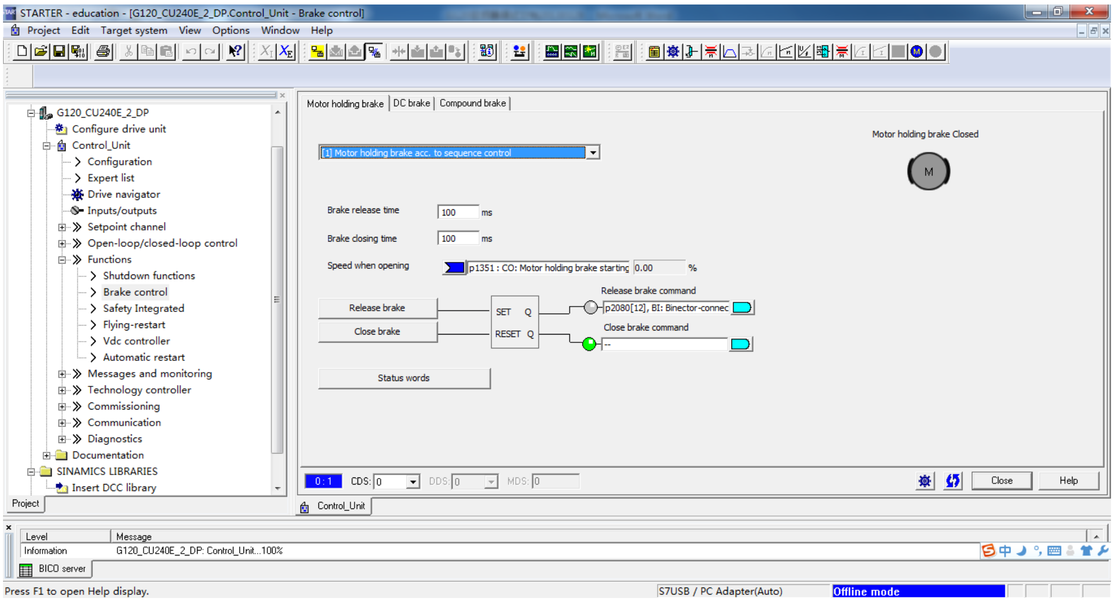
[0] No motor holding brake available
[1] Motor holding brake acc. to sequence control
[2] Motor holding brake always open
[3] Motor holding brake like sequence control, connection via BICO

CDS: 0 DDS: 0 MDS: 0

Information G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display.

5. 选择方式一



STARTER - education - [G120_CU240E_2_DP.Control_Unit - Brake control]

[1] Motor holding brake acc. to sequence control

Motor holding brake Closed

Brake release time 100 ms

Brake closing time 100 ms

Speed when opening p1351 : CO: Motor holding brake starting 0.00 %

Release brake command p2080[12], BI: Binector-connec

Close brake command --

CDS: 0 DDS: 0 MDS: 0

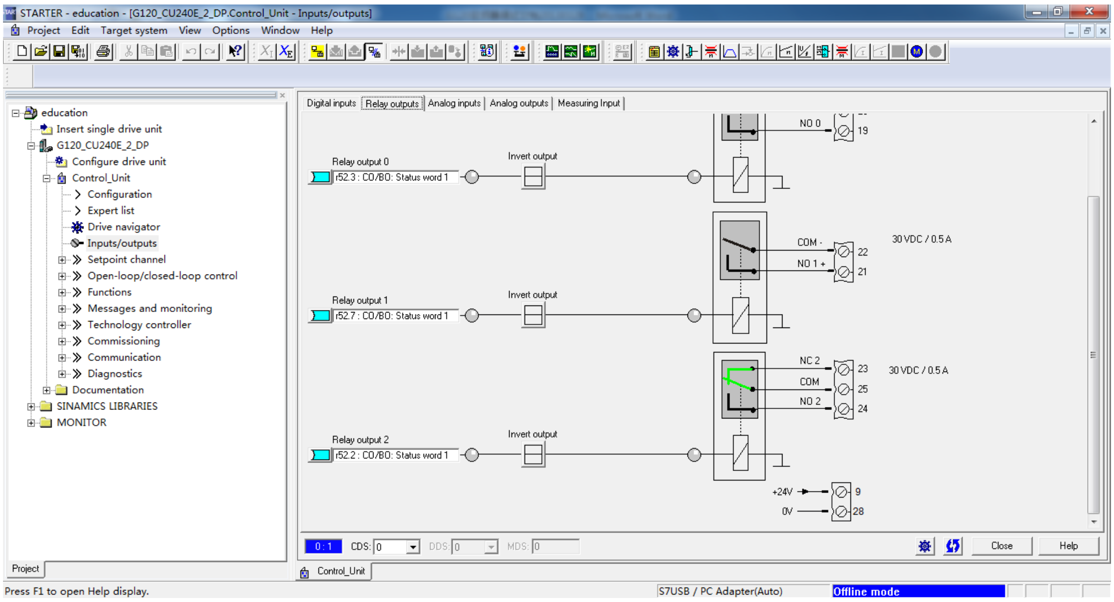
Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display.

S7USB / PC Adapter(Auto) Offline mode

Project Edit Target system View Options Window Help
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Shutdown functions
Brake control
Safety Integrated
Flying-restart
Vdc controller
Automatic restart
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
SINAMICS LIBRARIES
Insert DCC library
Project
Motor holding brake
DC brake
Compound brake
M
Release brake
Close brake
SET Q
RESET Q
Status words
0 : 1
Close
Help
Control_Unit
BICO server

6.　我们选择 DO2 作为抱闸控制的端子，原来端子 DO2 的定义内容



STARTER - education - [G120_CU240E_2_DP.Control_Unit - Inputs/outputs]

Relay output 0 r52.3 : CO/BO: Status word 1

Relay output 1 r52.7 : CO/BO: Status word 1

Relay output 2 r52.2 : CO/BO: Status word 1

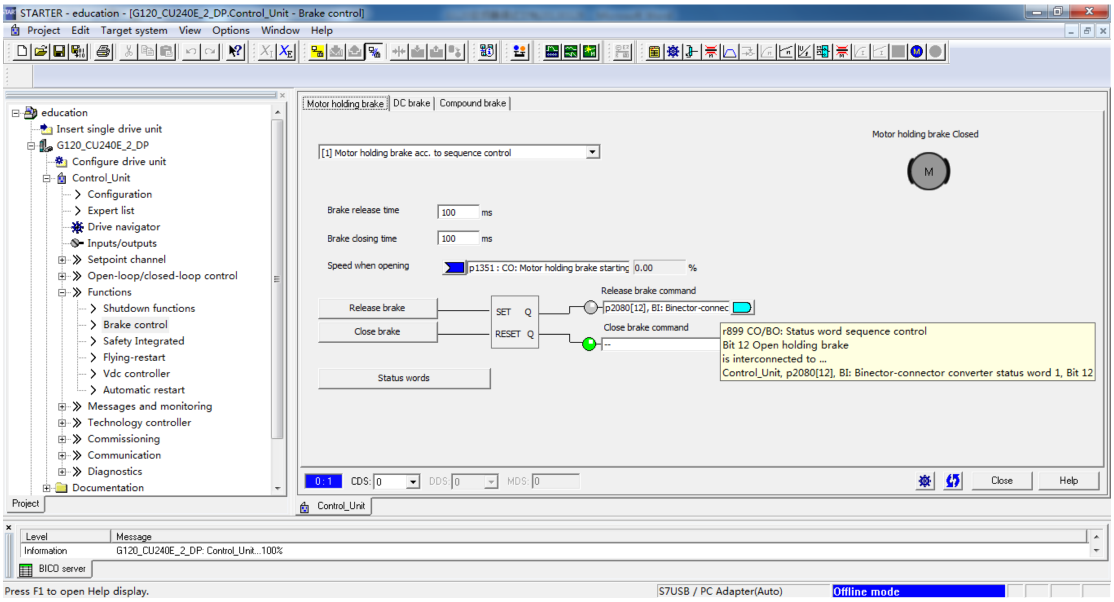
CDS: 0 DDS: 0 MDS: 0

Press F1 to open Help display.

S7USB / PC Adapter(Auto) Offline mode

Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
SINAMICS LIBRARIES
MONITOR
Project
Digital inputs
Relay outputs
Analog inputs
Analog outputs
Measuring Input
Invert output
NO 0
19
COM -
NO 1 +
22
21
30 VDC / 0.5 A
NC 2
COM
NO 2
23
25
24
30 VDC / 0.5 A
+24V
0V
9
28
0 : 1
Close
Help
Control_Unit

7.　更改后的 DO2 端子的定义


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Brake control]
Project Edit Target system View Options Window Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Shutdown functions
Brake control
Safety Integrated
Flying-restart
Vdc controller
Automatic restart
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
Project
Motor holding brake
DC brake
Compound brake
Motor holding brake Closed
M
Release brake
Close brake
SET Q
RESET Q
Release brake command
Close brake command
Status words
0 : 1
CDS: 0
DDS: 0
MDS: 0
Close
Help
Control_Unit
BICO server
Press F1 to open Help display.
S7USB / PC Adapter(Auto)
Offline mode

[1] Motor holding brake acc. to sequence control

Brake release time 100 ms

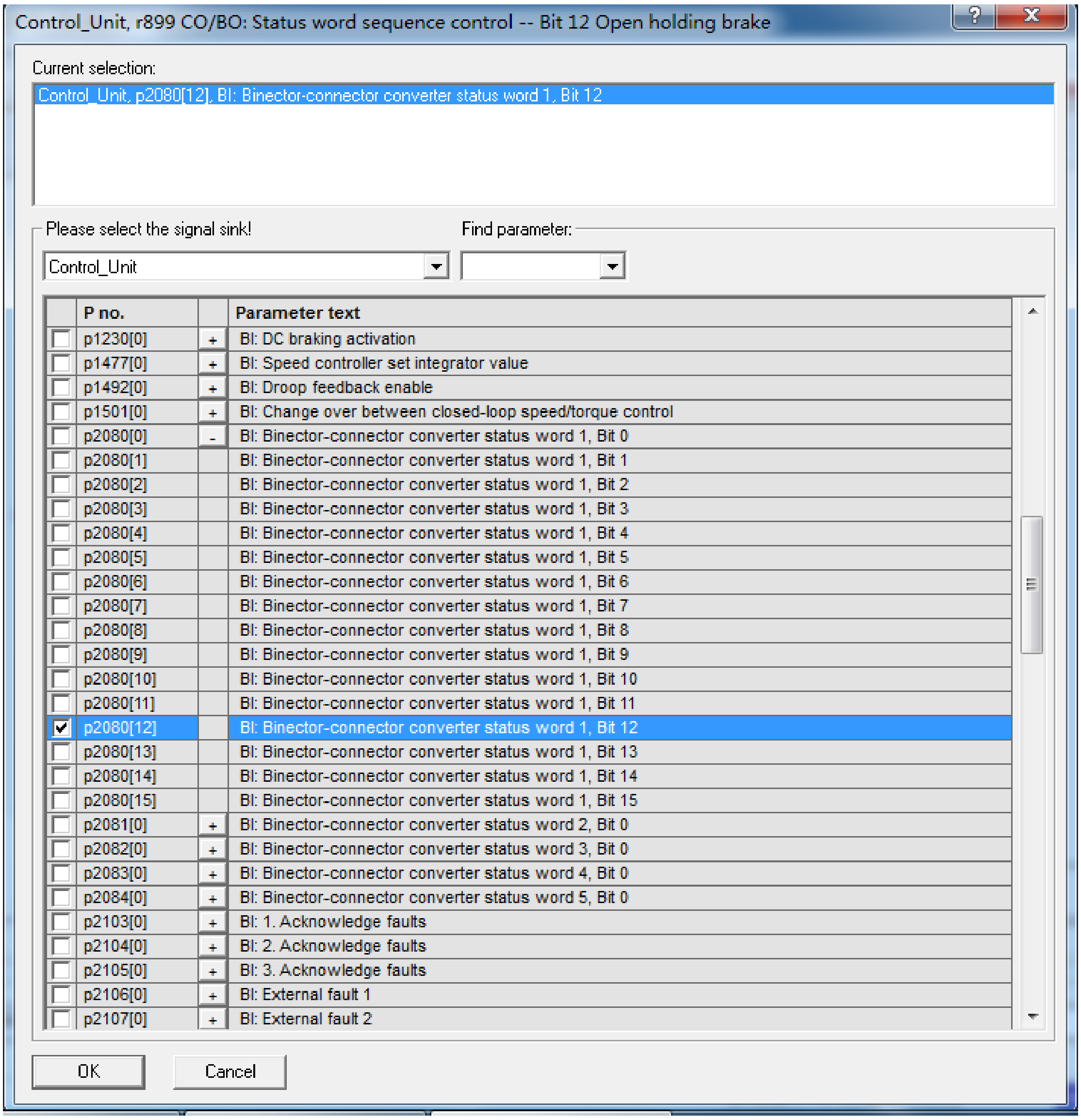
Brake closing time 100 ms

Speed when opening p1351 : CO: Motor holding brake starting 0.00 %

p2080[12], BI: Binector-connec

r899 CO/BO: Status word sequence control
Bit 12 Open holding brake
is interconnected to ...
Control_Unit, p2080[12], BI: Binector-connector converter status word 1, Bit 12

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%


Control_Unit, r899 CO/BO: Status word sequence control -- Bit 12 Open holding brake

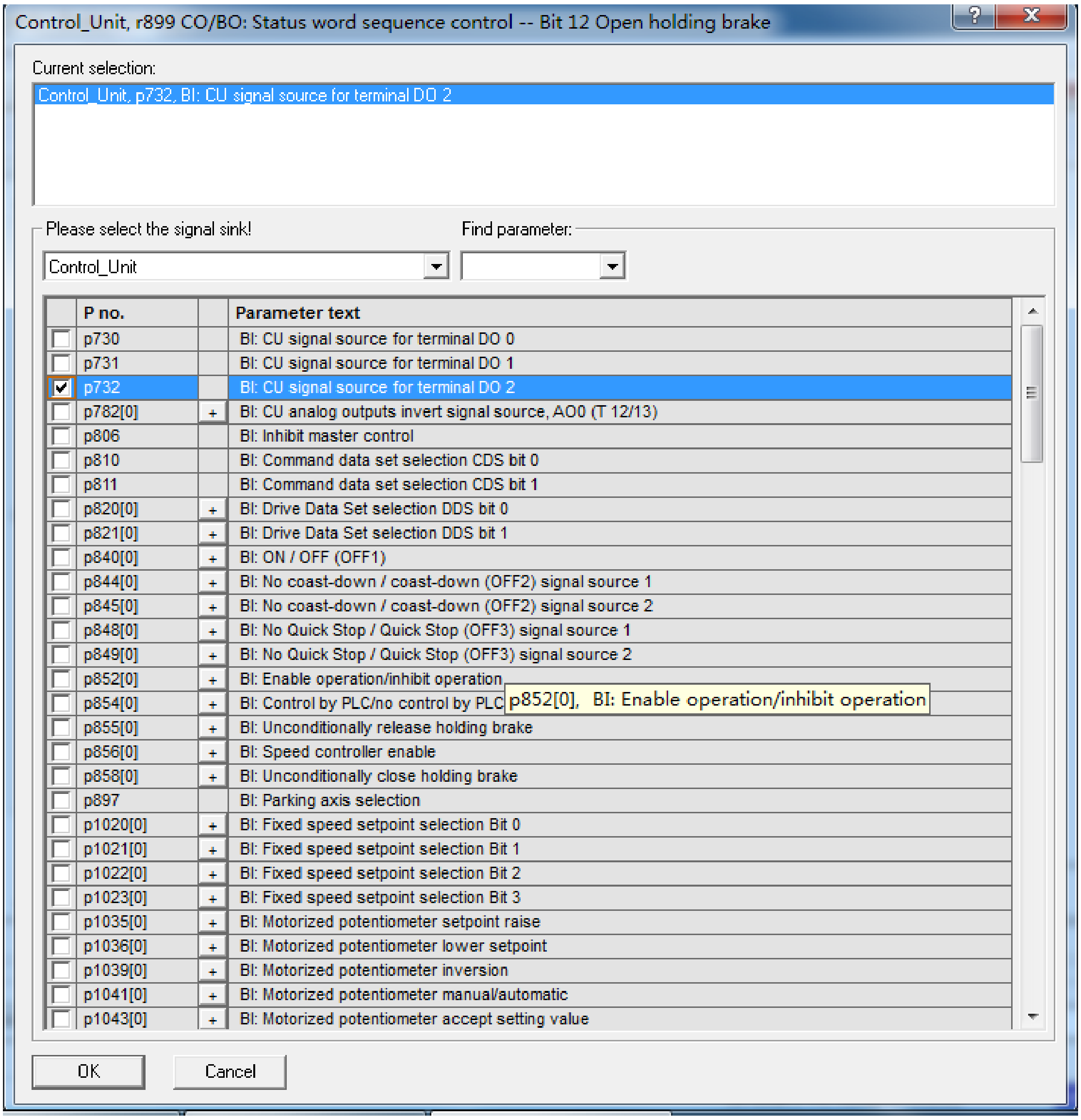
Current selection:

Control_Unit, p2080[12], BI: Binector-connector converter status word 1, Bit 12

Please select the signal sink! Control_Unit

Find parameter:

	P no.		Parameter text
☐	p1230[0]	+	BI: DC braking activation
☐	p1477[0]	+	BI: Speed controller set integrator value
☐	p1492[0]	+	BI: Droop feedback enable
☐	p1501[0]	+	BI: Change over between closed-loop speed/torque control
☐	p2080[0]	-	BI: Binector-connector converter status word 1, Bit 0
☐	p2080[1]		BI: Binector-connector converter status word 1, Bit 1
☐	p2080[2]		BI: Binector-connector converter status word 1, Bit 2
☐	p2080[3]		BI: Binector-connector converter status word 1, Bit 3
☐	p2080[4]		BI: Binector-connector converter status word 1, Bit 4
☐	p2080[5]		BI: Binector-connector converter status word 1, Bit 5
☐	p2080[6]		BI: Binector-connector converter status word 1, Bit 6
☐	p2080[7]		BI: Binector-connector converter status word 1, Bit 7
☐	p2080[8]		BI: Binector-connector converter status word 1, Bit 8
☐	p2080[9]		BI: Binector-connector converter status word 1, Bit 9
☐	p2080[10]		BI: Binector-connector converter status word 1, Bit 10
☐	p2080[11]		BI: Binector-connector converter status word 1, Bit 11
☑	p2080[12]		BI: Binector-connector converter status word 1, Bit 12
☐	p2080[13]		BI: Binector-connector converter status word 1, Bit 13
☐	p2080[14]		BI: Binector-connector converter status word 1, Bit 14
☐	p2080[15]		BI: Binector-connector converter status word 1, Bit 15
☐	p2081[0]	+	BI: Binector-connector converter status word 2, Bit 0
☐	p2082[0]	+	BI: Binector-connector converter status word 3, Bit 0
☐	p2083[0]	+	BI: Binector-connector converter status word 4, Bit 0
☐	p2084[0]	+	BI: Binector-connector converter status word 5, Bit 0
☐	p2103[0]	+	BI: 1. Acknowledge faults
☐	p2104[0]	+	BI: 2. Acknowledge faults
☐	p2105[0]	+	BI: 3. Acknowledge faults
☐	p2106[0]	+	BI: External fault 1
☐	p2107[0]	+	BI: External fault 2



Control_Unit, r899 CO/BO: Status word sequence control -- Bit 12 Open holding brake

Current selection:

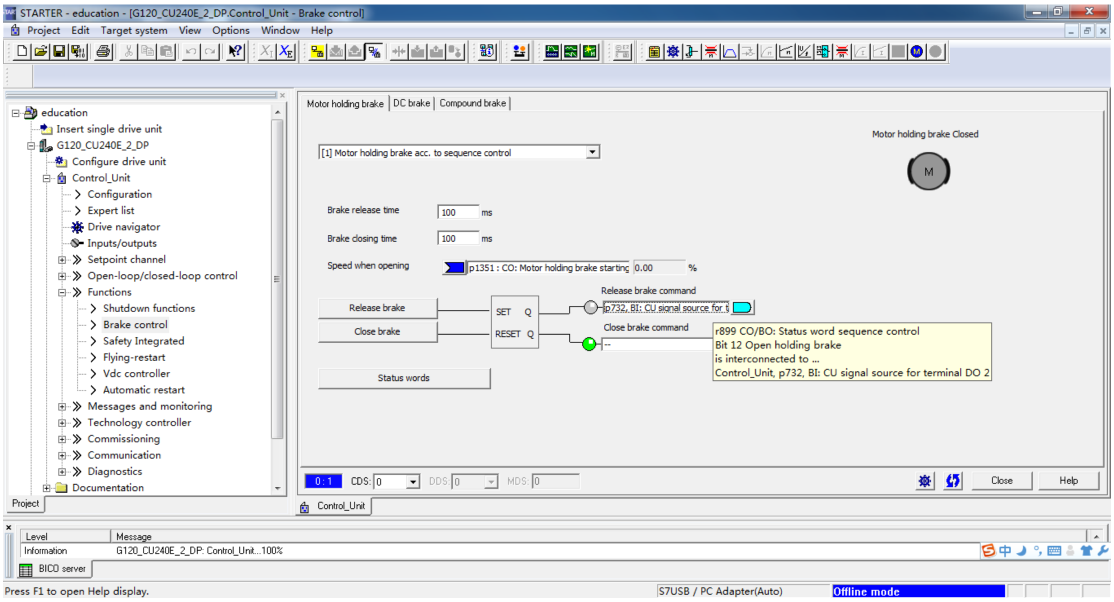
Control_Unit, p732, BI: CU signal source for terminal DO 2

Please select the signal sink! Control_Unit

Find parameter:

	P no.		Parameter text
☐	p730		BI: CU signal source for terminal DO 0
☐	p731		BI: CU signal source for terminal DO 1
☑	p732		BI: CU signal source for terminal DO 2
☐	p782[0]	+	BI: CU analog outputs invert signal source, AO0 (T 12/13)
☐	p806		BI: Inhibit master control
☐	p810		BI: Command data set selection CDS bit 0
☐	p811		BI: Command data set selection CDS bit 1
☐	p820[0]	+	BI: Drive Data Set selection DDS bit 0
☐	p821[0]	+	BI: Drive Data Set selection DDS bit 1
☐	p840[0]	+	BI: ON / OFF (OFF1)
☐	p844[0]	+	BI: No coast-down / coast-down (OFF2) signal source 1
☐	p845[0]	+	BI: No coast-down / coast-down (OFF2) signal source 2
☐	p848[0]	+	BI: No Quick Stop / Quick Stop (OFF3) signal source 1
☐	p849[0]	+	BI: No Quick Stop / Quick Stop (OFF3) signal source 2
☐	p852[0]	+	BI: Enable operation/inhibit operation
☐	p854[0]	+	BI: Control by PLC/no control by PLC
☐	p855[0]	+	BI: Unconditionally release holding brake
☐	p856[0]	+	BI: Speed controller enable
☐	p858[0]	+	BI: Unconditionally close holding brake
☐	p897		BI: Parking axis selection
☐	p1020[0]	+	BI: Fixed speed setpoint selection Bit 0
☐	p1021[0]	+	BI: Fixed speed setpoint selection Bit 1
☐	p1022[0]	+	BI: Fixed speed setpoint selection Bit 2
☐	p1023[0]	+	BI: Fixed speed setpoint selection Bit 3
☐	p1035[0]	+	BI: Motorized potentiometer setpoint raise
☐	p1036[0]	+	BI: Motorized potentiometer lower setpoint
☐	p1039[0]	+	BI: Motorized potentiometer inversion
☐	p1041[0]	+	BI: Motorized potentiometer manual/automatic
☐	p1043[0]	+	BI: Motorized potentiometer accept setting value

p852[0], BI: Enable operation/inhibit operation



STARTER - education - [G120_CU240E_2_DP.Control_Unit - Brake control]

- education
  - Insert single drive unit
  - G120_CU240E_2_DP
    - Configure drive unit
    - Control_Unit
      - Configuration
      - Expert list
      - Drive navigator
      - Inputs/outputs
      - Setpoint channel
      - Open-loop/closed-loop control
      - Functions
        - Shutdown functions
        - Brake control
        - Safety Integrated
        - Flying-restart
        - Vdc controller
        - Automatic restart
      - Messages and monitoring
      - Technology controller
      - Commissioning
      - Communication
      - Diagnostics
  - Documentation

[1] Motor holding brake acc. to sequence control

Brake release time 100 ms

Brake closing time 100 ms

Speed when opening p1351 : CO: Motor holding brake starting 0.00 %

Release brake command p732, BI: CU signal source for t

Close brake command --

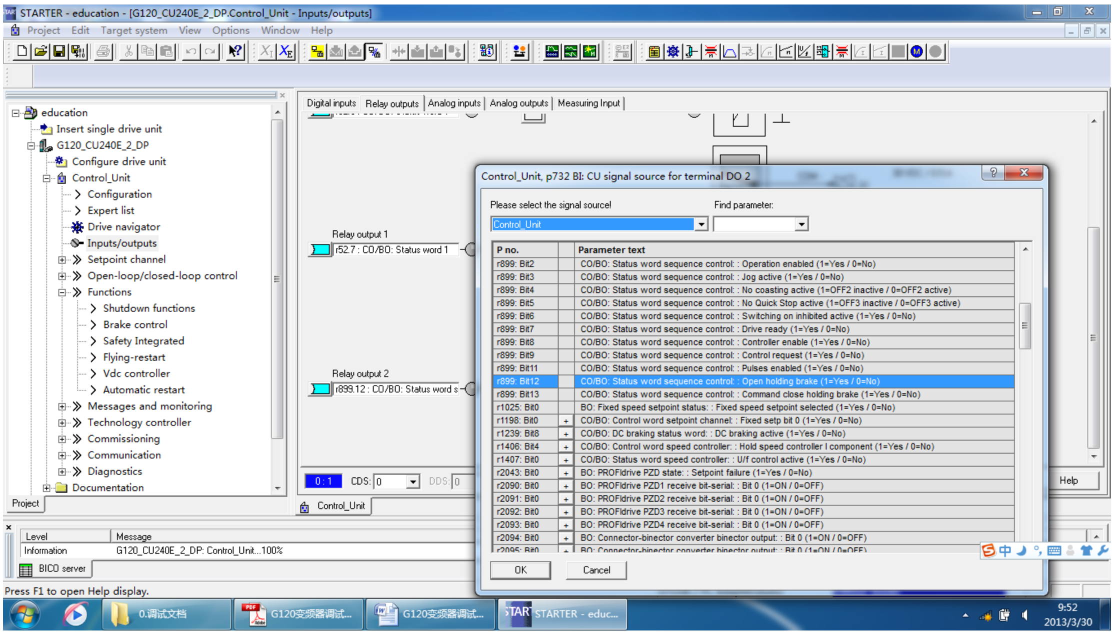
r899 CO/BO: Status word sequence control
Bit 12 Open holding brake
is interconnected to ...
Control_Unit, p732, BI: CU signal source for terminal DO 2

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display.

S7USB / PC Adapter(Auto)

Offline mode


STARTER - education - [G120_CU240E_2_DP.Control_Unit - Inputs/outputs]
Project
Edit
Target system
View
Options
Window
Help
education
Insert single drive unit
G120_CU240E_2_DP
Configure drive unit
Control_Unit
Configuration
Expert list
Drive navigator
Inputs/outputs
Setpoint channel
Open-loop/closed-loop control
Functions
Shutdown functions
Brake control
Safety Integrated
Flying-restart
Vdc controller
Automatic restart
Messages and monitoring
Technology controller
Commissioning
Communication
Diagnostics
Documentation
Project
Digital inputs
Relay outputs
Analog inputs
Analog outputs
Measuring Input
Relay output 1
r52.7 : CO/BO: Status word 1
Relay output 2
r899.12 : CO/BO: Status word s
0 : 1
CDS: 0
DDS: 0
Control_Unit
Help
BICO server
0.调试文档
G120变频器调试...
G120变频器调试...
STARTER - educ...
9:52
2013/3/30

Control_Unit, p732 BI: CU signal source for terminal DO 2

Please select the signal source!: Control_Unit

Find parameter:

P no.		Parameter text
r899: Bit2		CO/BO: Status word sequence control: : Operation enabled (1=Yes / 0=No)
r899: Bit3		CO/BO: Status word sequence control: : Jog active (1=Yes / 0=No)
r899: Bit4		CO/BO: Status word sequence control: : No coasting active (1=OFF2 inactive / 0=OFF2 active)
r899: Bit5		CO/BO: Status word sequence control: : No Quick Stop active (1=OFF3 inactive / 0=OFF3 active)
r899: Bit6		CO/BO: Status word sequence control: : Switching on inhibited active (1=Yes / 0=No)
r899: Bit7		CO/BO: Status word sequence control: : Drive ready (1=Yes / 0=No)
r899: Bit8		CO/BO: Status word sequence control: : Controller enable (1=Yes / 0=No)
r899: Bit9		CO/BO: Status word sequence control: : Control request (1=Yes / 0=No)
r899: Bit11		CO/BO: Status word sequence control: : Pulses enabled (1=Yes / 0=No)
r899: Bit12		CO/BO: Status word sequence control: : Open holding brake (1=Yes / 0=No)
r899: Bit13		CO/BO: Status word sequence control: : Command close holding brake (1=Yes / 0=No)
r1025: Bit0		BO: Fixed speed setpoint status: : Fixed speed setpoint selected (1=Yes / 0=No)
r1198: Bit0	+	CO/BO: Control word setpoint channel: : Fixed setp bit 0 (1=Yes / 0=No)
r1239: Bit8	+	CO/BO: DC braking status word: : DC braking active (1=Yes / 0=No)
r1406: Bit4	+	CO/BO: Control word speed controller: : Hold speed controller I component (1=Yes / 0=No)
r1407: Bit0	+	CO/BO: Status word speed controller: : U/f control active (1=Yes / 0=No)
r2043: Bit0	+	BO: PROFIdrive PZD state: : Setpoint failure (1=Yes / 0=No)
r2090: Bit0	+	BO: PROFIdrive PZD1 receive bit-serial: : Bit 0 (1=ON / 0=OFF)
r2091: Bit0	+	BO: PROFIdrive PZD2 receive bit-serial: : Bit 0 (1=ON / 0=OFF)
r2092: Bit0	+	BO: PROFIdrive PZD3 receive bit-serial: : Bit 0 (1=ON / 0=OFF)
r2093: Bit0	+	BO: PROFIdrive PZD4 receive bit-serial: : Bit 0 (1=ON / 0=OFF)
r2094: Bit0	+	BO: Connector-binector converter binector output: : Bit 0 (1=ON / 0=OFF)
r2095: Bit0	+	BO: Connector-binector converter binector output: : Bit 0 (1=ON / 0=OFF)

Level	Message
Information	G120_CU240E_2_DP: Control_Unit...100%

Press F1 to open Help display.

根据实际的情况更改打开抱闸和关闭抱闸的时间

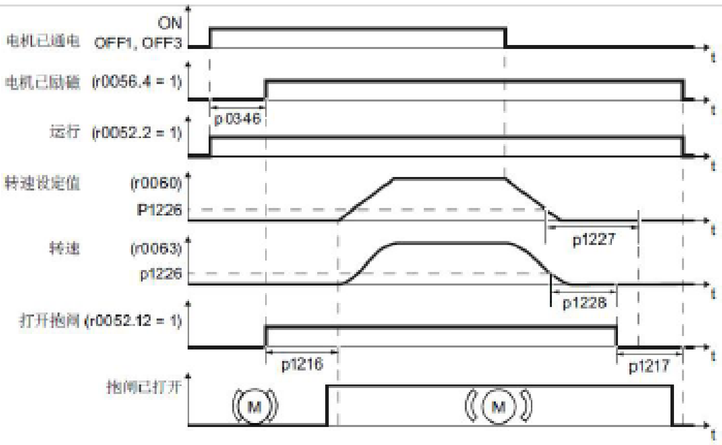

ON
电机已通电
OFF1, OFF3
电机已励磁
(r0056.4 = 1)
p0346
运行
(r0052.2 = 1)
转速设定值
(r0060)
P1226
p1227
转速
(r0063)
p1226
p1228
打开抱闸
(r0052.12 = 1)
p1216
p1217
抱闸已打开
M
M
t
t
t
t
t
t
t

图 5-6 抱闸控制时序图

1. 发出 ON 指令（接通电机）后，变频器开始对电机进行励磁。励磁时间（P0346）结束后，变频器发出打开抱闸的指令；
2. 此时电机保持静止，直到延迟 P1216 时间后，抱闸才会实际打开；
3. 抱闸打开延迟时间结束后，电机开始加速到目标速度；
4. 发出 OFF 指令（OFF1 或 OFF3）后，电机减速，如果发出 OFF2 指令抱闸立刻闭合；
5. 如果转速设定值、当前转速低于阈值 P1226，监控时间 P1227 或 P1228 开始计时。
6. 一旦其中一个监控时间（P1227 或 P1228）结束，变频器控制抱闸闭合。电机静止，但仍保持通电状态；
7. 在 P1217 时间内抱闸闭合；

四速度环的控制

4.2 静态识别

当使用矢量控制方式时，为了取得良好的控制效果必须进行电动机参数的静态识别，以构建准确的电机模型。静态识别过程：

1. 快速调试过程中或快速调试完成后，设置 P1900=2，此时会出现 A07991 报警；
2. 给变频器启动命令，此时变频器启动向电机内注入电流，电机会发出吱吱的电磁噪声。该过程持续时间因电机功率不同会有很大差异，电机功率越大持续时间约长，小功率电机通常只需要十几秒钟；
3. 如果没有出现故障，变频器停止，A07991 报警消失，P1900 被复位为 0 表示静态识别过程结束。如果出现 F7990 表示电机数据监测错误，可能由于电机铭牌数据不准确或电机接法错误导致；
4. 设置 P0971=1 保存静态识别参数。

4.3 动态优化

当使用矢量控制方式时，变频器做静态识别后可选择进行动态优化，以检测电机转动惯量和优化速度环参数 。在进行动态优化时电机会以不同的转速旋转来优化速度控制器。静态识别过程：

1. 快速调试完成，静态识别完成后；
2. 设置 P1900=3，此时会出现 A07980 报警；
3. 给变频器启动命令，电机会按照不同的速度进行旋转测量；
4. 变频器停止，A07980 报警消失，P1960 被复位为 0 表示动态优化过程结束；
5. 设置 P0971=1 保存动态优化参数。

注：为了保证测量准确请脱开电机负载。