KNX Curtain Motor
User Manual

(Applicable model: M/S410.1)

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Content

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Update History

The form below contains the information of every update. The latest version contains all the updates of all former versions.

No.	Version	Update Information	Date
1	V1.0.0	Initial release	Jan.13, 2020

1 Introduction

This user manual offers the information on the configuration of KNX Curtain Motor (Model: M/S410.1, hereinafter referred to as motor). The following tools might be included:

- KNX Curtain Motor (Model: M/S410.1)
- A computer with ETS5 software
- KNX USB interface (Model: M/USB.1)
- KNX power supply and auxiliary power supply
- KNX project files
- Dedicated KNX cable(s)

Note:

① Please refer to the datasheet attached to the product for the information of installation, wiring, specifications, etc.

② The pictures in this user manual are for reference only and the actual product should prevail.

1.1 Import Data

1.1.1 Import Database to ETS (.knxprod)

1. **Import Catalogs:** click “Catalogs” → “Import…” in the main page of ETS5 software and select local database files with the suffix of .knxprod, as shown in Figure 1-1.

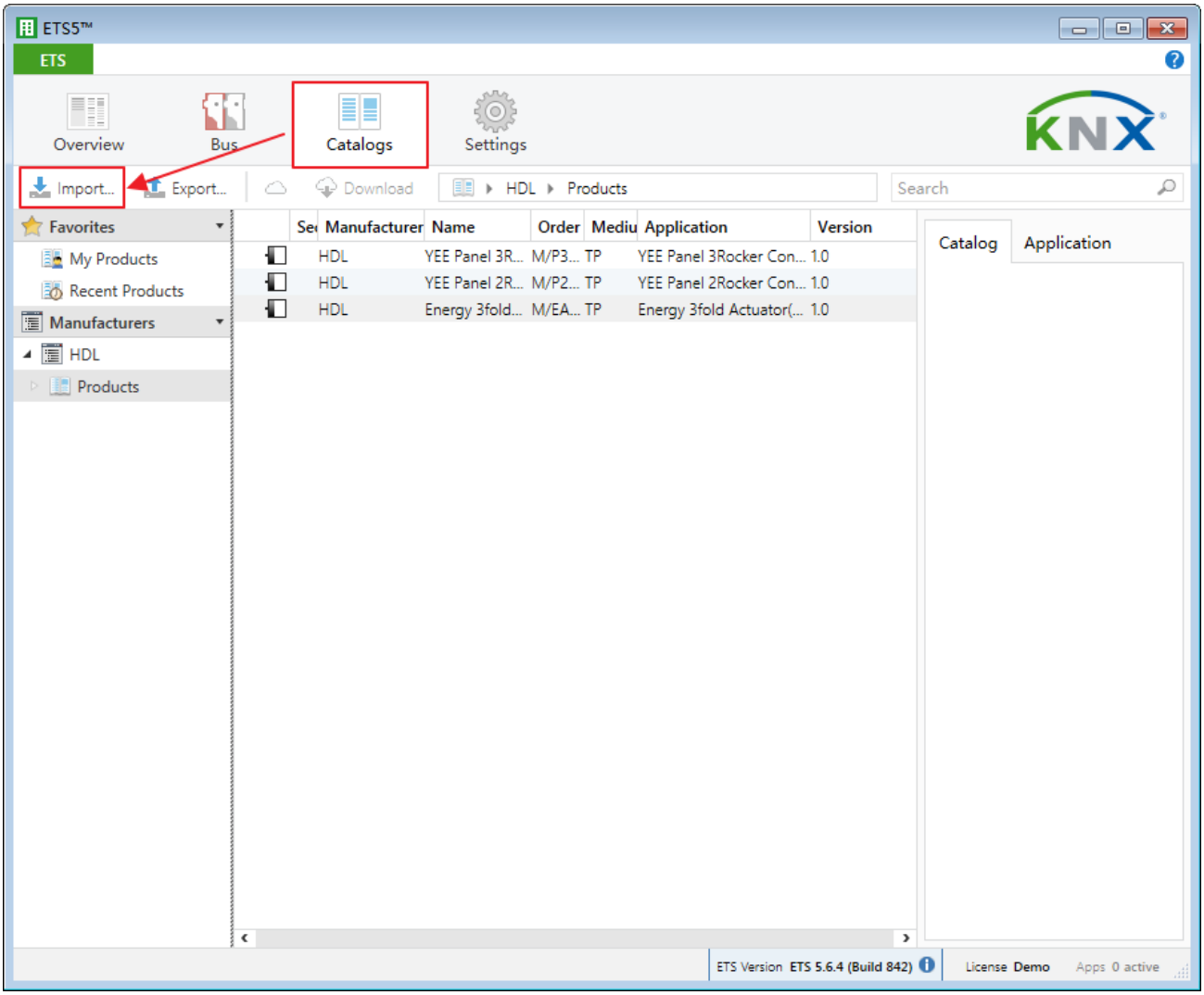

Figure 1-1 Import catalog

2. **Create Projects:** as shown in Figure 1-2, in “Your Projects” tab from ETS5 software’s “Overview” page, click “+” to create projects. After editing project name, please keep other default setting items.

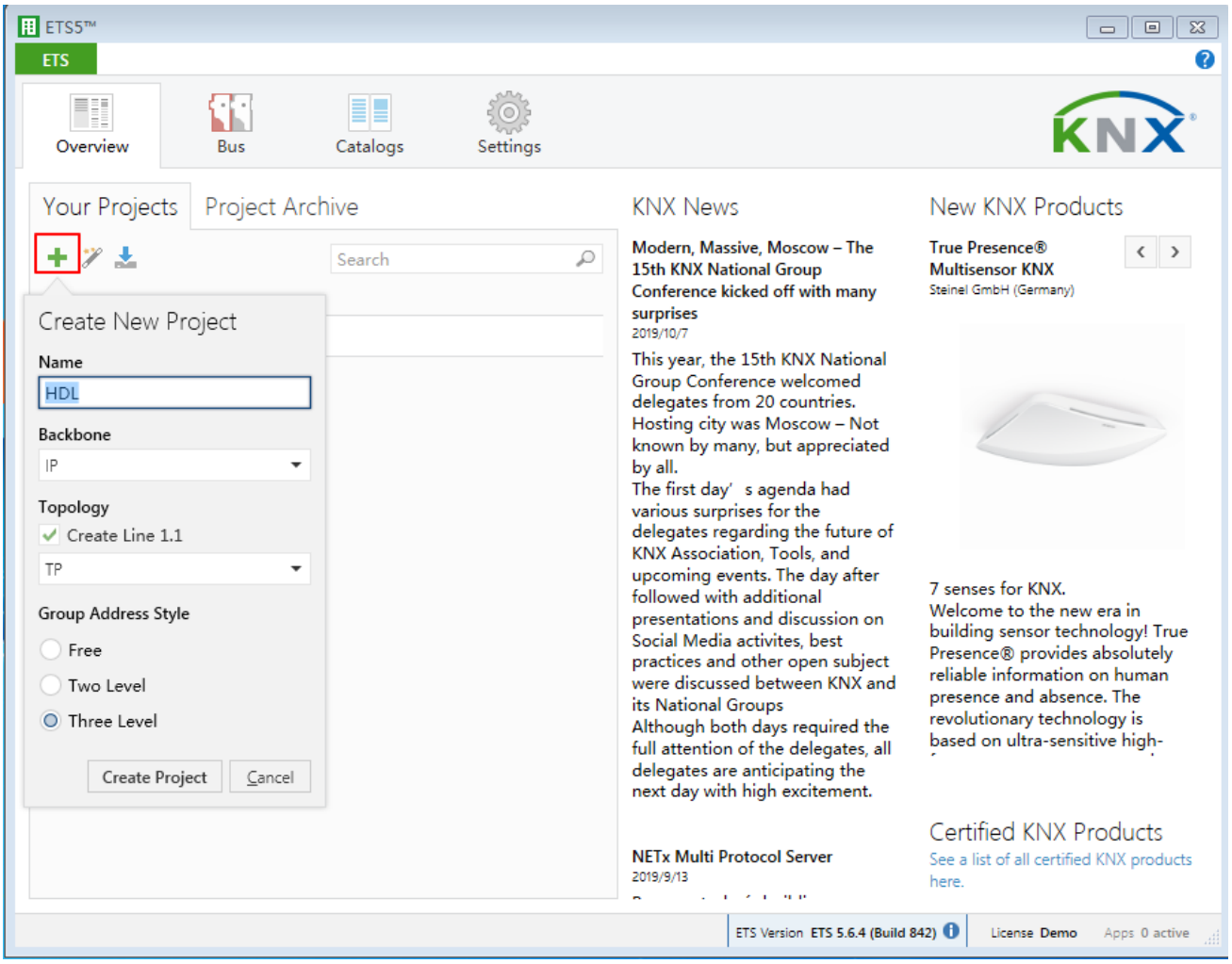

Figure 1-2 Create projects

3. Add Devices to Projects:

① After creating a project, the project page will show up by default. Click “Buildings” and select “Topology”, as shown in Figure 1-3.

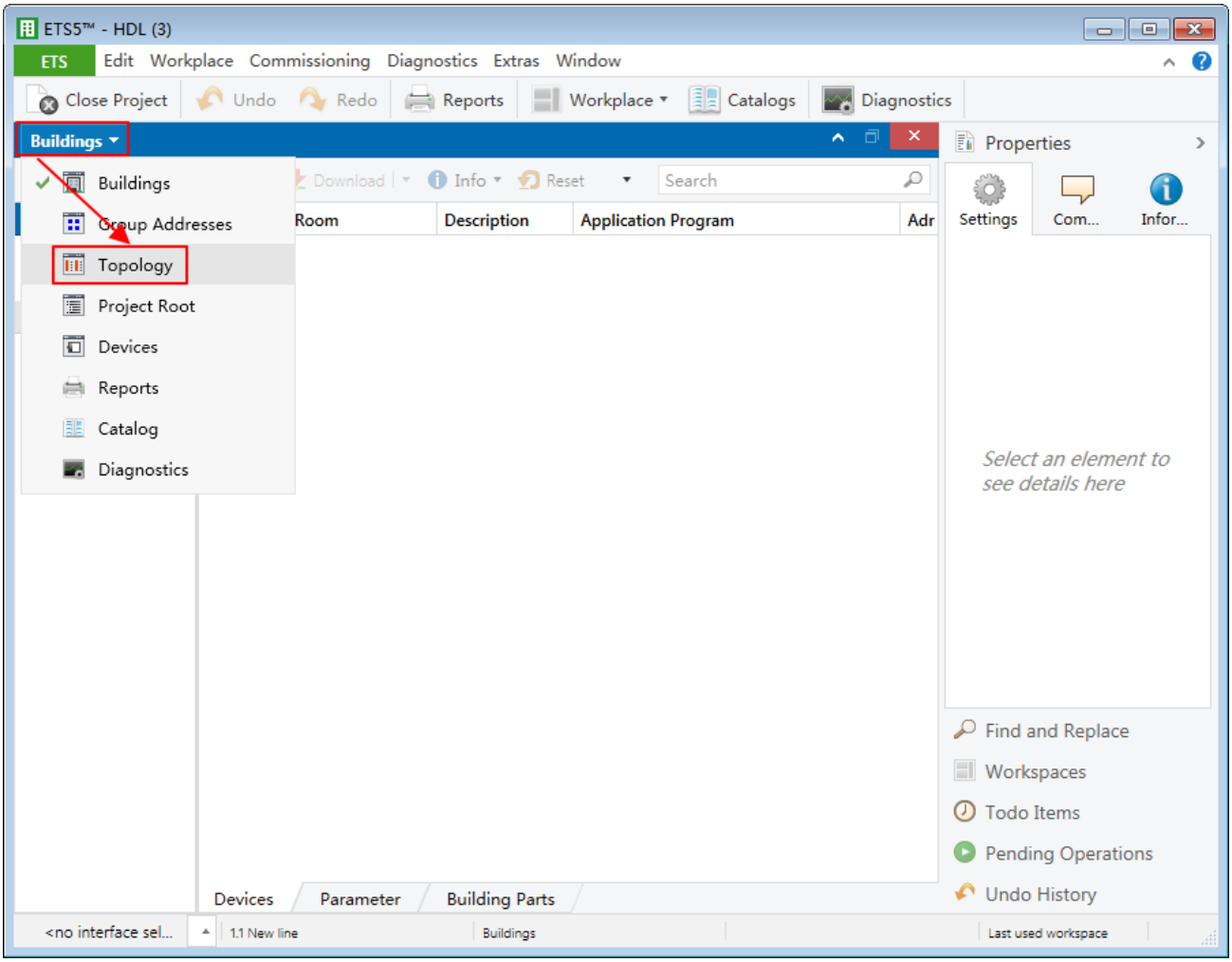

Figure 1-3 Add devices to projects (1)

② Figure 1-4 shows “Topology” page, click the arrow beside “Add Areas” and select “Devices”, and the catalog page will show up below.

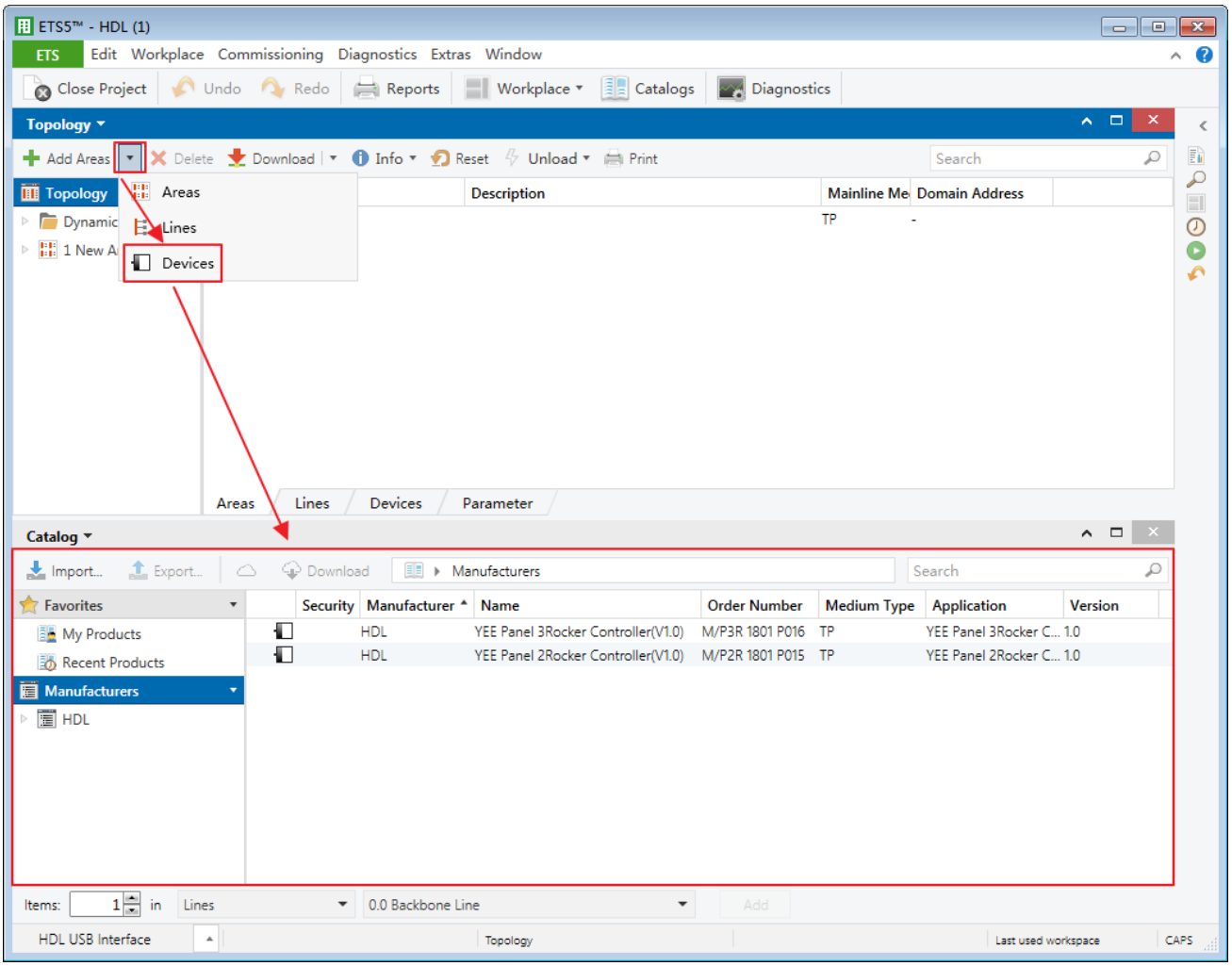

Figure 1-4 Add devices to projects (2)

③ As shown in Figure 1-5, click “HDL” in “Manufactures” column and select devices to be added to the project on the right. Drag devices to the above area (Method 1) or click “Add” button to add devices after clicking the location needed to add projects below (Method 2).

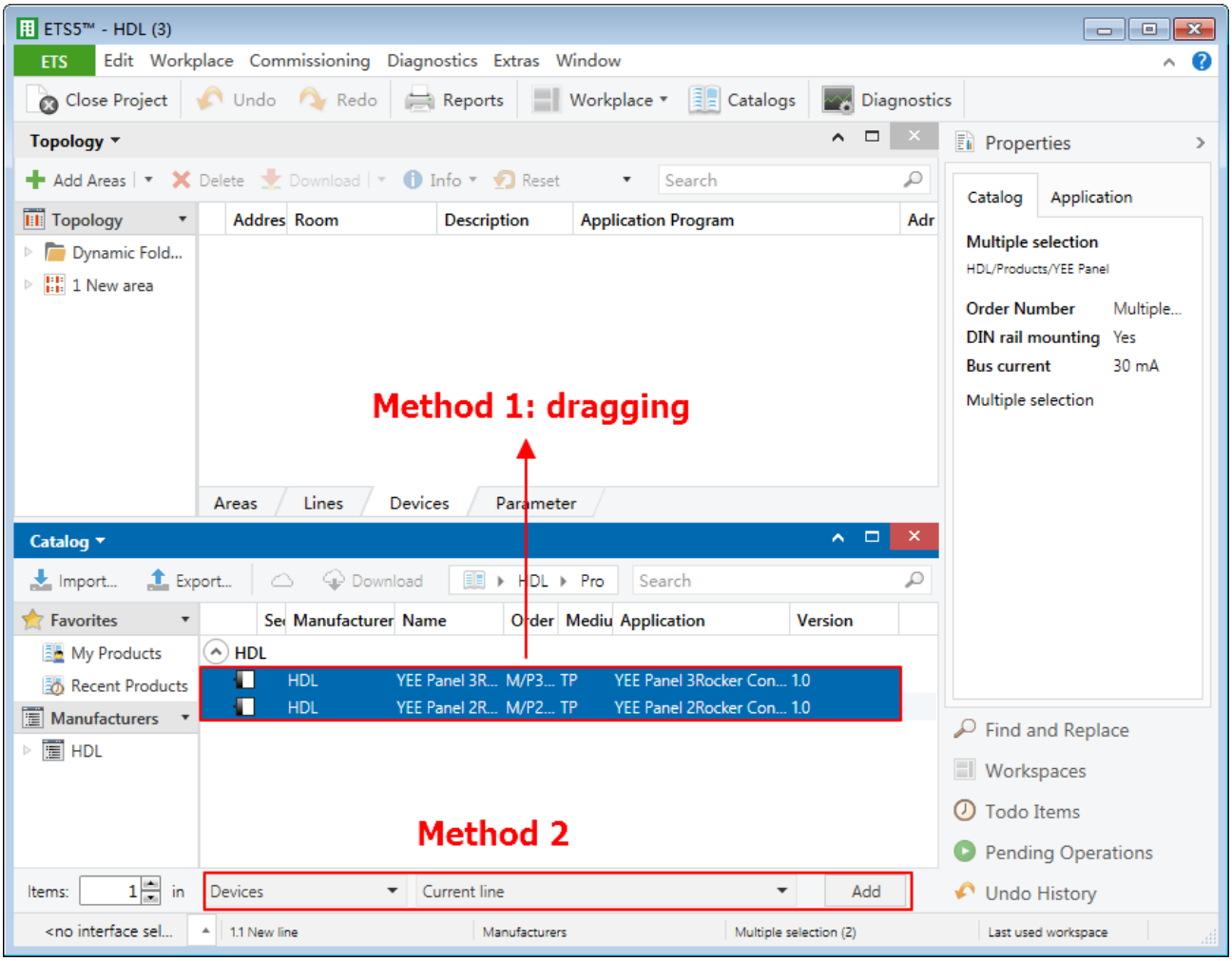

Figure 1-5 Add devices to projects (3)

1.1.2 Import Projects (.knxproj)

As shown in Figure 1-6. Open ETS5 and click “Import project” button of “Your Project” tab of “Overview” page and import obtained KNX project files with the suffix of .knxproj. After importing projects, added/created projects will be listed below. Double click to edit.

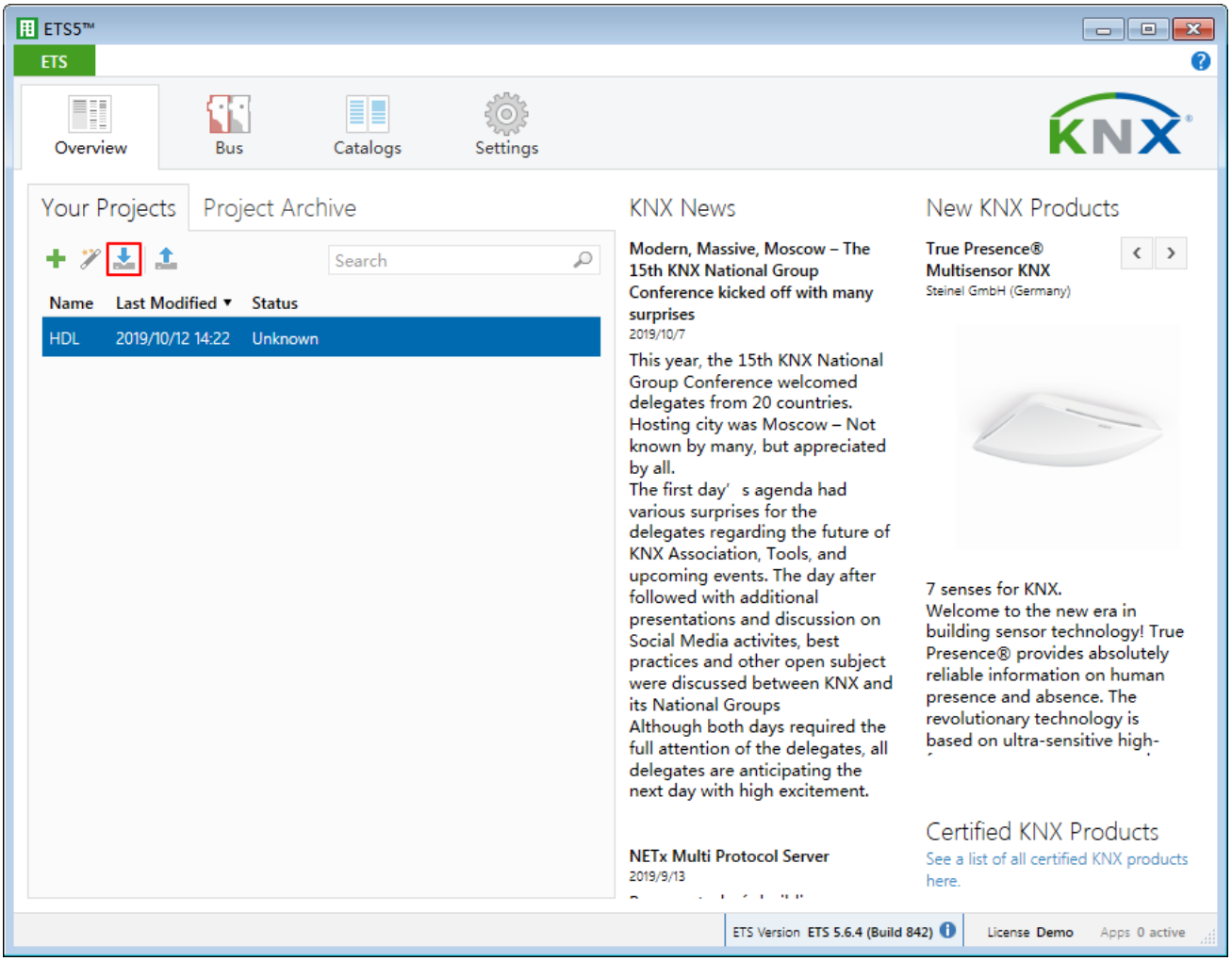

Figure 1-6 Import projects

1.2 Open Configuration Window

Double click the project to be configured. Click “Workspace” → “Open New Panel” → “Topology” to open the window, as shown in Figure 1-7.

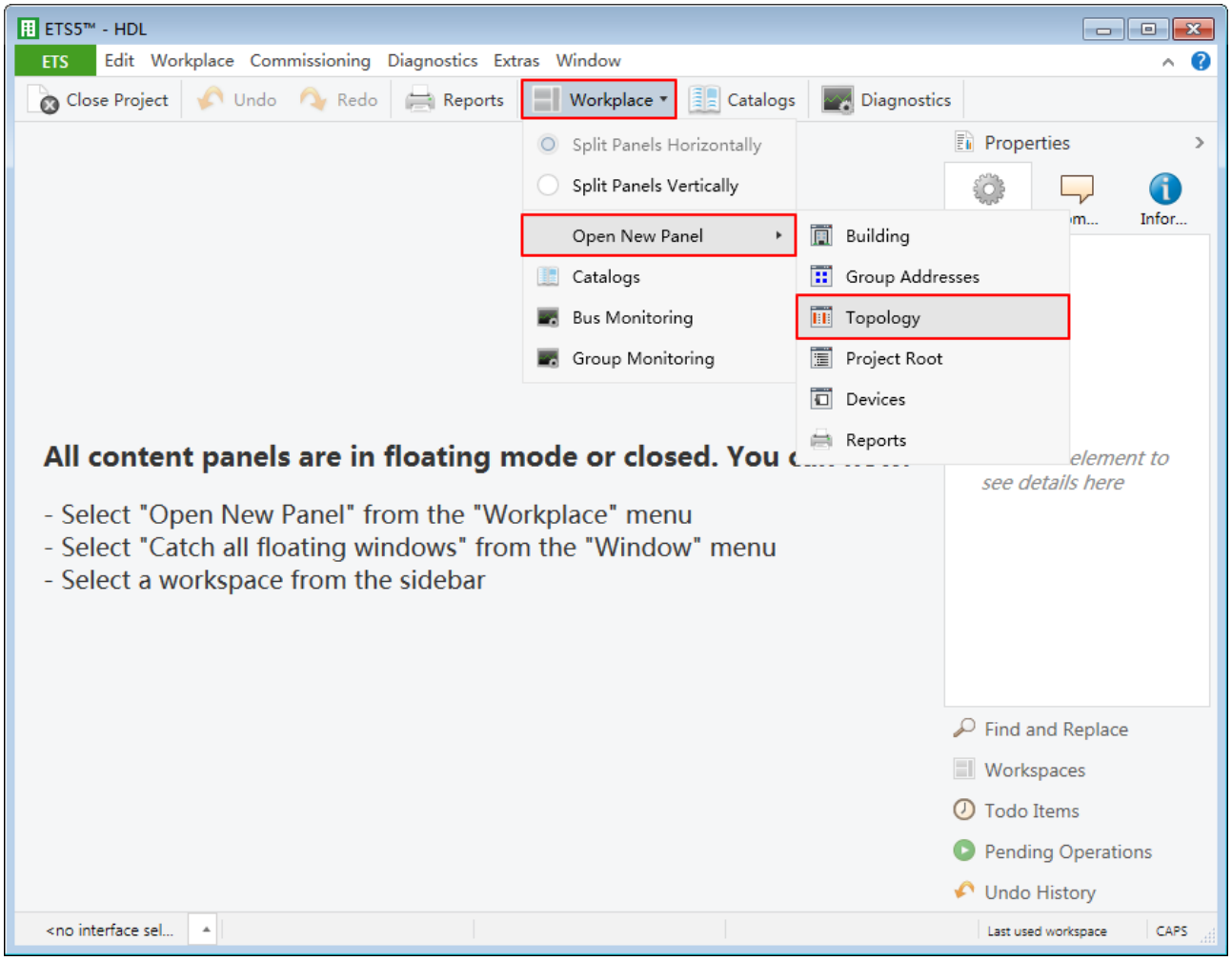

Figure 1-7 Open configuration window

2 General Setting

In topology skeleton on the left side of topology page, click the devices to be set and select “General” in “Parameter” option, as shown in Figure 2-1.

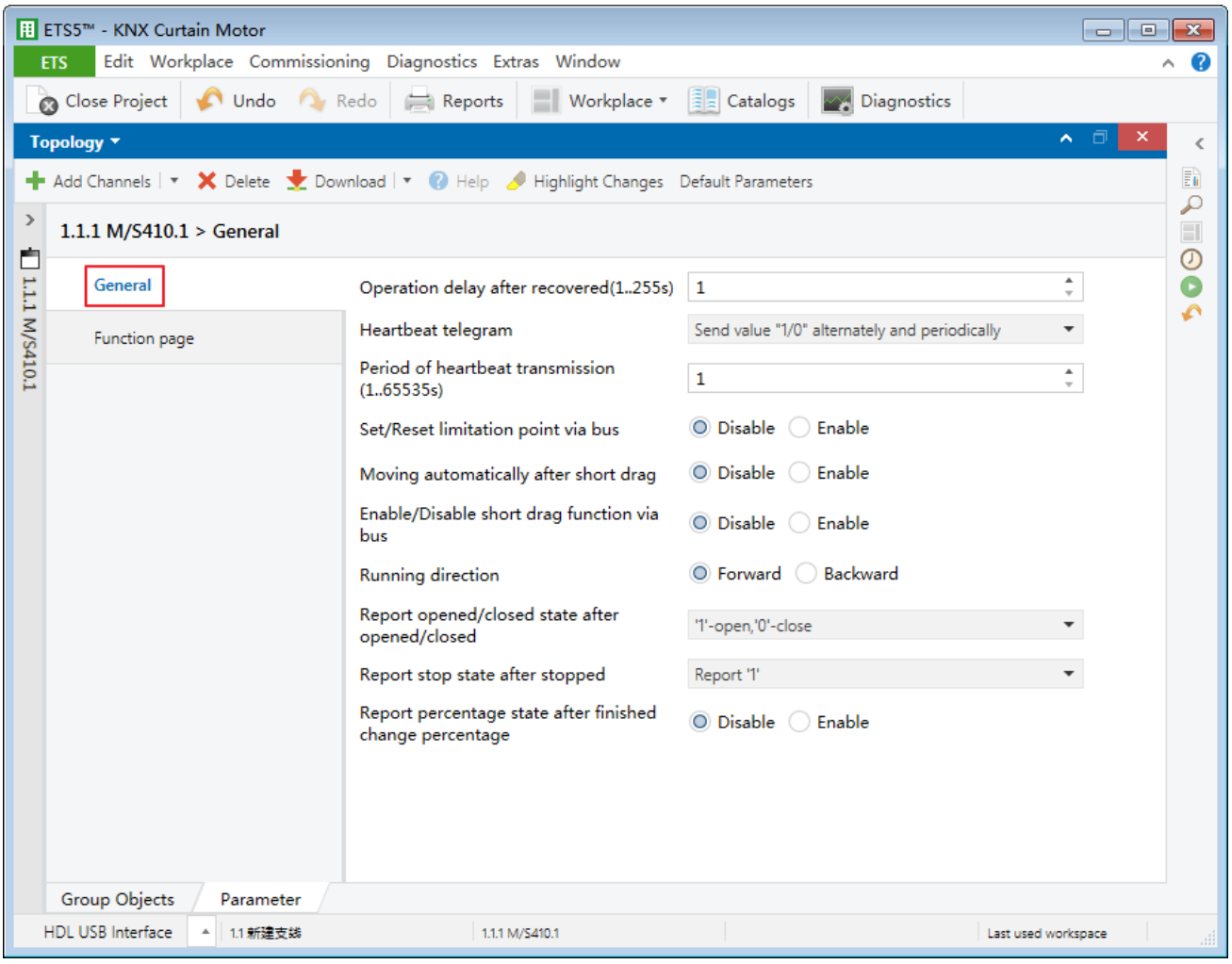

Figure 2-1 General setting

The setting items are explained below:

1. Operation delay after recovered: system time-delay function, namely a delay time between powering on the device and activating the system, which ranges from 1 to 255s. The default value is 1s.
2. Heartbeat telegram
   - Disable
   - Send value “0” periodically

- Send value “1” periodically
- Send value “1/0” alternately and periodically

3. Period of heartbeat transmission: except “Disable”, any option is selected in “Heartbeat telegram”, the time interval of sending heartbeat telegram can be set, which ranges from 1 to 65535s. The default value is 1s.
4. Set/Reset limitation point via bus: to enable setting/resetting the limiting position function of the curtain via the bus.
5. Moving automatically after short drag: to enable starting up the curtain via short dragging.
6. Enable/Disable short drag function via bus: to enable/disable the function of starting up the curtain via short dragging by the bus.
7. Running direction: to set curtain running direction to “Forward” or “Backward”.
8. Report opened/closed state after opened/closed: to select the feedback type of curtain switch status.
   - Disable: there is no feedback after the curtain is opened/closed.
   - ‘1’-open, ‘0’-close: “1” will be sent after the curtain is opened, while “0” will be sent after the curtain is closed.
   - ‘0’-open, ‘1’-close: “0” will be sent after the curtain is opened, while “1” will be sent after the curtain is closed.
9. Report stop state after stopped: to select the feedback type after the curtain stops.
   - Disable: there is no feedback after the curtain stops.
   - Report ‘0’: “0” will be sent after the curtain stops.
   - Report ‘1’: “1” will be sent after the curtain stops.
10. Report percentage state after finished change percentage: current curtain position percentage will be sent when curtain position percentage is changed.

3 Function Selection

Click “Function page” label in the parameter list, and enable motor functions, as shown in Figure 3-1.

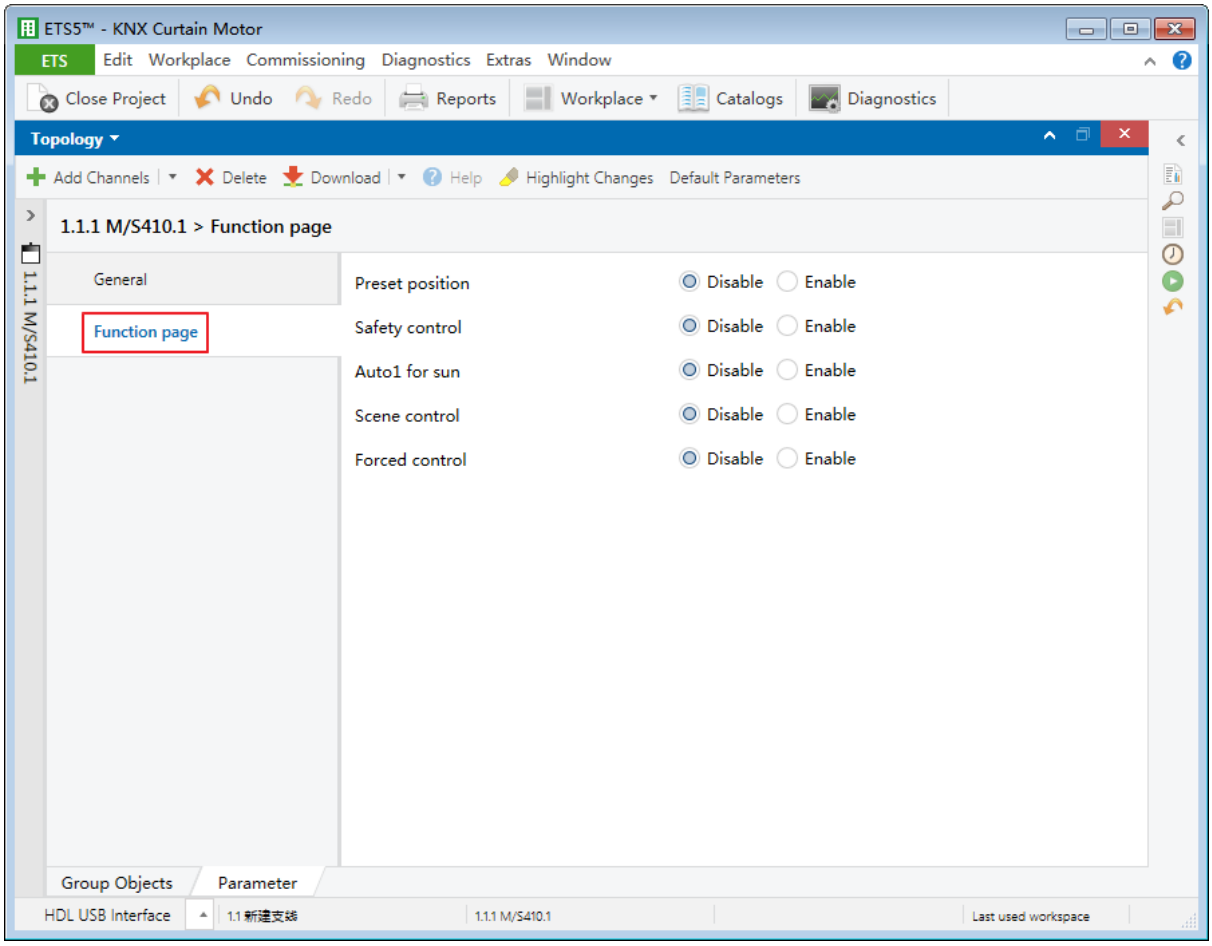

Figure 3-1 Select function

The motor supports:

1. Preset position
2. Safety control
3. Auto 1 for sun
4. Auto 2 for cooling and heating: after “Enable” is selected in “Auto 1 for sun”, “Auto 2 for cooling and heating” can be enabled/disabled.
5. Scene control
6. Forced control

4 Preset Position Function

After preset position function is enabled in function selection page, click “Preset position” label on the left, as shown in Figure 4-1.

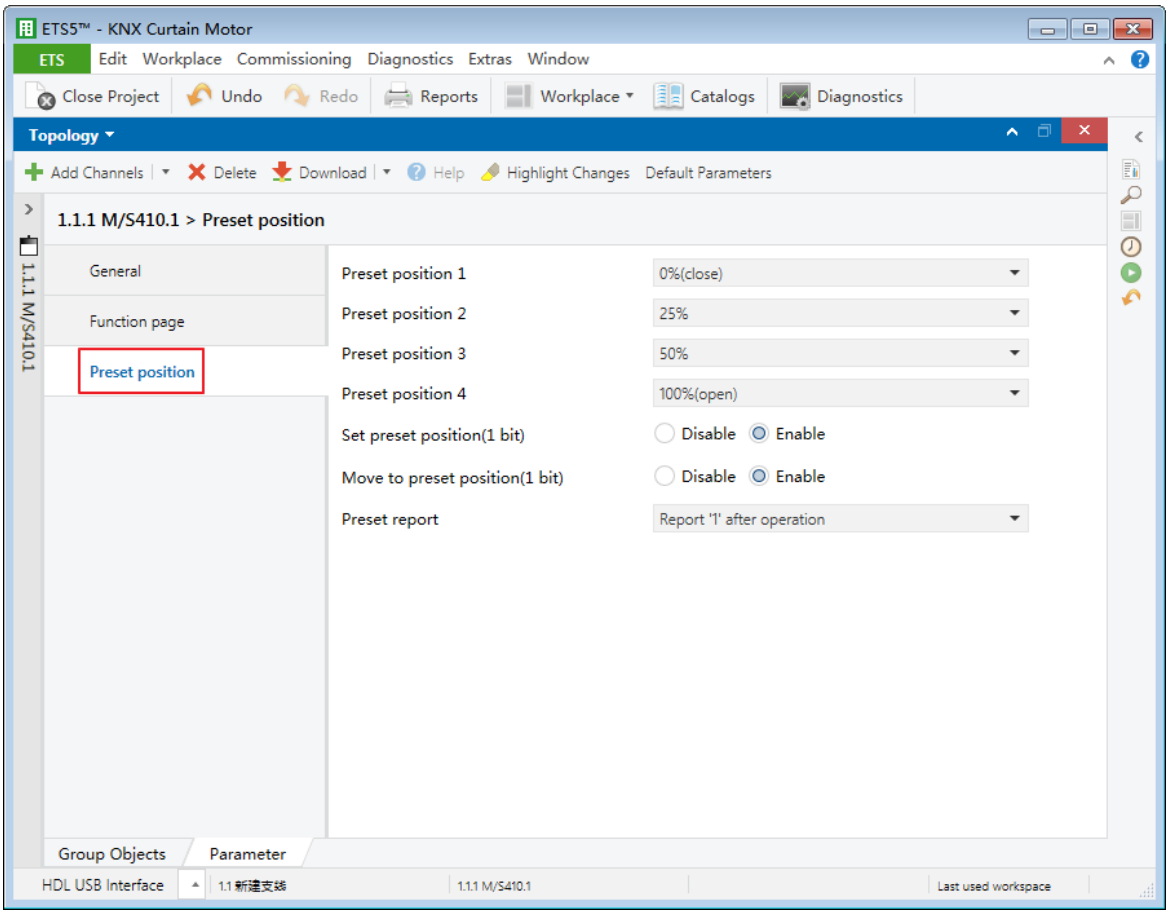

Figure 4-1 Preset position function

The setting items are explained below:

1. Preset position 1/2/3/4: 4 preset positions can be set.
2. Set preset position (1 bit): to enable resetting curtain preset position via 1-bit object.
3. Move to preset position (1 bit): to enable running the curtain to preset position via 1-bit object.
4. Preset report: to select the feedback type after preset position command is executed.
   - Disable: there is no feedback after preset position command is executed.
   - Report ‘1’ after operation: “1” will be sent after preset position command is executed.
   - Report ‘0’ after operation: “0” will be sent after preset position command is executed.

5 Safety Control Function

After safety control function is enabled in function selection page, click “Safety control” label, as shown in Figure 5-1.

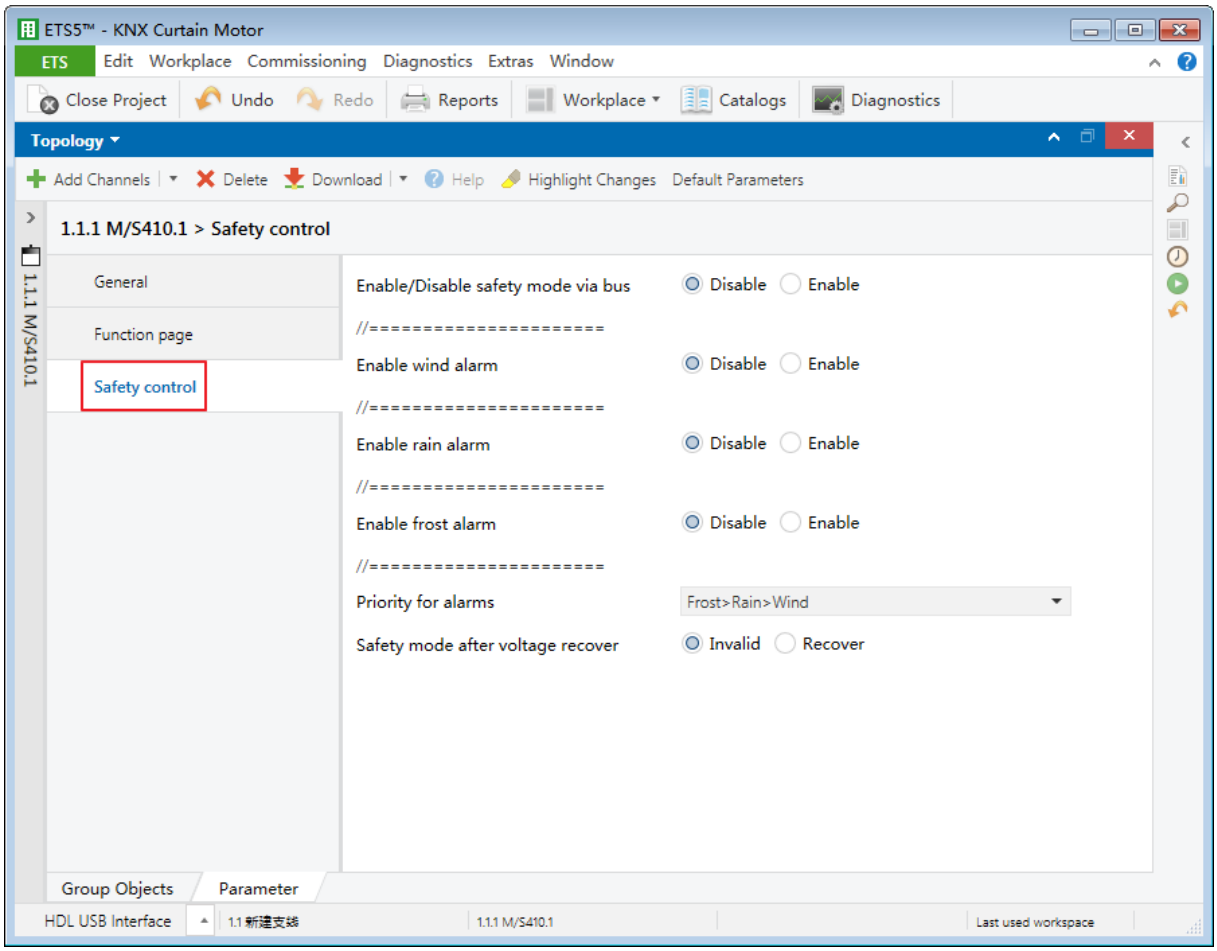

Figure 5-1 Safety control function

The setting items are explained below:

1. Enable/Disable safety mode via bus: to enable opening/closing safety control function via the bus.

   ➢ Report after safety mode enabled/disabled: after “Enable” is selected in “Enable/ Disable safety mode via bus”, choose whether to send the switch status of safety control function or not.

2. Enable wind alarm: after “Enable” is selected, the following items can be set:

   ➢ Alarm of weak wind: to select the receiving signal type of weak wind alarm.

   1) ‘0’-No alarm, ‘1’-Alarm: there is no weak wind when “0” is received, while there is

weak wind when “1” is received.

2) ‘1’-No alarm, ‘0’-Alarm: there is no weak wind when “1” is received, while there is weak wind when “0” is received.

- Reaction on weak wind alarm: to set curtain status after weak wind alarm is received.

1) No reaction: the curtain will have no response after weak wind alarm is received.

2) Open/Close/Stop: the curtain will be opened/closed/stopped after weak wind alarm is received.

3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after weak wind alarm is received.

4) Set position: the curtain will run to new set position after weak wind alarm is received.

Position for weak wind alarm: after “Set position” is selected in “Reaction on weak wind alarm”, curtain position percentage can be set after weak wind alarm is received.

- Alarm of slight wind: to select the receiving signal type of slight wind alarm.

1) ‘0’-No alarm, ‘1’-Alarm: there is no slight wind when “0” is received, while there is slight wind when “1” is received.

2) ‘1’-No alarm, ‘0’-Alarm: there is no slight wind when “1” is received, while there is slight wind when “0” is received.

- Reaction on slight wind alarm: to set the curtain status after slight wind alarm is received.

1) No reaction: the curtain will have no response after slight wind alarm is received.

2) Open/Close/Stop: the curtain will be opened/closed/stopped after slight wind alarm is received.

3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after slight wind alarm is received.

4) Set position: the curtain will run to new set position after slight wind alarm is received.

Position for slight wind alarm: after “Set position” is selected in “Reaction on slight wind alarm”, curtain position percentage can be set after slight wind alarm is received.

- Alarm of strong wind: to select the receiving signal type of strong wind alarm.

1) ‘0’-No alarm, ‘1’-Alarm: there is no strong wind when “0” is received, while there is strong wind when “1” is received.

2) ‘1’-No alarm, ‘0’-Alarm: there is no strong wind when “1” is received, while there

is strong wind when “0” is received.

- Reaction on strong wind alarm: to set the curtain status after strong wind alarm is received.

  1) No reaction: the curtain will have no response after strong wind alarm is received.

  2) Open/Close/Stop: the curtain will be opened/closed/stopped after strong wind alarm is received.

  3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after strong wind alarm is received.

  4) Set position: the curtain will run to new set position after strong wind alarm is received.

  Position for strong wind alarm: after “Set position” is selected in “Reaction on strong wind alarm”, curtain position percentage can be set after strong wind alarm is received.

- Reaction on reset wind alarm: to set the curtain status after wind alarm is reset.

  1) No reaction: the curtain will have no response after wind alarm is reset.

  2) Open/Close/Stop: the curtain will be opened/closed/stopped after wind alarm is reset.

  3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after wind alarm is reset.

  4) Set position: the curtain will run to new set position after wind alarm is reset.

  Position for reset wind alarm: after “Set position” is selected in “Reaction on reset wind alarm”, curtain position percentage can be set after wind alarm is reset.

- Report after wind alarm reaction: to select the feedback type after wind alarm command is executed.

  1) Disable: there is no feedback after wind alarm command is executed.

  2) Report ‘1’ after operation: “1” will be sent after wind alarm command is executed.

  3) Report ‘0’ after operation: “0” will be sent after wind alarm command is executed.

3. Enable rain alarm: after “Enable” is selected, the following items can be set:

- Rain alarm: to select the receiving signal type of rain alarm.

  1) ‘0’-No alarm, ‘1’-Alarm: there is no rain when “0” is received, while there is rain when “1” is received.

  2) ‘1’-No alarm, ‘0’-Alarm: there is no rain when “1” is received, while there is rain

when “0” is received.

- Reaction on rain alarm: to set the curtain status after rain alarm is received.
  1) No reaction: the curtain will have no response after rain alarm is received.
  2) Open/Close/Stop: the curtain will be opened/closed/stopped after rain alarm is received.
  3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after rain alarm is received.
  4) Set position: the curtain will run to new set position after rain alarm is received.

  Position for rain alarm: after “Set position” is selected in “Reaction on rain alarm”, curtain position percentage can be set after rain alarm is received.
- Reaction on reset rain alarm: to set curtain status after rain alarm is reset.
  1) No reaction: the curtain will have no response after rain alarm is reset.
  2) Open/Close/Stop: the curtain will be opened/closed/stopped after rain alarm is reset.
  3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after rain alarm is reset.
  4) Set position: the curtain will run to new set position after rain alarm is reset.

  Position for reset rain alarm: after “Set position” is selected in “Reaction on reset rain alarm”, curtain position percentage can be set after rain alarm is reset.
- Report after rain alarm reaction: to select the feedback type after rain alarm command is executed.
  1) Disable: there is no feedback after rain alarm command is executed.
  2) Report ‘1’ after operation: “1” will be sent after rain alarm command is executed.
  3) Report ‘0’ after operation: “0” will be sent after rain alarm command is executed.

4. Enable frost alarm: after “Enable” is selected, the following items can be set:
   - Frost alarm: to select the receiving signal type of frost alarm.
     1) ‘0’-No alarm, ‘1’-Alarm: there is no frost when “0” is received, while there is frost when “1” is received.
     2) ‘1’-No alarm, ‘0’-Alarm: there is no frost when “1” is received, while there is frost when “0” is received.
   - Reaction on frost alarm: to set curtain status after frost alarm is received.

1) No reaction: the curtain will have no response after frost alarm is received.

2) Open/Close/Stop: the curtain will be opened/closed/stopped after frost alarm is received.

3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after frost alarm is received.

4) Set position: the curtain will run to new set position after frost alarm is received.

Position for frost alarm: after “Set position” is selected in “Reaction on frost alarm”, curtain position percentage can be set after frost alarm is received.

- Reaction on reset frost alarm: to set curtain status after frost alarm is reset.

1) No reaction: the curtain will have no response after frost alarm is reset.

2) Open/Close/Stop: the curtain will be opened/closed/stopped after frost alarm is reset.

3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after frost alarm is reset.

4) Set position: the curtain will run to new set position after frost alarm is reset.

Position for reset frost alarm: after “Set position” is selected in “Reaction on reset frost alarm”, curtain position percentage can be set after frost alarm is reset.

- Report after frost alarm reaction: to select the feedback type after frost alarm command is executed.

1) Disable: there is no feedback after frost alarm command is executed.

2) Report ‘1’ after operation: “1” will be sent after frost alarm command is executed.

3) Report ‘0’ after operation: “0” will be sent after frost alarm command is executed.

5. Priority for alarms: to set the curtain response order when wind alarm, frost alarm and rain alarm are received at the same time.

6. Safety mode after voltage recover: to set safety mode status after the voltage is recovered.

- Invalid: the safety mode is invalid after the voltage is recovered.
- Recover: the safety mode recorded before power down will be recovered.

7. Read alarm status after voltage recover: after “Recover” is selected in “Safety mode after voltage recover”, “Read alarm status after voltage recover” can be enabled/disabled.

8. Delay for reading alarm status: after “Recover” is selected in “Safety mode after voltage recover” and “Enable” is selected in “Read alarm status after voltage recover”, the delay

time of reading alarm status can be set, which ranges from 2 to 255s. The default value is 2s.

9. If status have no update then repeatedly read (1 time/s): after “Recover” is selected in “Safety mode after voltage recover” and “Enable” is selected in “Read alarm status after voltage recover”, user can set the frequency of reading alarm status when alarm status is not updated, including “1 time”, “2 times” and “3 times”. The period of reading alarm status is 1 time/s.

6 Auto Mode

6.1 Auto 1 for Sun

After auto 1 for sun is enabled in function selection page, click “Auto 1 for sun” label on the left, as shown in Figure 6-1.

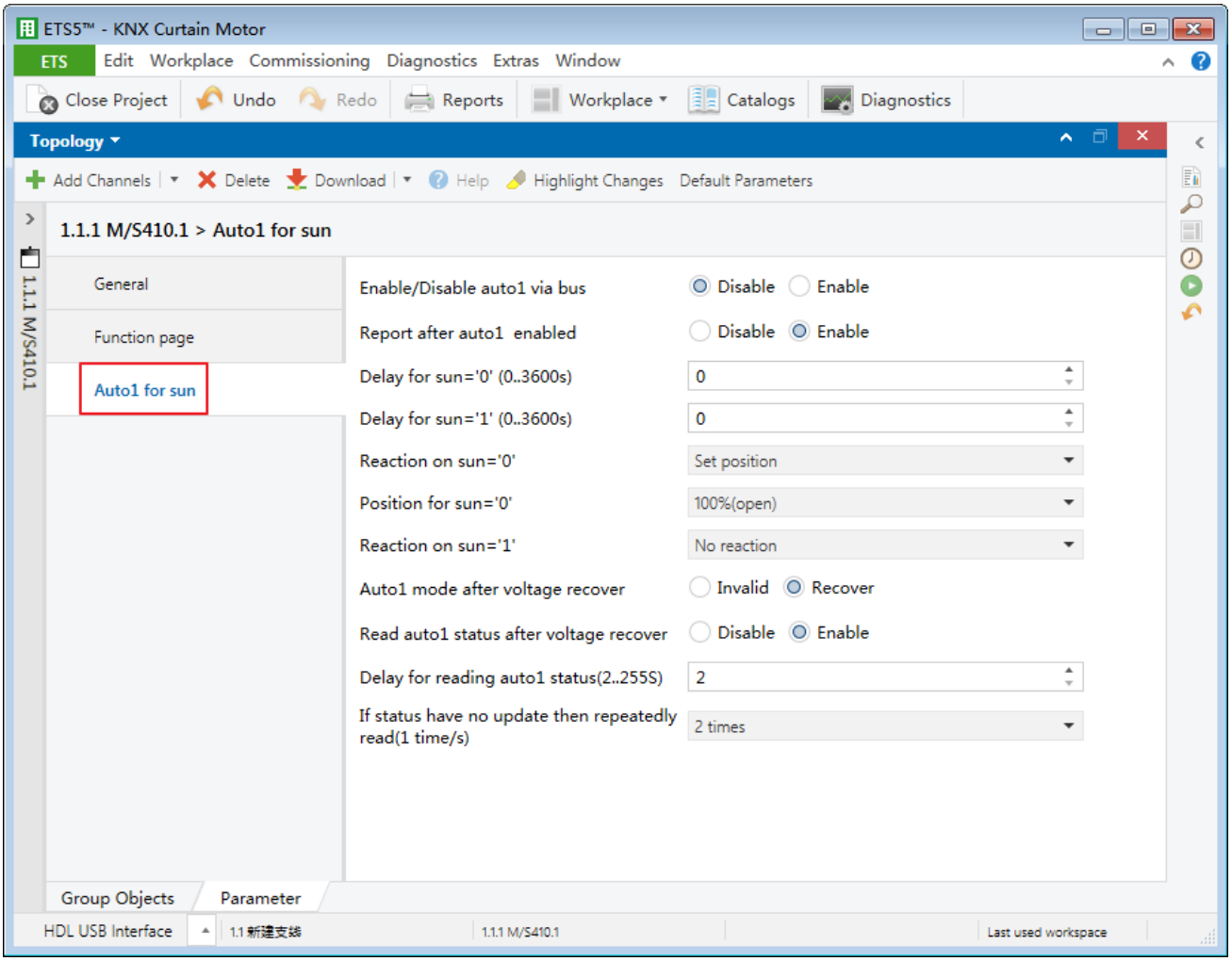

Figure 6-1 Auto 1 for sun

The setting items are explained below:

1. Enable/Disable auto 1 via bus: to enable opening/closing “auto 1 for sun” via the bus.
2. Report after auto 1 enabled: after “auto 1 for sun” is enabled, choose whether to send “auto 1 for sun” status.

3. Delay for sun='0': to set the delay time of running the curtain after sun data "0" is received, which ranges from 0 to 3600s.
4. Delay for sun='1': to set the delay time of running the curtain after sun data "1" is received, which ranges from 0 to 3600s.
5. Reaction on sun='0': to set curtain status after sun data "0" is received.
   1) No reaction: the curtain will have no response after sun data "0" is received.
   2) Open/Close/Stop: the curtain will be opened/closed/stopped after sun data "0" is received.
   3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after sun data "0" is received.
   4) Set position: the curtain will run to new set position after sun data "0" is received.

   Position for sun='0': after "Set position" is selected in "Reaction on sun='0'", curtain position percentage can be set after sun data "0" is received.
6. Reaction on sun='1': to set curtain status after sun data "1" is received.
   1) No reaction: the curtain will have no response after sun data "1" is received.
   2) Open/Close/Stop: the curtain will be opened/closed/stopped after sun data "1" is received.
   3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after sun data "1" is received.
   4) Set position: the curtain will run to new set position after sun data "1" is received.

   Position for sun='1': after "Set position" is selected in "Reaction on sun='1'", curtain position percentage can be set after sun data "1" is received.
7. Auto 1 mode after voltage recover: to set "auto 1 for sun" status after the voltage is recovered.
   - Invalid: "auto 1 for sun" is invalid after the voltage is recovered.
   - Recover: the "auto 1 for sun" status recorded before power down will be recovered.
8. Read auto 1 status after voltage recover: after "Recover" is selected in "Auto 1 mode after voltage recover", "Read auto 1 status after voltage recover" can be enabled/disabled.
9. Delay for reading auto 1 status: after "Recover" is selected in "Auto 1 mode after voltage recover" and "Enable" is selected in "Read auto 1 status after voltage recover", the delay time of reading auto 1 status can be set, which ranges from 2 to 255s. The default value is 2s.

10. If status have no update then repeatedly read (1 time/s): after “Recover” is selected in “Auto 1 mode after voltage recover” and “Enable” is selected in “Read auto 1 status after voltage recover”, user can set the frequency of reading auto 1 status when auto 1 status is not updated, including “1 time”, “2 times” and “3 times”. The period of reading auto 1 status is 1 time/s.

6.2 Auto 2 for Cooling and Heating

After “Auto 1 for sun” is enabled in function selection page, “Auto 2 for cooling and heating” can be enabled, click “Auto 2 for cooling and heating” label in the parameter list, as shown in Figure 6-2.

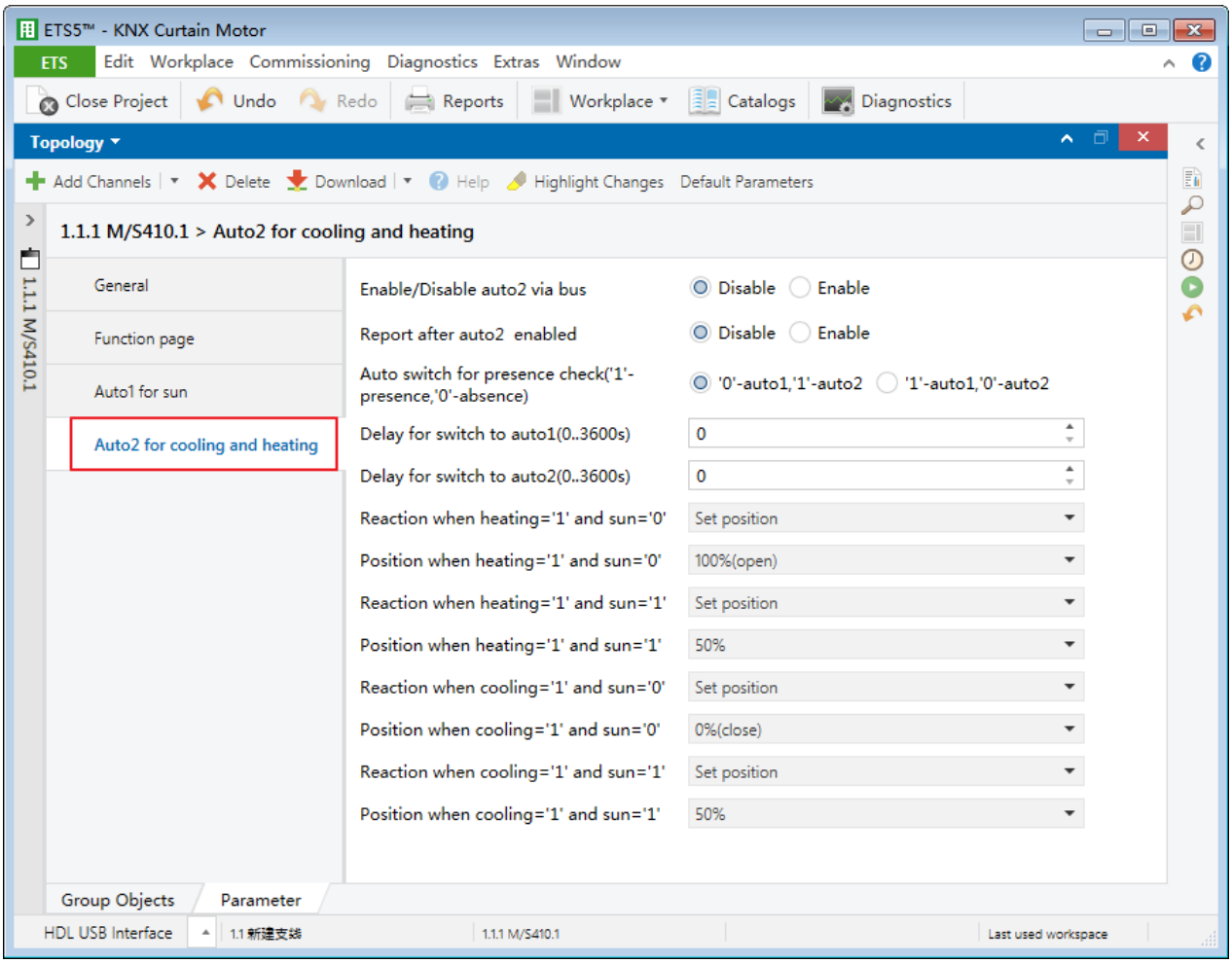

Figure 6-2 Auto 2 for cooling and heating

The setting items are explained below:

1. Enable/Disable auto 2 via bus: to enable opening/closing “auto 2 for cooling and heating”

function via the bus.

2. Report after auto 2 enabled: after “auto 2 for cooling and heating” is enabled, choose whether to send “auto 2 for cooling and heating” status.

3. Auto switch for presence check: to switch between “auto 1 for sun” and “auto 2 for cooling and heating” when presence check data is received.

   - ‘0’-auto 1, ‘1’-auto 2: “auto 1 for sun” will be activated when presence check data “0” is received, while “auto 2 for cooling and heating” will be activated when presence check data “1” is received.
   - ‘1’-auto 1, ‘0’-auto 2: “auto 1 for sun” will be activated when presence check data “1” is received, while “auto 2 for cooling and heating” will be activated when presence check data “0” is received.

4. Delay for switch to auto 1: to set the delay time of switching to “auto 1 for sun”, which ranges from 0 to 3600s.

5. Delay for switch to auto 2: to set the delay time of switching to “auto 2 for cooling and heating”, which ranges from 0 to 3600s.

6. Reaction when heating=‘1’ and sun=‘0’: to set curtain status after heating data “1” and sun data “0” are received.

   1) No reaction: the curtain will have no response after heating data “1” and sun data “0” are received.

   2) Open/Close/Stop: the curtain will be opened/closed/stopped after heating data “1” and sun data “0” are received.

   3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after heating data “1” and sun data “0” are received.

   4) Set position: the curtain will run to new set position after heating data “1” and sun data “0” are received.

   Position when heating=‘1’ and sun=‘0’: after “Set position” is selected in “Reaction when heating=‘1’ and sun=‘0’”, curtain position percentage can be set after heating data “1” and sun data “0” are received.

7. Reaction when heating=‘1’ and sun=‘1’: to set curtain status after heating data “1” and sun data “1” are received.

   1) No reaction: the curtain will have no response after heating data “1” and sun data “1” are received.

   2) Open/Close/Stop: the curtain will be opened/closed/stopped after heating data “1” and sun data “1” are received.

3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after heating data “1” and sun data “1” are received.

4) Set position: the curtain will run to new set position after heating data “1” and sun data “1” are received.

Position when heating=‘1’ and sun=‘1’: after “Set position” is selected in “Reaction when heating=‘1’ and sun=‘1’”, curtain position percentage can be set after heating data “1” and sun data “1” are received.

8. Reaction when cooling=‘1’ and sun=‘0’: to set curtain status after cooling data “1” and sun data “0” are received.

1) No reaction: the curtain will have no response after cooling data “1” and sun data “0” are received.

2) Open/Close/Stop: the curtain will be opened/closed/stopped after cooling data “1” and sun data “0” are received.

3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after cooling data “1” and sun data “0” are received.

4) Set position: the curtain will run to new set position after cooling data “1” and sun data “0” are received.

Position when cooling =‘1’ and sun=‘0’”: after “Set position” is selected in “Reaction when cooling =‘1’ and sun=‘0’”, curtain position percentage can be set after cooling data “1” and sun data “0” are received.

9. Reaction when cooling=‘1’ and sun=‘1’: to set curtain status after cooling data “1” and sun data “1” are received.

1) No reaction: the curtain will have no response after cooling data “1” and sun data “1” are received.

2) Open/Close/Stop: the curtain will be opened/closed/stopped after cooling data “1” and sun data “1” are received.

3) Preset position 1/2/3/4: the curtain will run to preset position 1/2/3/4 after cooling data “1” and sun data “1” are received.

4) Set position: the curtain will run to new set position after cooling data “1” and sun data “1” are received.

Position when cooling =‘1’ and sun=‘1’: after “Set position” is selected in “Reaction when cooling =‘1’ and sun=‘1’”, curtain position percentage can be set after cooling data “1” and sun data “1” are received.

7 Scene Control Function

After scene control function is enabled in function selection page, click “Scene control” label, as shown in Figure 7-1.

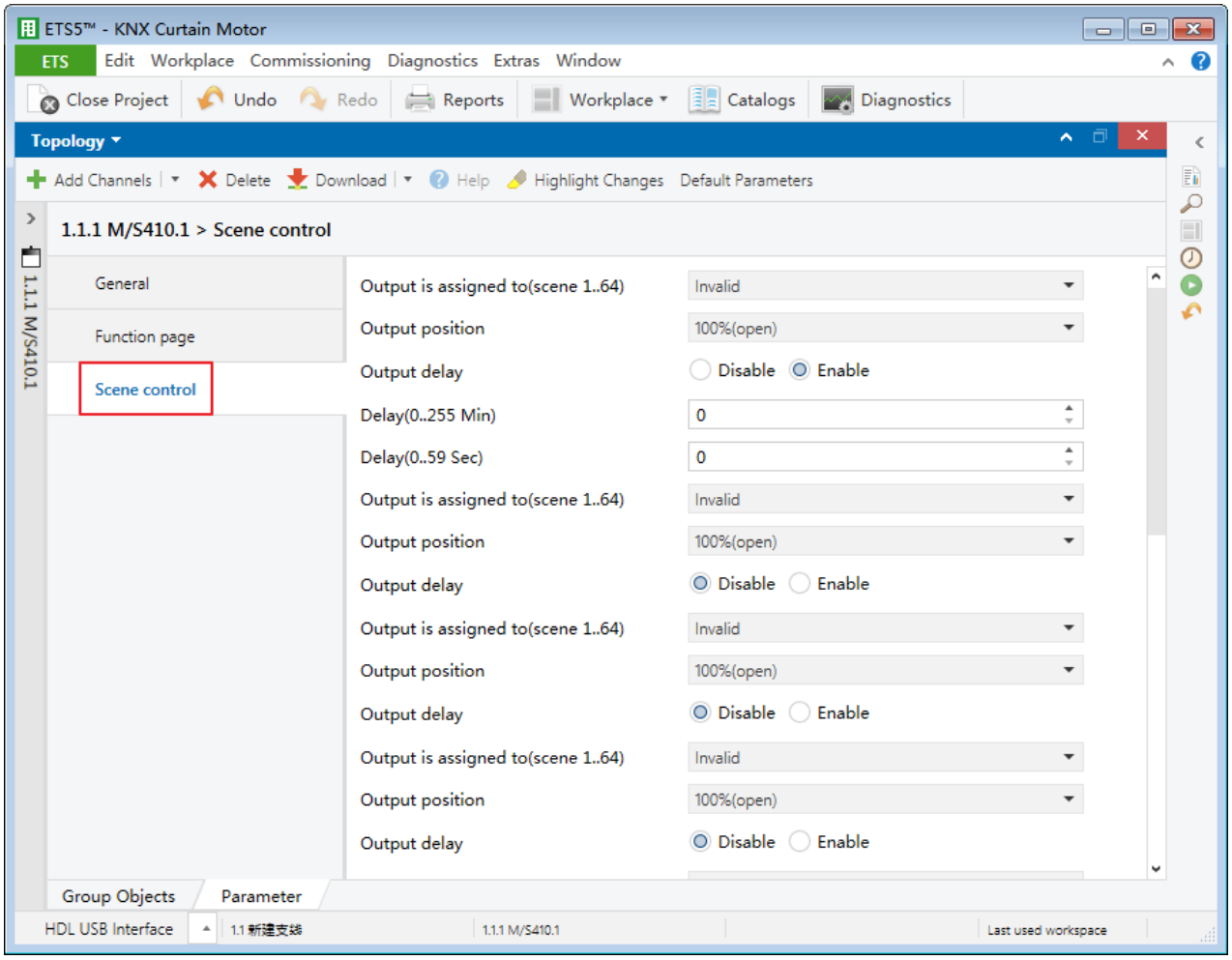

Figure 7-1 Scene control

The page contains 10 scene settings, whose setting items are explained below:

1. Output assigned to (scene 1..64): choose to output corresponding scene number (Up to 64 scene numbers available).
2. Output position: to set the curtain position of scene output.
3. Output delay: to enable scene output delay function.
   - Delay: after “Enable” is selected in “Output delay”, the delay time of outputting scene can be set, which ranges from 0 to 255 minutes 59 s.
4. Scene report: to select the feedback type after scene control command is executed.

- Disable: there is no feedback after scene control command is executed.
- Report ‘1’ after operation: “1” will be sent after scene control command is executed.
- Report ‘0’ after operation: “0” will be sent after scene control command is executed.

8 Forced Control Function

After forced control function is enabled in function selection page, click “Forced control” label, as shown in Figure 8-1.

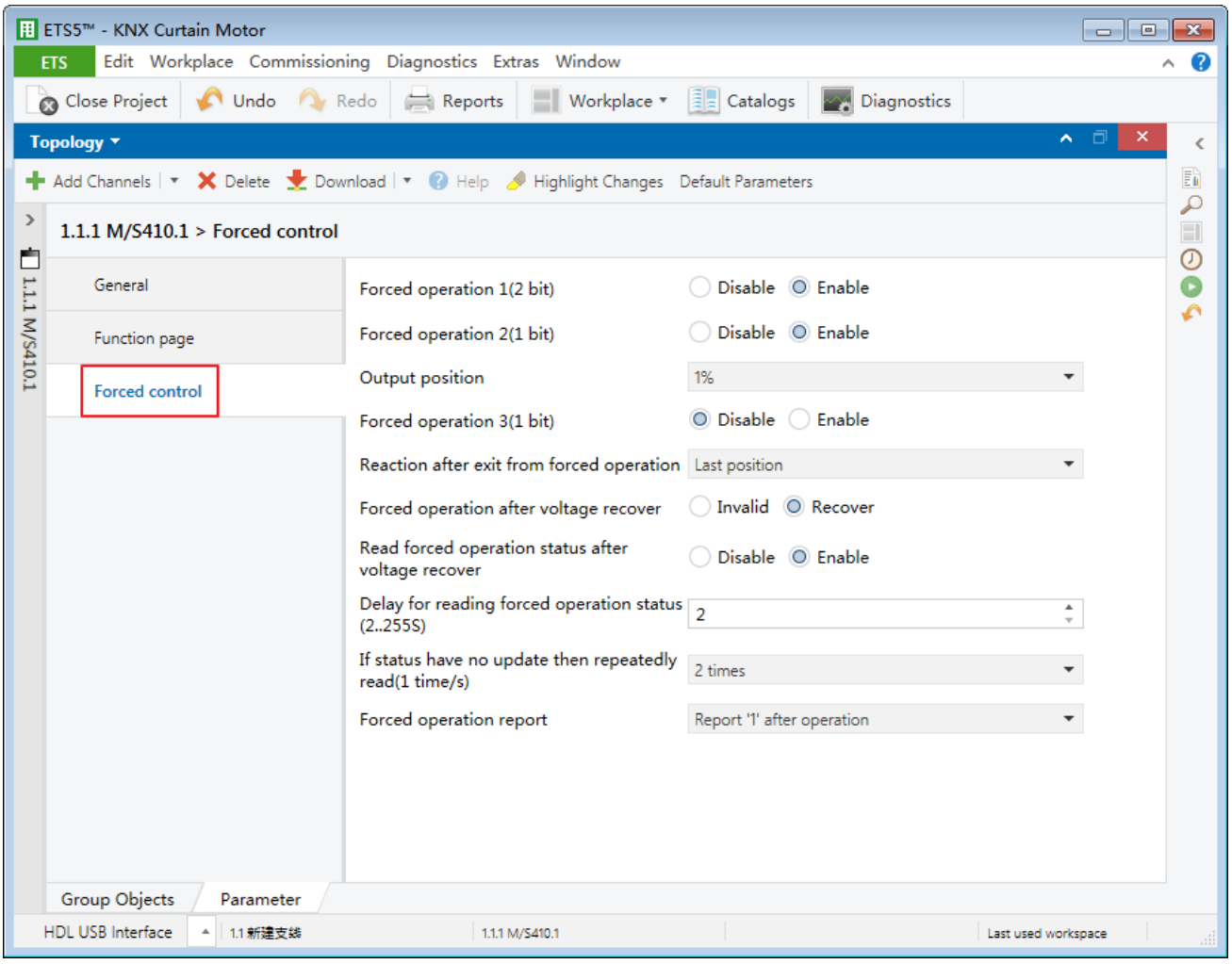

Figure 8-1 Forced control

The setting items are explained below:

1. Forced operation 1 (2 bits): to enable controlling forced operation 1 via 2-bit object.
2. Forced operation 2 (1 bit): to enable controlling forced operation 2 via 1-bit object.
   - Output position: after “Enable” is selected in “Forced operation 2 (1 bit)”, user may set curtain position percentage after forced operation 2 command is executed.
3. Forced operation 3 (1 bit): to enable controlling forced operation 3 via 1-bit object.
   - Output position: after “Enable” is selected in “Forced operation 3 (1 bit)”, user may

set curtain position percentage after forced operation 3 command is executed.

4. Reaction after exit from forced operation: to set curtain status after forced operation mode is exited.
   1) No reaction: the curtain will have no response after forced operation mode is exited.
   2) Open/Close/Stop: the curtain will be opened/closed/stopped after forced operation mode is exited.
   3) Last position: after forced operation mode is exited, the curtain will run to the position before entering forced operation mode.
5. Forced operation after voltage recover: to set forced operation mode status after the voltage is recovered.
   - Invalid: forced operation mode is invalid after the voltage is recovered.
   - Recover: the forced operation mode recorded before power down will be recovered.
6. Read forced operation status after voltage recover: after “Recover” is selected in “Forced operation after voltage recover”, “Read forced operation status after voltage recover” can be enabled/disabled.
7. Delay for reading forced operation status: after “Recover” is selected in “Forced operation after voltage recover” and “Enable” is selected in “Read forced operation status after voltage recover”, the delay time of reading forced operation status can be set, which ranges from 2 to 255s. The default value is 2s.
8. If status have no update then repeatedly read (1 time/s): after “Recover” is selected in “Forced operation after voltage recover” and “Enable” is selected in “Read forced operation status after voltage recover”, user can set the frequency of reading forced operation status when forced operation status is not updated, including “1 time”, “2 times” and “3 times”. The period of reading forced operation status is 1 time/s.
9. Forced operation report: to select the feedback type after forced operation command is executed.
   - Disable: there is no feedback after forced operation command is executed.
   - Report ‘1’ after operation: “1” will be sent after forced operation command is executed.
   - Report ‘0’ after operation: “0” will be sent after forced operation command is executed.

9 Download Data

9.1 Interface Setting

If users need to download data to the panel, KNX interface is necessary.

After connecting KNX interface to a computer via USB, click “Bus” tab in ETS’ main page, “HDL USB Interface” will show up in “Discovered Interface”. Double click to add and the interface will show up in “Current Interface”, as shown in Figure 9-1.

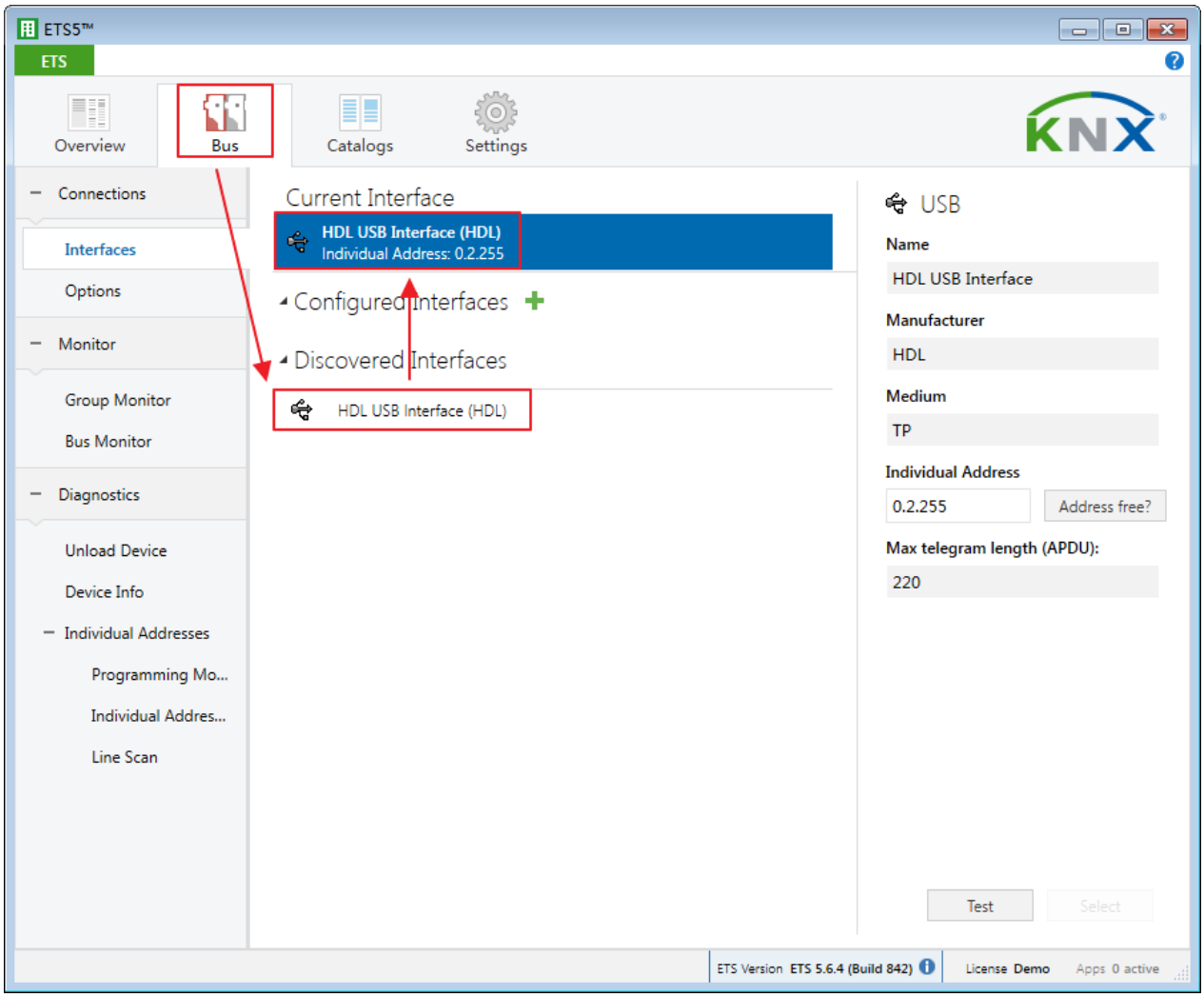

Figure 9-1 Interface setting

9.2 Download Data

Press the programming button of the motor, and the red indicator keeps on. Right click the database to be downloaded to the motor and select “Download”. The information indicates the end of the process on the right side of ETS, as shown in Figure 9-2.

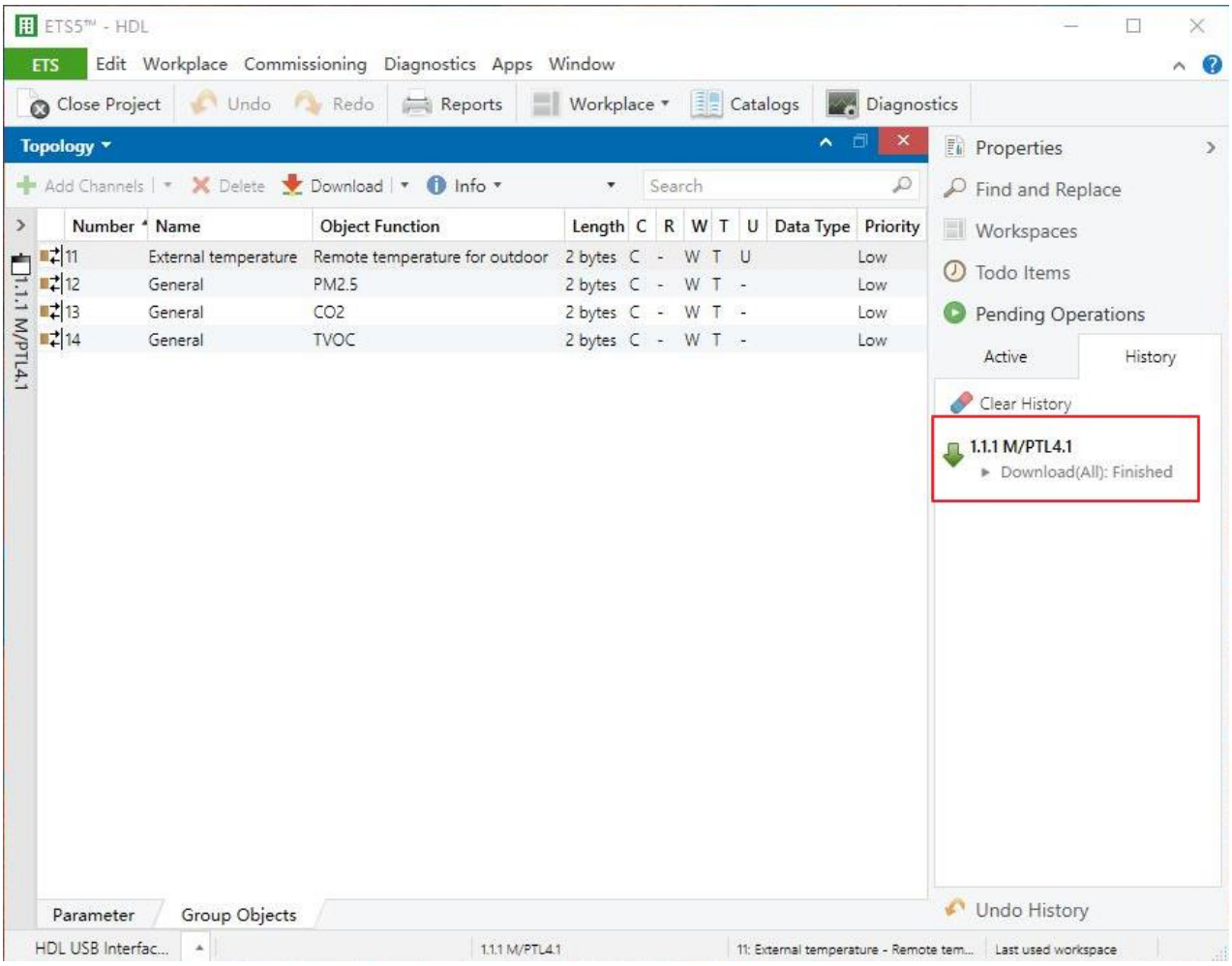

Figure 9-2 Download data

10 Object Instruction

KNX communication objects are used for receiving and sending data. The length of these objects is from 1 to 14 bits according to different function settings. Each object has a flag with communication property.

1. “C”-Communication, representing that communication objects are connected normally via the bus.
2. “R”-Read, representing that communication object value can be read via the bus.
3. “W”-Write, representing that communication object value can be rewritten via the bus.
4. “T”-Transmit, representing that communication objects have transmit function. When this object value is modified, the message will be sent.
5. “U”-Update, representing that communication object value can be updated via the bus response message.

10.1 Objects “System function”

Objects “System function”

序号	名称	对象功能	描述	群组地址	长度	C	R	W	T	U	数据类型	优先级
1	System function	'0'-open,'1'-close			1 bit	C	-	W	-	U	open/close	低
2	System function	Stop ('0'/'1'-stop)			1 bit	C	-	W	-	U	step	低
3	System function	Percentage set			1 byte	C	-	W	-	U	percentag...	低

No.	Name	Function	Flag	Data Type
1-3	System function	‘0’-open, ‘1’-close Stop (‘0’/‘1’-stop) Percentage set	C W U	DPT1.019 1 bit DPT1.007 1 bit DPT 5.001 1 byte

These objects are used for controlling motor basic functions, including opening/closing/stopping/position percentage controlling curtain.

10.2 Object “Heartbeat telegram”

Object “Heartbeat telegram”

4	Heartbeat telegram	Send "0" periodically	1 bit	C	-	-	T	-	enable	低
4	Heartbeat telegram	Send "1" periodically	1 bit	C	-	-	T	-	enable	低
4	Heartbeat telegram	Send "1/0" alternately	1 bit	C	-	-	T	-	enable	低

No.	Name	Function	Flag	Data Type
4	Heartbeat telegram	Send “0” periodically Send “1” periodically Send “1/0” alternately	C T	DPT1.003 1 bit
This object can be activated by selecting “Send value “0” periodically, Send value “1” periodically or Send value “1/0” alternately and periodically” in the parameter “Heartbeat Telegram”, which is used for checking if the device is connected to the system normally.				

10.3 Objects “Limitation point”

Objects “Limitation point”

6	Limitation point set	'1'-set open limitation	1 bit	C	-	W	-	U	state	低
7	Limitation point set	'1'-set close limitation	1 bit	C	-	W	-	U	state	低
8	Reset limitation point	'1'-reset limitation	1 bit	C	-	W	-	U	state	低

No.	Name	Function	Flag	Data Type
6, 7	Limitation point set	‘1’-set open limitation ‘1’-set close limitation	C W U	DPT1.011 1 bit
These objects are used for setting curtain switch limiting position.				
8	Reset limitation point	‘1’-reset limitation	C W U	DPT1.011 1 bit
This object is used for resetting curtain switch limiting position.				

10.4 Object “Short drag function”

Object “Short drag function”

9	Short drag function	'1'-Enable,'0'-disable	1 bit	C	-	W	-	U	enable	低

No.	Name	Function	Flag	Data Type
9	Short drag function	‘1’-Enable, ‘0’-Disable	C W U	DPT1.003 1 bit
This object is used for opening/closing short drag function.				

10.5 Objects “state report”

Objects “state report”

10	Open/close state report	'0'-open,'1'-close	1 bit	C	R	-	T	-	open/close	低
10	Open/close state report	'1'-open,'0'-close	1 bit	C	R	-	T	-	open/close	低
11	Stop state report	'1'-stop	1 bit	C	R	-	T	-	step	低
11	Stop state report	'0'-stop	1 bit	C	R	-	T	-	step	低
12	Percentage state report	Percentage	1 byte	C	R	-	T	-	percentag...	低

No.	Name	Function	Flag	Data Type
10-12	Open/close state report Stop state report Percentage state report	‘0’-open, ‘1’-close ‘1’-open, ‘0’-close ‘0’-stop ‘1’-stop Percentage	C R T	DPT1.019 1 bit DPT1.007 1 bit DPT5.001 1 byte
These objects are used for the feedback of curtain opening/closing/stopping/position percentage status				

10.6 Objects “preset position”

Objects “preset position”

13	Set preset position	'0'-preset 1,'1'-preset 2	1 bit	C	-	W	-	U	scene	低
14	Set preset position	'0'-preset 3,'1'-preset 4	1 bit	C	-	W	-	U	scene	低
15	Move to preset position	'0'-preset 1,'1'-preset 2	1 bit	C	-	W	-	U	scene	低
16	Move to preset position	'0'-preset 3,'1'-preset 4	1 bit	C	-	W	-	U	scene	低
17	Preset report	Report '1' after operation	1 bit	C	R	-	T	-	state	低
17	Preset report	Report '0' after operation	1 bit	C	R	-	T	-	state	低

No.	Name	Function	Flag	Data Type
13, 14	Set preset position	‘0’-preset 1, ‘1’-preset 2 ‘0’-preset 3, ‘1’-preset 4	C W U	DPT1.022 1 bit
These objects are used for presetting 4 curtain positions.				
15, 16	Move to preset position	‘0’-preset 1, ‘1’-preset 2 ‘0’-preset 3, ‘1’-preset 4	C W U	DPT1.022 1 bit
These objects are used for running the curtain to preset position.				
17	Preset report	Report ‘1’ after operation Report ‘0’ after operation	C R T	DPT1.011 1 bit
This object is used for the status feedback after preset position command is executed.				

10.7 Objects “safety mode”

Objects “safety mode”

18	Enable/Disable safety mode	'1'-Enable,'0'-Disable	1 bit	C	-	W	T	U	enable	低
19	Report of safety mode	'1'-Enabled,'0'-Disabled	1 bit	C	R	-	T	-	enable	低
20	Alarm of weak wind	'1'-No alarm,'0'-Alarm	1 bit	C	-	W	T	U	alarm	低
21	Alarm of slight wind	'0'-No alarm,'1'-Alarm	1 bit	C	-	W	T	U	alarm	低
22	Alarm of strong wind	'0'-No alarm,'1'-Alarm	1 bit	C	-	W	T	U	alarm	低
23	Report after wind alarm reacti...	Report '1' after operation	1 bit	C	R	-	T	-	state	低
24	Rain alarm	'0'-No alarm,'1'-Alarm	1 bit	C	-	W	T	U	alarm	低
25	Report after rain alarm reaction	Report '1' after operation	1 bit	C	R	-	T	-	state	低
26	Frost alarm	'0'-No alarm,'1'-Alarm	1 bit	C	-	W	T	U	alarm	低
27	Report after frost alarm reaction	Report '1' after operation	1 bit	C	R	-	T	-	state	低
20	Alarm of weak wind	'0'-No alarm,'1'-Alarm	1 bit	C	-	W	T	U	alarm	低
21	Alarm of slight wind	'1'-No alarm,'0'-Alarm	1 bit	C	-	W	T	U	alarm	低
22	Alarm of strong wind	'1'-No alarm,'0'-Alarm	1 bit	C	-	W	T	U	alarm	低
23	Report after wind alarm reacti...	Report '0' after operation	1 bit	C	R	-	T	-	state	低
24	Rain alarm	'1'-No alarm,'0'-Alarm	1 bit	C	-	W	T	U	alarm	低
25	Report after rain alarm reaction	Report '0' after operation	1 bit	C	R	-	T	-	state	低
26	Frost alarm	'1'-No alarm,'0'-Alarm	1 bit	C	-	W	T	U	alarm	低
27	Report after frost alarm reaction	Report '0' after operation	1 bit	C	R	-	T	-	state	低

No.	Name	Function	Flag	Data Type
18	Enable/Disable safety mode	‘1’-Enable, ‘0’-Disable	C W T U	DPT1.003 1 bit
This object is used for opening/closing safety mode.				
19	Report of safety mode	‘1’-Enable, ‘0’-Disable	C R T	DPT1.003 1 bit
This object is used for the feedback of safety mode switch status.				
20, 21, 22, 24, 26	Alarm of weak wind Alarm of strong wind Rain alarm Frost alarm	‘0’-No alarm, ‘1’-Alarm ‘1’-No alarm, ‘0’-Alarm	C W T U	DPT1.005 1 bit
These objects are used for controlling weak wind alarm, strong wind alarm, rain alarm and frost alarm.				
23, 25, 27	Report after wind/rain/frost alarm reaction	Report ‘0’ after the operation Report ‘1’ after the operation	C R T	DPT1.011 1 bit
These objects are used for the status feedback after wind alarm, rain alarm and frost alarm commands are executed.				

10.8 Objects “Auto”

Objects “Auto”

28	Enable/Disable auto1	'1'-Enable,'0'-Disable	1 bit	C	-	W	T	U	enable	低
29	Report of auto1	'1'-Enabled,'0'-Disabled	1 bit	C	R	-	T	-	enable	低
30	Auto1	Sun-"0"/"1"	1 bit	C	-	W	T	U	switch	低
31	Enable/Disable auto2	'1'-Enable,'0'-Disable	1 bit	C	-	W	-	U	enable	低
32	Report of auto2	'1'-Enabled,'0'-Disabled	1 bit	C	R	-	T	-	enable	低
33	Auto2 presence check	'1'-presence,'0'-absence	1 bit	C	-	W	T	U	boolean	低
34	Auto2	Heating-"0"/"1"	1 bit	C	-	W	T	U	boolean	低
35	Auto2	Cooling-"0"/"1"	1 bit	C	-	W	T	U	boolean	低

No.	Name	Function	Flag	Data Type
28, 31	Enable/Disable auto1/2	'1'-Enable, '0'-Disable	C W T U C W U	DPT1.003 1 bit
These objects are used for enabling opening/closing auto mode 1/2 via the bus.				
29, 32	Report of auto1/2	'1'-Enable, '0'-Disable	C R T	DPT1.003 1 bit
These objects are used for the feedback of auto mode 1/2 switch status.				
30, 34, 35	Auto1/2	Sun-"0"/"1" Heating "0"/"1" Cooling "0"/"1"	C W T U	DPT1.001 1 bit DPT1.002 1 bit
These objects are used for enabling/disabling auto mode 1/2.				
33	Auto2 presence check	'1'-presence, '0'-absence	C W T U	DPT1.002 1 bit
This object is used for the presence check of auto mode 2. "1" represents presence, while "0" represents absence.				

10.9 Objects "Scene"

Objects "Scene"

36	Scene control	Call/Save scene number	1 byte	C	-	W	-	U	scene cont...	低
37	Scene report	Report '1' after operation	1 bit	C	R	-	T	-	state	低
37	Scene report	Report '0' after operation	1 bit	C	R	-	T	-	state	低

No.	Name	Function	Flag	Data Type
36	Scene control	Call/Save scene number	C W U	DPT18.001 1 byte
This object is used for calling/saving scene.				
37	Scene report	Report '0' after operation Report '1' after operation	C R T	DPT1.011 1 bit
This object is used for the status feedback after scene command is executed.				

10.10 Objects “Forced control”

Objects “Forced control”

38	Forced control	Forced operation 1(2 bit)	2 bit	C	-	W	T	U	direction c...	低
39	Forced control	Forced operation 2(1 bit)	1 bit	C	-	W	T	U	switch	低
40	Forced control	Forced operation 3(1 bit)	1 bit	C	-	W	T	U	switch	低
41	Forced operation report	Report '1' after operation	1 bit	C	R	-	T	-	state	低
41	Forced operation report	Report '0' after operation	1 bit	C	R	-	T	-	state	低

No.	Name	Function	Flag	Data Type
38-40	Forced control	Forced operation 1 (2 bits) Forced operation 2 (1 bit) Forced operation 3 (1 bit)	C W T U	DPT2.008 2 bits DPT1.001 1 bit
These objects are used for controlling forced operation 1/2/3.				
41	Forced operation report	Report ‘0’ after operation Report ‘1’ after operation	C R T	DPT1.011 1 bit
This object is used for the status feedback after forced operation command is executed.				