VRF Selector Help

Ver. 2.3

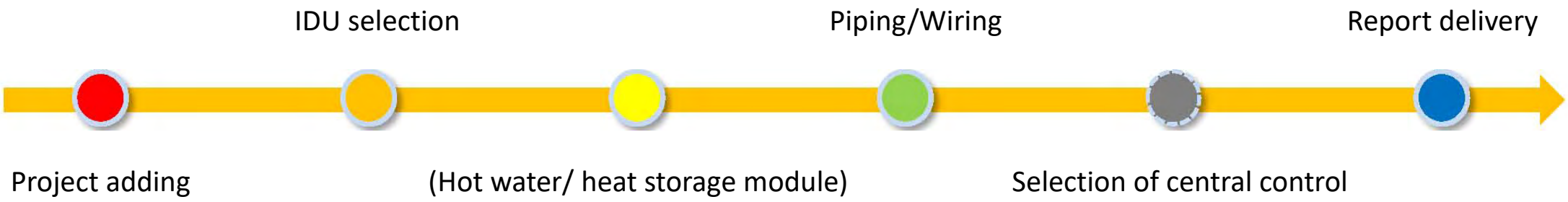
2022/4/15

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1、 Overview

Gree new generation VRF selector is developed based on years of experience in model selection and comprehensive research and analysis on the market. We carefully studied the selection logic of VRF products and optimized the selection process to tackle the pain points of customers, so as to make it suitable to different groups of customers. It is convenient to use, professional and precise. Each selection can be a joyful trip.



2、Model Selection

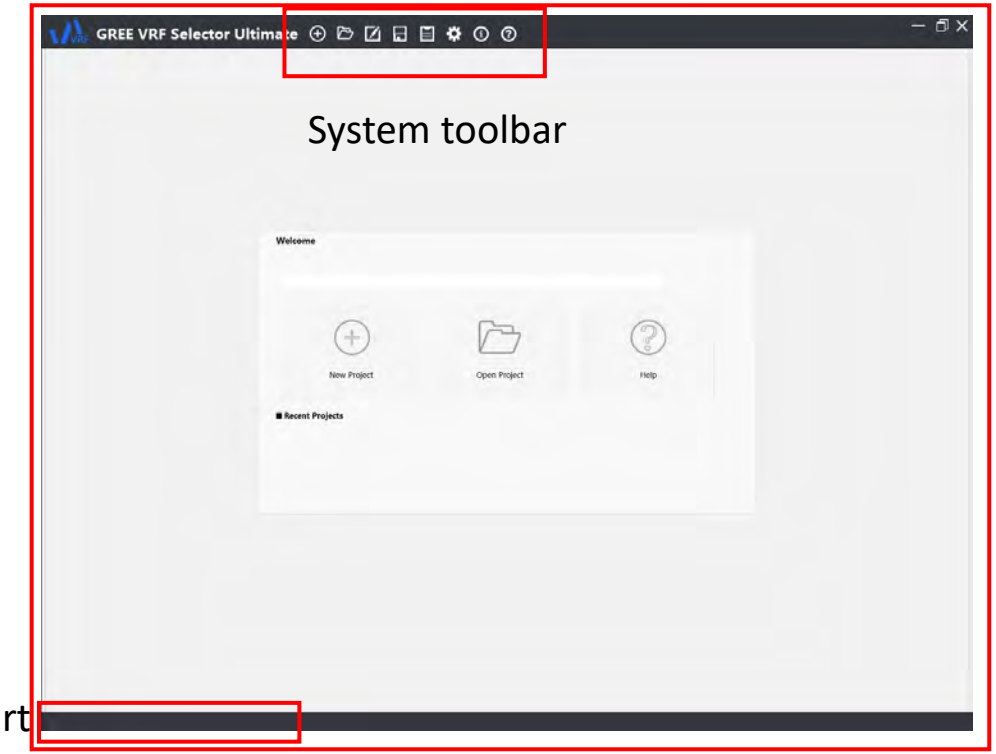
1.Homepage

The homepage is divided into three sections.

1、System toolbar(including project adding, save, edit and system setting)

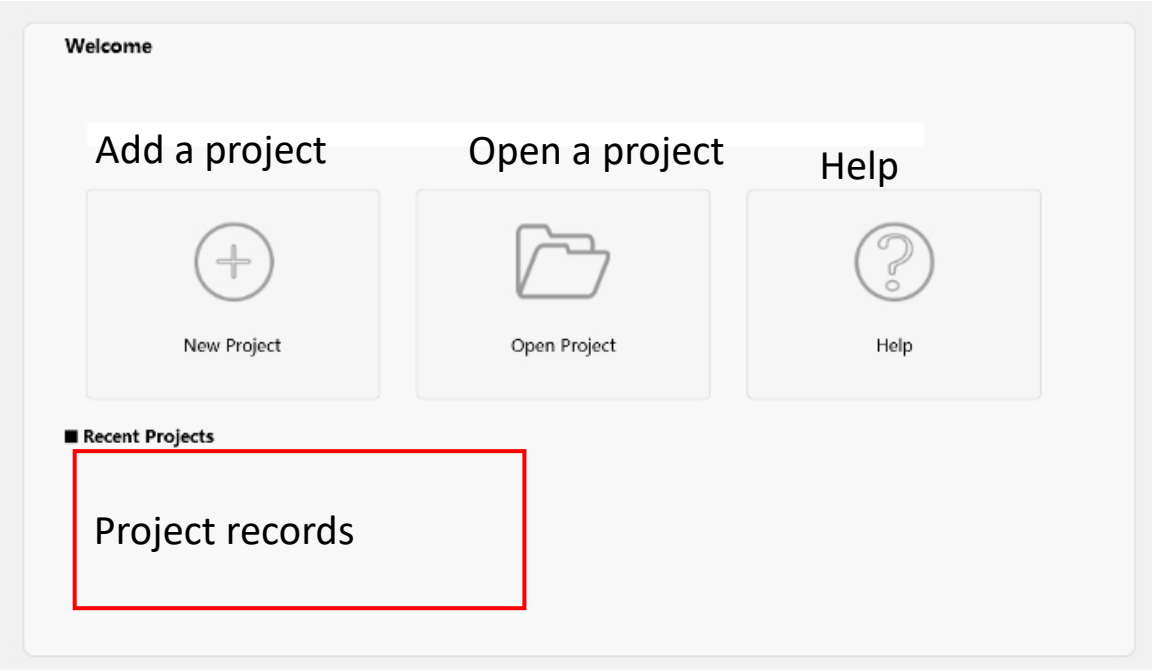
2、Main body (display area of the software)

3、Message alert (display of system messages)

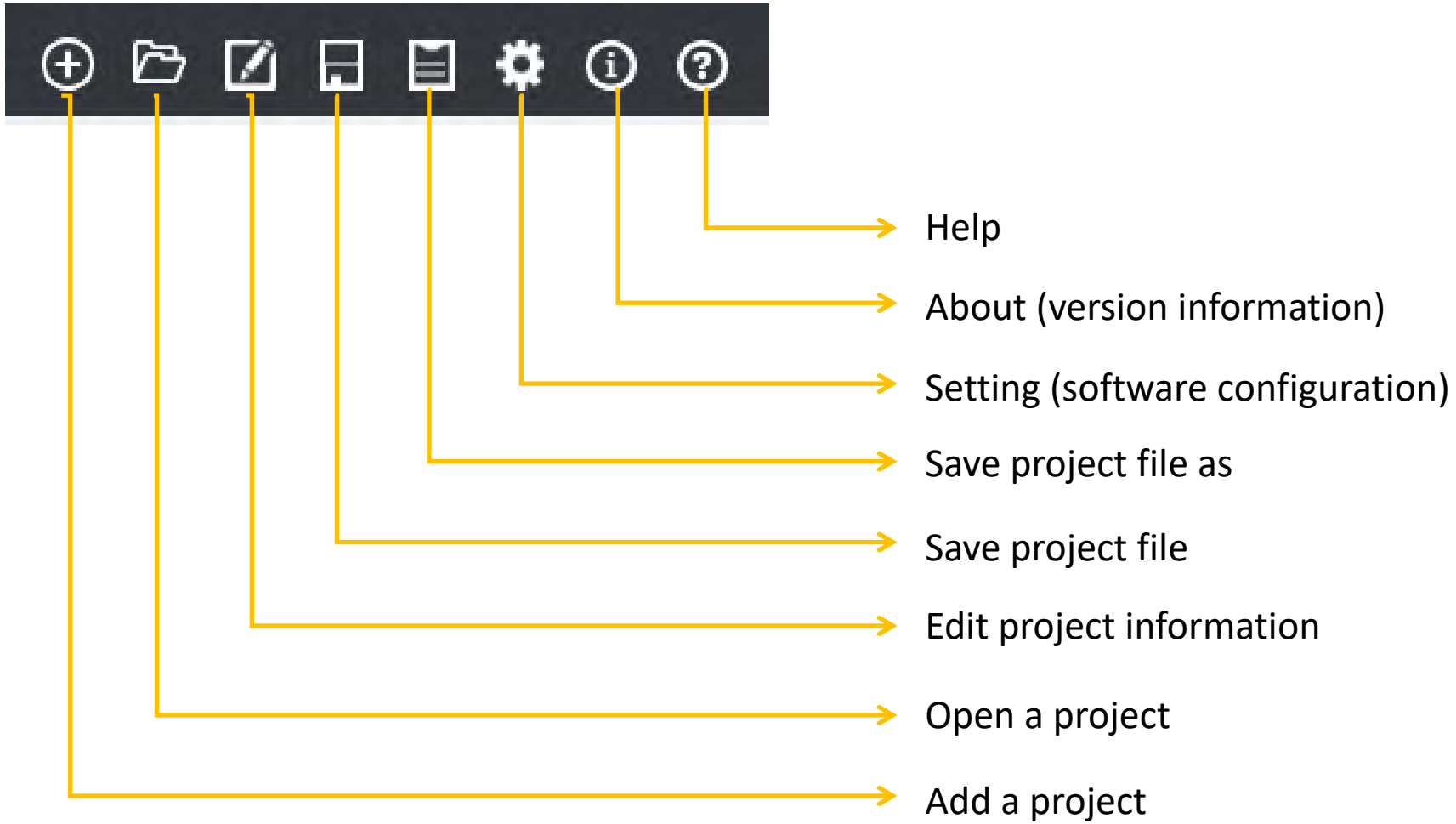


1.1Welcome page

After the software is started, you will see a welcome page at the main body.

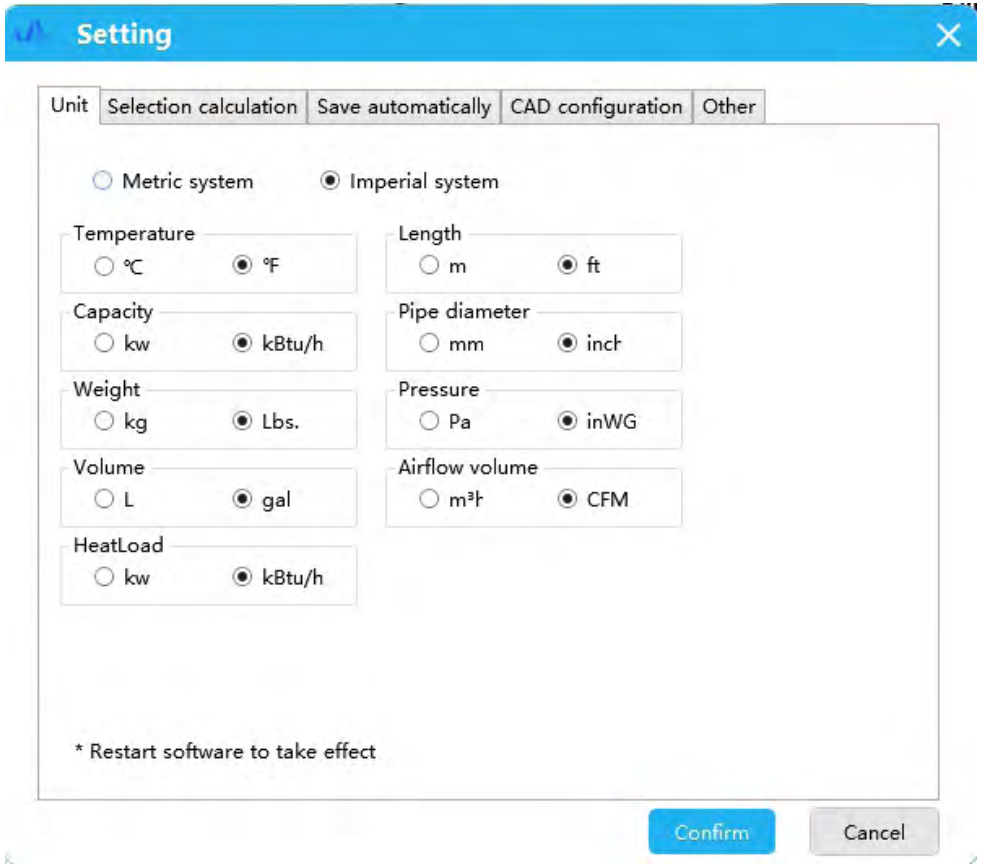


1.2 System toolbar



1.3 Setting

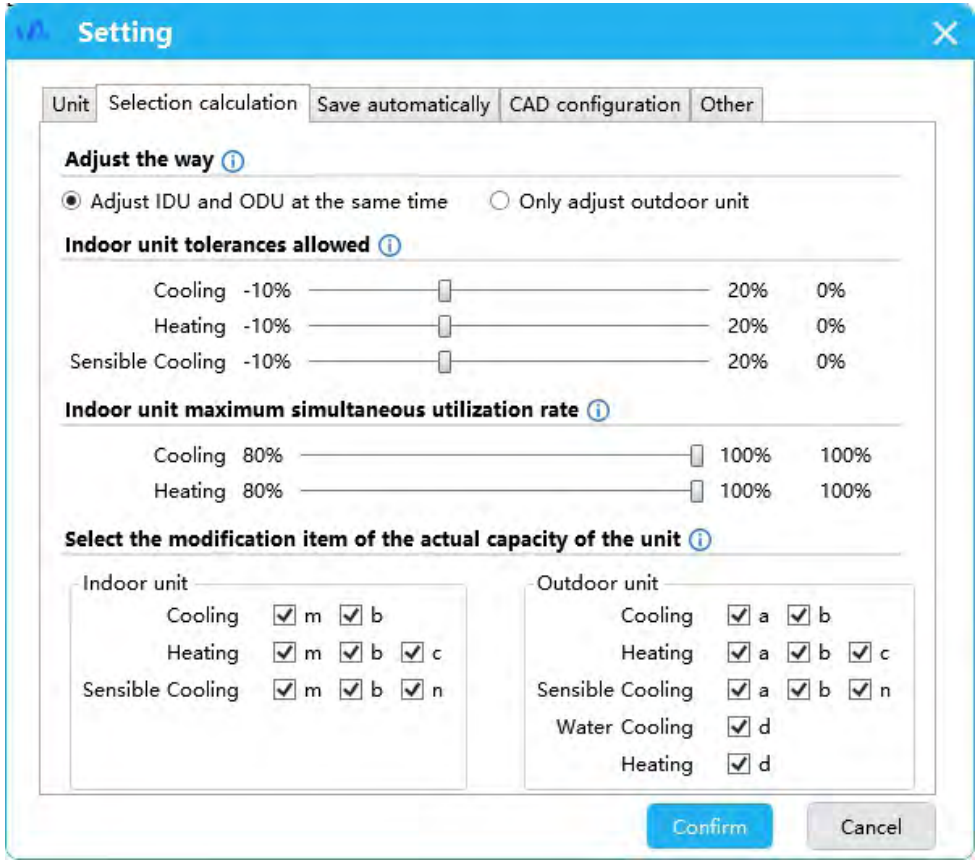
1. Unit setting (This is to set units that are used for calculation during model selection)



1.3 Setting

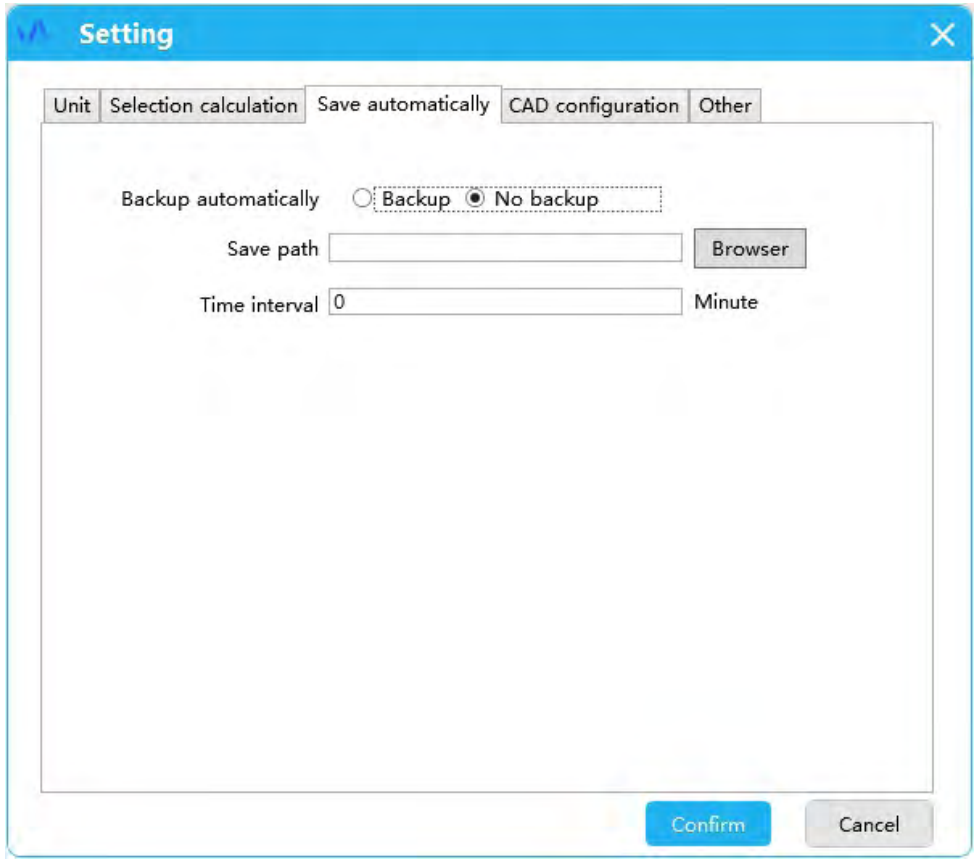
2. Selection calculation (the way of auto adjustment, tolerance allowed, correction factor)

IDU and ODU are adjusted at the same time by default.



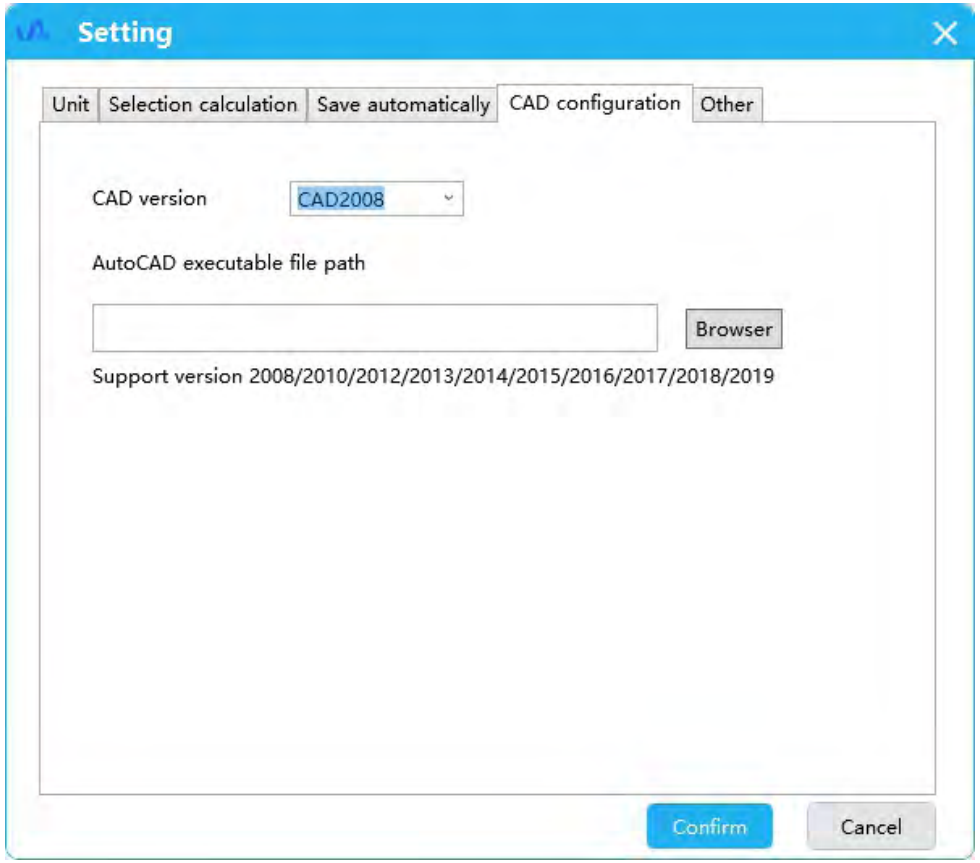
1.3 Setting

3. Save automatically (Set the path and time interval for auto saving)



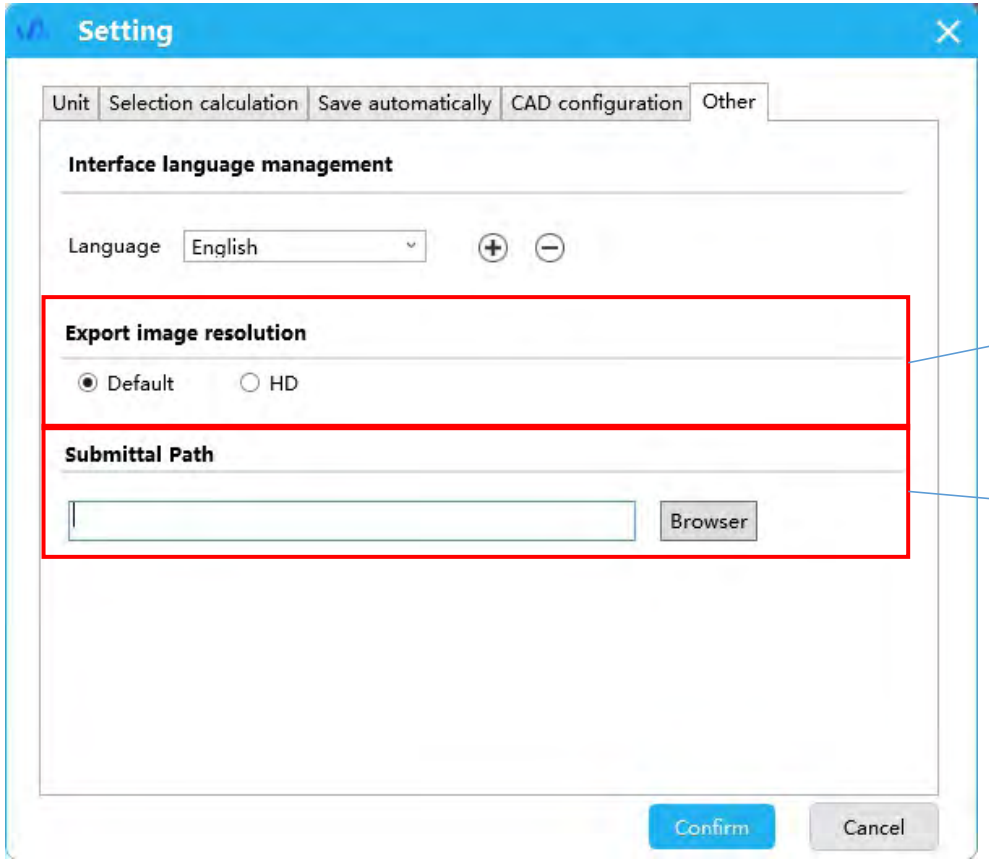
1.3 Setting

4. AutoCAD configuration (AutoCAD version, executable file path)



1.3 Setting

5. Others (Add or delete languages,submittal)

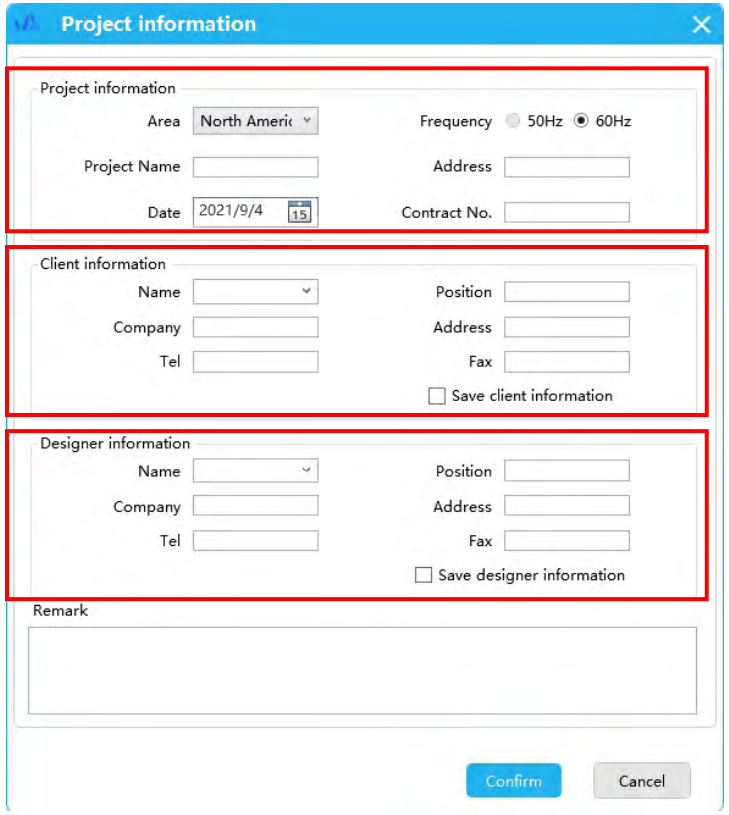


HD image export setting

Submittal path setting
(This function is only for North American market at present)

2. Project adding

Click the icon of project adding at the toolbar or the welcome page to open the window of new project.



Enter project information

Choose an area for data customization.
Choose power specification.

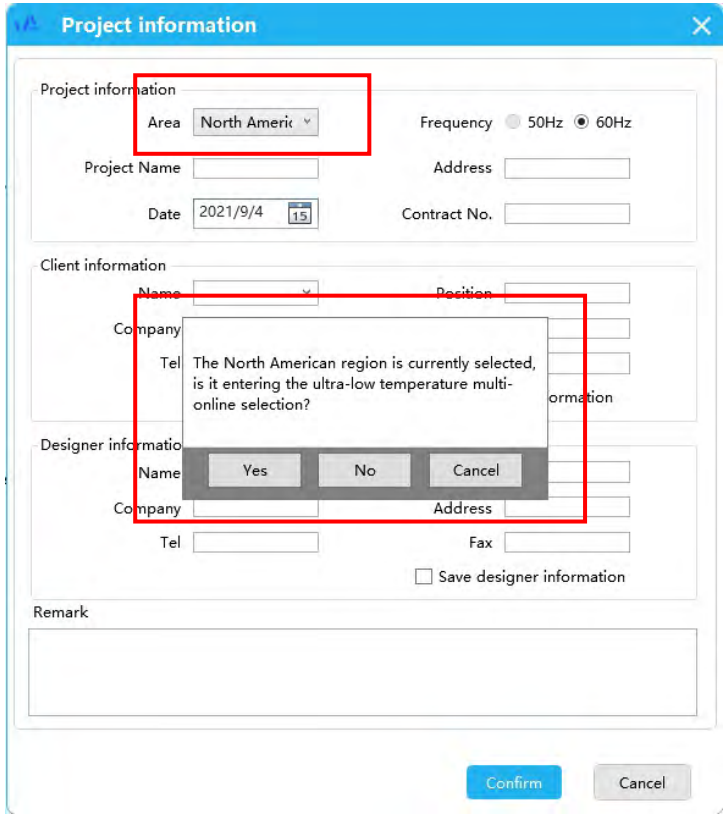
Enter client information.

Enter designer information.

After entering all the information, click “Confirm” to enter the interface of IDU selection.

2. Project adding

Note: After selecting “North America”, you can choose whether to jump to the selection of ultra-low temperature models when you click “Confirm”.



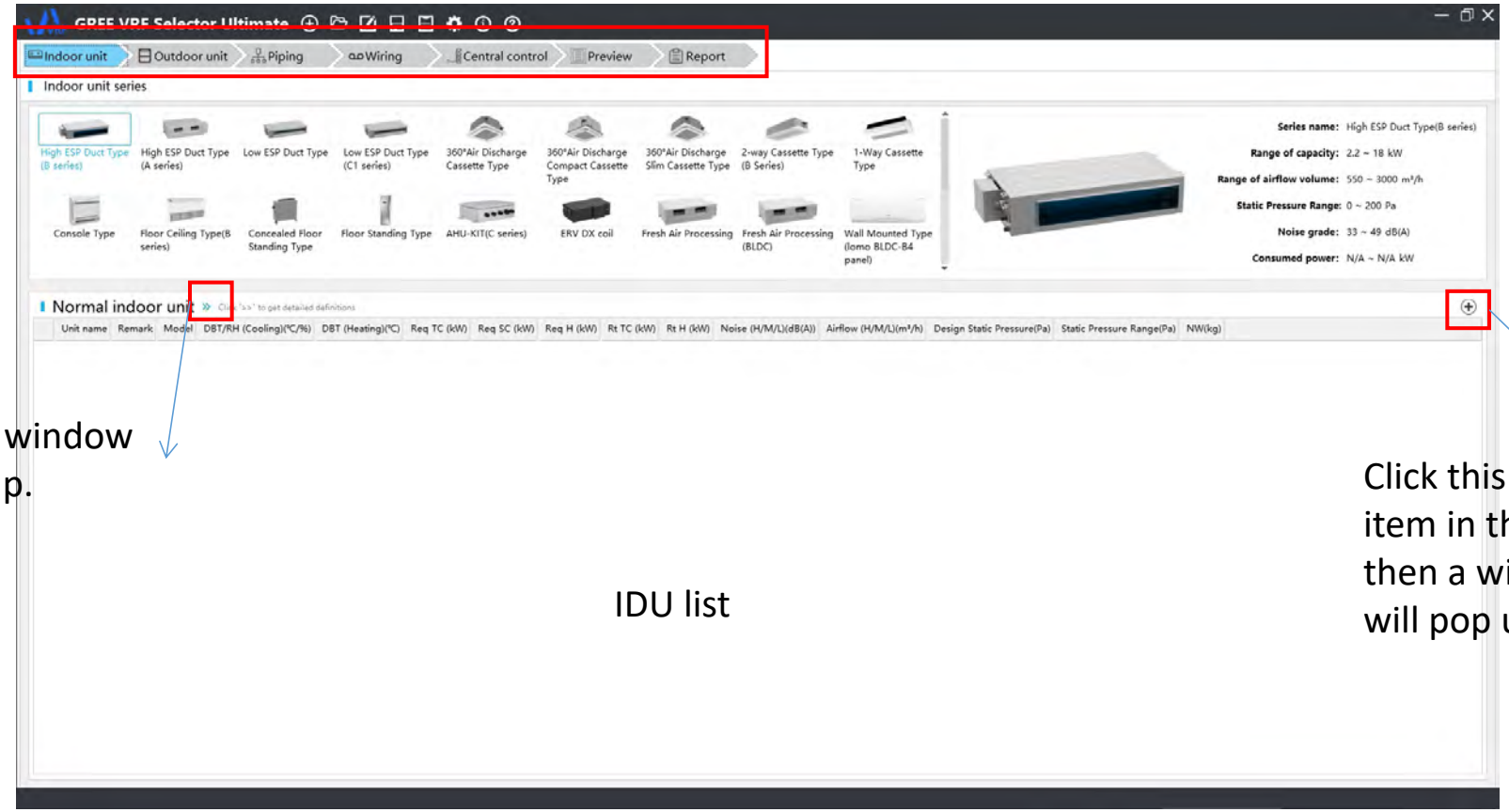
3. IDU selection

IDU selection Interface

Selection process navigation bar (Note: Other interfaces are shielded until IDUs are added.)

List of IDU series

IDU information



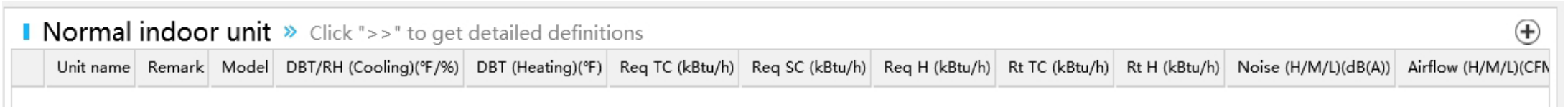
Click the blue arrow and a window of specifications will pop up.

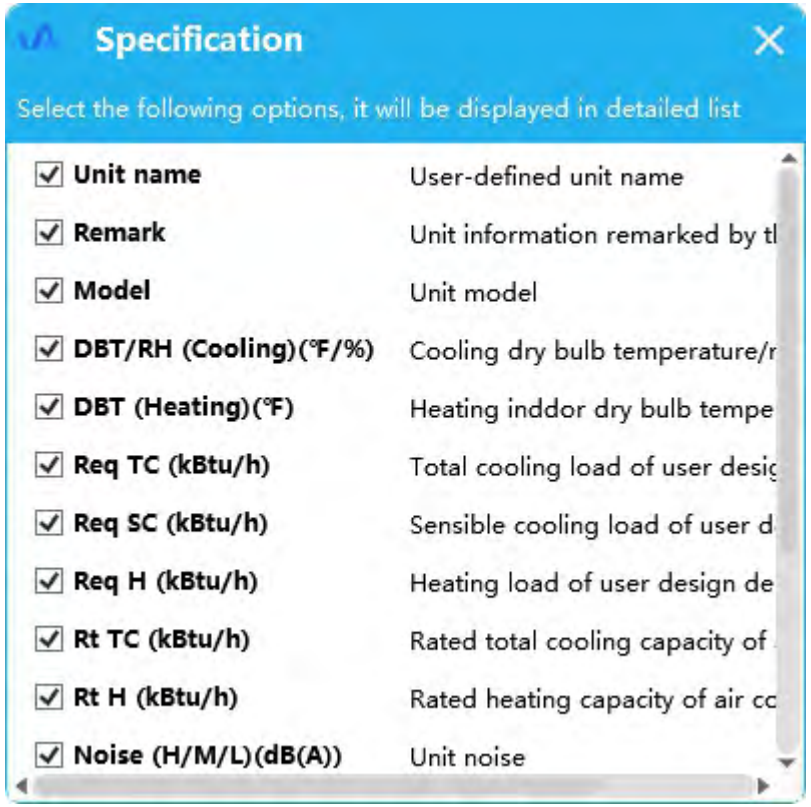
IDU list

Click this icon or double-click an item in the list of IDU series, then a window of IDU adding will pop up.

3. IDU selection

Selection of specifications



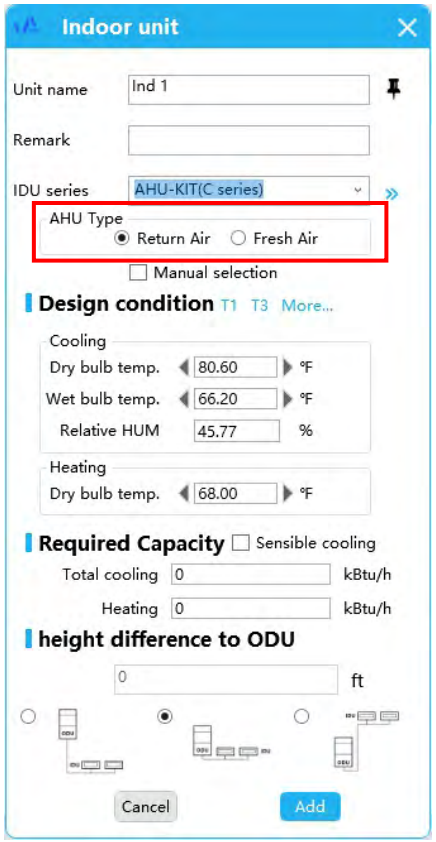


1.By selecting these parameters, you can adjust data items shown in the IDU list of the IDU selection interface.

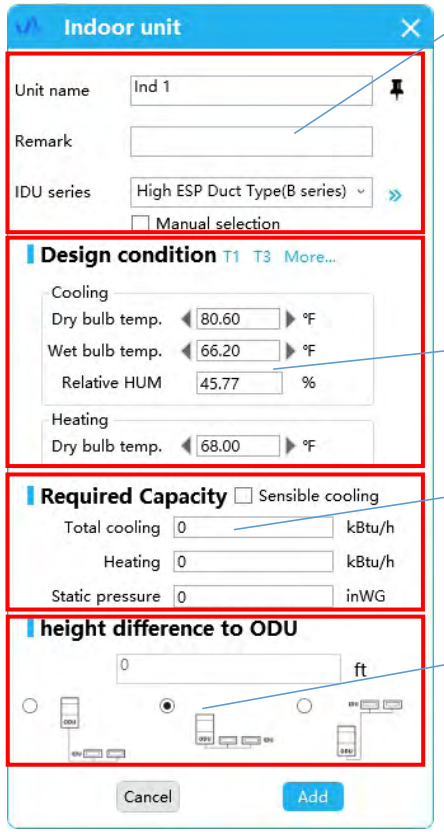
2.You can view the explanation of each abbreviated parameter.

3. IDU selection

Window of IDU adding



AHU-KIT



Common IDU

Set unit name and remark

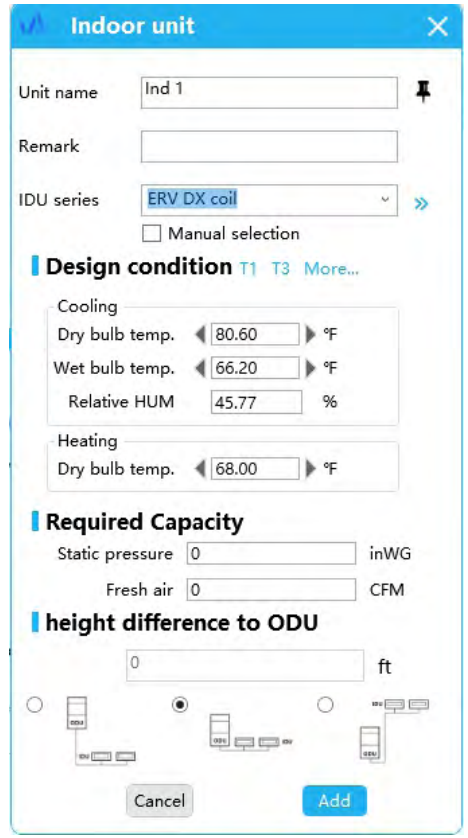
Click the blue arrow or select the select box and then a manual selection window will pop up.
(When you add AHU-KIT, select AHU. Once added, it can't be changed.)

Set working condition

Design load
(Different design load selections are displayed as per IDU series.)

Other settings, height difference to ODU
(For example, position of the ODU relative to IDUs)

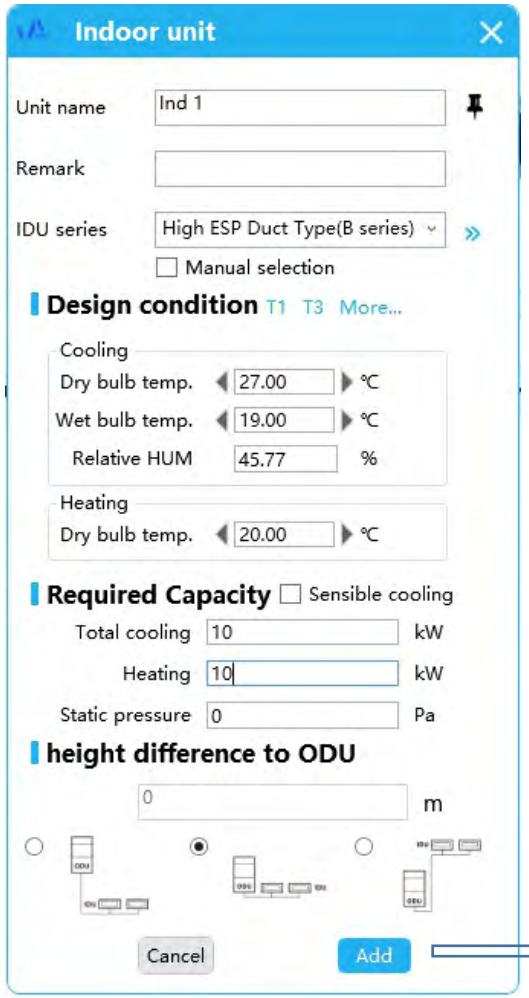
Click "Add" to add one IDU.

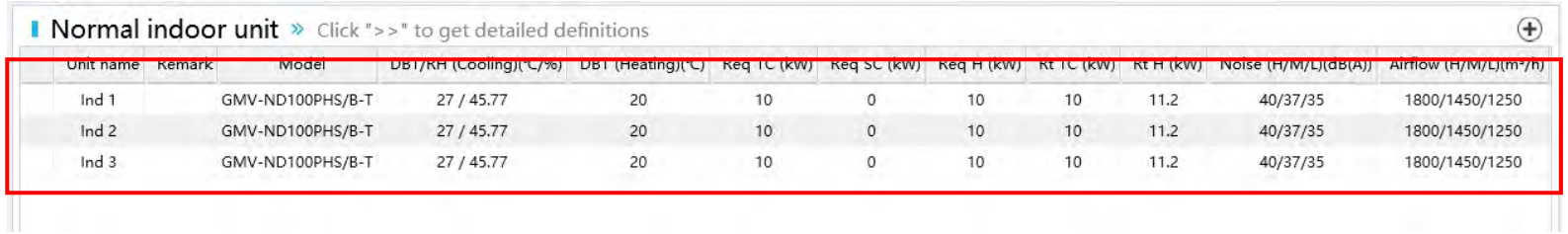


Fresh air unit

3. IDU selection

Auto recommendation





Unit name	Remark	Model	DBT/RH (Cooling)(℃/%)	DBT (Heating)(℃)	Req TC (kW)	Req SC (kW)	Req H (kW)	Rt TC (kW)	Rt H (kW)	Noise (H/M/L)(dB(A))	Airflow (H/M/L)(m³/h)
Ind 1		GMV-ND100PHS/B-T	27 / 45.77	20	10	0	10	10	11.2	40/37/35	1800/1450/1250
Ind 2		GMV-ND100PHS/B-T	27 / 45.77	20	10	0	10	10	11.2	40/37/35	1800/1450/1250
Ind 3		GMV-ND100PHS/B-T	27 / 45.77	20	10	0	10	10	11.2	40/37/35	1800/1450/1250

(Fully automatic)

1.Every time you click “Add”, it will automatically select IDUs according to the selected IDU series, input working condition and design load. The selected IDUs will be displayed in the IDU list.

2.IDUs will be adjusted automatically in following selections.

3.If no IDU is satisfied, it will inform you of the cause.

(Semi automatic)

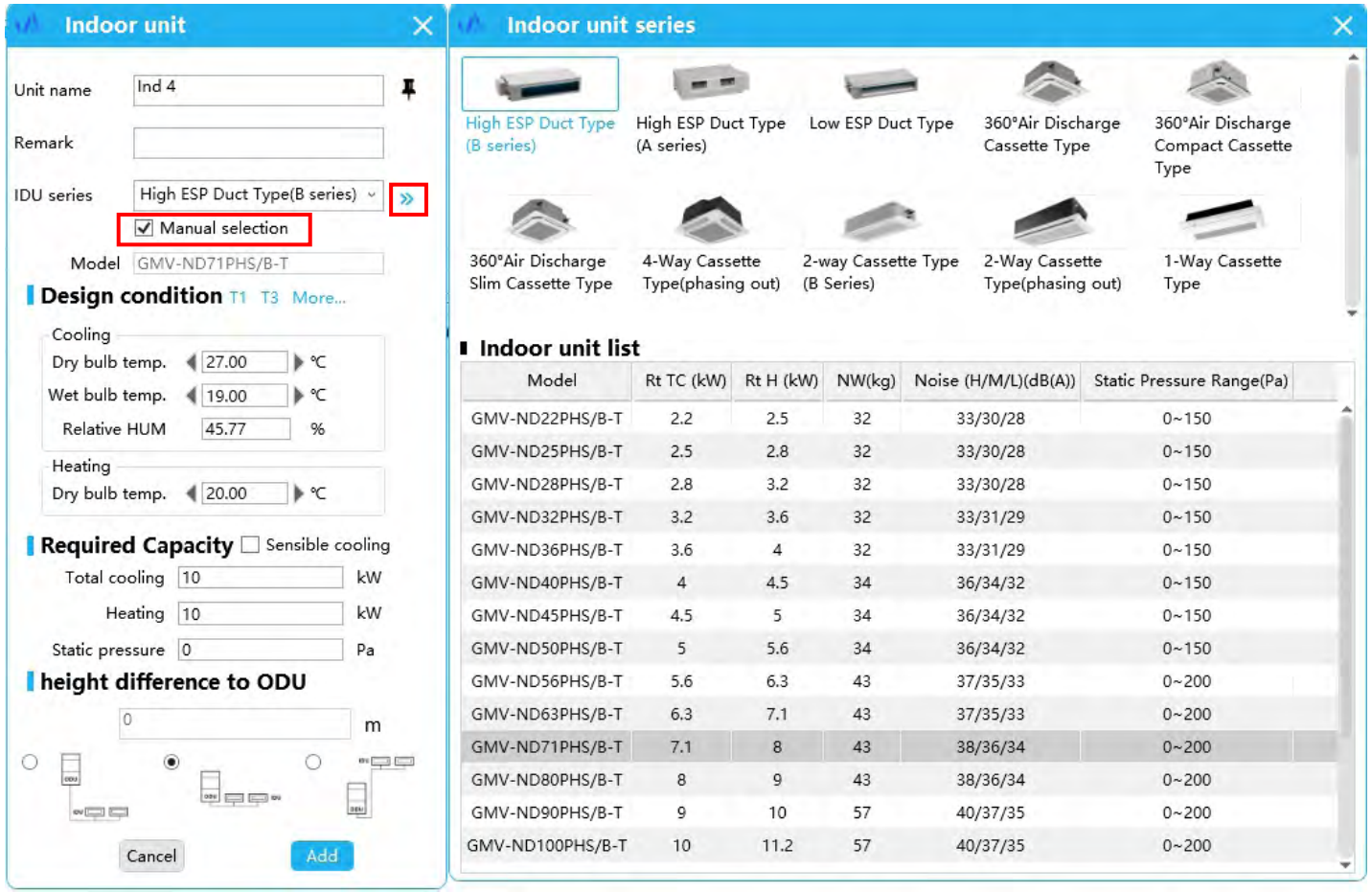
After clicking the blue arrow, a manual selection window will pop up. When the manual select box is not selected:

1.Double-click the specific model and set the rated power of that model as design load; when you click “Add”, the unit that satisfies the required capacity will be recommended and added to the IDU list.

2.IDUs will be adjusted automatically in following selections.

3.IDU selection

Manual selection



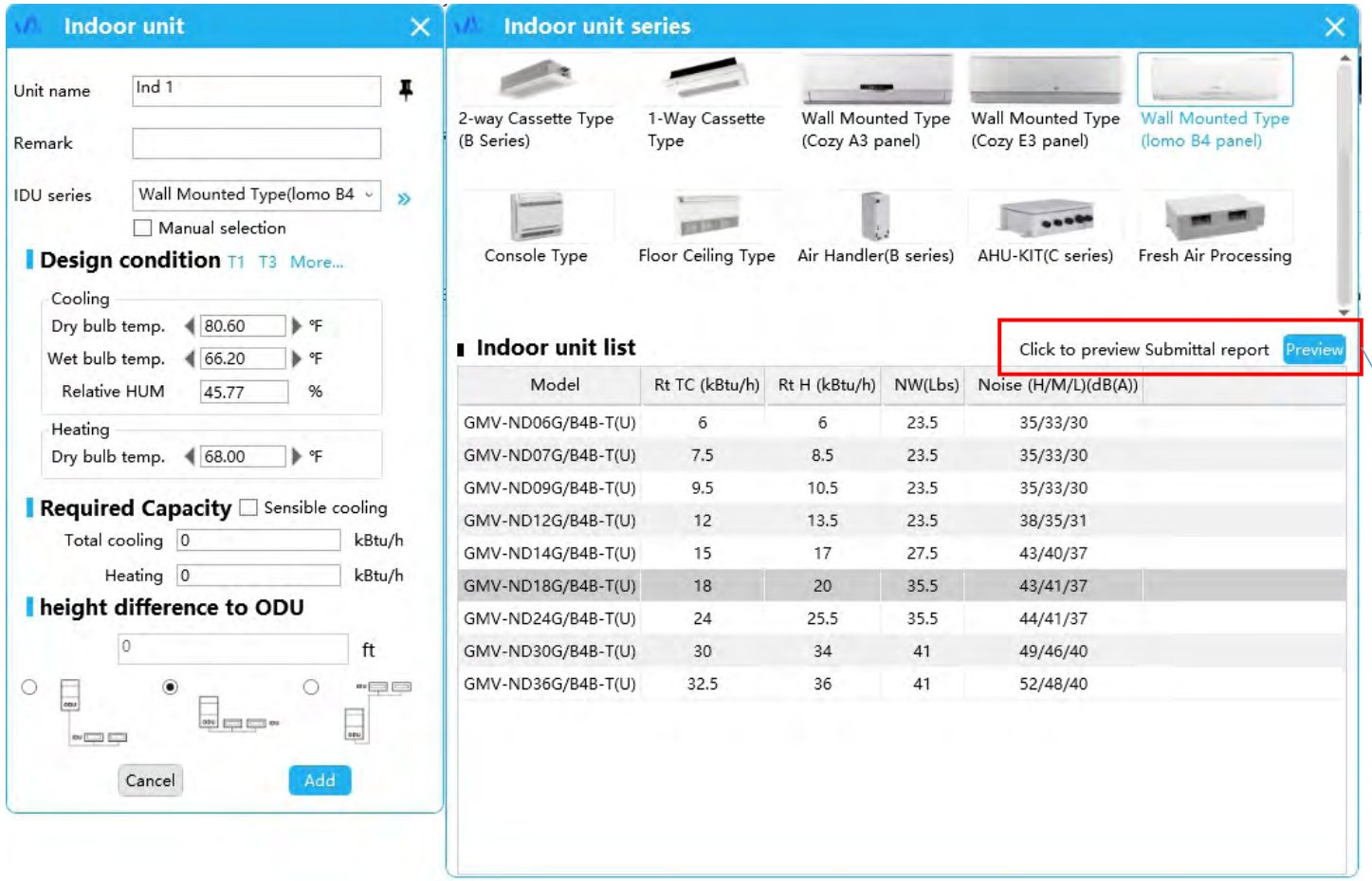
Model	Rt TC (kW)	Rt H (kW)	NW(kg)	Noise (H/M/L)(dB(A))	Static Pressure Range(Pa)
GMV-ND22PHS/B-T	2.2	2.5	32	33/30/28	0~150
GMV-ND25PHS/B-T	2.5	2.8	32	33/30/28	0~150
GMV-ND28PHS/B-T	2.8	3.2	32	33/30/28	0~150
GMV-ND32PHS/B-T	3.2	3.6	32	33/31/29	0~150
GMV-ND36PHS/B-T	3.6	4	32	33/31/29	0~150
GMV-ND40PHS/B-T	4	4.5	34	36/34/32	0~150
GMV-ND45PHS/B-T	4.5	5	34	36/34/32	0~150
GMV-ND50PHS/B-T	5	5.6	34	36/34/32	0~150
GMV-ND56PHS/B-T	5.6	6.3	43	37/35/33	0~200
GMV-ND63PHS/B-T	6.3	7.1	43	37/35/33	0~200
GMV-ND71PHS/B-T	7.1	8	43	38/36/34	0~200
GMV-ND80PHS/B-T	8	9	43	38/36/34	0~200
GMV-ND90PHS/B-T	9	10	57	40/37/35	0~200
GMV-ND100PHS/B-T	10	11.2	57	40/37/35	0~200

（Completely manual）
After selecting the select box, a manual selection window will pop up.

1.Double-click the specific model. If the current input load is “0”, then set the design load; if the current load is not “0”, then do not change the design load. The column of Model will display the selected IDUs. When you click “Add”, the unit will be added to the IDU list.
2.IDUs will not be adjusted in following selections.

3.IDU selection

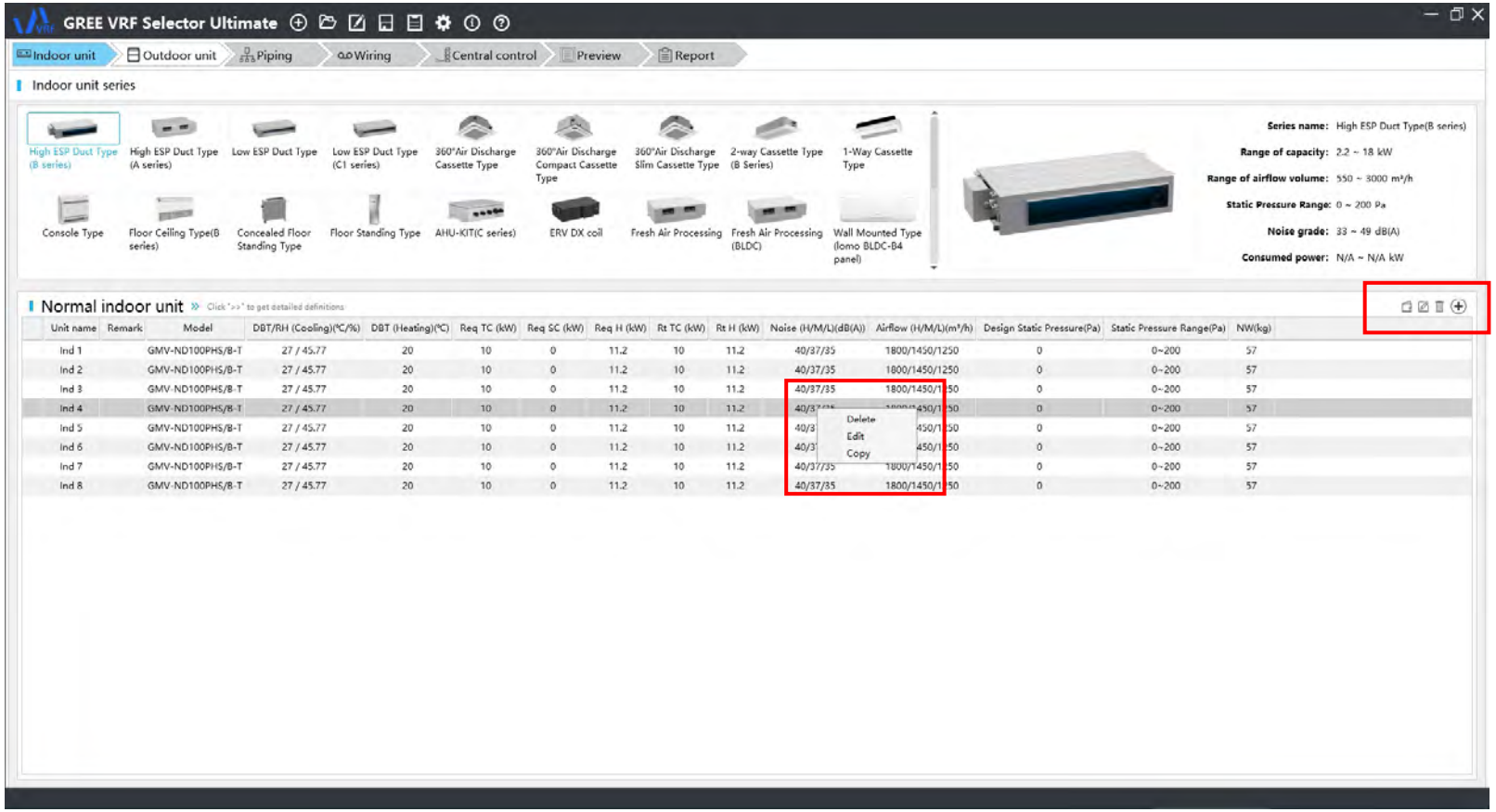
Preview Submittal report(This function is only for North America at present)



1.Select any series and choose a model;
2.Click “Preview” button;
3.Submittal report can be previewed when operation and sources are normal ;
4.If preview is unavaible, corresponding reasons will be displayed.

3. IDU selection

Actions of IDU list



Click a certain IDU in the list, then three icons will show up in the header.

Right-click a certain IDU in the list, then an action menu will appear.

The three icons correspond to the three actions in the menu:

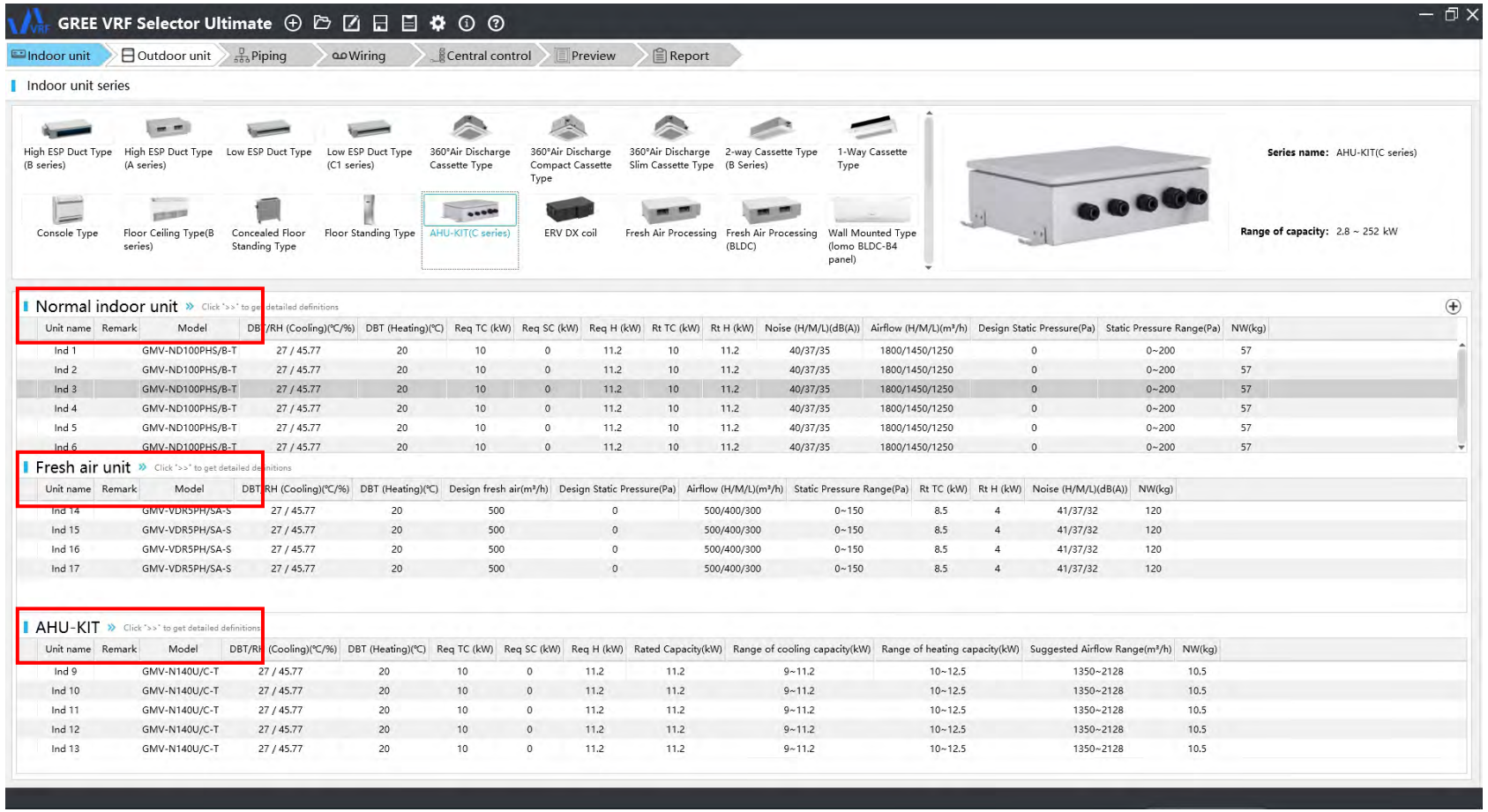
Delete： Delete the corresponding IDU;

Edit： Edit the corresponding IDU;

Copy： Copy the corresponding IDU.

3. IDU selection

Display of different IDU series



Common IDUs, fresh air units and AHU-KIT are displayed separately in three zones because they have different parameter lists.

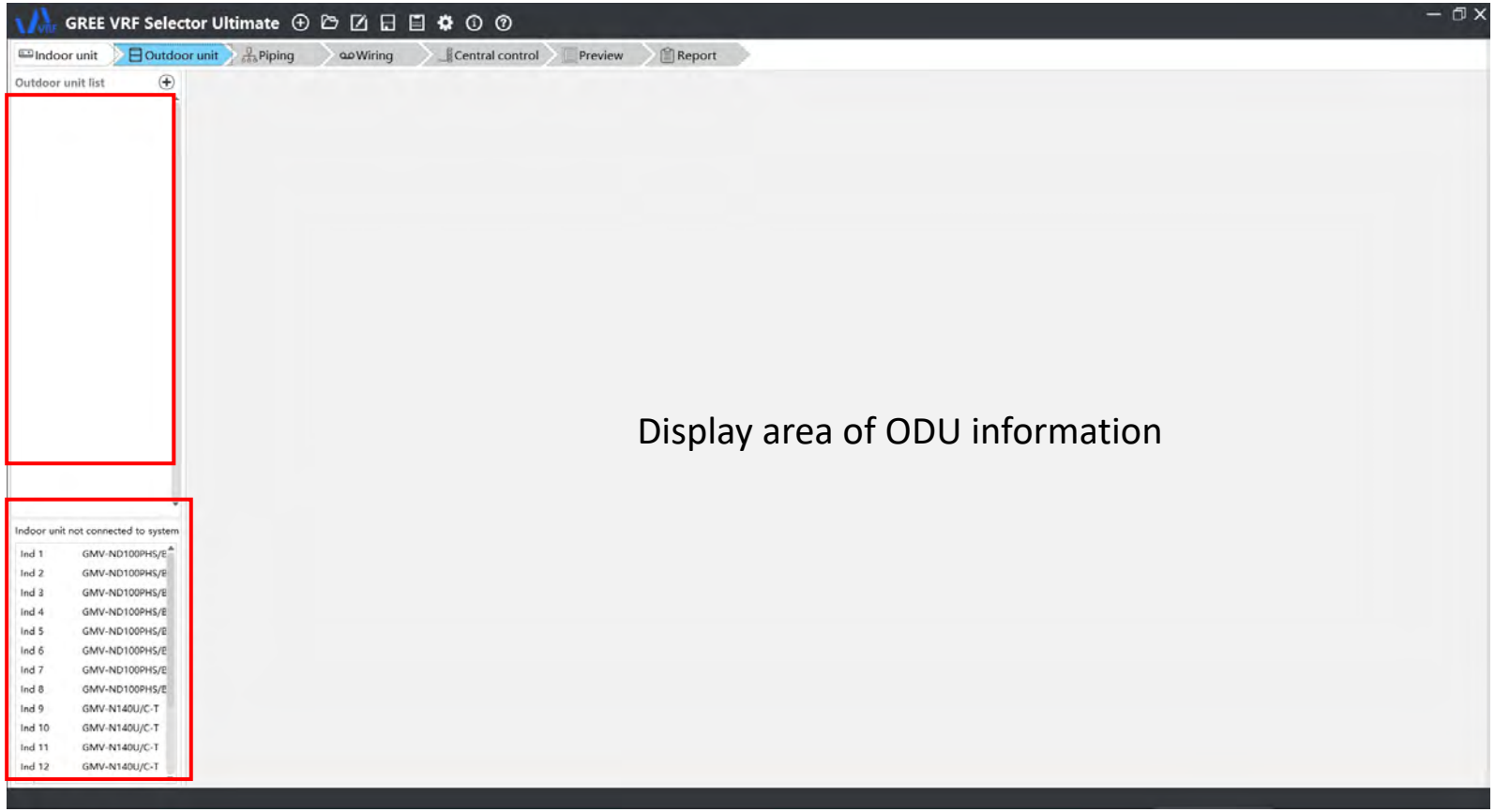
4. ODU selection

ODU selection Interface

After IDU selection is done, click “Outdoor unit” at the process navigation bar to enter the ODU selection interface.

List of ODUs

List of IDUs that are not added to the system



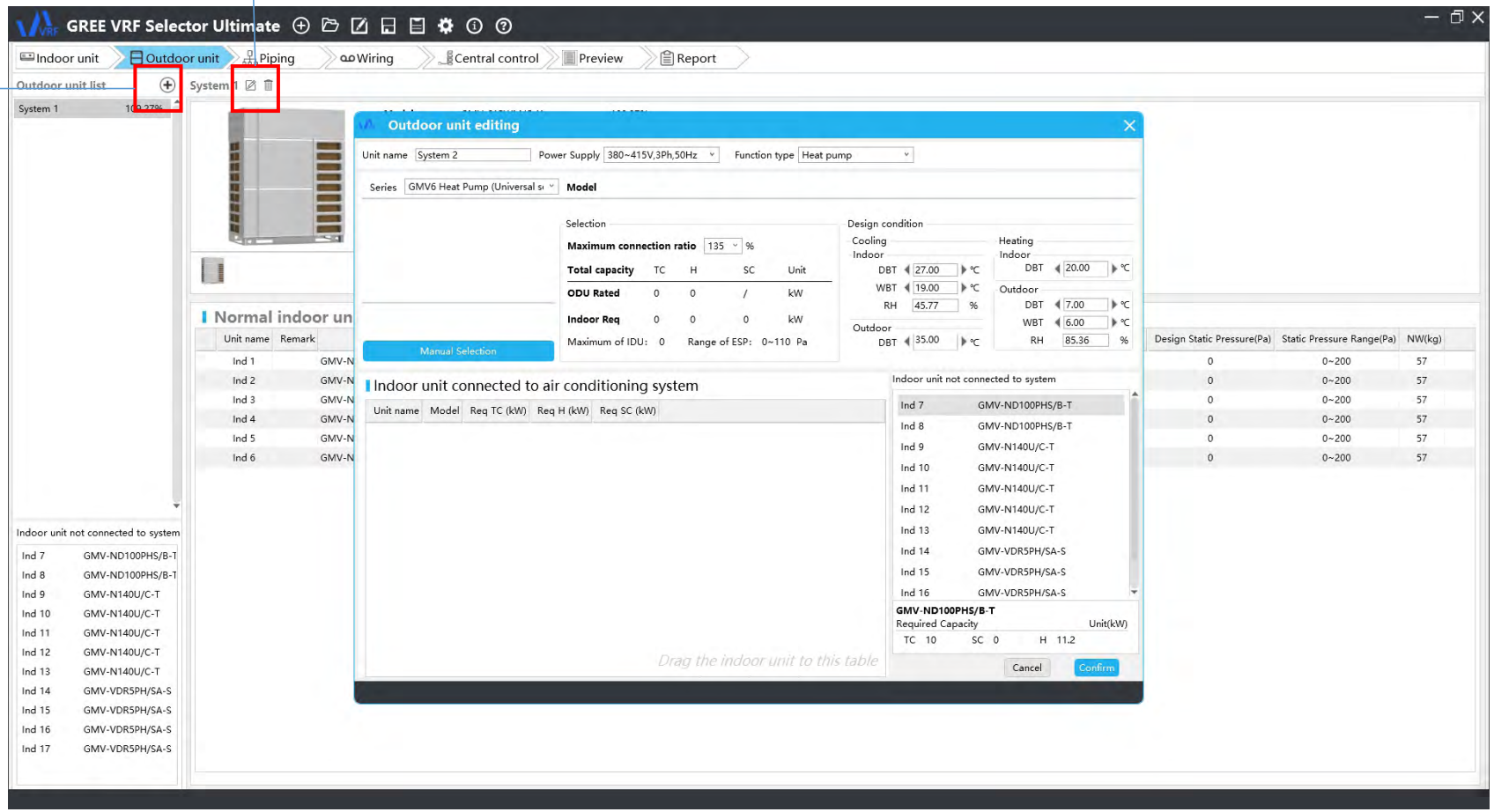
Display area of ODU information

4. ODU selection

Add an ODU system

Edit, delete

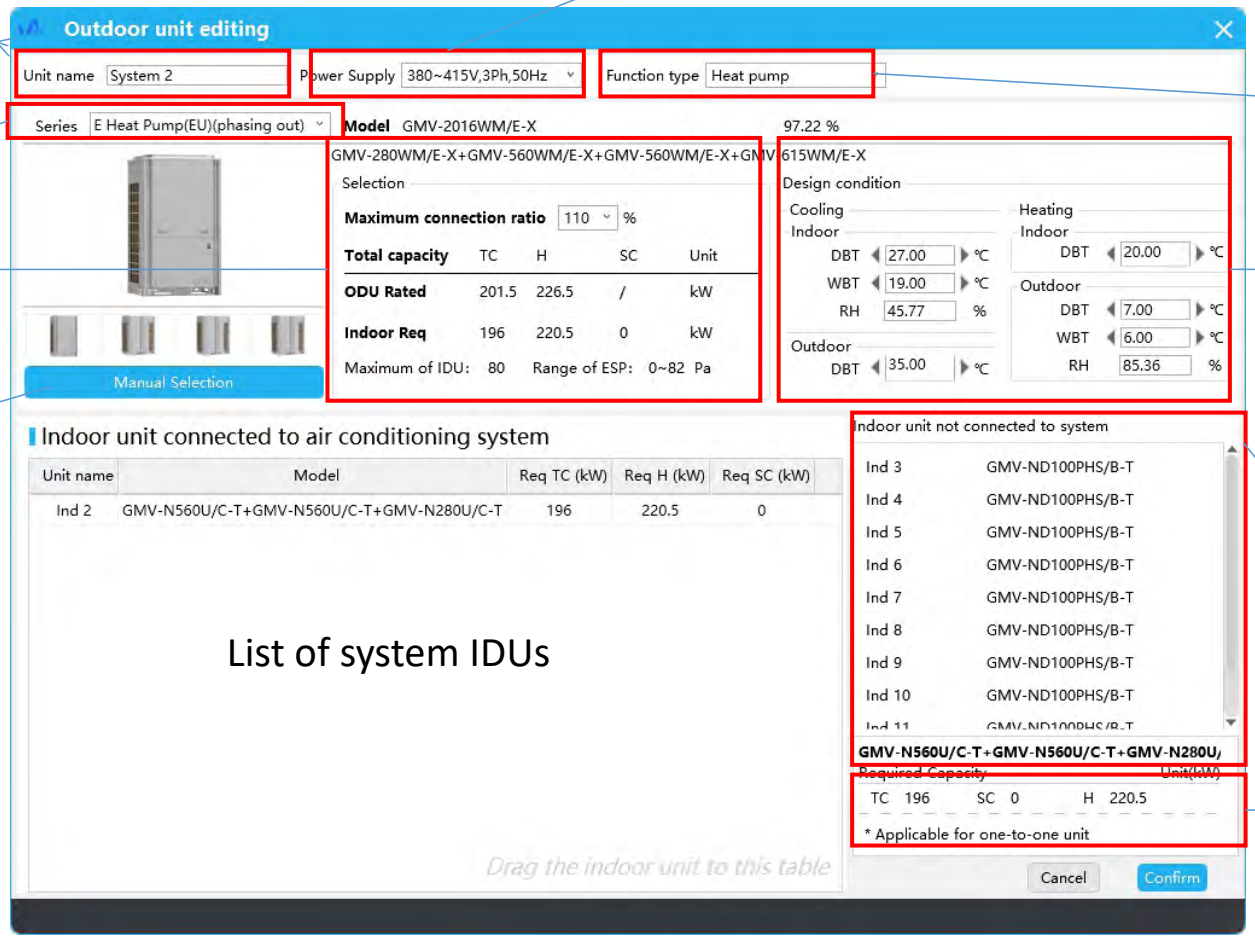
Add a system



4. ODU selection

System selection window

Press the icon of system adding and the system selection window will pop up.



Power supply selection

Edit system name

Functions to be selected: heat pump, heat recovery, hot water VRF, cooling only,GMV Water Heat Pump,GMV Water Heat Recovery

ODU series select box

ODU system information

Design condition

Manual selection

List of IDUs to be added to the system
Select one IDU or press “Shift” and left-click to select multiple IDUs. Then drag the IDU(s) to the list of system IDUs. In this way, IDUs are successfully added. After IDUs are added, it will automatically recommend the ODU.

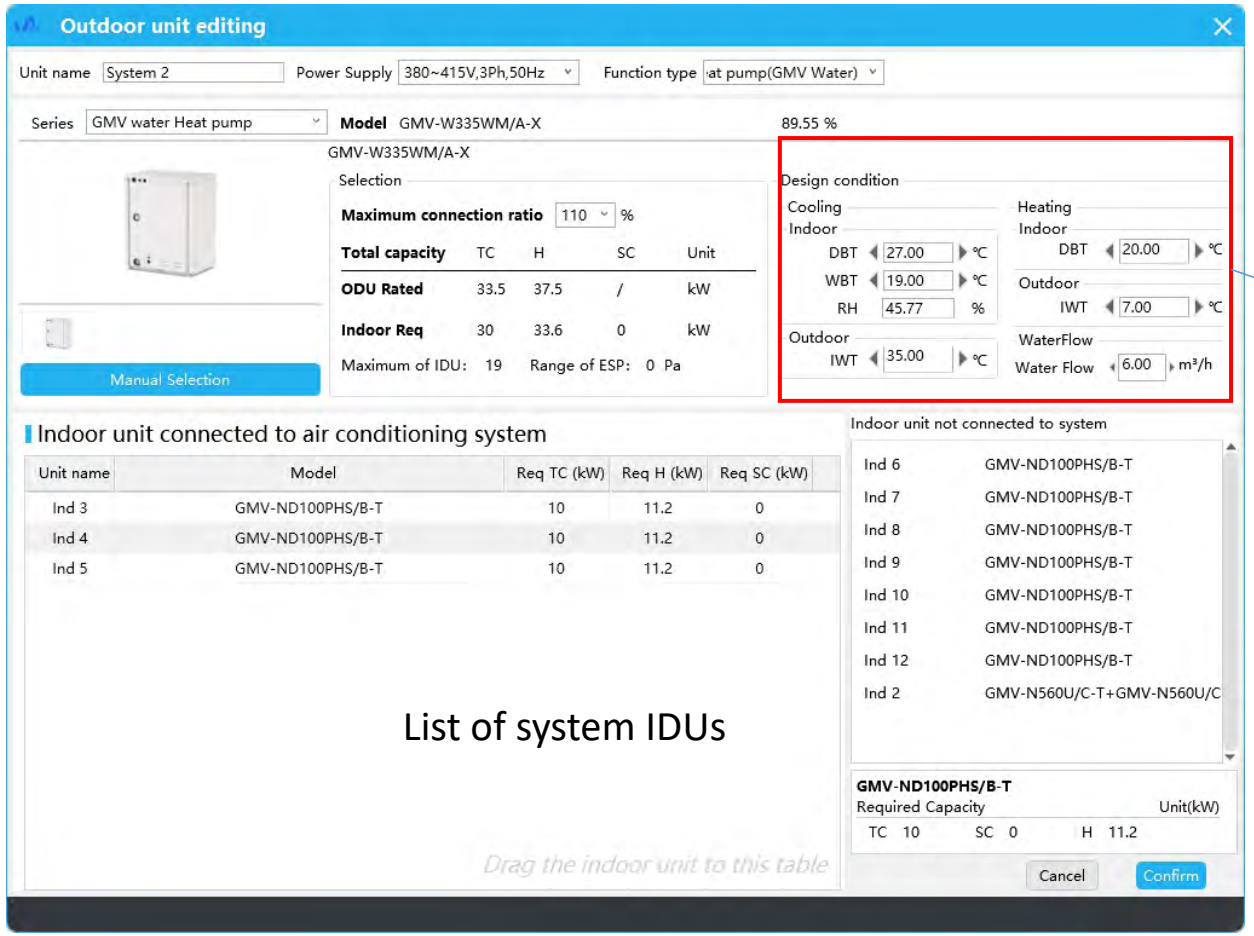
List of system IDUs

Display of IDU parameters

4. ODU selection

GMV Water ODU selection

GMV Water ODU selection



List of system IDUs

GMV Water condition
IWT——Inlet Water Temperature

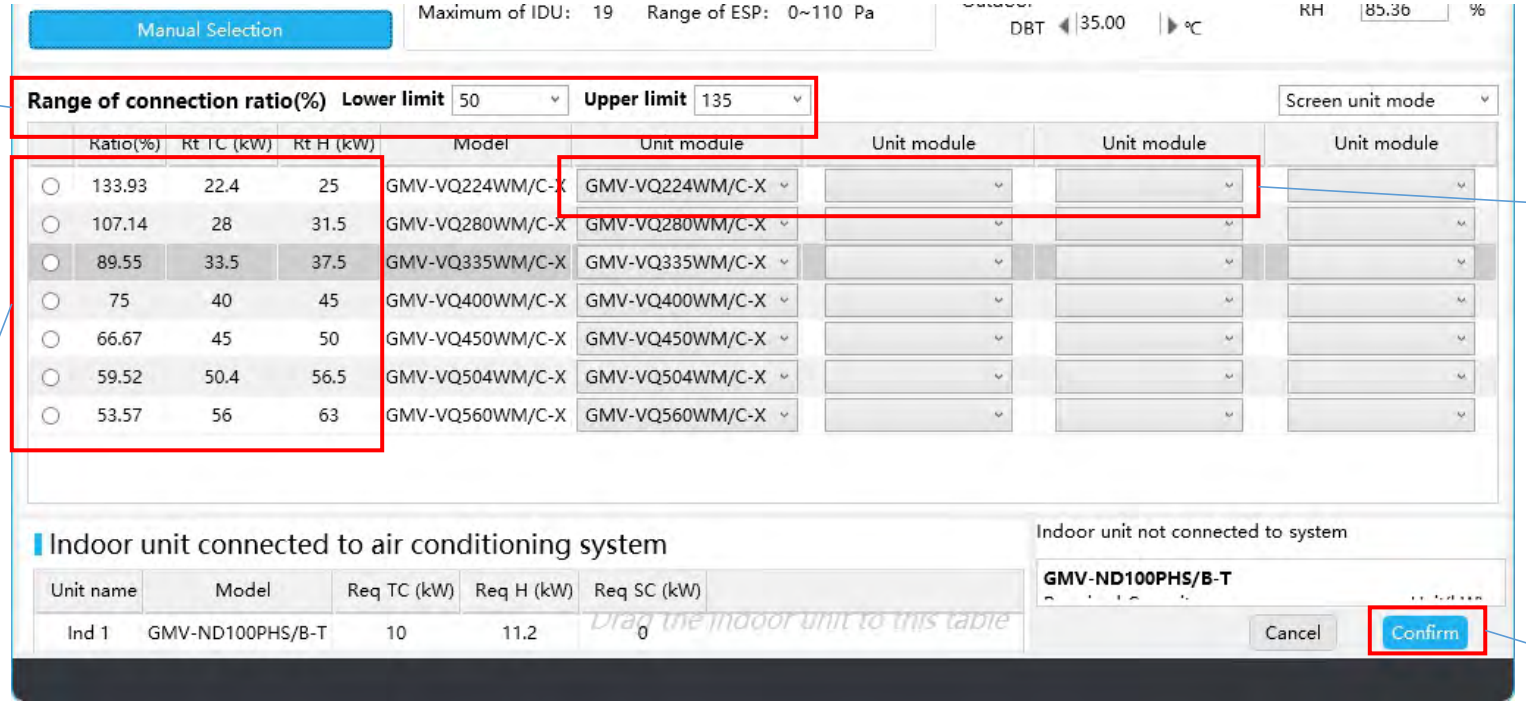
4. ODU selection

Manual selection, free combination of ODUs

After IDUs are dragged in place, click “Manual Selection” or ODU module combination, then the window of module combination will appear.

Set the range of connection ratio of the ODU system

Recommended ODU systems that satisfy the range of connection ratio



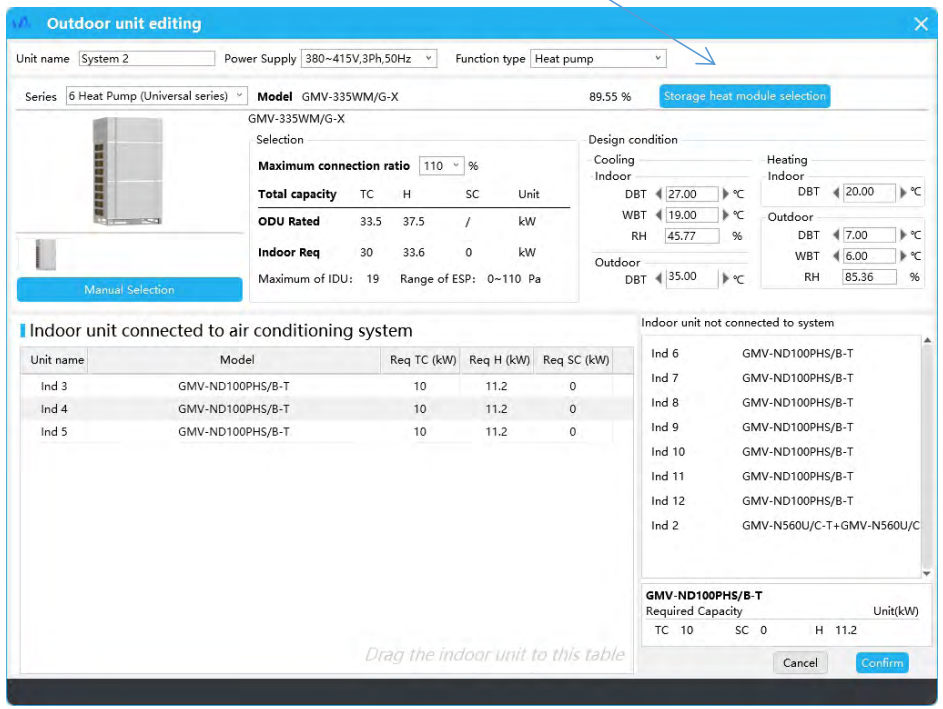
You can choose modules that make up the ODU system (four modules at most) according to the actual condition.

Click “Confirm” to complete the selection of ODUs.

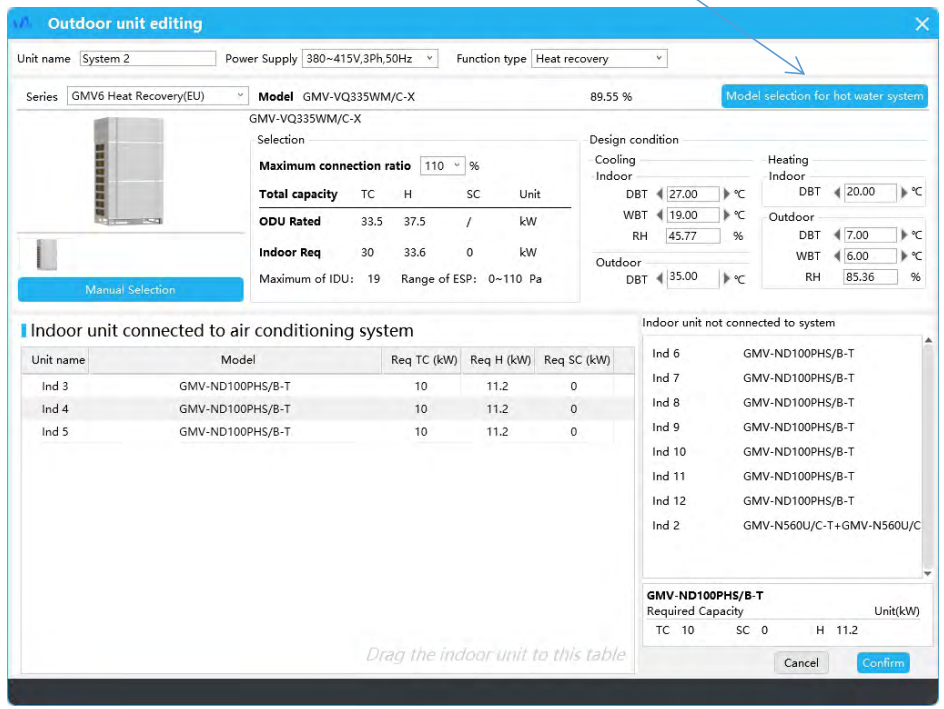
4. ODU selection

Selection of special modules

If you select GMV6 heat pump series, heat storage module selection button will appear.

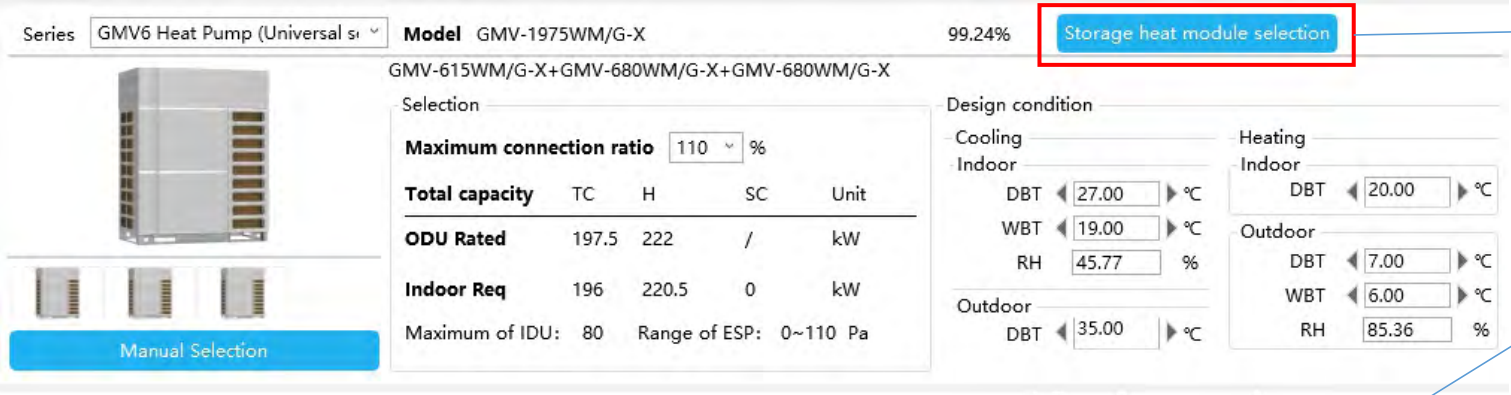


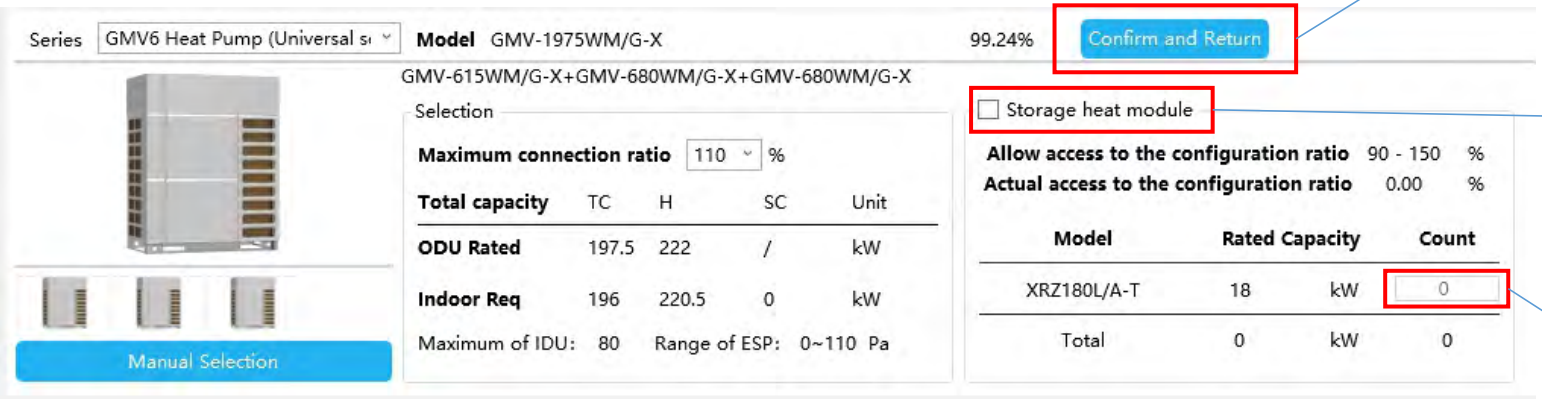
If you select EU GMV6 HR or hot water VRF ODU, hot water module selection button will appear.



4. ODU selection

Special module selection – heat storage module





Click the heat storage module selection button to enter the heat storage module selection panel.

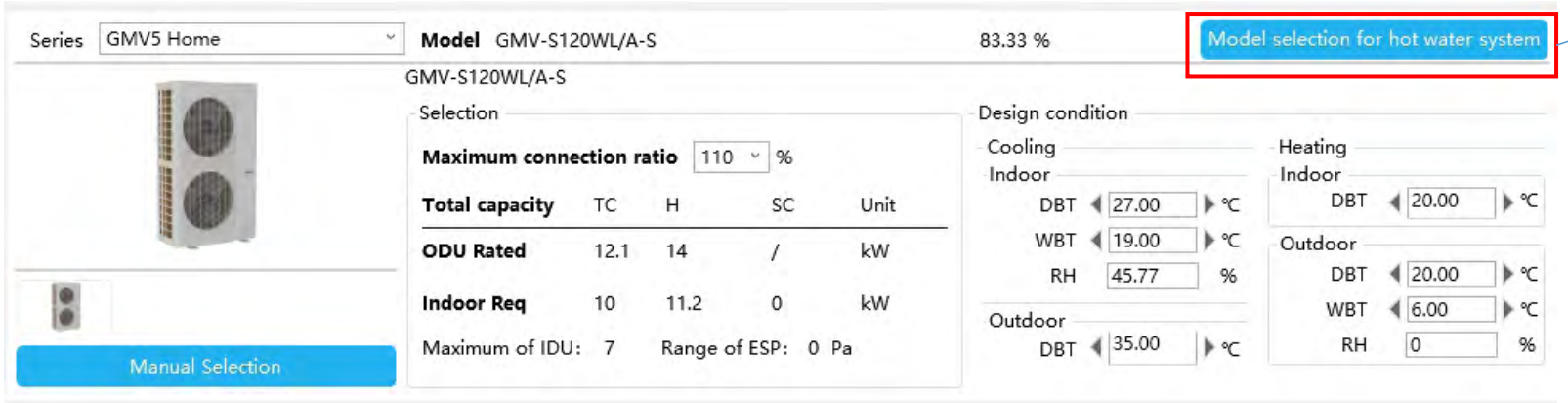
Click the button of return to go back to the panel of ODU design condition.

Select heat storage module and it will recommend you the number of heat storage modules according to the current capacity of ODUs.

After selecting heat storage module, enter the number of heat storage modules in the input box.

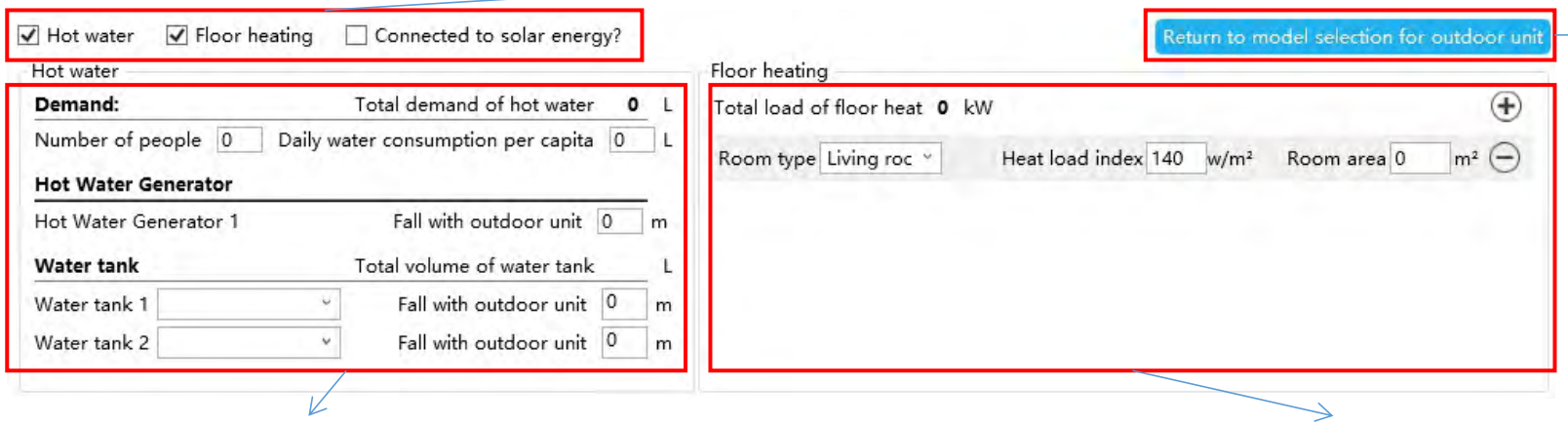
4. ODU selection

Special module selection – hot water module (hot water VRF)



Click the hot water module selection button to enter the hot water module selection panel.

Select hot water/floor heating/solar energy



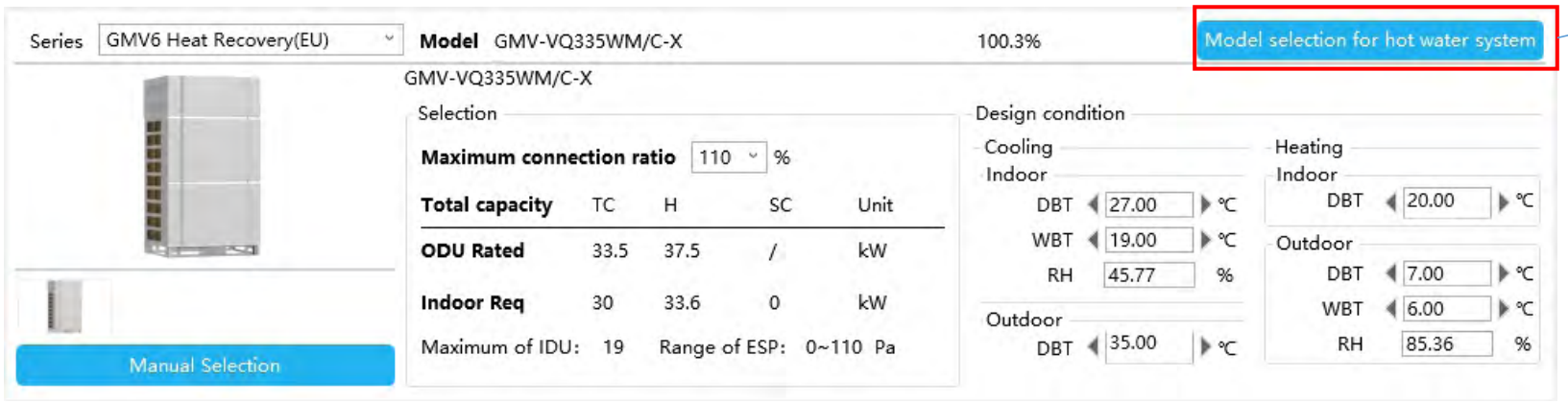
Click the button of return to go back to the panel of ODU design condition.

Hot water panel

Floor heating panel

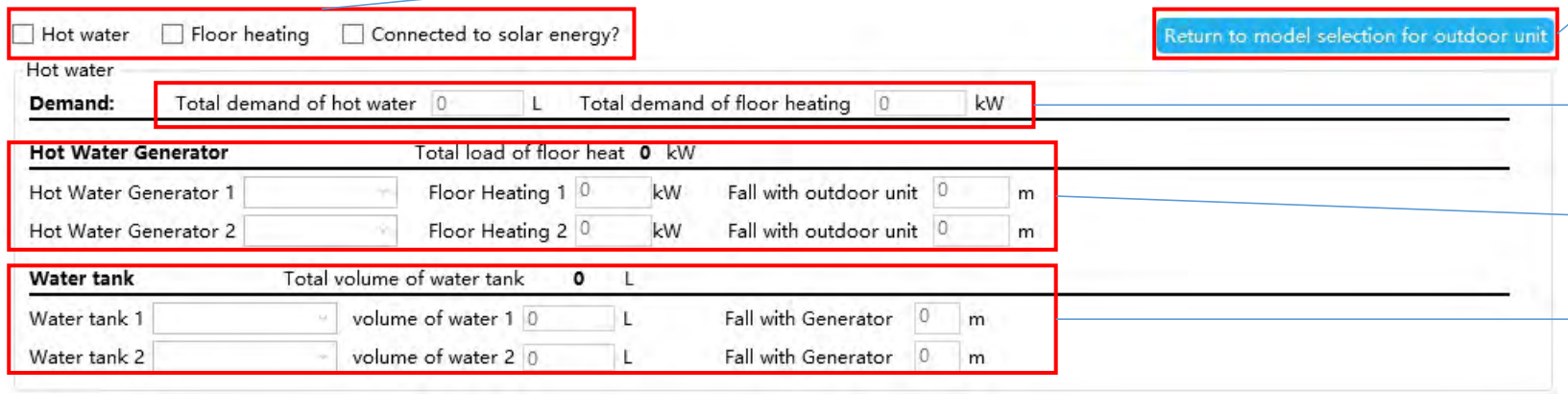
4. ODU selection

Special module selection – hot water module (GMV6 HR)



Click the hot water module selection button to enter the hot water module selection panel.

Select hot water/floor heating/solar energy



Click the button of return to go back to the panel of ODU design condition.

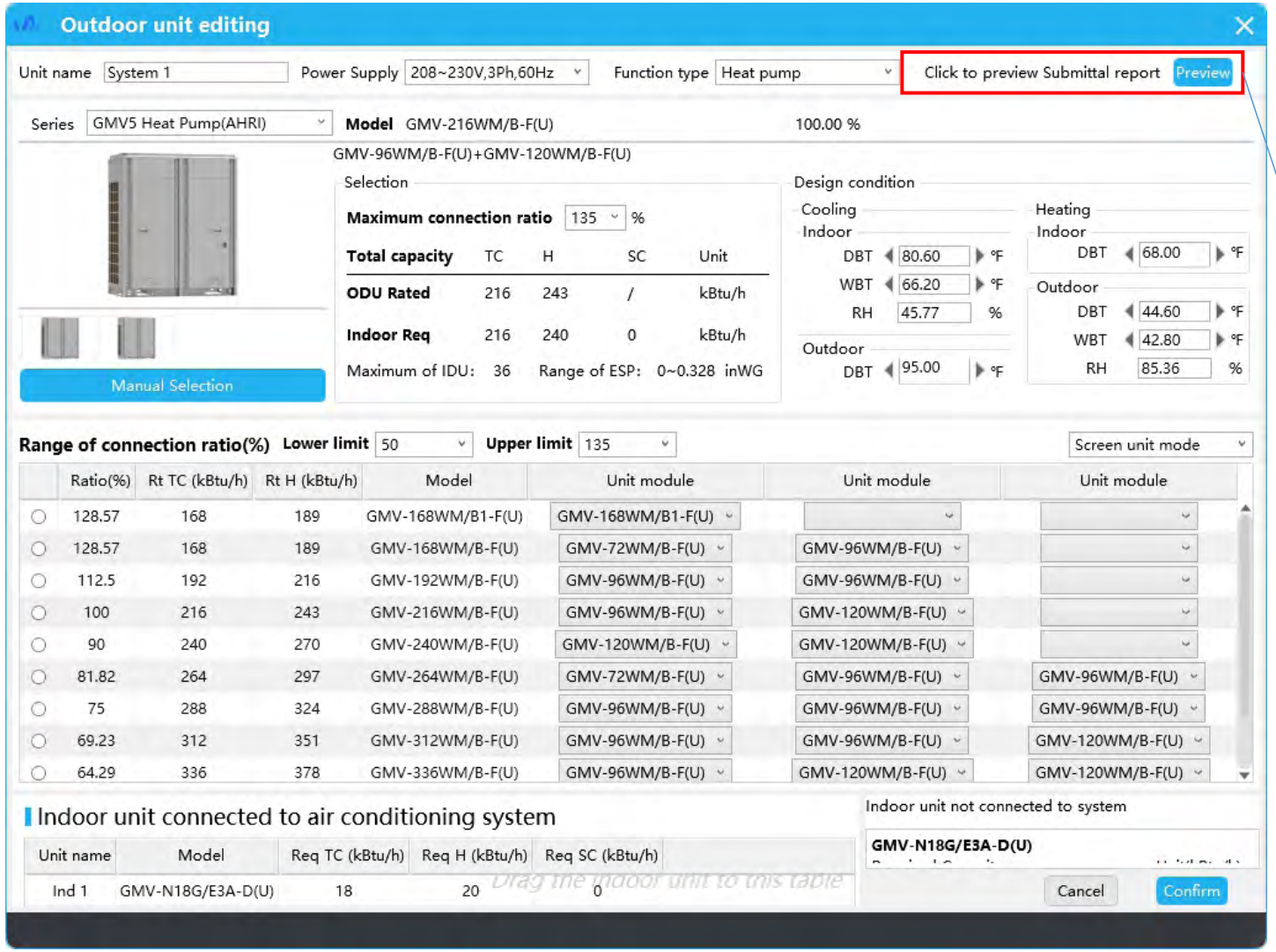
Enter total demand

Hot water generator and floor heating

Water tank

4. ODU selection

ODU Sbumittal preview(This function is only for North America at present)



1.After connecting to an IDO, a ODU model will be recommended automatically or selected manually;

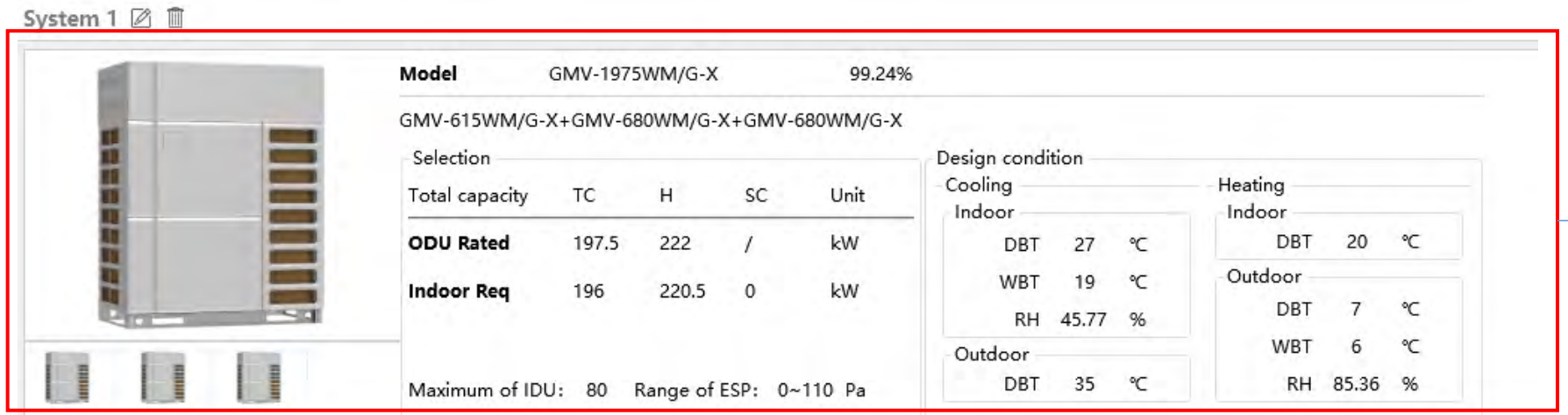
2.Click “Preview” button;

3.Submittal report can be previewed when operation and sources are normal ;

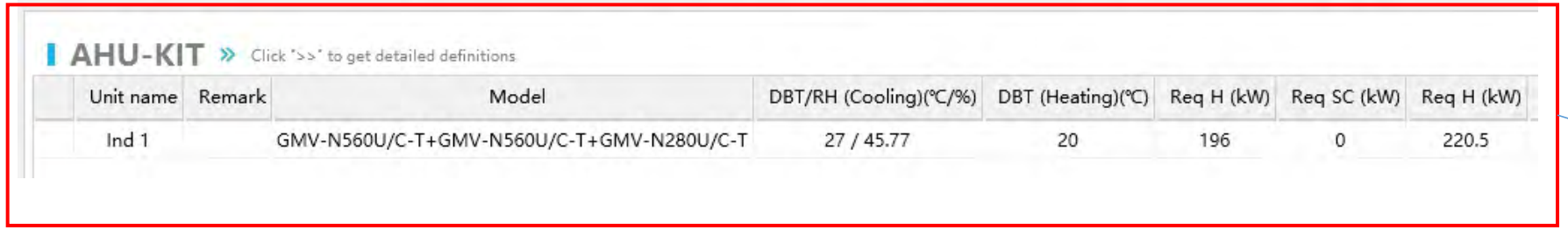
4.If preview is unavaible, corresponding reasons will be displayed.

4. ODU selection

Click “Confirm” to complete the selection of ODUs. The detailed information of selected ODUs is displayed at the ODU system structure display area of the ODU selection interface.



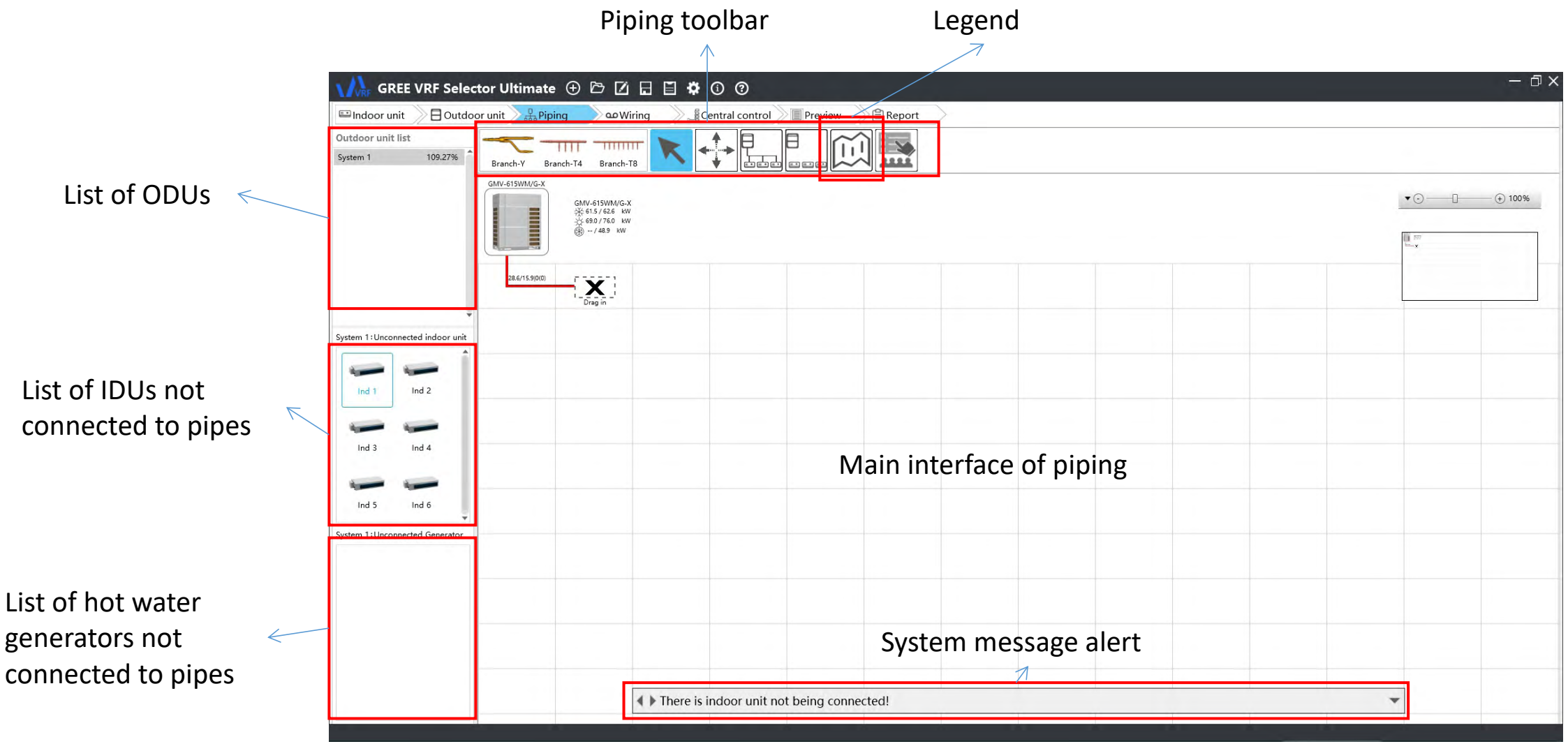
ODU system information



Detailed information of IDUs contained in the system

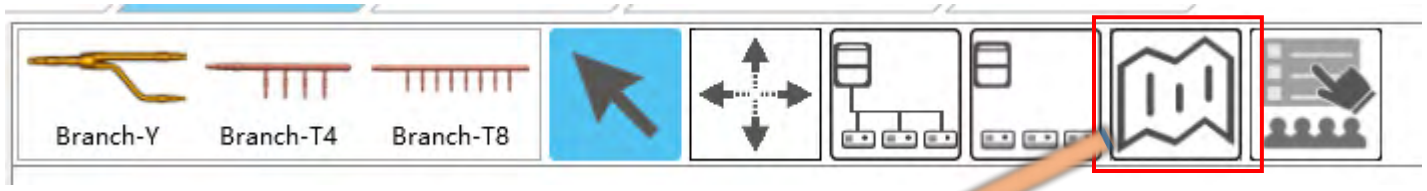
5. Piping

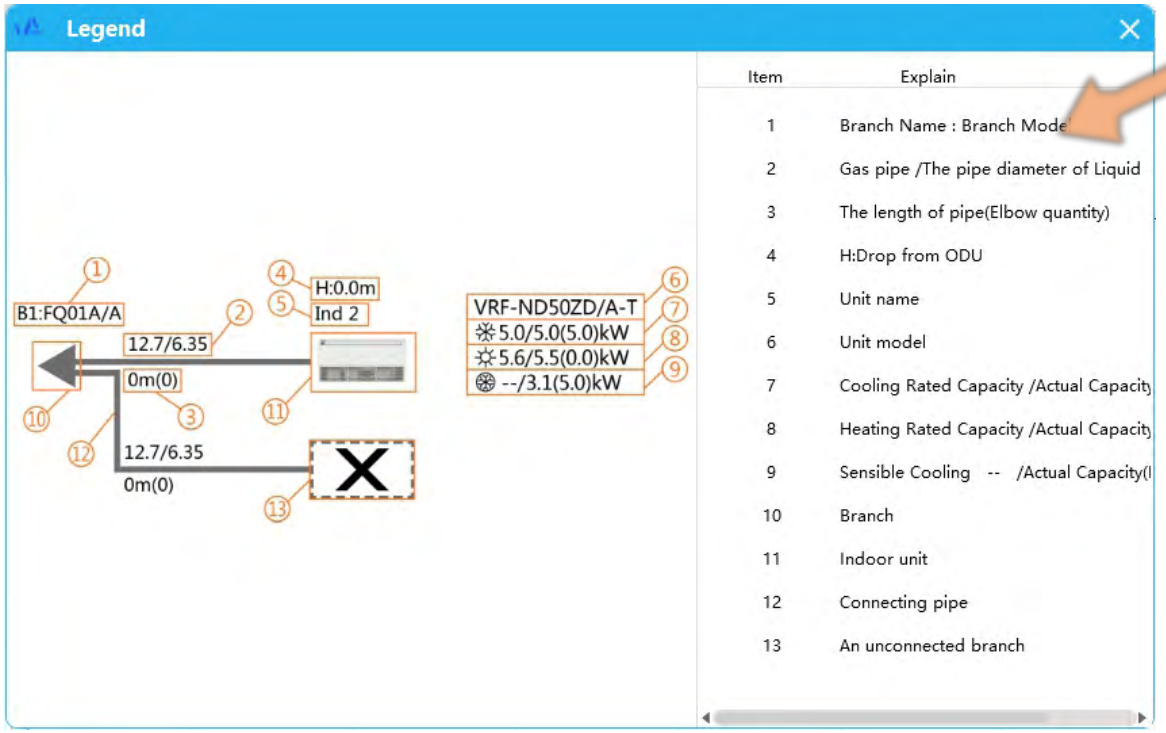
Piping interface (Take heat pump system as an example)



5. Piping

Piping legend



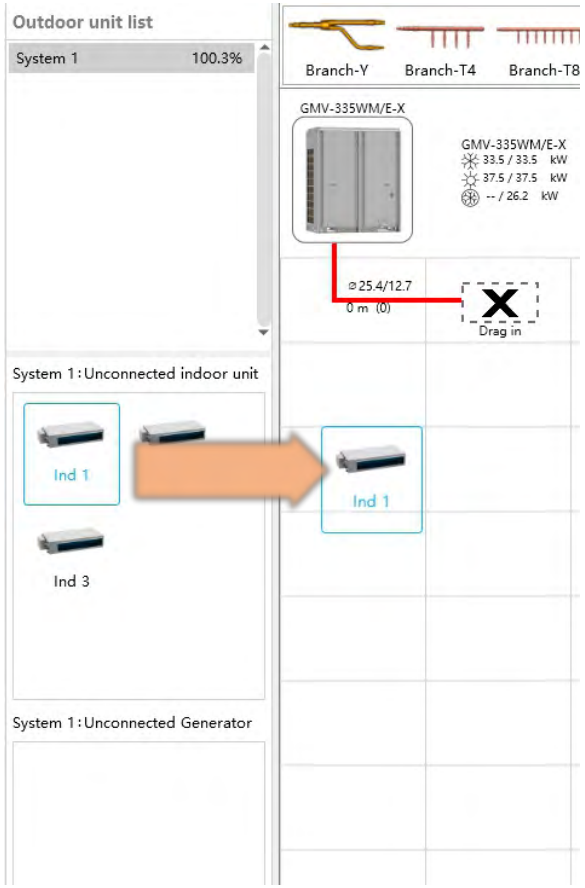


Click the icon of legend, and the legend window will appear.

5. Piping

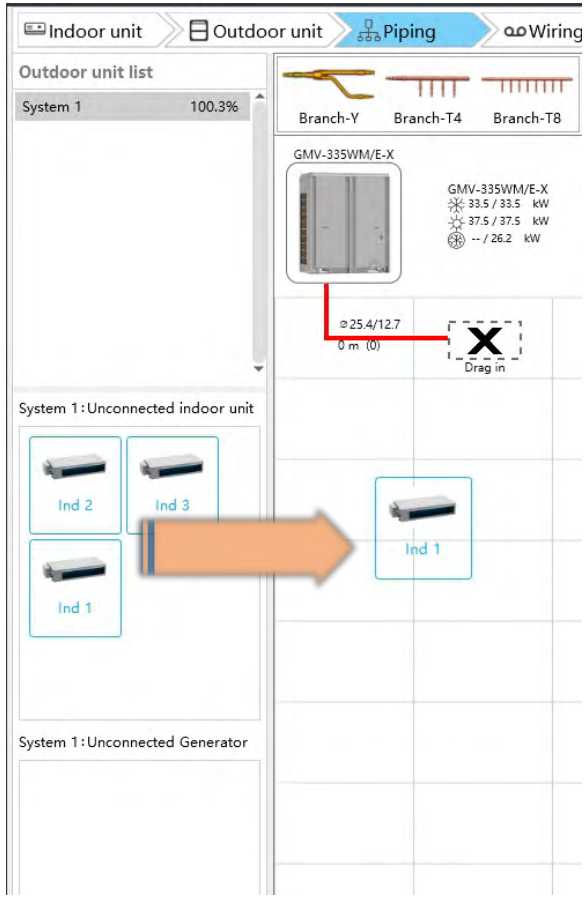
Piping process – Drag IDUs

Drag one IDU



Left-click the IDU and drag it to the main interface of piping.

Drag multiple ODUs

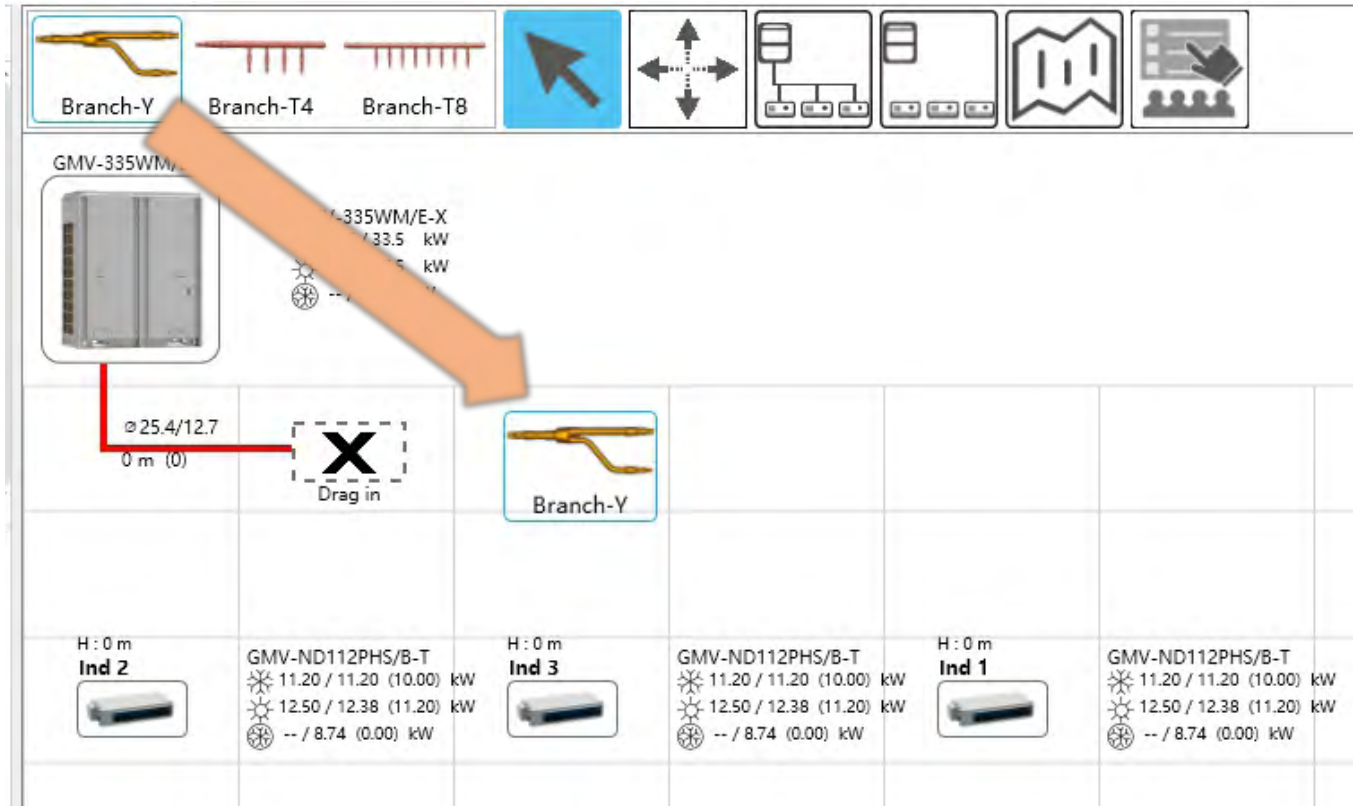


Press and hold “Shift” to select multiple IDUs. Don’t release “Shift” when dragging the IDU(s). Add multiple IDUs to the piping interface.

5. Piping

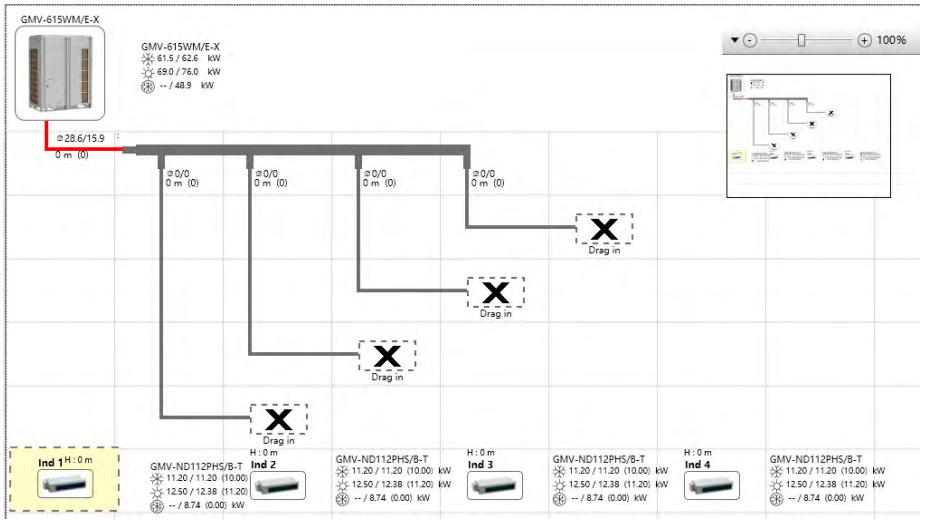
Piping process – Drag branches

Select proper branches based on needs. Left-click and drag it to the piping interface.

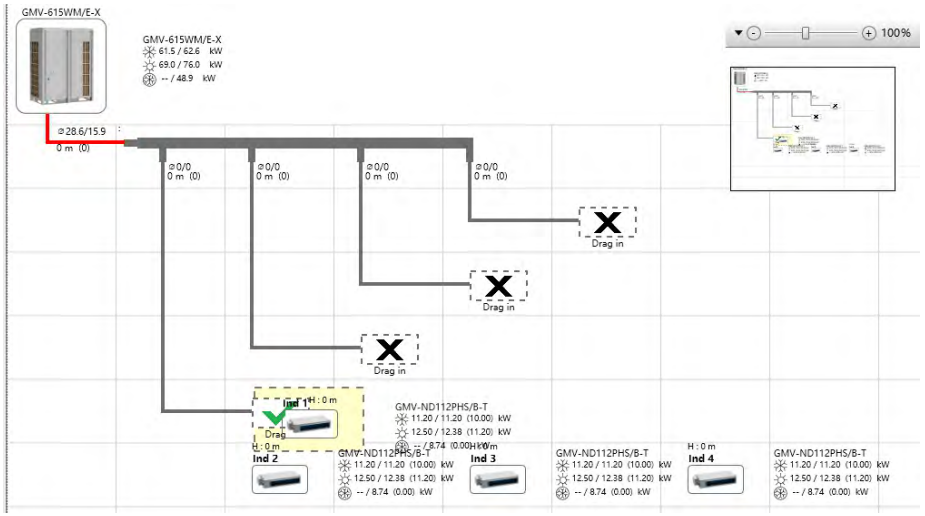


5. Piping

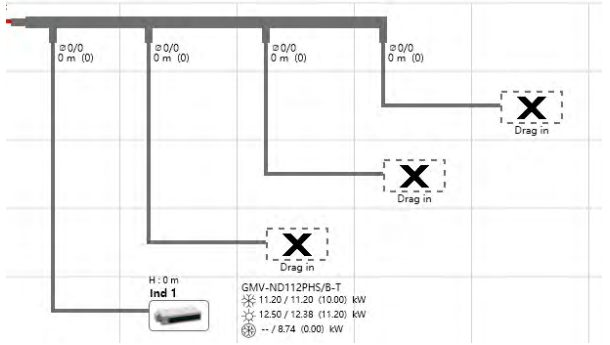
Piping process – Connection between branches and IDs



Left-click the surrounding area of an IDU and drag it to the branch terminal marked with “X”.



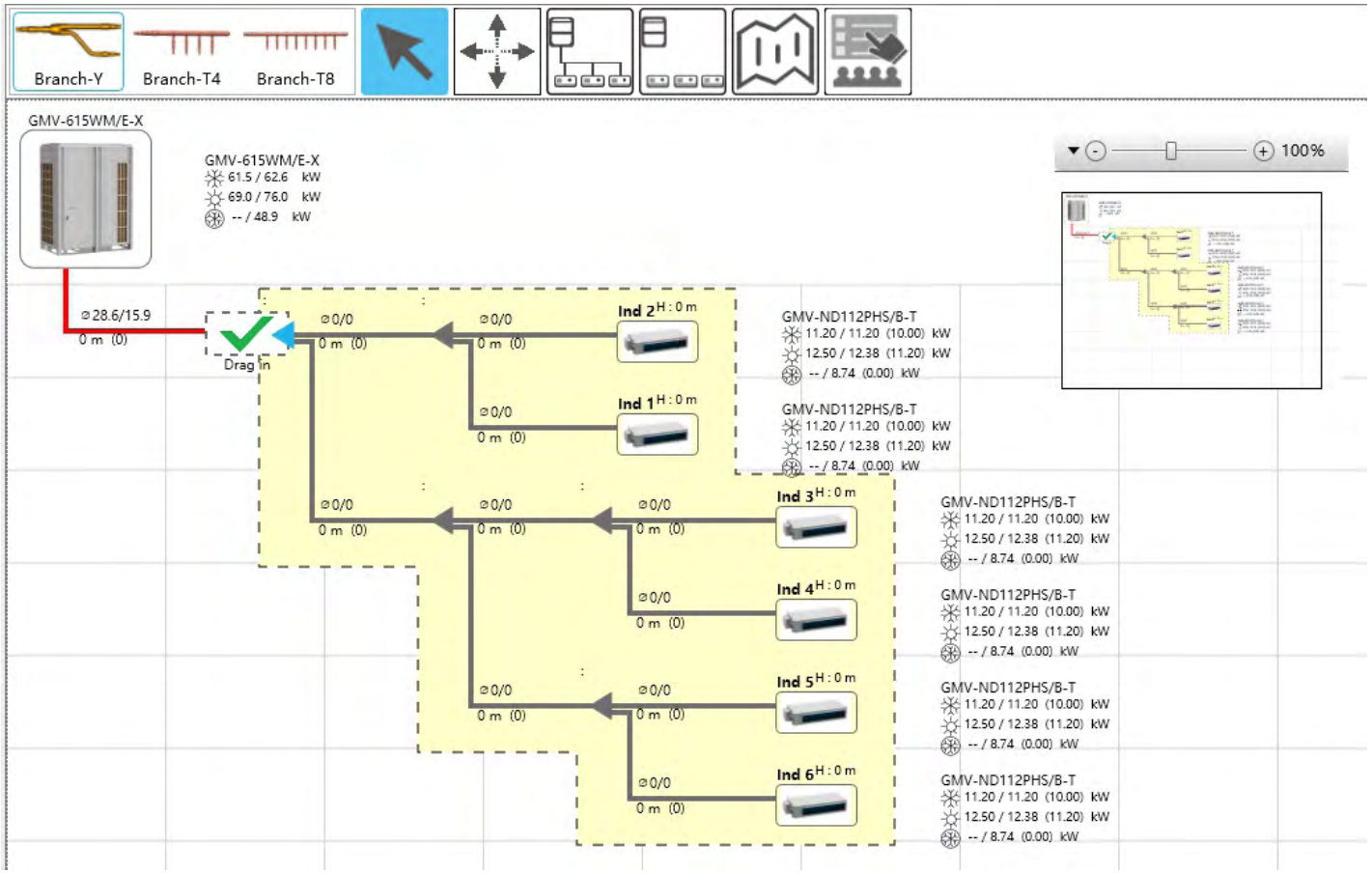
When the branch terminal shows “√”, release the left mouse button. In this way, the branch is connected to the IDU.



5. Piping

Piping process – Connection between indoor and outdoor sides

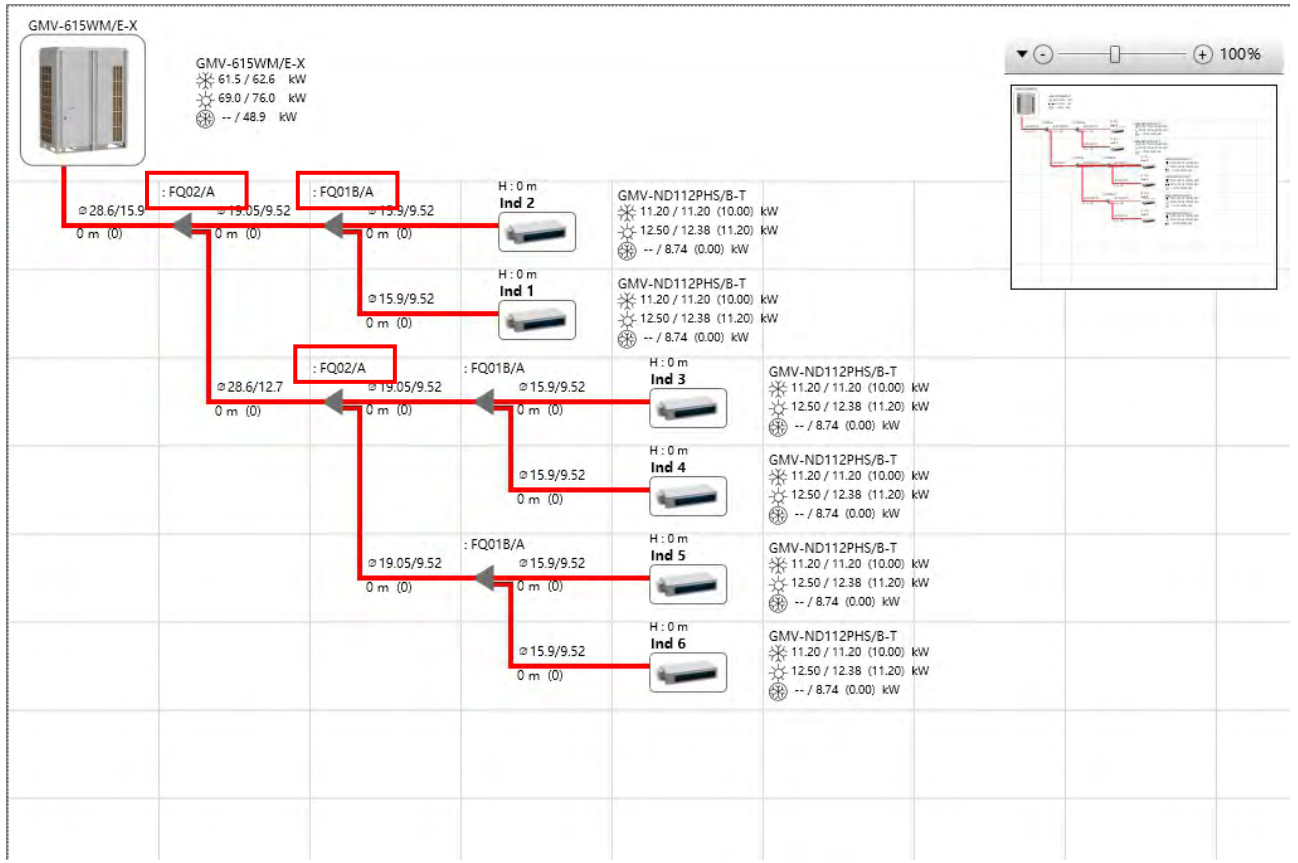
After all the IDUs and branches are connected, drag the surrounding area of the first branch in the whole piping network to the outdoor side, just like connecting the IDU to a branch. In this way, the outdoor and indoor sides are connected.



5. Piping

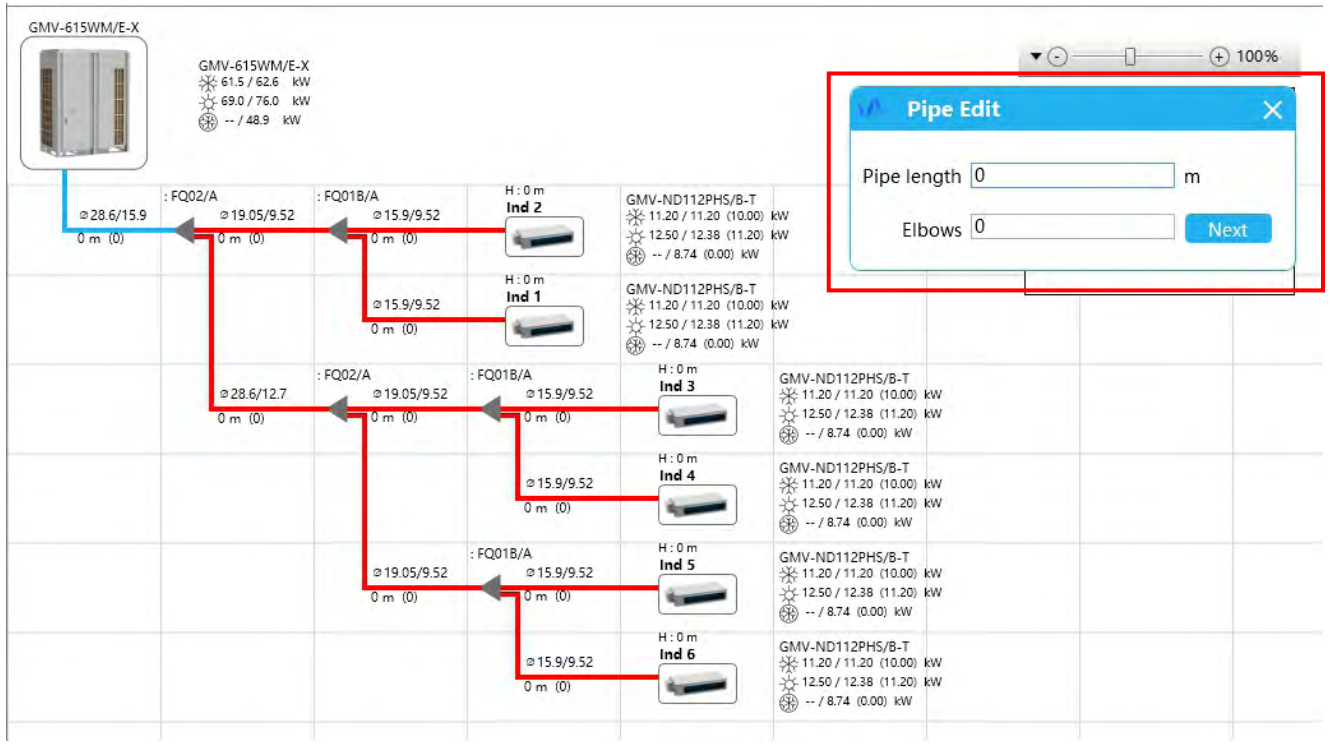
Piping process – Branch selection

After the indoor and outdoor sides are connected, the whole piping network will automatically conduct branch selection.



5. Piping

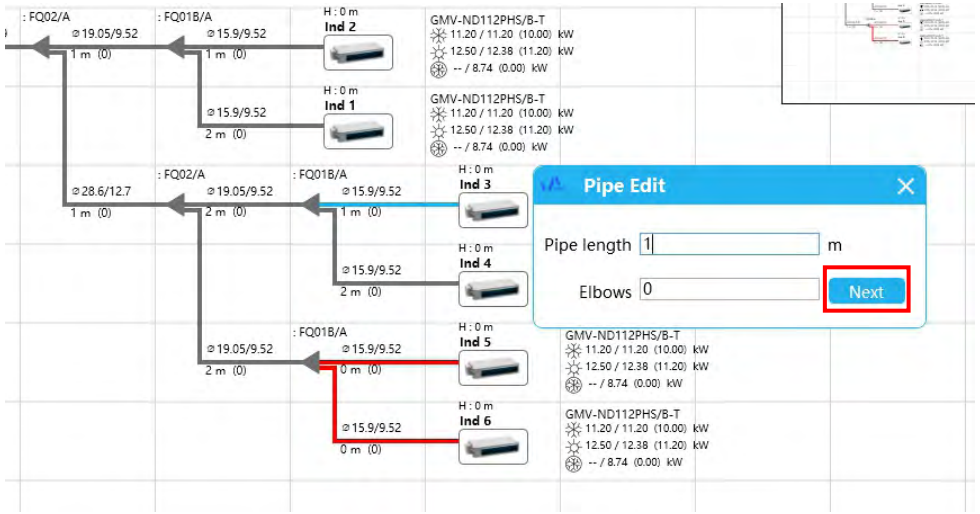
Piping process – Input pipe length and the number of elbows



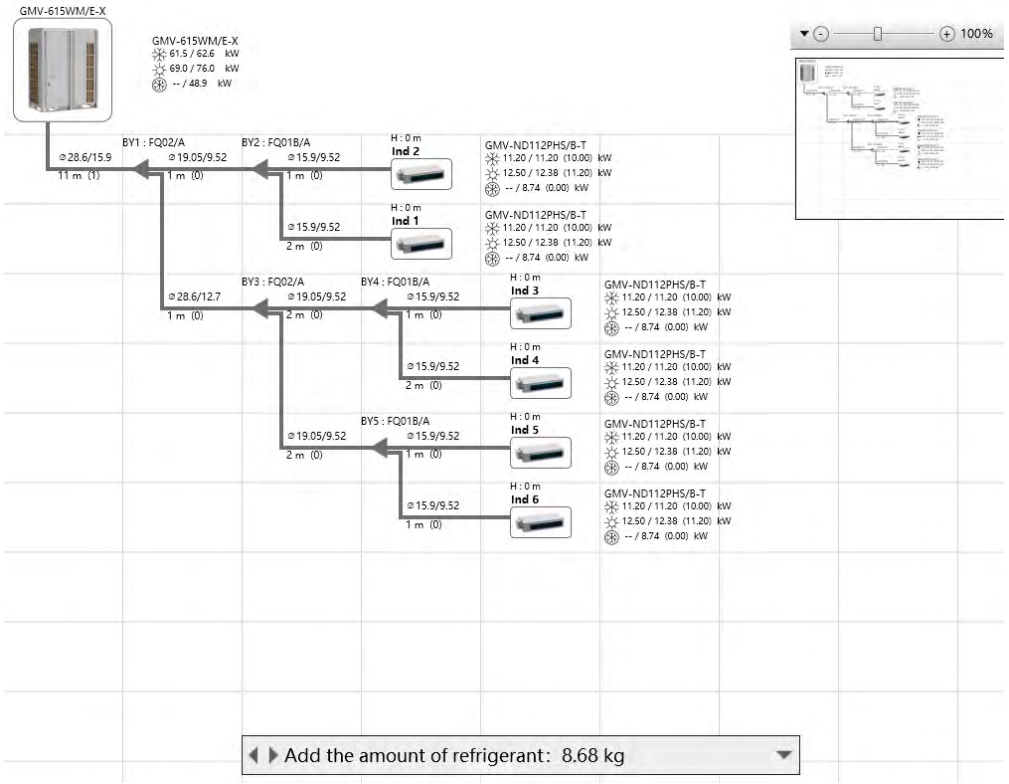
Move the cursor to any one pipeline. When the pipeline color is changed, double-click the mouse and then an edit window will pop up. Input pipe length and the number of elbows.
Press “↑”, “↓” on the keyboard to switch the input box.

5. Piping

Piping process – Input pipe length and the number of elbows



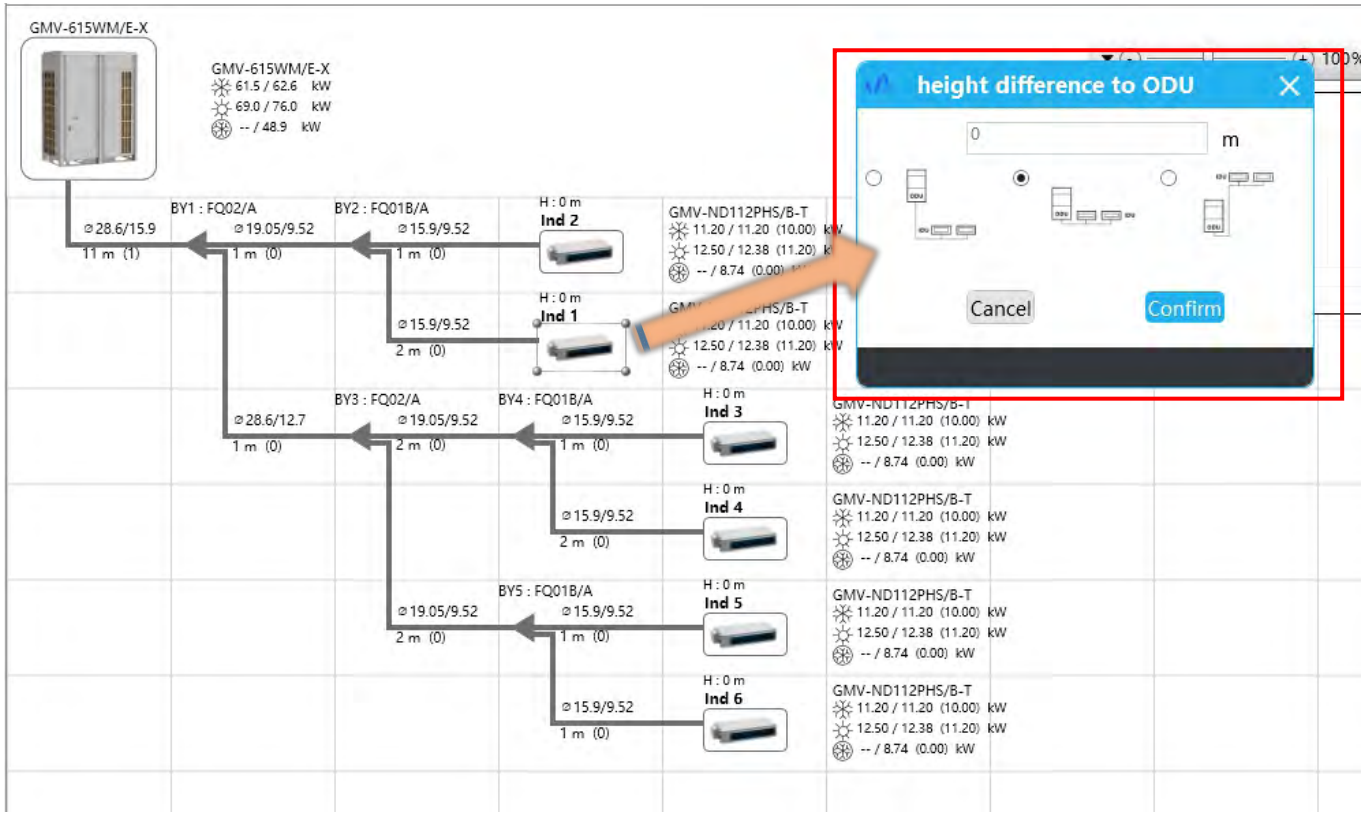
After entering the pipe length and the number of elbows, click “Next” or press the key “Enter” and it will automatically switch to the next pipeline whose length is 0.



This is the entire piping network after all the data is input.

5. Piping

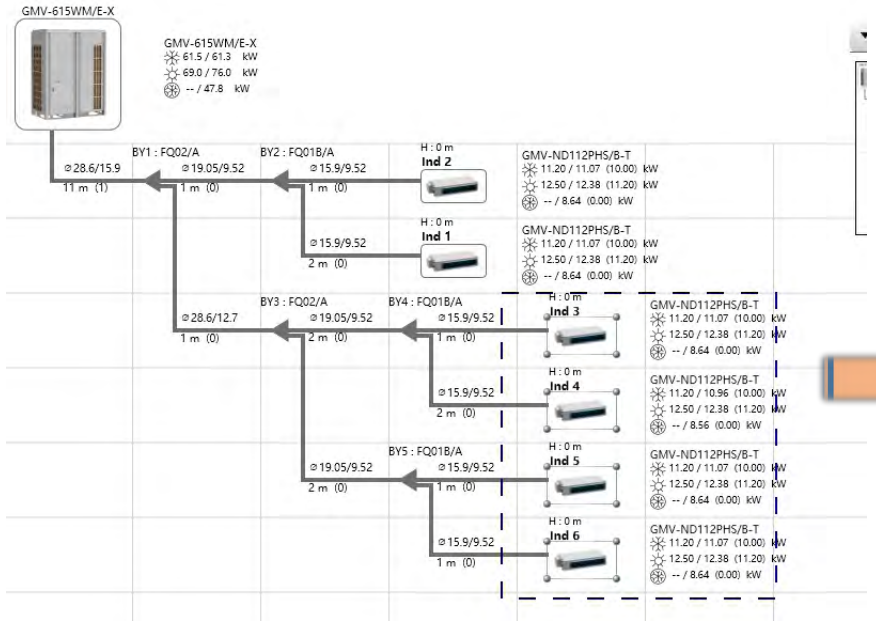
Height difference setting



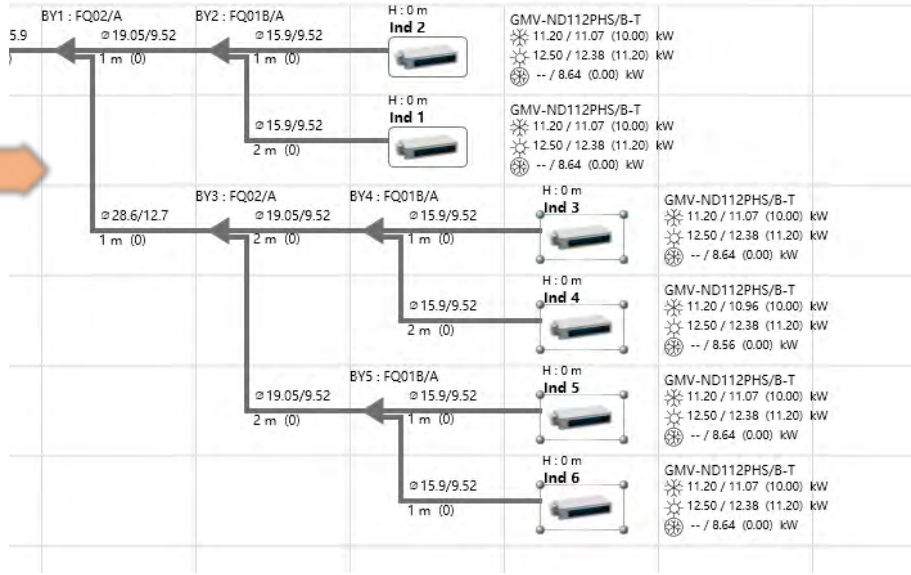
At the piping interface, double-click the picture of an IDU/heat storage module, a window of height difference setting will pop up.

5. Piping

Piping edit—Frame selection



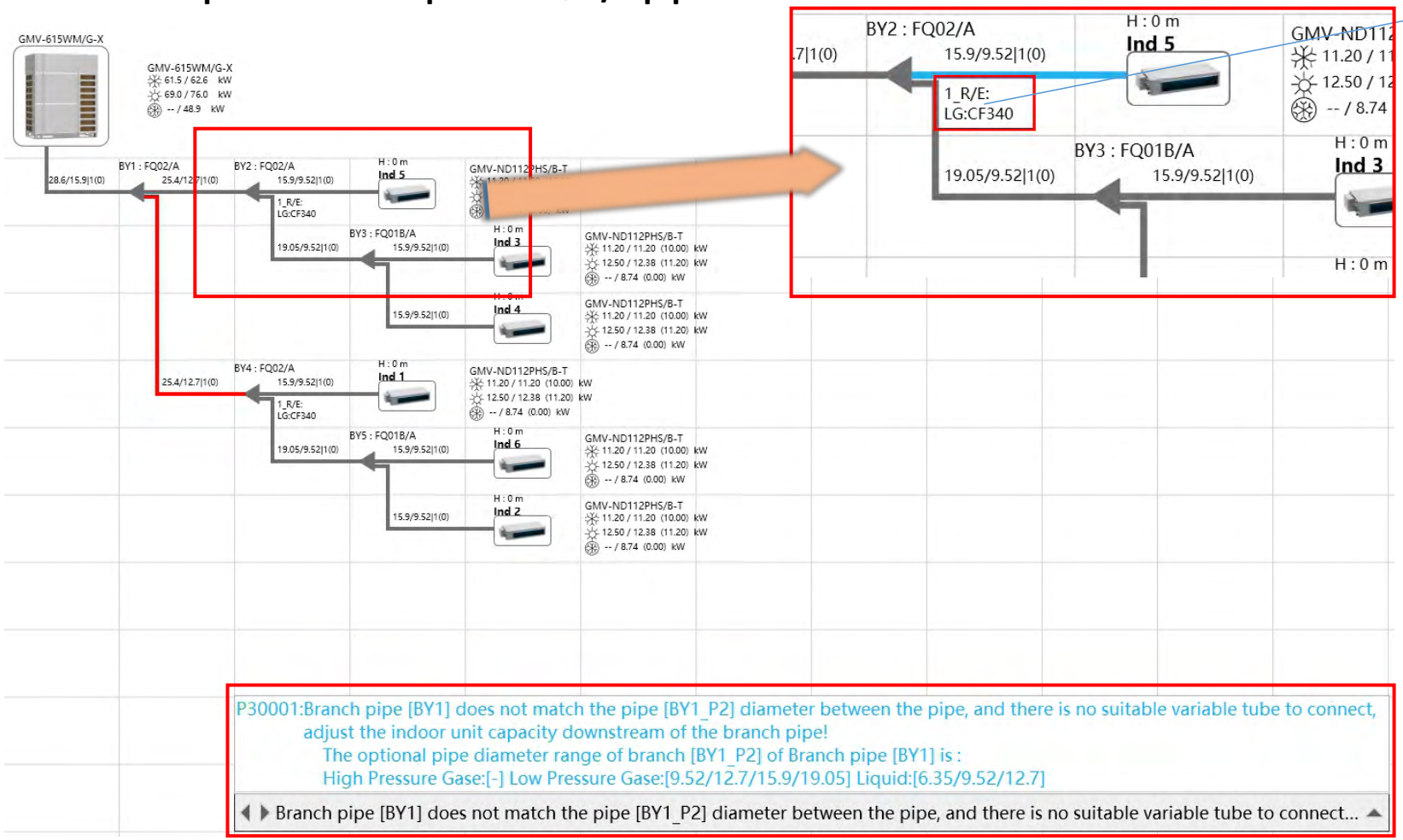
Selected devices will have four dots around.



Move the cursor to the blank space of the piping network, then click and hold the left mouse button to drag the cursor, which will create a dotted frame. Make sure the devices that require operation are within the frame. Then release the left mouse button.

5.Piping

Pipe connection process →R/E pipe selec



R/E pipe model

After selecting branch pipe models and the diameter of pipes, it will match the pipes with branchs of the connected brach pipe:

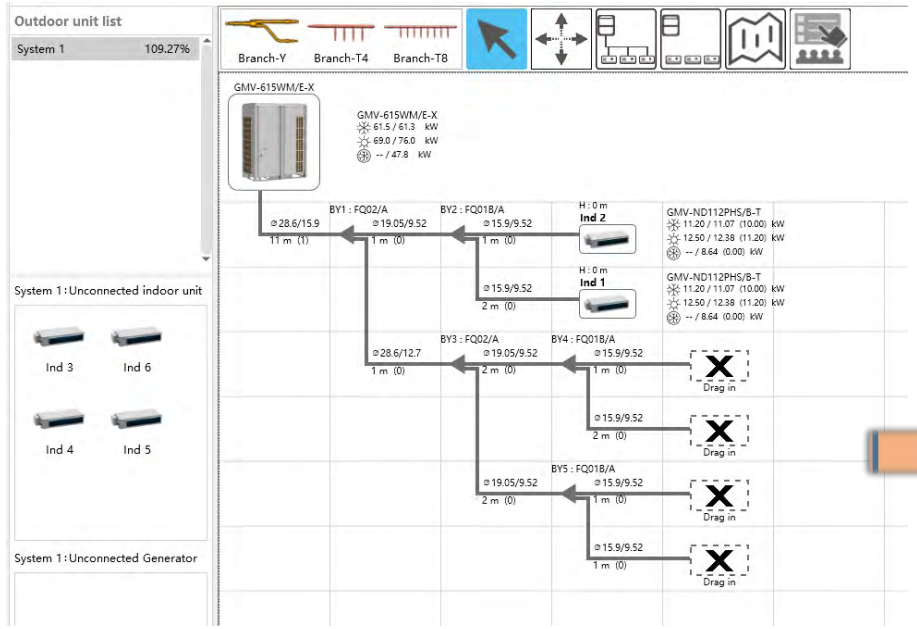
1.When they can be matched directly, the branch will select the diameter whose diameter is same with the pipe;

2.When they can't be matched directly, the proper R/E pipe will automatically recommended for connection.

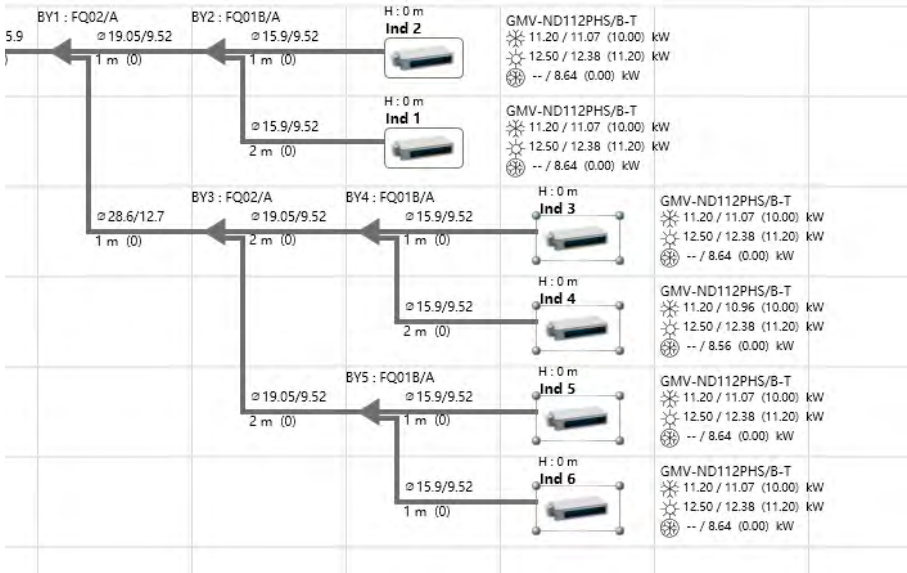
3.If there's no proper R/E pipe, the prompt will be displayed.

5. Piping

Piping edit—Delete



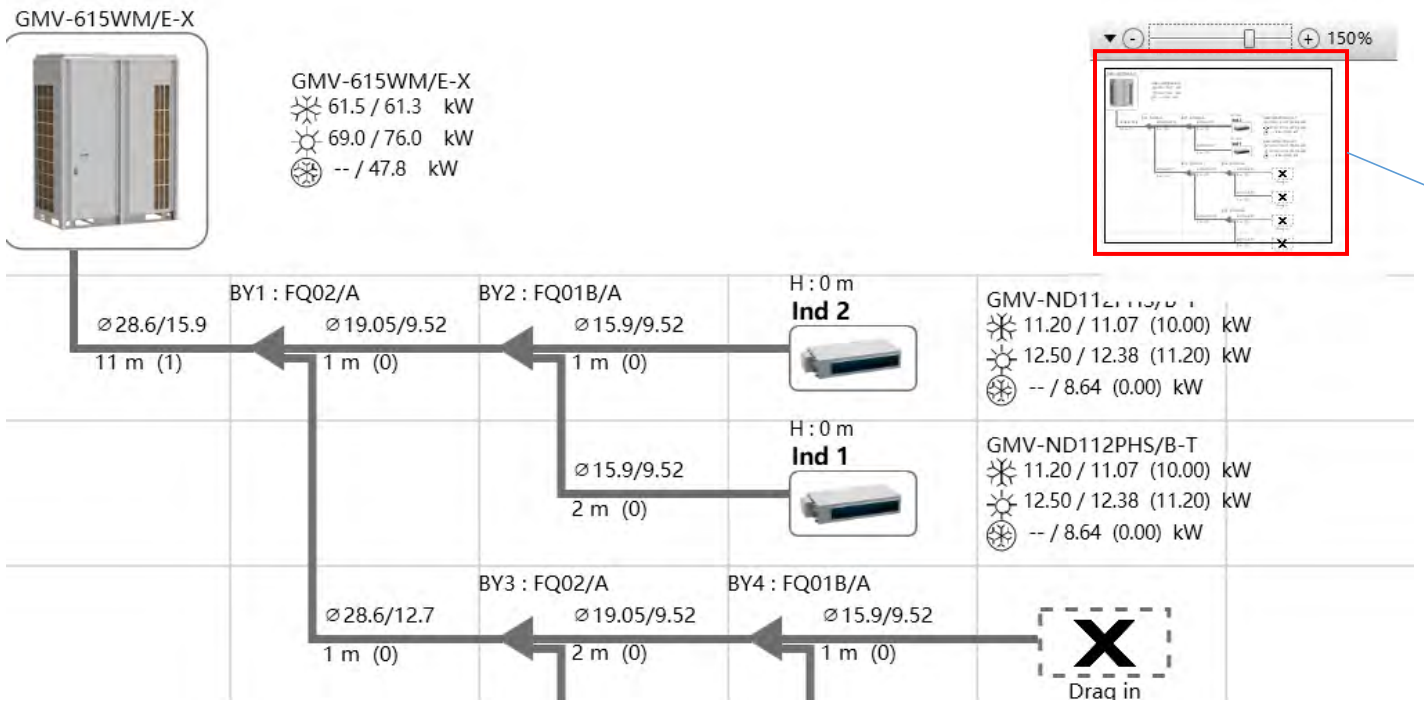
This will delete devices that are selected in a frame. If indoor units are selected, they will be placed in the list of unconnected indoor units.



When devices are selected, whether through frame selection or a single click, press “Delete” on the keyboard.

5. Piping

Piping edit—Zoom



If the whole piping network cannot be displayed, use the mouse to slide the box and view local area.

There is a reduced-size version of the piping network at the right corner of the piping interface. Move the slide to zoom in and out.

6. Wiring

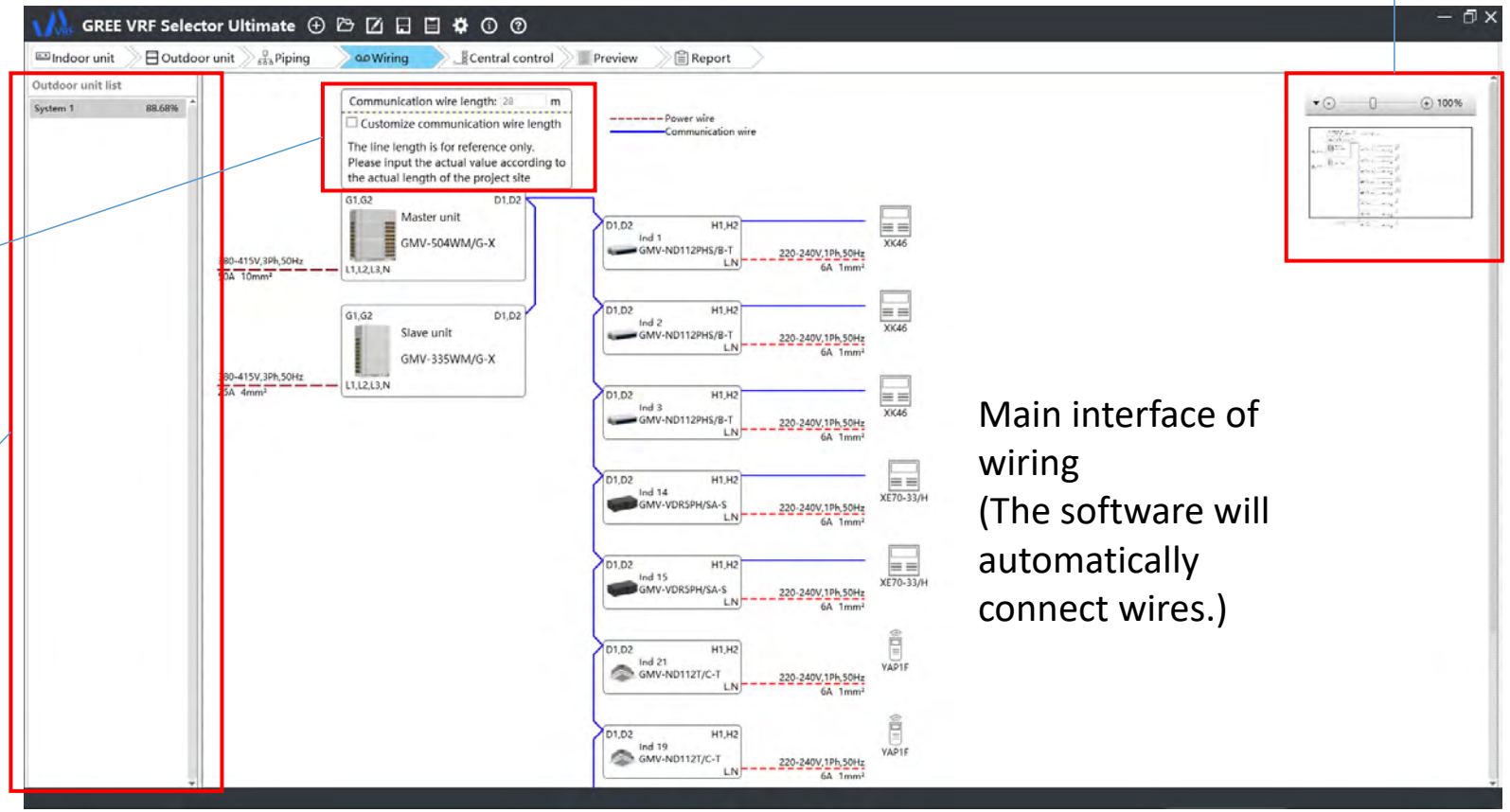
Wiring interface

After pipe connection is done, click the navigation bar to enter the wiring interface.

General view

Customize communication wire length:
1. When it’s not ticked, the suggested wire lenghth is calculated automatically.
2.When it’s ticked, please input the actual length of communication iwre

System list

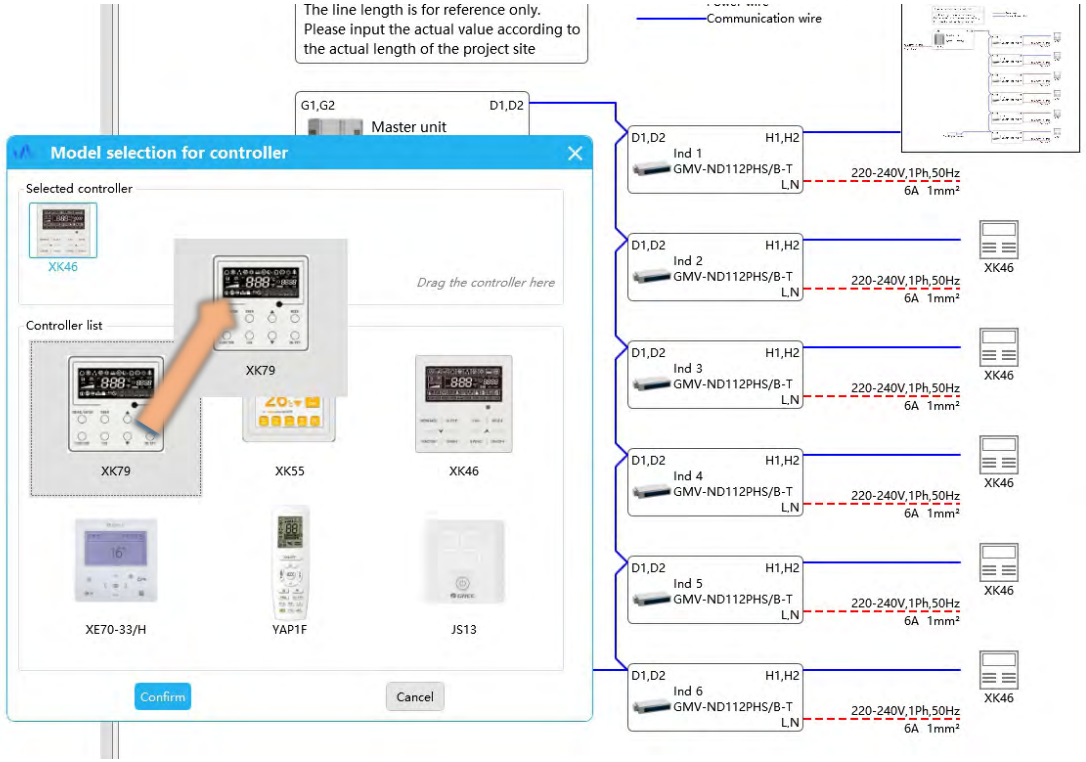


Main interface of wiring
(The software will automatically connect wires.)

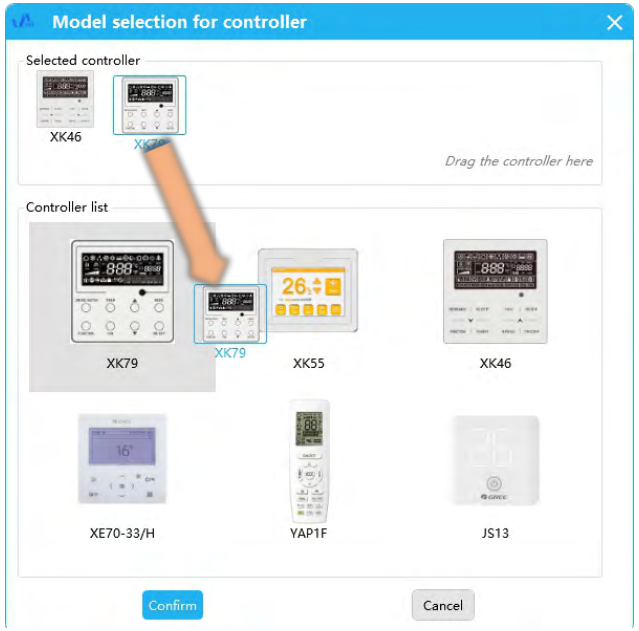
6. Wiring

Controller selection

Double-click the picture of IDU or controller, and a controller edit window will pop up.



Select the controller to be added and drag it to the box of selected controllers.

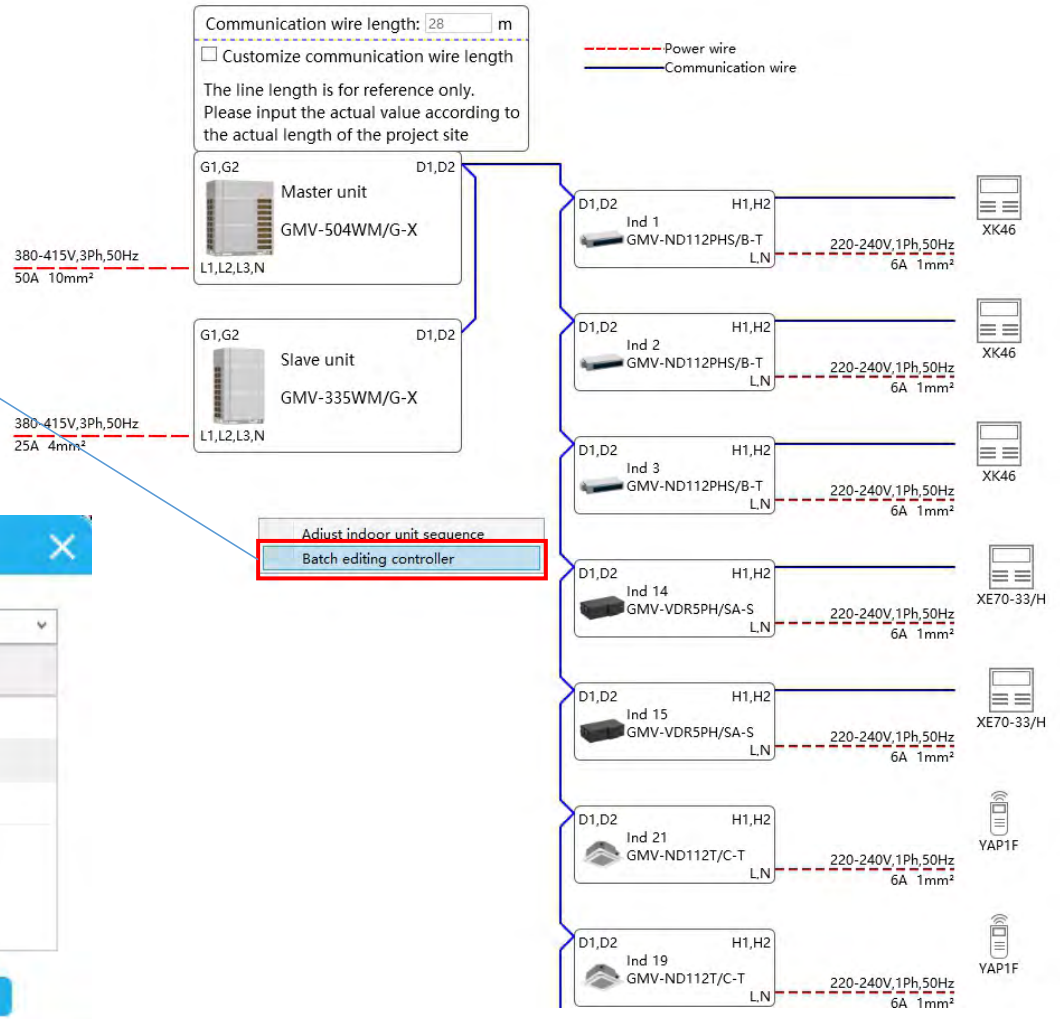


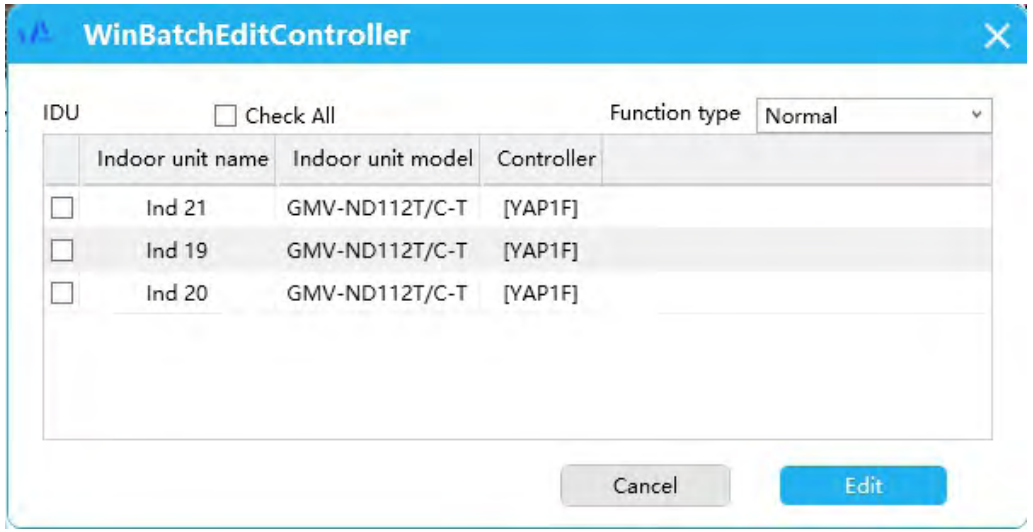
Click and drag a selected controller to the lower part and the controller is deleted.

6.Wiring

Batch edit controller→ Open the window

Right-click the page of wiring, click the second menu and open the window of batch edit controller



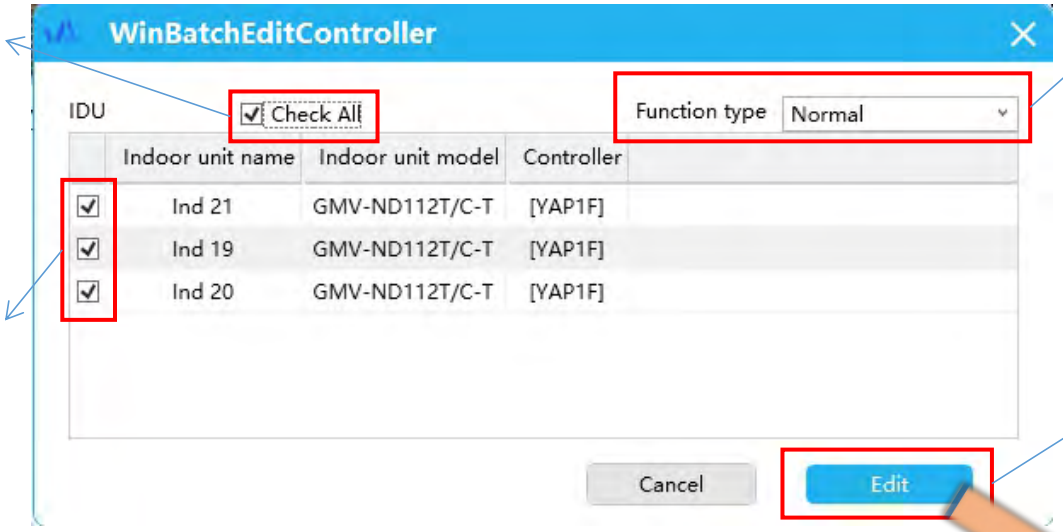


6.Wiring

Batch edit controller→ interface introduction

Select all indoor units

Select all indoor units whose controllers should be changed

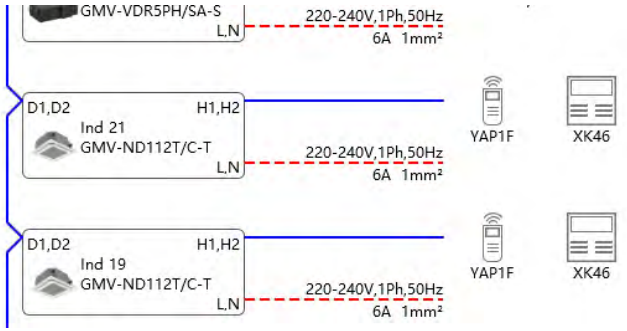


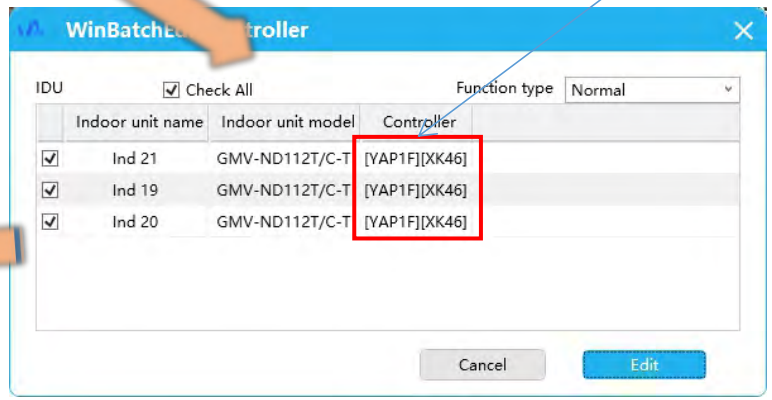
The drop-down box is for the controller type:
1.Normal
2.Duct
3.ERV
4.LSP_C1

Click “Edit” and then the controller selection window will pop up by taking the first selected indoor unit as the template

When the controller is changed, the proposal for the controller will be updated to all selected indoor units

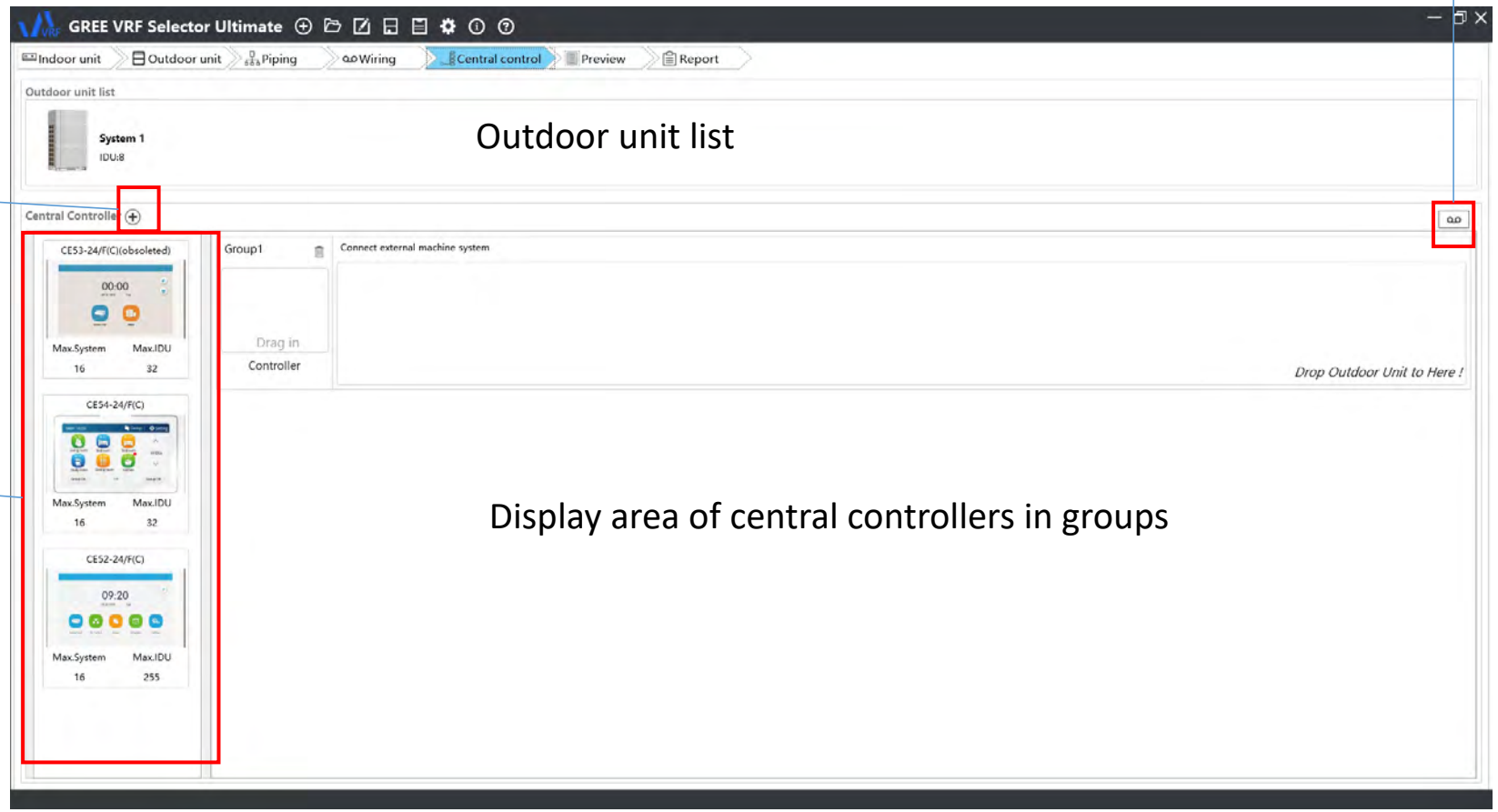
When clicking cancel or closing the window, the batch edited proposal will be refreshed to the wiring page.





7. Selection of central control

Interface of central controller selection



Global control wiring

Outdoor unit list

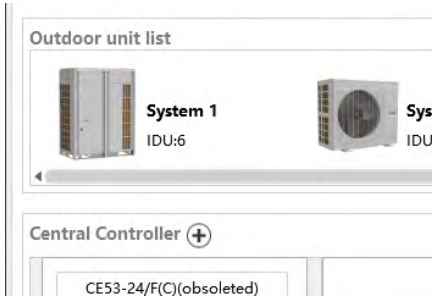
Add a group

Central controller list

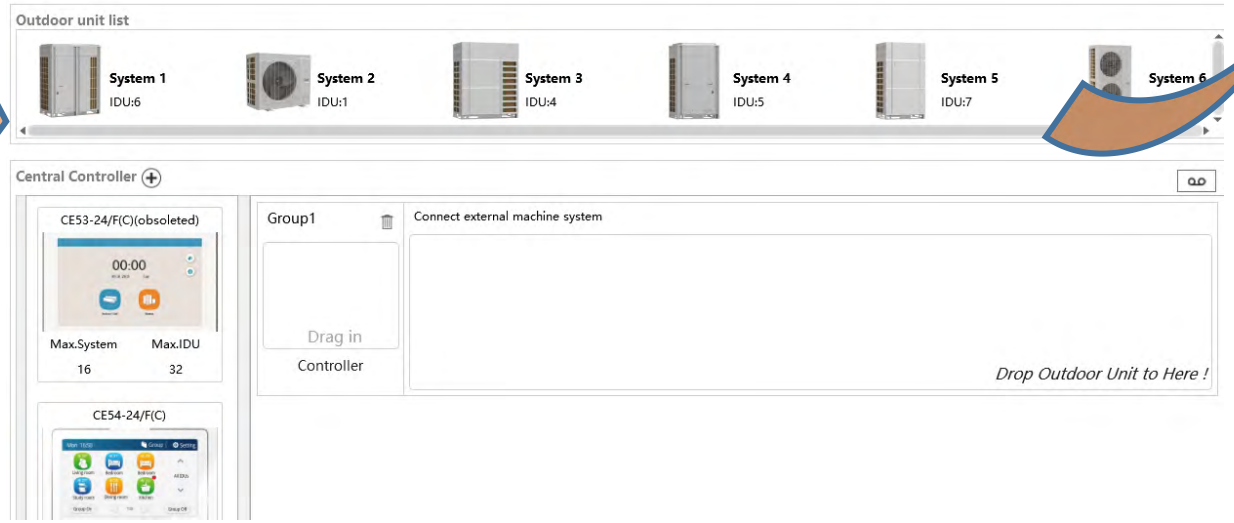
Display area of central controllers in groups

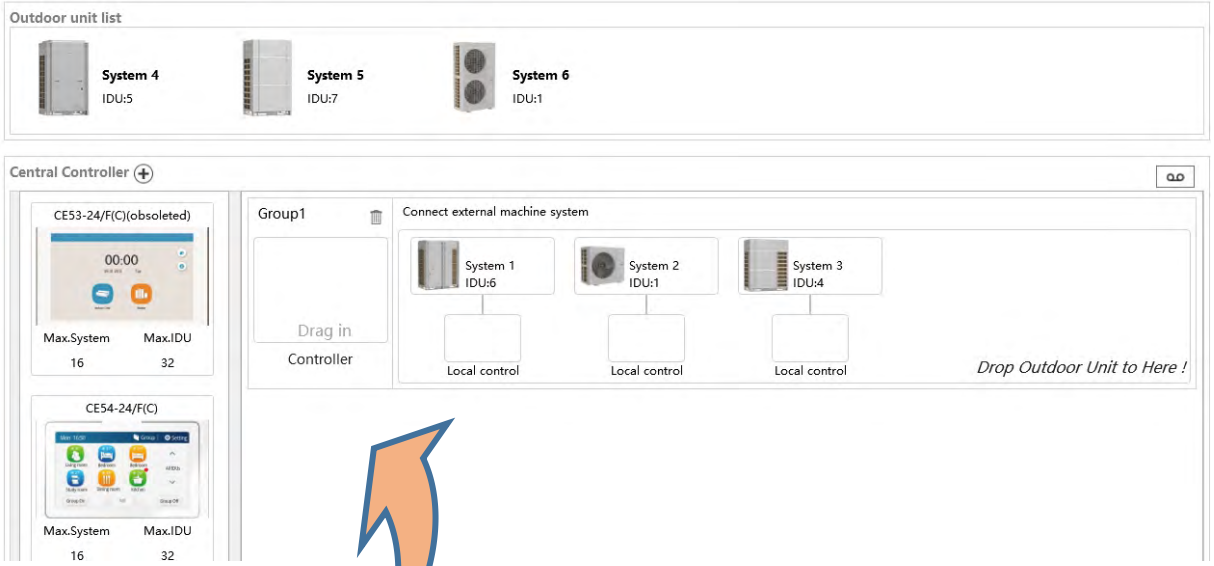
7. Selection of central control

Add a group



Click the button of group adding, and then a new group will appear at the group display area.





Drag the ODU system to the box of ODU connection.

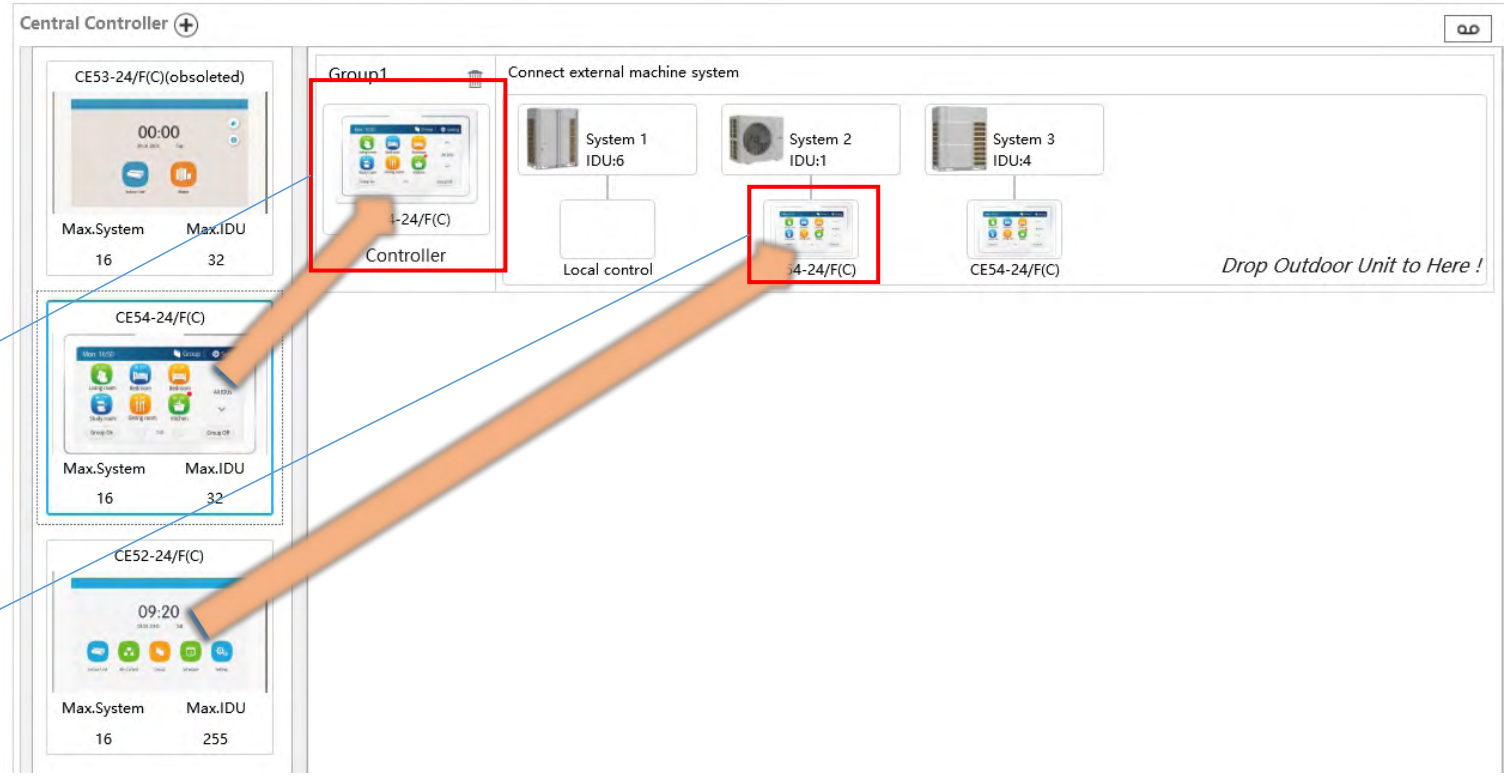
7. Selection of central control

Add central controllers

Central controllers can be dragged to two positions.

Global controller
(Control all the systems within the group.)

Local controller
(Control a single system.)

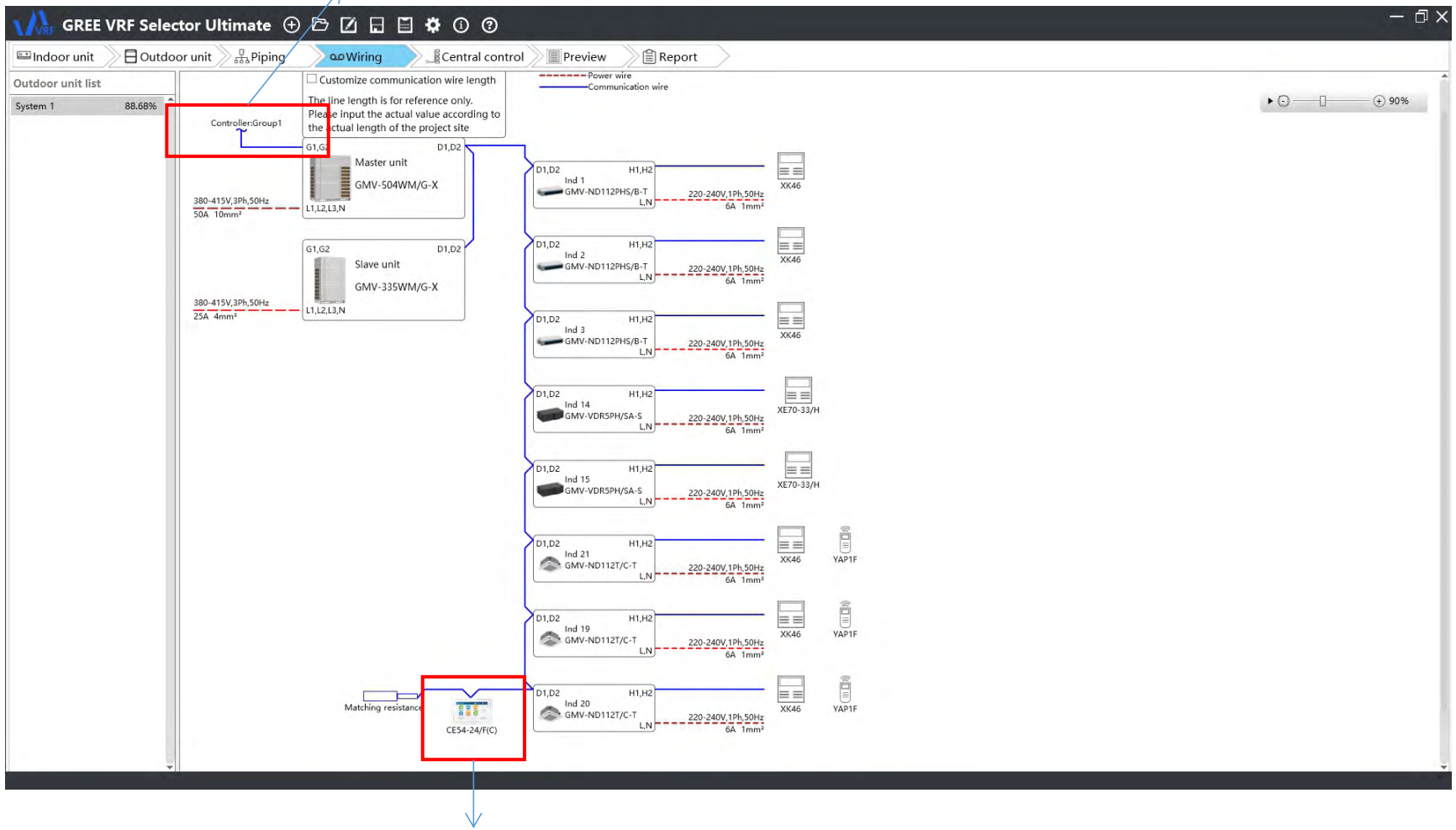


7. Selection of central control

Wiring change

After selecting the central controllers, switch to the wiring interface at the navigation bar. The software will automatically connect the wires of central controllers in the systems.

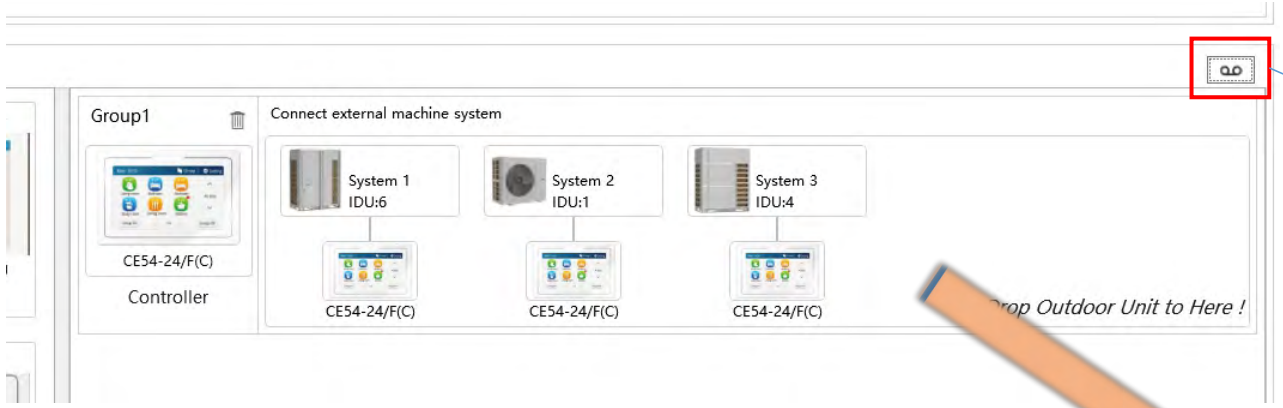
Global central controller



Local central controller

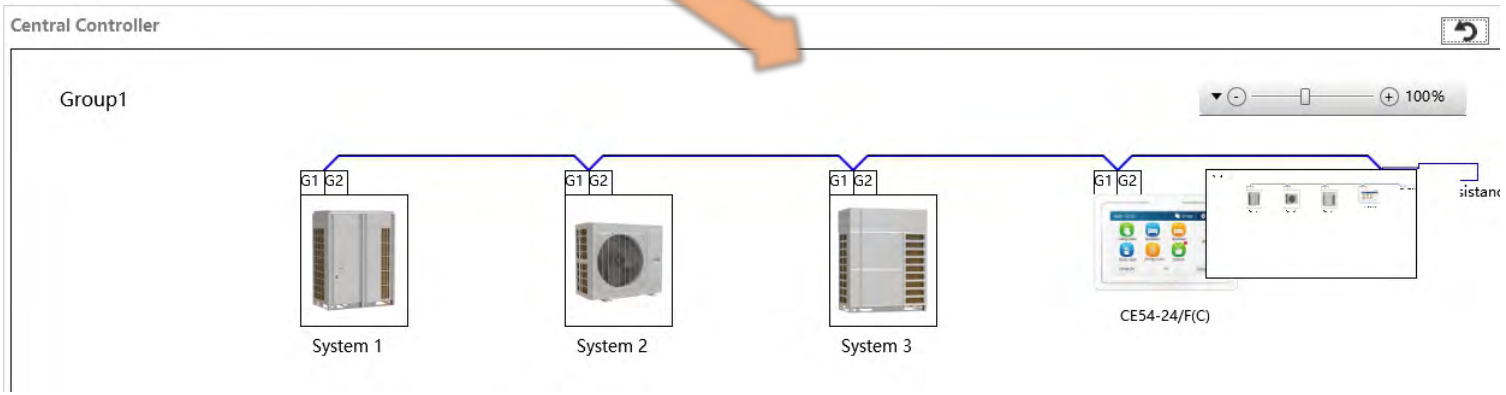
7. Selection of central control

Wiring of global central control



At the interface of central control selection, click this wiring button.

The wiring of global central control is displayed.

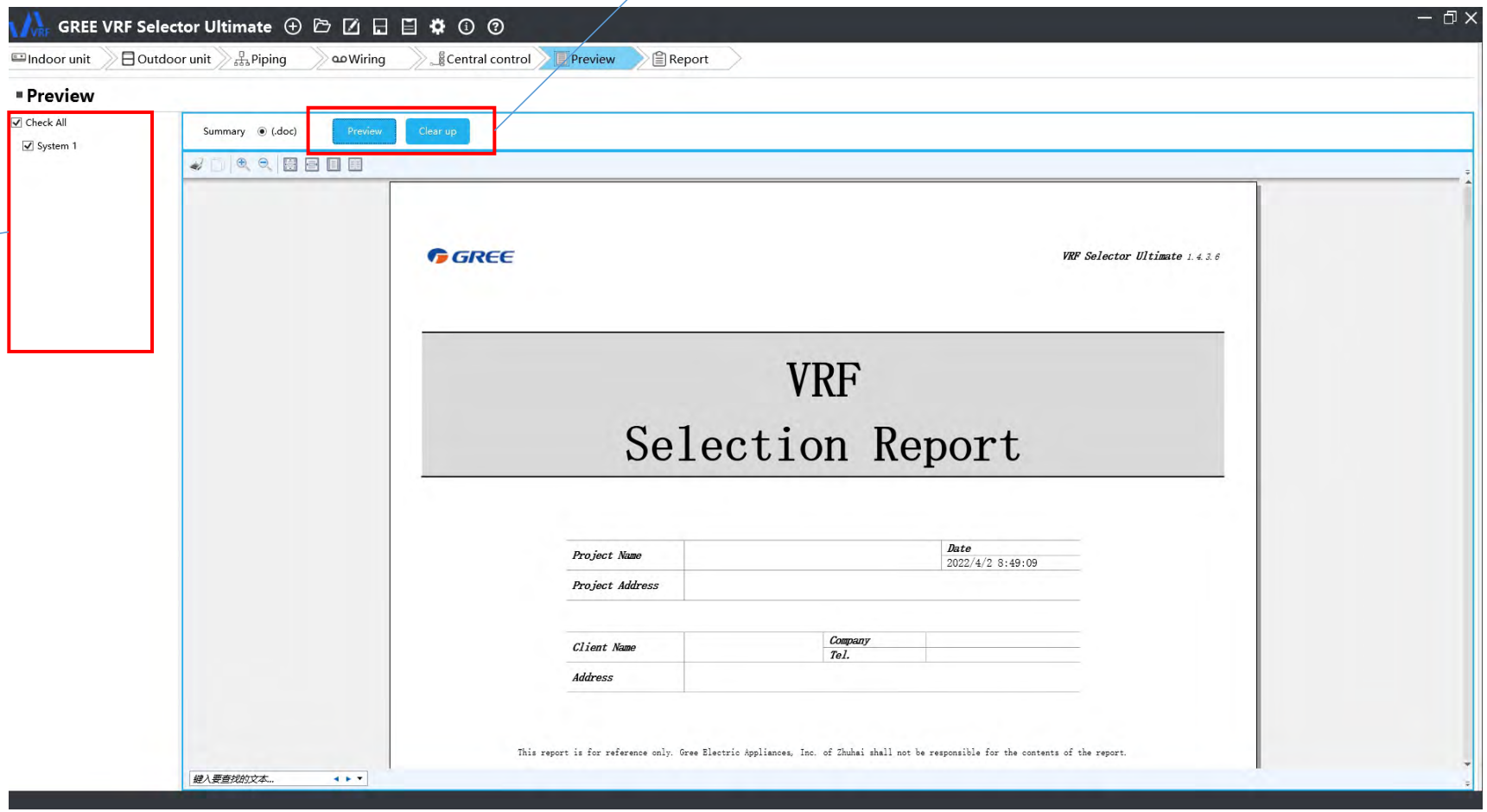


8.Report

Report preview

Click “Preview” to display the report
Click “Clear” to eliminate the report preview

System list
（Select the system whose report preview is needed）



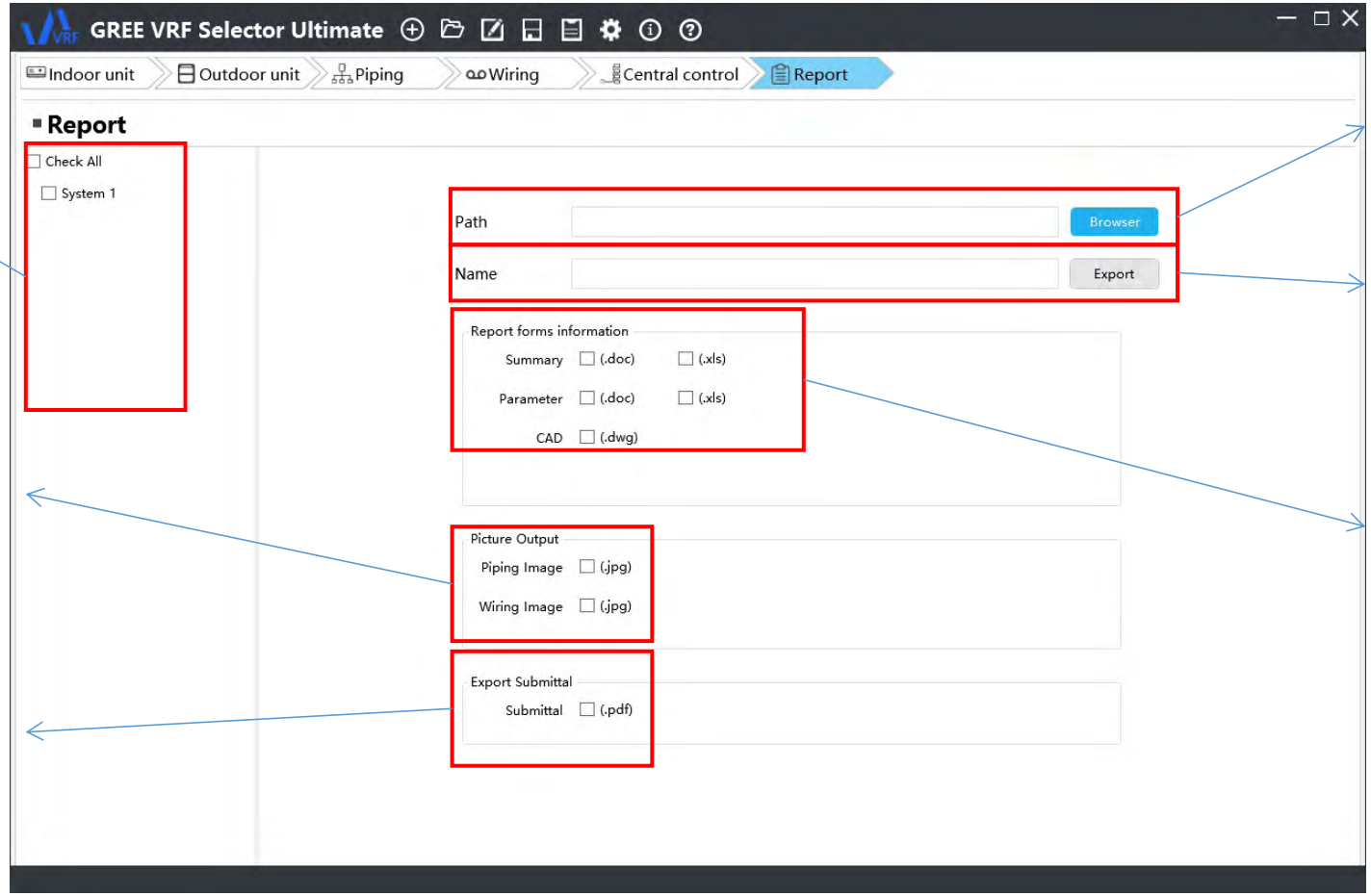
8. Report

Interface of report

System list
(Select the system that needs report export.)

Select piping and wiring diagrams.

Export Submittal
(This function is only for North American market at present)



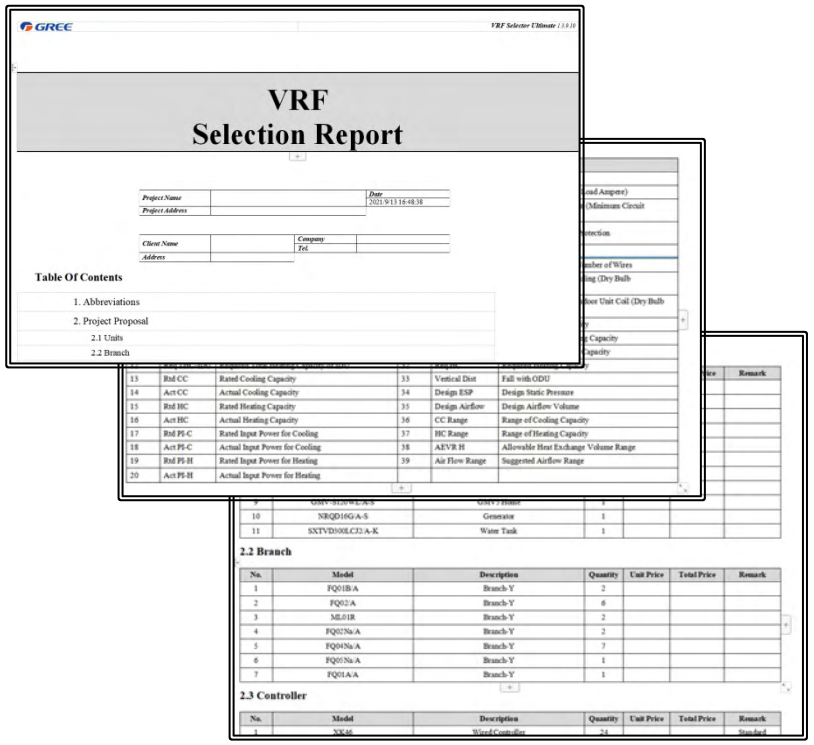
Select the export path.

Enter the name of export document.

Select documents:
1.Summary
2.Table of parameters
3.CAD engineering diagrams

8. Report

System report, table of parameters, piping diagram, wiring diagram

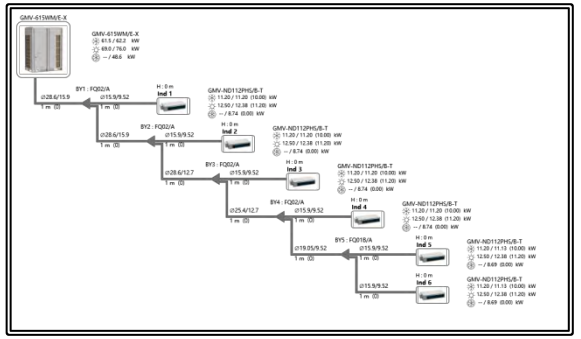


System report

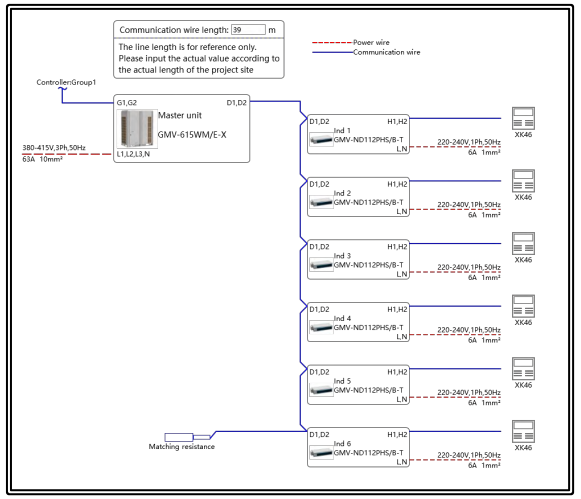
System 1_IDU_Specifications

Item	Value	Unit
Model	GMV-ND112PHS/B-T	-
Series name		-
Model designation		-
Noise (sound pressure level) (high)	40	dB(A)
Noise (sound pressure level) (medium)	38	dB(A)
Noise (sound pressure level) (low)	36	dB(A)
Rated voltage	220-240	V
Rated frequency	50	Hz
Phase	1	-
Power cable (core)	3	N
Circuit breaker capacity	6	A
MOP	/	A
MCA	/	A
Consumed power	/	kW
Refrigerant type	R410A	-
Standard controller	XK46	-
Optional controller	YAP1F/YV1L1/XK86/XK79	-
Connection method	Flare Connection	-
IDU loading quantity (40')	84	unit

of parameters



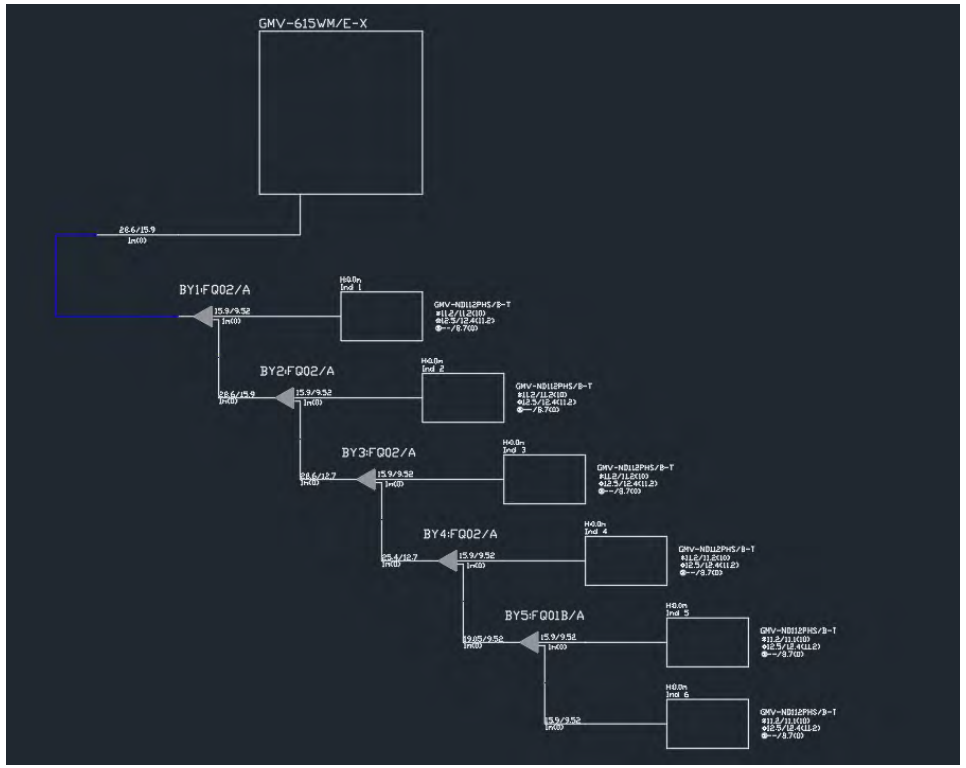
Piping diagram



Wiring diagram

8. Report

CAD engineering diagrams



Piping engineering diagram



Wiring engineering drawing

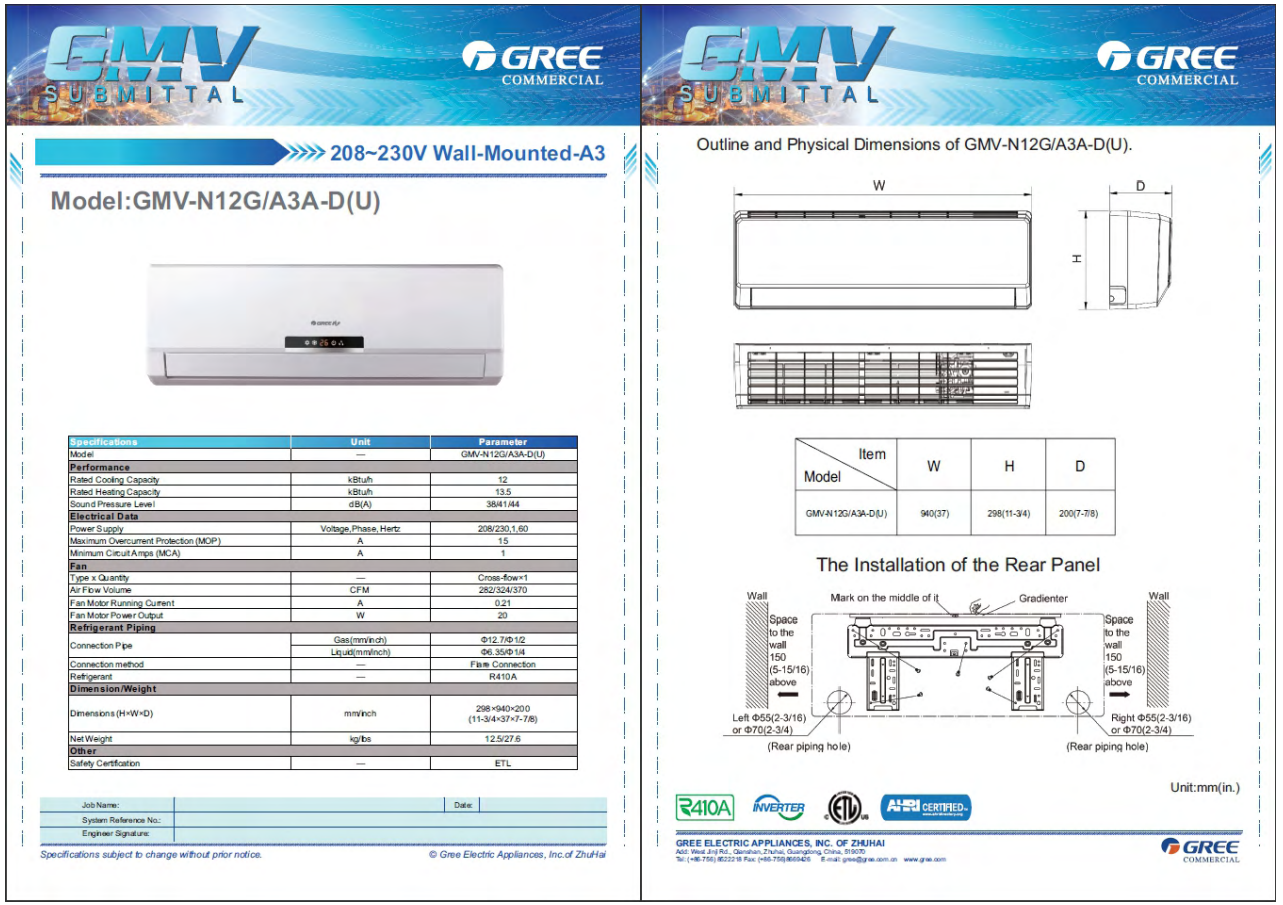
8. Report

Submittal report

(This function is only for North American market at present)



Expot format



Submittal