

# RoofTop Selector Help

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Ver. 1.0

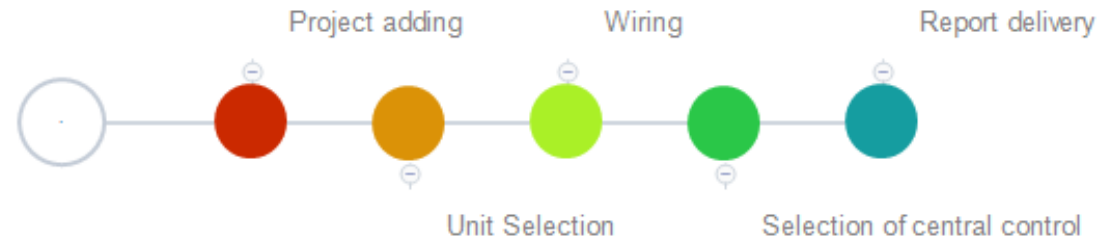
2023/9/25

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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.

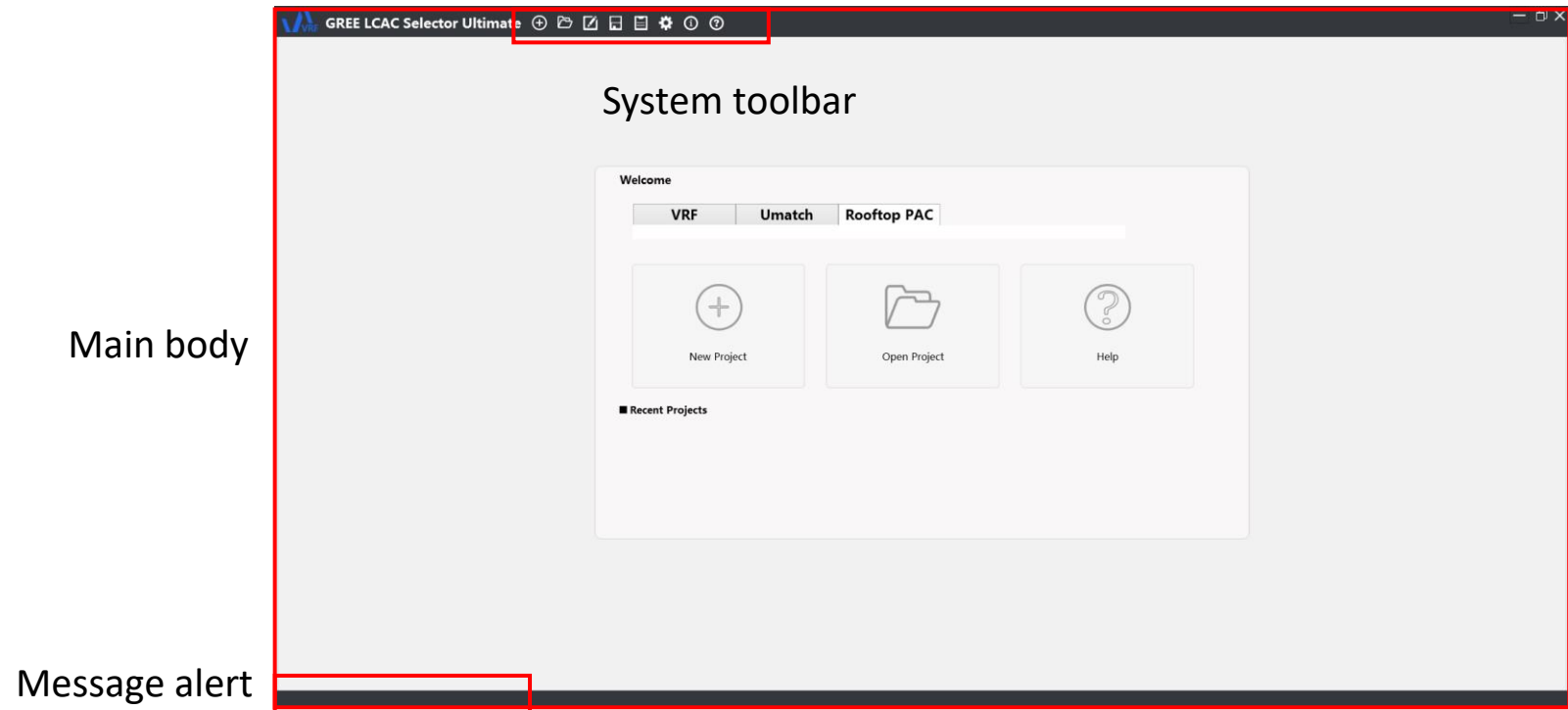


## 2、 Model Selection

### 1.Homepage

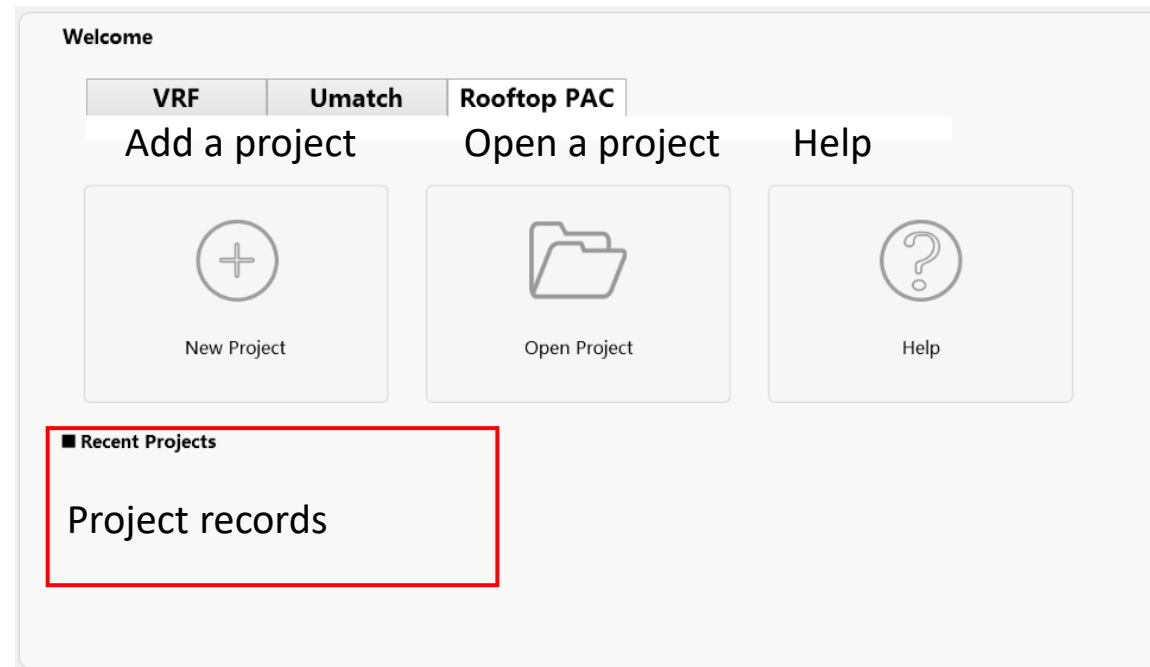
The homepage is divided into three sections.

- 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)

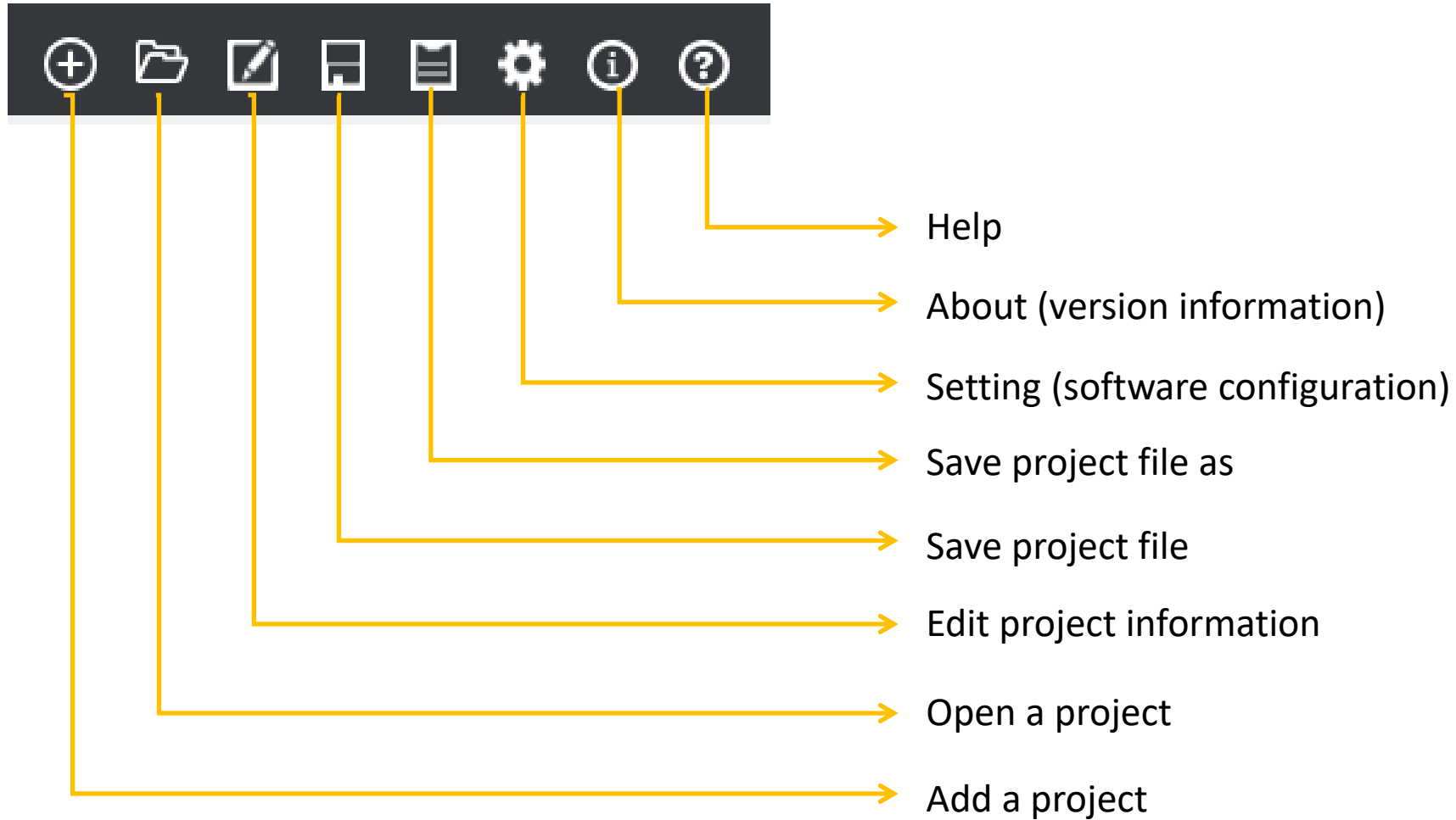


## 1.1 Welcome page

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)

**Setting**

Unit | Selection calculation | Save automatically | CAD configuration | Other

☐ Metric system    ☒ Imperial system

Temperature <input type="radio"/> °C <input checked="" type="radio"/> °F	Length <input type="radio"/> m <input checked="" type="radio"/> ft
Capacity <input type="radio"/> kw <input checked="" type="radio"/> kBtu/h	Pipe diameter <input type="radio"/> mm <input checked="" type="radio"/> in
Weight <input type="radio"/> kg <input checked="" type="radio"/> Lbs.	Pressure <input type="radio"/> Pa <input checked="" type="radio"/> inWG
Volume <input type="radio"/> L <input checked="" type="radio"/> gal	Airflow volume <input type="radio"/> m³/h <input checked="" type="radio"/> CFM
HeatLoad <input type="radio"/> kw <input checked="" type="radio"/> kBtu/h	

\* Restart software to take effect

Confirm Cancel

## 1.3 Setting

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

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

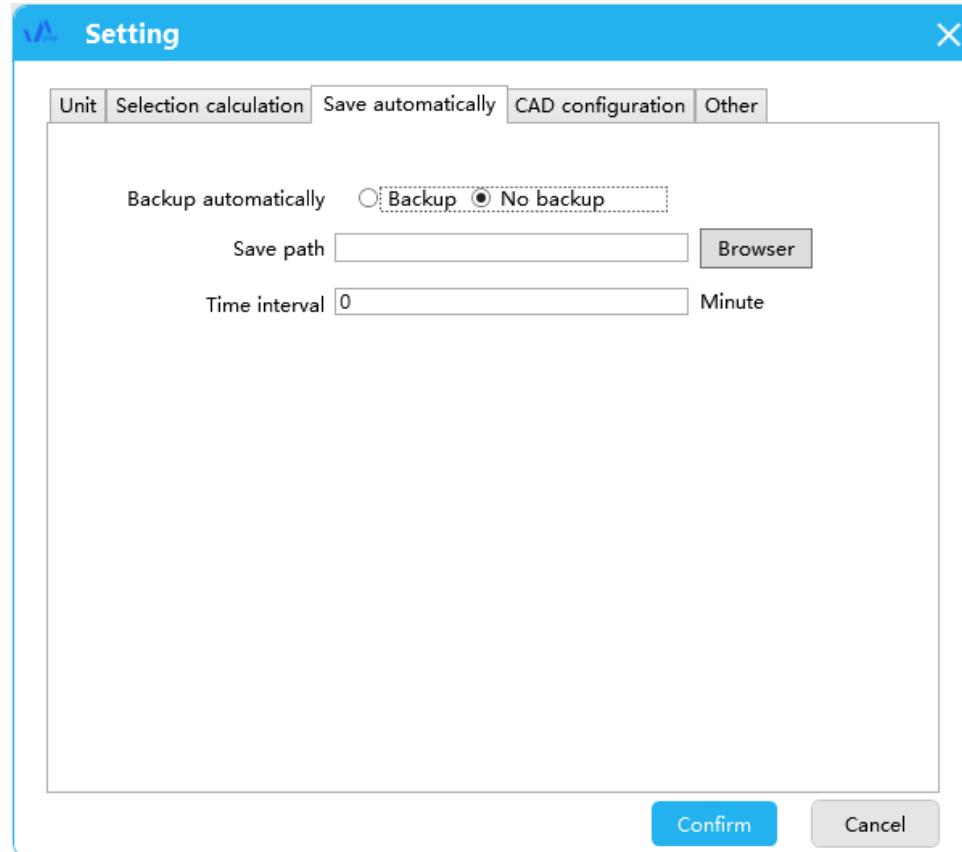
The screenshot shows a 'Setting' dialog box with a blue header and a close button. The 'Selection calculation' tab is active. It contains several sections for configuring system adjustments:

- Adjust methods**: Two radio buttons. The first, 'Adjust IDU and ODU at the same time', is selected. The second is 'Only adjust outdoor unit'.
- R/E pipe Selection Mode**: Three radio buttons. The first, 'Calculate R/E pipe', is selected. The second is 'Don't calculate R/E pipe'. The third is 'Collect information of R/E pipe only'.
- Indoor unit tolerances allowed**: Three rows of sliders. Each row has a label, a percentage, a slider, and two final percentages. The labels are 'Cooling', 'Heating', and 'Sensible Cooling'. The first percentage is '-10%' for all. The second percentage is '20%' for all. The third percentage is '0%' for all.
- Simultaneously maximum usage rate of IDU**: Two rows of sliders. Each row has a label, a percentage, a slider, and two final percentages. The labels are 'Cooling' and 'Heating'. The first percentage is '80%' for both. The second percentage is '100%' for both. The third percentage is '100%' for both.
- Select the modification item of the actual capacity of the unit**: Two sections, 'Indoor unit' and 'Outdoor unit'. Each section has two rows: 'Cooling' and 'Heating'. Each row has three checkboxes labeled 'a', 'b', and 'c'. In the 'Indoor unit' section, 'a' is checked for both 'Cooling' and 'Heating'. In the 'Outdoor unit' section, 'a' is checked for both 'Cooling' and 'Heating'.

At the bottom right, there are 'Confirm' and 'Cancel' buttons.

## 1.3 Setting

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



The screenshot shows a 'Setting' dialog box with a blue title bar and a close button. It contains five tabs: 'Unit', 'Selection calculation', 'Save automatically' (which is active), 'CAD configuration', and 'Other'. The 'Save automatically' tab has two radio buttons for 'Backup automatically': 'Backup' and 'No backup' (which is selected). Below these are two input fields: 'Save path' with a 'Browser' button next to it, and 'Time interval' with the value '0' and the unit 'Minute'. At the bottom right are 'Confirm' and 'Cancel' buttons.

Setting

Unit Selection calculation Save automatically CAD configuration Other

Backup automatically ☐ Backup ☒ No backup

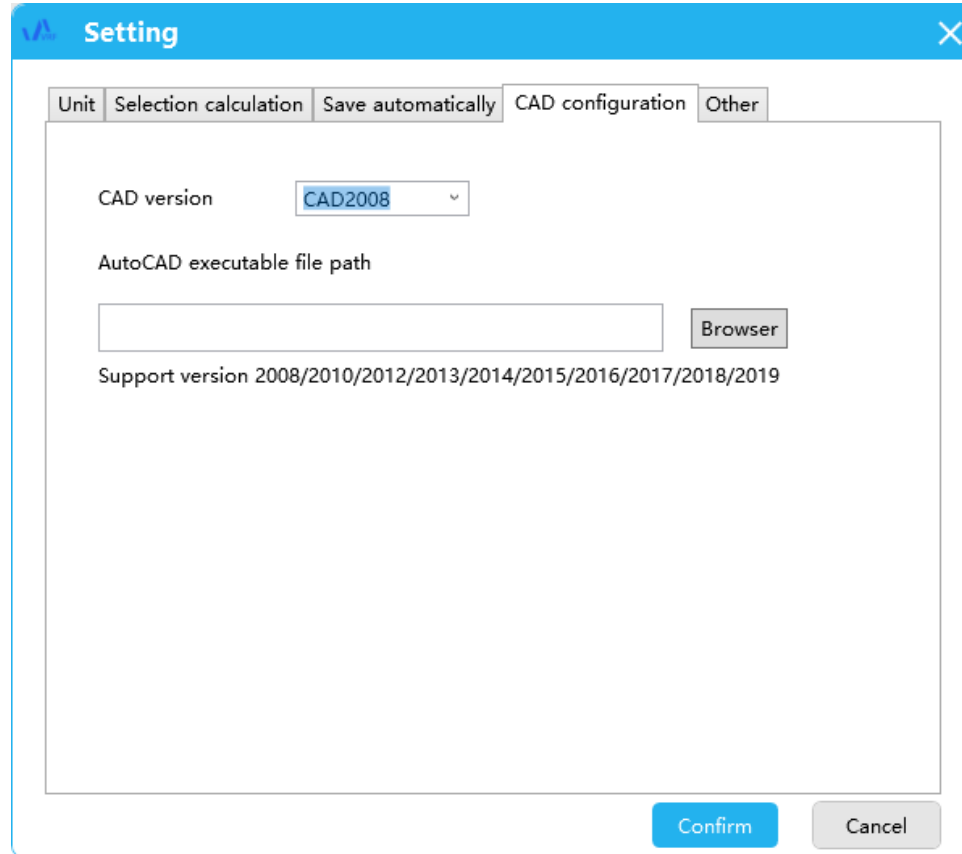
Save path  Browser

Time interval  Minute

Confirm Cancel

## 1.3 Setting

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



The screenshot shows a 'Setting' dialog box with a blue title bar and a close button. It contains five tabs: 'Unit', 'Selection calculation', 'Save automatically', 'CAD configuration' (which is active), and 'Other'. The 'CAD configuration' tab has two main settings: 'CAD version' with a dropdown menu showing 'CAD2008', and 'AutoCAD executable file path' with a text input field and a 'Browser' button. Below these, it lists supported versions: 'Support version 2008/2010/2012/2013/2014/2015/2016/2017/2018/2019'. At the bottom right are 'Confirm' and 'Cancel' buttons.

Setting

Unit Selection calculation Save automatically CAD configuration Other

CAD version CAD2008

AutoCAD executable file path

Browser

Support version 2008/2010/2012/2013/2014/2015/2016/2017/2018/2019

Confirm Cancel

## 1.3 Setting

### 5. Others (Add or delete languages,submittal)

The screenshot shows a 'Setting' dialog box with a blue header and a close button. It has five tabs: 'Unit', 'Selection calculation', 'Save automatically', 'CAD configuration', and 'Other'. The 'Other' tab is selected. Inside the 'Other' tab, there are three sections: 'Interface language management' with a 'Language' dropdown set to 'English' and '+' '-' buttons; 'Export image sharpness' with radio buttons for 'Default' (selected) and 'HD'; and 'Submittal Path' with a text input field and a 'Browser' button. A red rectangle highlights the 'Export image sharpness' and 'Submittal Path' sections. Blue arrows point from text labels on the right to these sections. At the bottom right are 'Confirm' and 'Cancel' buttons.

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.

**Project information**

Project information

Area: North America Frequency: 50Hz 60Hz

Project Name: Address:

Date: 2021/9/4 Contract No.:

**Client information**

Name: Position:

Company: Address:

Tel: Fax:

☐ Save client information

**Designer information**

Name: Position:

Company: Address:

Tel: Fax:

☐ Save designer information

Remark:

Confirm Cancel

Enter project information

Choose an area for data customization.

Choose power specification.

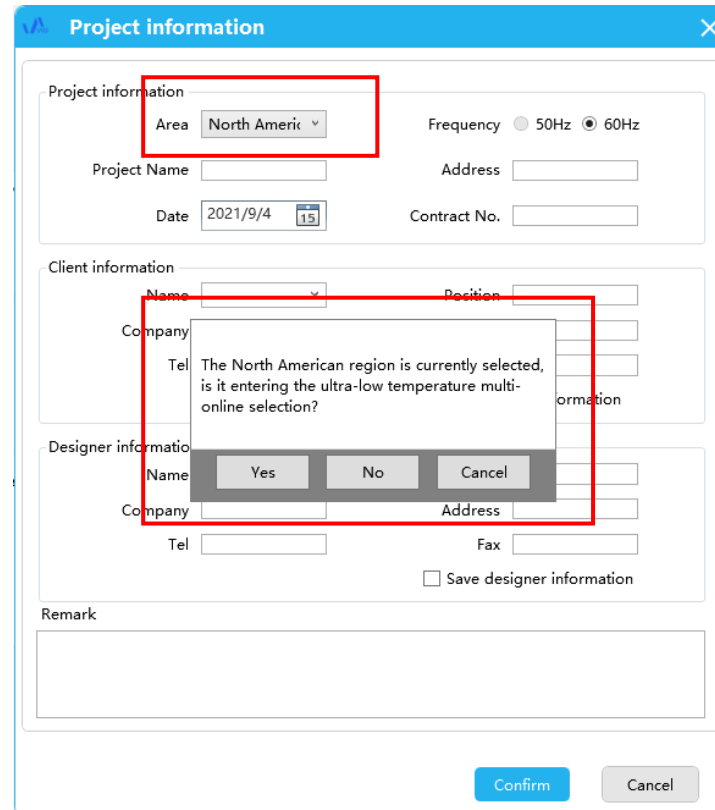
Enter client information.

Enter designer information.

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



The screenshot shows a 'Project information' dialog box with a blue header and a close button. The dialog is divided into several sections: 'Project information', 'Client information', 'Designer information', and 'Remark'. In the 'Project information' section, the 'Area' dropdown is set to 'North America' and is highlighted with a red rectangle. The 'Frequency' section has radio buttons for '50Hz' and '60Hz', with '60Hz' selected. The 'Client information' section has fields for 'Name', 'Position', 'Company', 'Tel', and 'Address'. The 'Designer information' section has fields for 'Name', 'Company', 'Address', 'Tel', and 'Fax', along with a 'Save designer information' checkbox. A confirmation pop-up dialog is overlaid on the 'Client information' section, asking 'The North American region is currently selected, is it entering the ultra-low temperature multi-online selection?' with 'Yes', 'No', and 'Cancel' buttons. The 'Remark' section is a large text area at the bottom. At the bottom of the main dialog are 'Confirm' and 'Cancel' buttons.

Project information

Area: North America

Frequency: 50Hz 60Hz

Project Name:

Address:

Date: 2021/9/4

Contract No.:

Client information

Name:

Position:

Company:

Tel:

Address:

Designer information

Name:

Company:

Address:

Tel:

Fax:

Save designer information

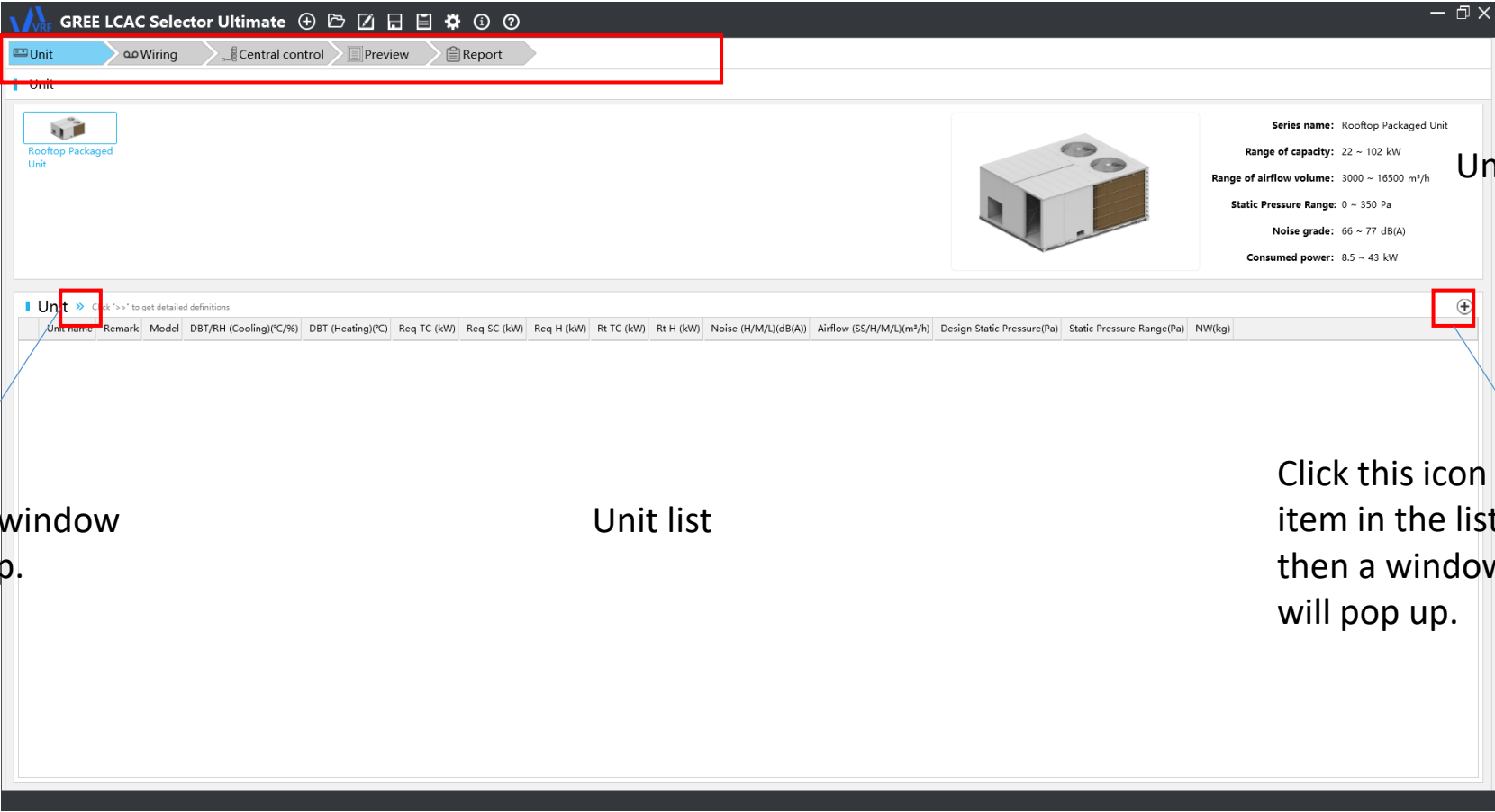
Remark

Confirm Cancel

### 3. Unit selection

#### Unit selection Interface

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



List of Unit series

Unit information

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

Unit list

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

### 3. Unit selection

#### Selection of specifications

Unit >> Click ">>" to get detailed definitions

Unit name	Remark	Model	DBT/RH (Cooling)(°C/%)	DBT (Heating)(°C)	Req TC (kW)	Req SC (kW)	Req H (kW)	Rt TC (kW)	Rt H (kW)	Noise (H/M/L)(dB(A))	Airflow (SS/H/
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Specification

Select the following options, it will be displayed in detailed list

☒ Unit name

User-defined unit name

☒ Remark

Unit information remarked by tl

☒ Model

Unit model

☒ DBT/RH (Cooling)(°C/%)

Cooling dry bulb temperature/r

☒ DBT (Heating)(°C)

Heating inddor dry bulb tempe

☒ Req TC (kW)

Total cooling load of user desig

☒ Req SC (kW)

Sensible cooling load of user d

☒ Req H (kW)

Heating load of user design de

☒ Rt TC (kW)

Rated total cooling capacity of .

☒ Rt H (kW)

Rated heating capacity of air cc

☒ Noise (H/M/L)(dB(A))

Unit noise

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

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

### 3. Unit selection

#### Window of Unit adding

The screenshot shows the 'RoofTop Unit' window with the following fields and sections:

- Unit name:** Unit 1
- Remark:** (empty)
- Power:** 380~415V, 3Ph
- Function Type:** Duct
- Series:** Rooftop Packaged Unit
- ☐ Manual selection >>
- Design condition**
  - Cooling**
    - Indoor: DBT 27.00 °C, WBT 19.00 °C, RH 45.77 %
    - Outdoor: DBT 35.00 °C
  - Heating**
    - Indoor: DBT 20.00 °C
    - Outdoor: DBT 7.00 °C, WBT 6.00 °C, RH 85.36 %
- Required Capacity**
  - Total cooling: 0 kW
  - Heating: 0 kW
  - Static pressure: 0 Pa

Buttons: Cancel, Add

Set unit name 、 remark

Click the blue arrow or select the select box and then a manual selection window will pop up.


Set working condition

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


Click "Add" to add one Unit.

### 3. Unit selection

## Auto recommendation



## RoofTop Unit

Unit name


Remark

Power:
Function Type:

Series:
☐ Manual selection >>

### Design condition

Cooling
Indoor

DBT
 °C

WBT
 °C

RH
 %

Outdoor

DBT
 °C

Heating
Indoor

DBT
 °C

Outdoor

DBT
 °C

WBT
 °C


RH
 %

### Required Capacity

Total cooling
 kW

Heating
 kW

Static pressure
 Pa

Unit  Click '+' to get detailed definitions

Unit name	Remark	Model	DBT/RH (Cooling)°C/%	DBT (Heating)°C	Req TC (kW)	Req SC (kW)	Req H (kW)	Rt TC (kW)	Rt H (kW)	Noise (H/M/L)(dB(A))	Airflow (SS/H/M/L)(m³/h)	Design Static Pressure(Pa)	Static Pressure Range(Pa)	NW(kg)
Unit 1		GK-H5.5TH/NA-A-X(E)	27 / 45.77	20	0	0	0	22	26	66/- / -	3000/- / -	0	0	268
Unit 2		GK-H7.5TH/NA-A-X(E)	27 / 45.77	20	28	0	31	28	31	68/- / -	4400/- / -	0	0	348
Unit 3		GK-H10TH/NA-A-X(E)	27 / 45.77	20	34	0	39	34	39	72/- / -	5800/- / -	0	0	350
Unit 4		GK-H15TH/NA-A-M(E)	27 / 45.77	20	48.5	0	55.5	48.5	55.5	74/- / -	9500/- / -	125	0	590
Unit 5		GK-H20TH/NA-A-M(E)	27 / 45.77	20	60	0	71	60	71	75/- / -	15000/- / -	125	0	820

(Fully automatic)

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

2.Units will be adjusted automatically in following selections.

3.If no Unit 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 Unit list.

2.Units will be adjusted automatically in following selections.

# 3.Unit selection

## Manual selection

RoofTop Unit

Unit nameUnit 8

Remark

Power:380~415V,3PhFunction Type:Duct

Series:Rooftop Packaged Unit

Manual selection

Design condition

Cooling

Indoor

DBT27.00°C

WBT19.00°C

RH45.77%

Outdoor

DBT35.00°C

Heating

Indoor

DBT20.00°C

Outdoor

DBT7.00°C

WBT6.00°C

RH85.36%

Required Capacity

Total cooling102kW

Heating121kW

Static pressure125Pa

CancelAdd

Indoor unit series

Rooftop Packaged Unit

Indoor unit list

Model	Rt TC (kW)	Rt H (kW)	NW(kg)	Noise (H/M/L)(dB(A))	Static Pressure Range(Pa)
GK-H5.5TH/NaA-X(E)	22	26	268	66/-/-	0~185
GK-H6.2TH/NaA-X(E)	22.5	26.5	268	66/-/-	0~185
GK-H7.5TH/NaA-X(E)	28	31	348	68/-/-	0~185
GK-H10TH/NaA-X(E)	34	39	350	72/-/-	0~210
GK-H15TH/NaA-M(E)	48.5	55.5	590	74/-/-	50~200
GK-H20TH/NaA-M(E)	60	71	820	75/-/-	75~220
GK-H25TH/NaA-M(E)	84	95	1180	76/-/-	100~250
GK-H30TC/NaA-M(E)	102	121	1009	77/-/-	125~350

( 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 Units. When you click “Add”, the unit will be added to the Unit list.
- 2.Units will not be adjusted in following selections.

# 3. Unit selection

## Actions of Unit list

Unit

Wiring Central control Preview Report

Unit

Series name: Rooftop Packaged Unit  
Range of capacity: 22 ~ 102 kW  
Range of airflow volume: 3000 ~ 16500 m³/h  
Static Pressure Range: 0 ~ 350 Pa  
Noise grade: 65 ~ 77 dB(A)  
Consumed power: 8.5 ~ 43 kW

Unit

Unit name	Remark	Model	DBT/RH (Cooling)/°C/%	DBT (Heating)/°C	Req TC (kW)	Req SC (kW)	Req H (kW)	Rt TC (kW)	Rt H (kW)	Noise (H/M/L)/dB(A)	Airflow (S/H/M/L)/m³/h	Design Static Pressure(Pa)	Static Pressure Range(Pa)	NW(kg)
Unit 1		GK-H5.5TH/NaA-X(E)	27 / 45.77	20	0	0	0	22	26	6/-/-	3000/-/-	0	0	268
Unit 2		GK-H7.5TH/NaA-X(E)	27 / 45.77	20	28	0	31	28	34	8/-/-	4400/-/-	0	0	348
Unit 3		GK-H10TH/NaA-X(E)	27 / 45.77	20	34	0	39	34	40	27/-/-	5800/-/-	0	0	350
Unit 4		GK-H15TH/NaA-M(E)	27 / 45.77	20	48.5	0	55.5	48.5	53.3	4/-/-	9500/-/-	125	0	590
Unit 5		GK-H20TH/NaA-M(E)	27 / 45.77	20	60	0	71	60	71	5/-/-	13000/-/-	125	0	820
Unit 6		GK-H25TH/NaA-M(E)	27 / 45.77	20	84	0	95	84	95	76/-/-	16500/-/-	125	0	1180
Unit 7		GK-H30TC/NaA-M(E)	27 / 45.77	20	102	0	121	102	121	77/-/-	16500/-/-	125	0	1009

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

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

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

Delete: Delete the corresponding Unit;

Edit: Edit the corresponding Unit;

Copy: Copy the corresponding Unit.

## 4. Wiring

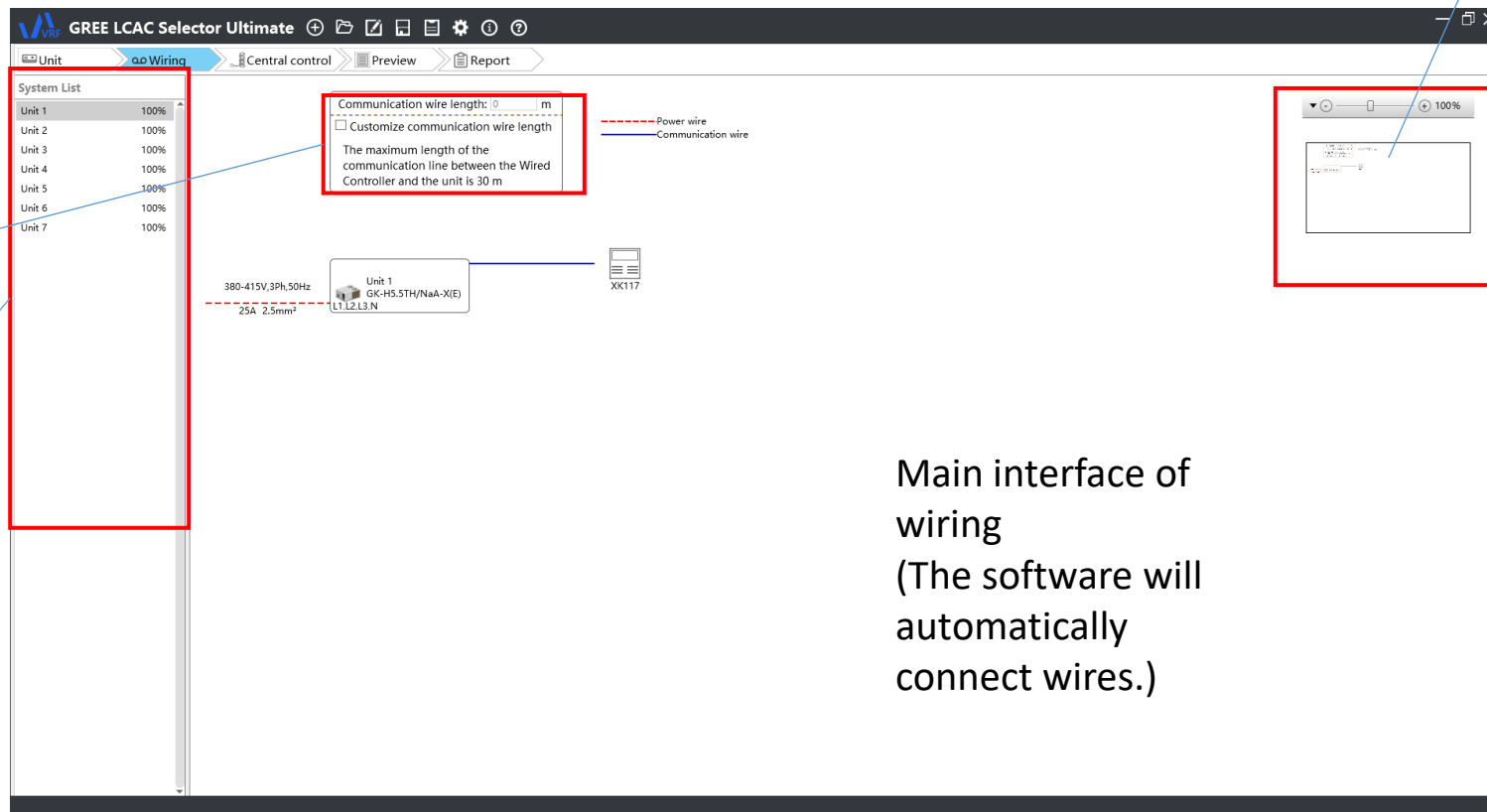
### Wiring interface

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

General view

Customize communication wire length:  
1. When it's ticked, please input the actual length of communication wire

System list



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

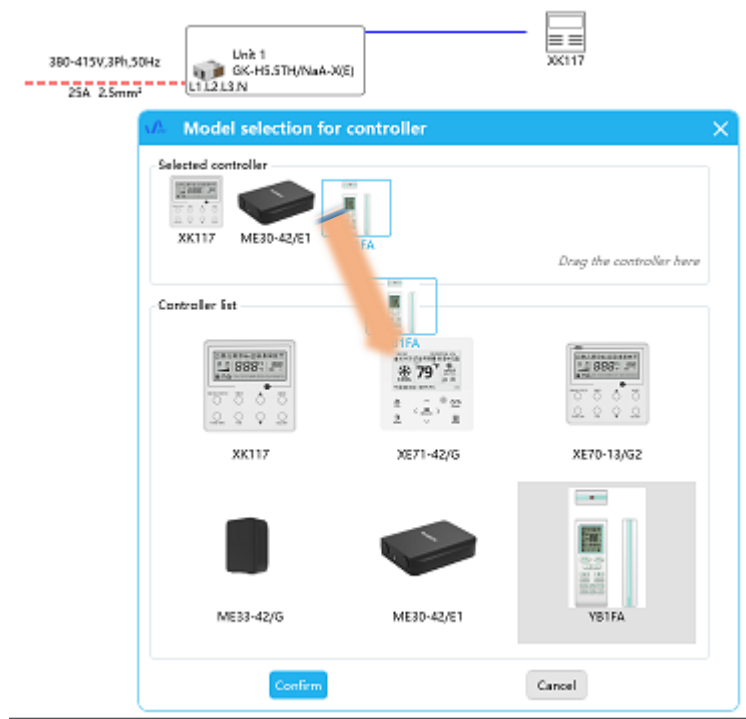
## 4. Wiring

### Controller selection

Double-click the picture of Unit 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.

## 5. Selection of central control

### Interface of central controller selection

The screenshot displays the GREE LCAC Selector Ultimate software interface. The top menu bar includes 'Unit', 'Wiring', 'Central control', 'Preview', and 'Report'. The 'Central control' tab is active. The 'System List' at the top shows five units: Unit 4, Unit 5, Unit 6, Unit 7, and Unit 1, each with 'IDU:1'.

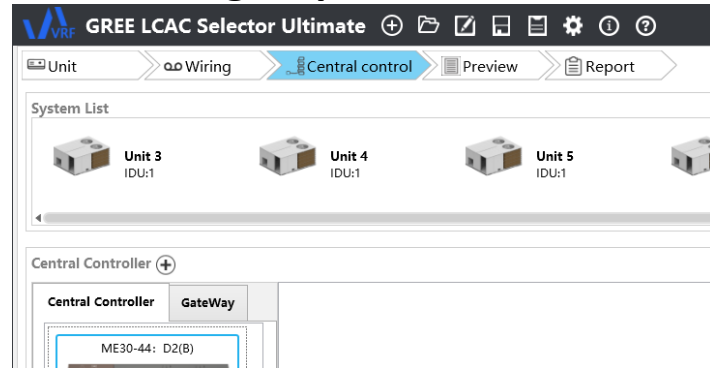
Annotations and their corresponding interface elements:

- Add a group:** Points to a '+' icon in the 'Central Controller' section.
- Central controller list:** Points to a list of two central controllers: 'ME30-44: D2(B)' and 'CE52-24/F(C)'. Each entry shows 'Max.System' and 'Max.IDU' values.
- unit list:** Points to the 'System List' at the top of the interface.
- Global control wiring:** Points to a 'Global control wiring' button in the top right corner.
- Display area of central controllers in groups:** Points to the main workspace area where units are connected to gateways and controllers.

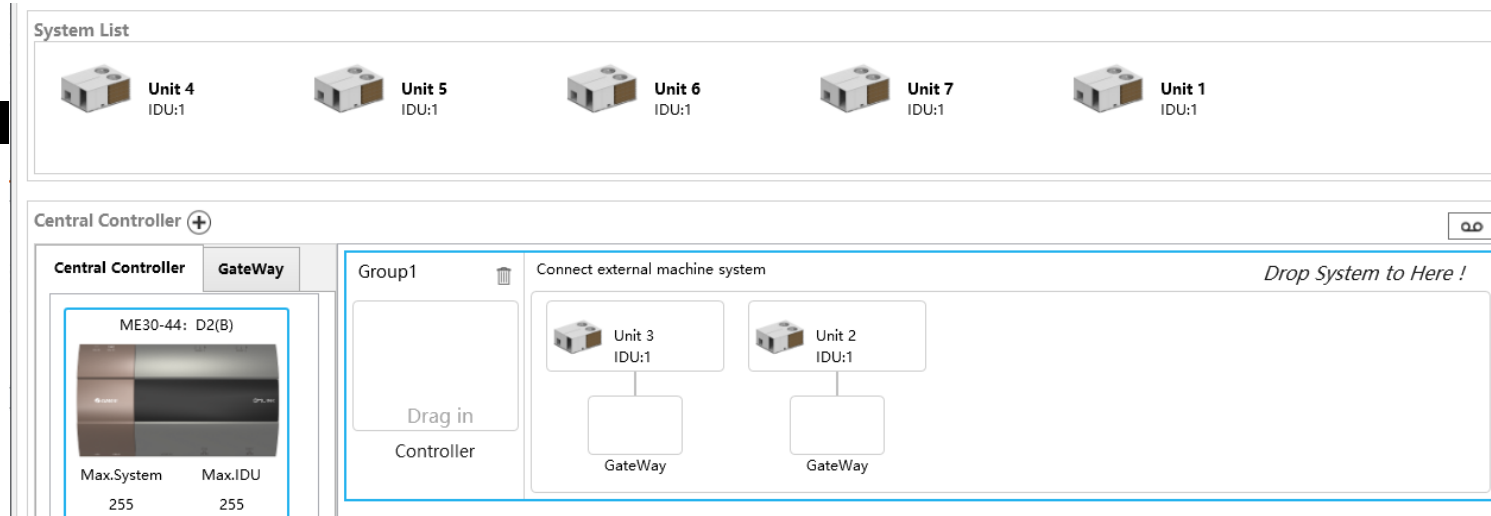
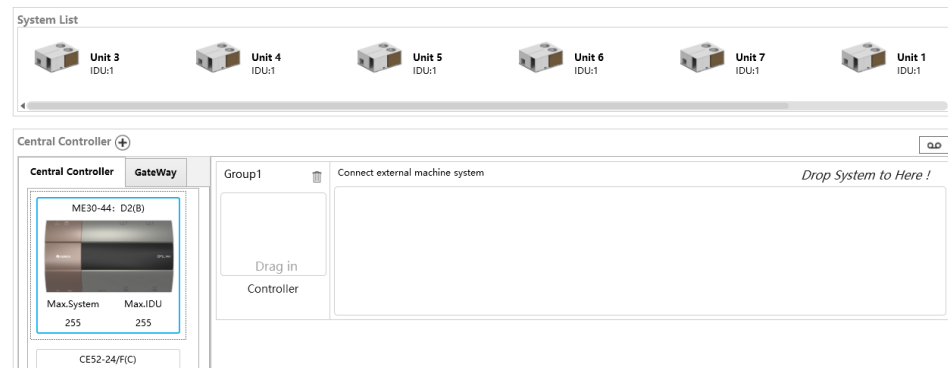
The main workspace shows a 'Group1' containing two units, 'Unit 3' and 'Unit 2', each connected to a 'GateWay'. A 'Drag in Controller' area is also visible.

## 5. 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.



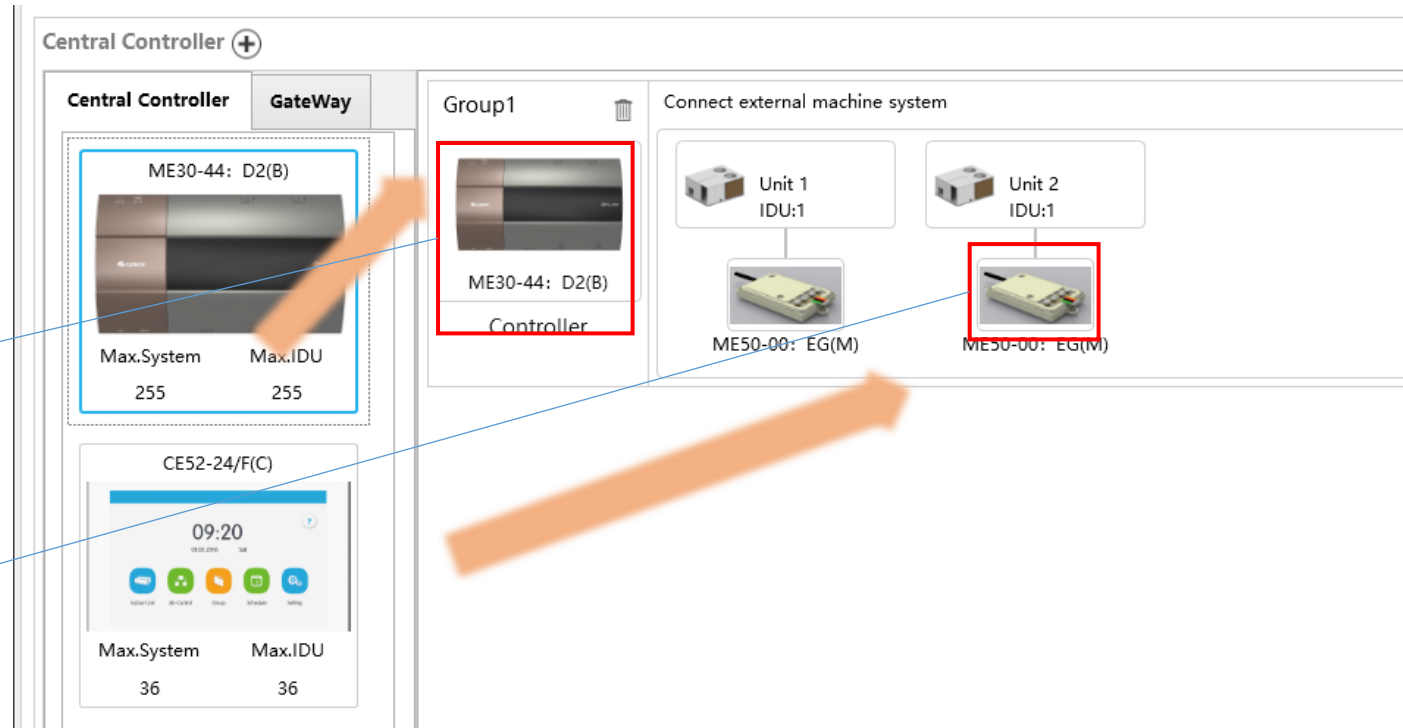
Drag the ODU system to the box of ODU connection.

## 5. Selection of central control

Add central controllers

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

GateWay

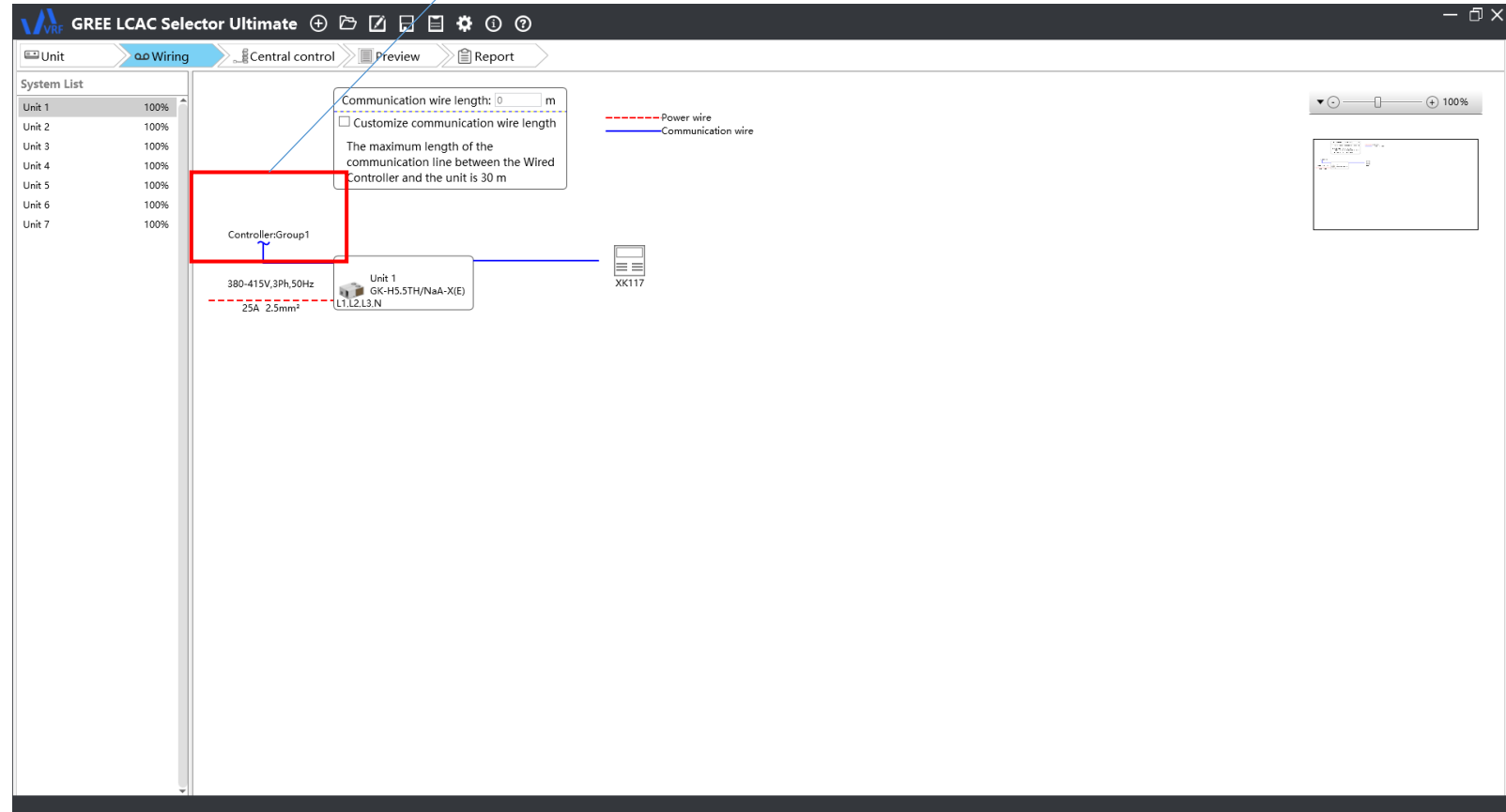


## 5. Selection of central control

### Wiring change

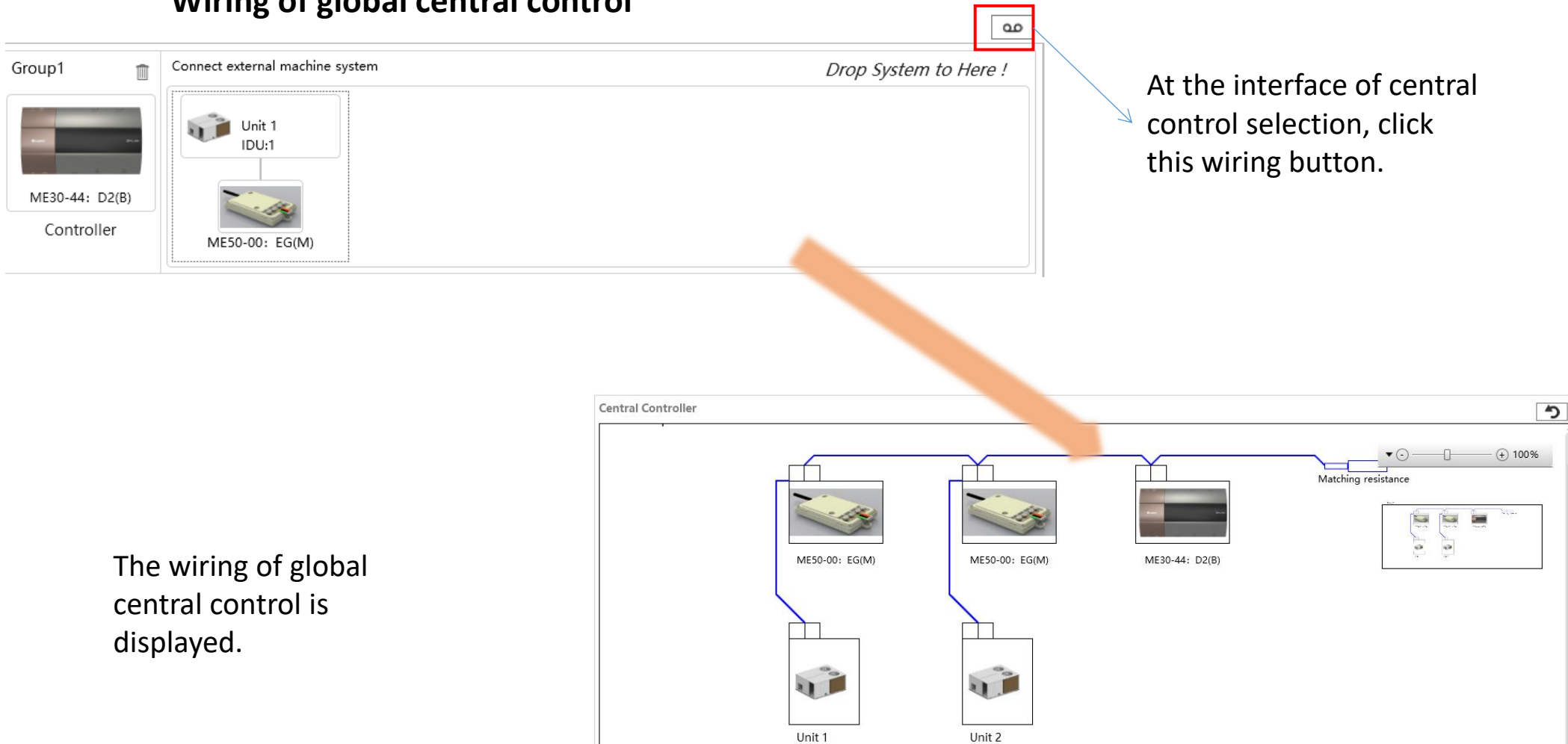
After selecting the central controllers, switch to the wiring interface at the navigation bar. The software will automatically connect the wires of central controllers in the systems.

Global central controller



## 5. Selection of central control

### Wiring of global central control



## 6.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)

The screenshot shows the GREE LCAC Selector Ultimate software interface. The top navigation bar includes tabs for Unit, Wiring, Central control, Preview, and Report. The Preview tab is currently selected. On the left sidebar, under the 'Preview' section, there is a 'Check All' checkbox and a list of units (Unit 1 to Unit 7). Unit 1 is checked. A red box highlights this sidebar area. In the top right of the main content area, there are three buttons: 'Summary', 'Preview', and 'Clear'. A red box highlights these buttons. The main content area displays the 'RoofTop Selection Report' with the GREE logo and the version '1.8.10.10'. Below the title, there are input fields for 'Project Name', 'Project Address', 'Client Name', 'Address', 'Company', and 'Tel.'. The 'Date' field is pre-filled with '2023/9/25 11:17:45'. At the bottom, a disclaimer states: 'This report is for reference only. Gree Electric Appliances, Inc. of Zhuhai shall not be responsible for the contents of the report.'

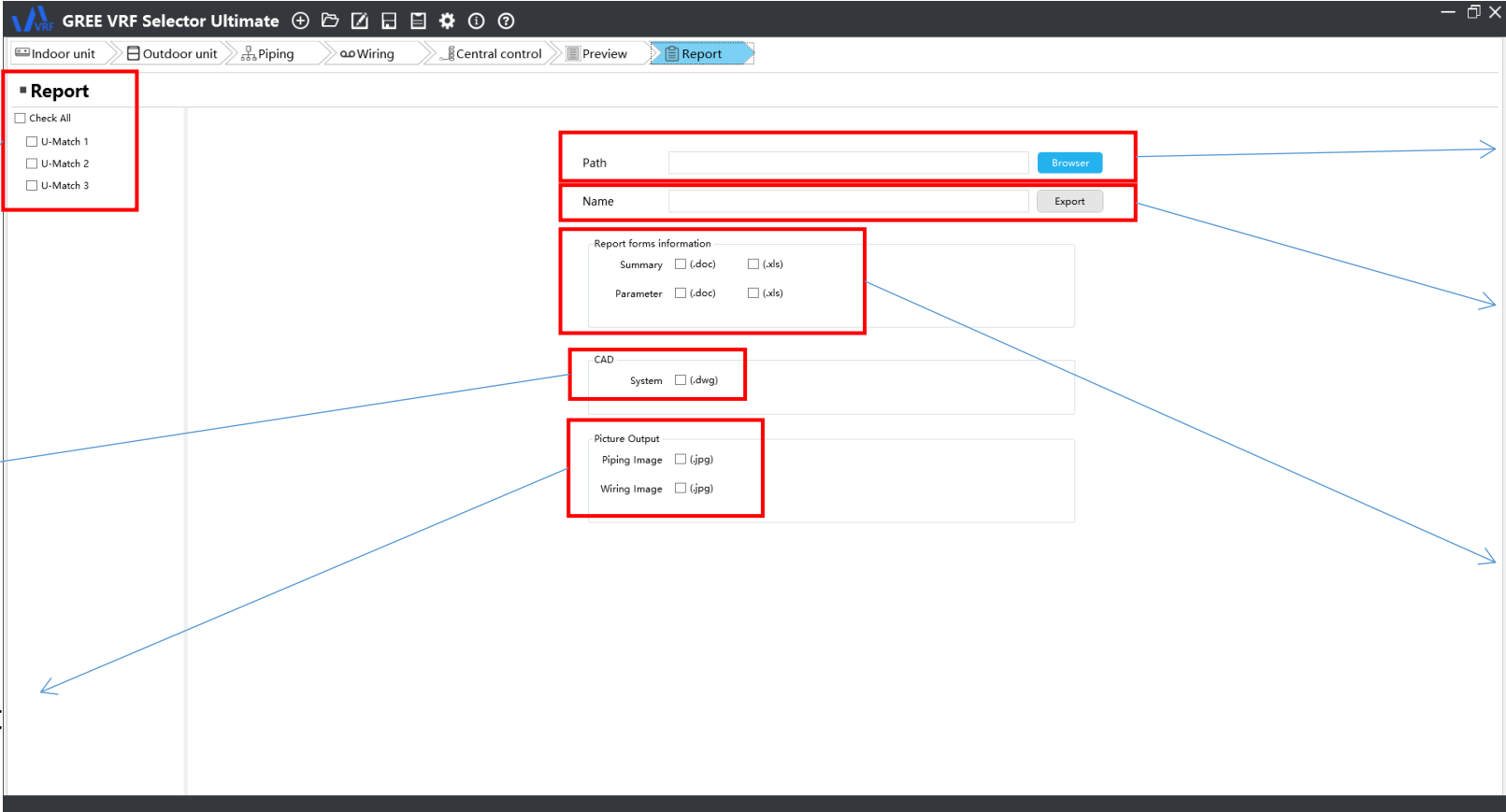
## 6. Report

### 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)



The screenshot shows the 'Report' tab in the GREE VRF Selector Ultimate software. The interface includes a sidebar with a 'Report' section containing checkboxes for 'Check All', 'U-Match 1', 'U-Match 2', and 'U-Match 3'. The main area contains several form fields: 'Path' with a 'Browse' button, 'Name' with an 'Export' button, 'Report forms information' with checkboxes for 'Summary' and 'Parameter' in both '.doc' and '.xls' formats, 'CAD' with a checkbox for 'System' in '.dwg' format, and 'Picture Output' with checkboxes for 'Piping Image' and 'Wiring Image' in '.jpg' format. Blue arrows point from the text labels to the corresponding UI elements.

Select the export path.

Enter the name of export document.

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

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

GREE

RoofTop Unit Selection Report : 5.10.10V

# RoofTop Selection Report

Project Name	□	Date	□
Project Address	□	2023/9/28 11:17:49	□
Client Name	□	Company	□
Address	□	Tel	□

This report is for reference only. GREE Electric Appliances, Inc. of Dubai shall not be responsible for the contents of the report.

21	Cable Size	Wire Gauge (AWG) × Number of Wires	22	Req. OC	Required Cooling Capacity
23	Req. OC	Required Sensible Cooling Capacity	24	Act. OC	Actual Sensible Cooling Capacity
25	Req. BC	Required Heating Capacity	26	Design EFP	Design Static Pressure
27	Design Airflow	Design Airflow Volume	28	OC Range	Range of Cooling Capacity
29	BC Range	Range of Heating Capacity	□	□	□

This report is for reference only. GREE Electric Appliances, Inc. of Dubai shall not be responsible for the contents of the report.

		RH(N)	
Cooling	Outdoor Side	35	~d
	Indoor Side	20	~d
Heating	Outdoor Side	7	~d
	Indoor Side	7	6~

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Type	□
Flow Range	□
Control	□
Capacity	□
Capacity	□
Power for Cooling	□
Power for Heating	□
Supply	□
Current (Minimum Circuit Amp)	□
Type	□

MA-X(E)

quad Unit

OC	Rtd. PI-B	Req. OC
kW	kW	kW
7.5	0	0
OC	Act. PI-B	Wolow
kW	kW	dB(A)
7.5	66	~d

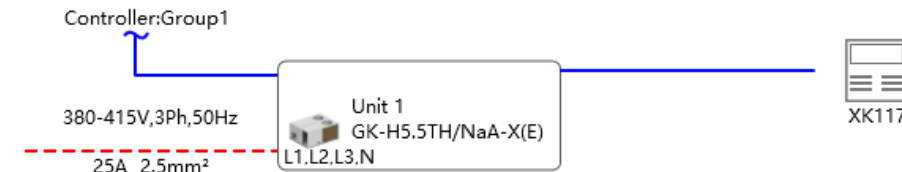
math and height differential

RE(N)

45.77

85.36

Unit 1_RoofTop_Specifications.									
Item.	Value.	Unit.							
Model.	GK-H5.5TH/Na-X(E)	—							
Series Name.	RoofTop Packaged Unit.	—							
Sound Pressure Level (H).	66.	dB(A).							
Sound Pressure Level (M).	—	dB(A).							
Sound Pressure Level (L).	—	dB(A).							
Rated Voltage.	380-415.	V.							
Rated Frequency.	50.	Hz.							
Phases.	3.	—							
Min/Max Voltage.	342/456.5.	V.							
Recommended Power Cable(Core)	5.	N.							
Fuse.	25.	A.							
Circuit Breaker.	25.	A.							
Compressor Type.	Inverter Rotary.	—							
Compressor Quantity.	1.	—							
Refrigerant.	R410A.	—							
Refrigerant Charge	5.	kg.							
Permissible Excessive Operating Pressure for the Discharge Side.	4.4.	MPa.							
Permissible Excessive Operating Pressure for the Suction Side.	2.5.	MPa.							
Maximum Allowable Pressure	4.4.	MPa.							
Isolation.	—	—							
Moisture Protection.	IPX4.	—							
Climate Type.	T3.	—							
Loading Quantity	32.	unit.							



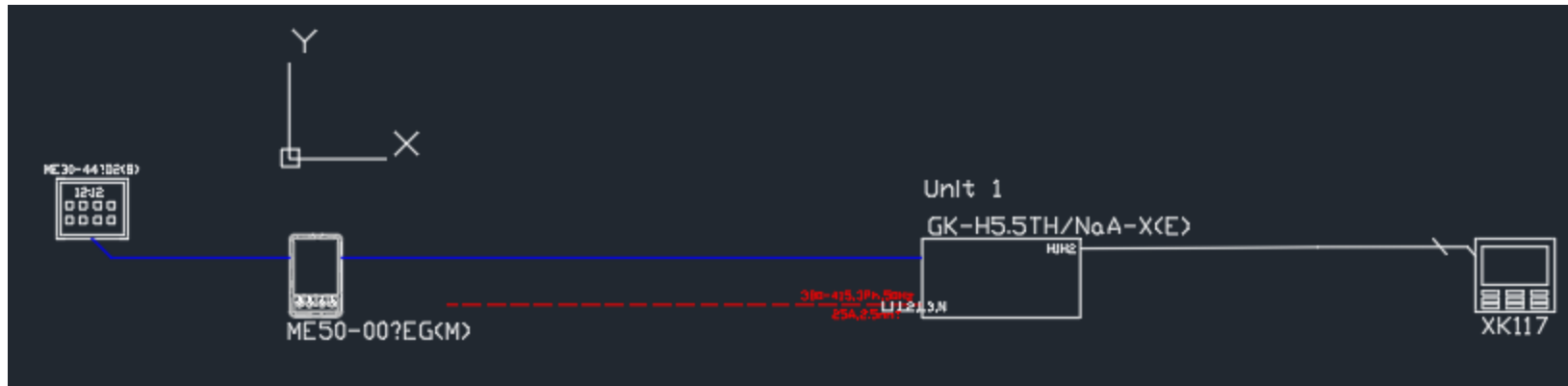
## System report

of parameters

## Wiring diagram

## 6. Report

CAD engineering diagrams



Wiring engineering  
drawing