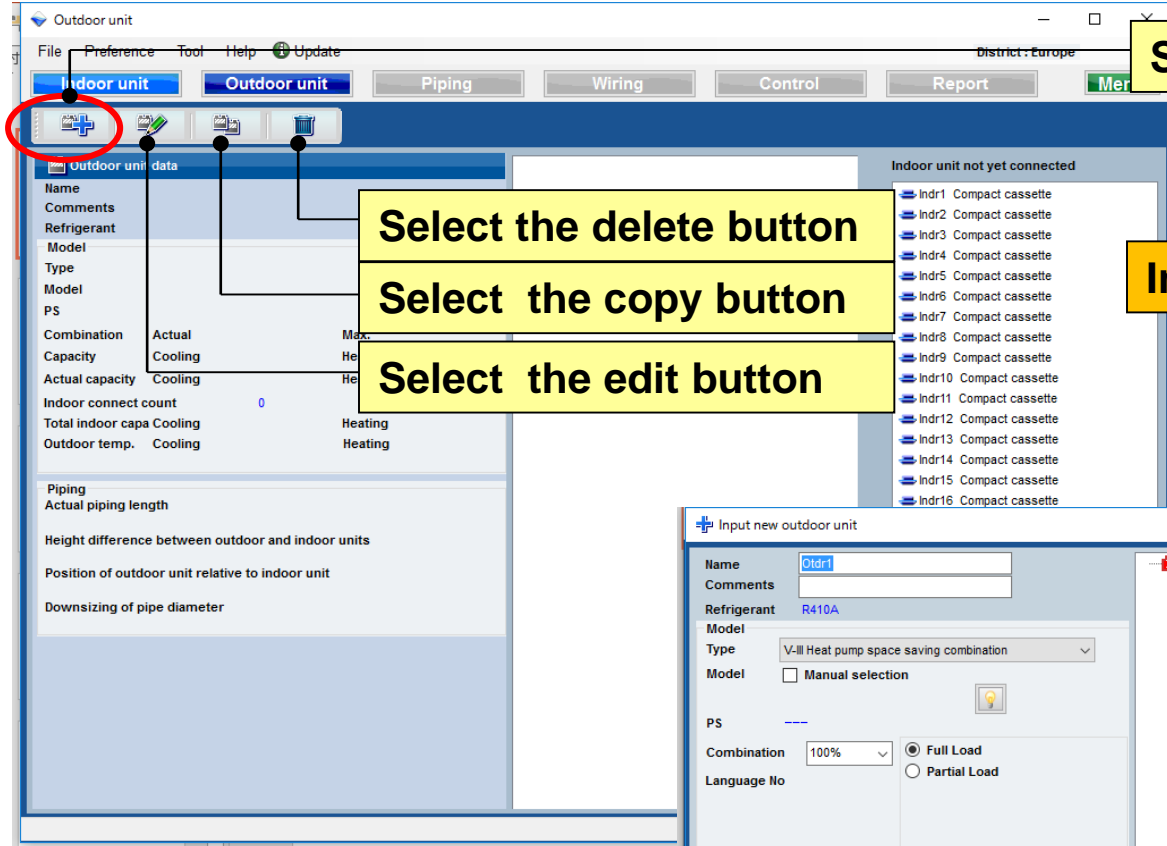


Outdoor unit settings

Design Simulator

Outdoor unit (1/4)



Select "Add new outdoor unit"

Input new outdoor unit

Name: Oldr1

Comments:

Refrigerant: R410A

Model:

Type: V-III Heat pump space saving combination

Model: ☐ Manual selection

PS: ---

Combination: 100%

Language No:

Outdoor dry bulb temperature

Cooling: C 35 Heating: C 7

Actual capacity

Cooling: 84.0 kW Heating: 94.5 kW

Piping

Actual piping length: m 7.5

Position of outdoor unit relative to indoor unit

☐ Higher ☒ Same Floor ☐ Lower

Height difference between outdoor and indoor units: m 0.0

Downsizing of pipe diameter

☐ Apply

Outdoor unit (2/4)

Input new outdoor unit

Name

Comments

Refrigerant

Model

Type

Model ☐ Manual selection

PS

Language No

Full Load ☒

Partial Load ☐

Outdoor dry bulb temperature

Cooling

Heating

Actual capacity

Cooling kW

Heating kW

Piping

Actual piping length

Position of outdoor unit relative to indoor unit

☐ Higher ☒ Same Floor ☐ Lower

Height difference between outdoor and indoor units

Downsizing of pipe diameter

☐ Apply

Partial Load operation

Cancel

Preference input name display

Input comments. (Limitation ten characters)
It is possible to write freely. (Ex. : Roof top, 1F)

Select type of outdoor unit

Select Model of outdoor unit

Outdoor capacity list

Select connected limitation. If connected limitation is exceeded, outdoor unit is automatically changed to the model above.

Select Load type

Input design conditions of outdoor unit .
If you don't decide design conditions, input it under the ratings condition of cooling "35C" and heating "7C".

Input the value of "Actual piping Length" and "Height difference".
Select position of outdoor unit relative to indoor unit. (*1)

Downsizing of pipe diameter (*1)

Partial load operation

(*1) The loss coefficient is automatically calculated.

Outdoor unit (3/4)

Red mark means outside design conditions.

Use the indoor unit registration screen to set the indoor unit to be grouped. (Drag&drop)

The model of outdoor unit and Indoor unit are selected automatically.

Input new outdoor unit

Name: Otdr1

Comments:

Refrigerant: R410A

Model: VR-II Heat Recovery space saving combination

Type: ☐ Manual selection

PS: ☒ Full Load ☐ Partial Load

Combination: 100%

Language No:

Outdoor dry bulb temperature

Cooling: C 35 Heating: C 7

Actual capacity

Cooling: 84.0 kW Heating: 94.5 kW

Piping

Actual piping length: m 7.5

Position of outdoor unit relative to indoor unit

☐ Higher ☒ Same Floor ☐ Lower

Height difference between outdoor and indoor units

m 0.0

Indoor unit not yet connected

- Indr1 Cassette
- Indr2 Cassette
- Indr3 Cassette
- Indr4 Cassette
- Indr5 Cassette
- Indr6 Cassette
- Indr7 Cassette
- Indr8 Cassette
- Indr9 Cassette
- Indr10 Cassette
- Indr11 Cassette
- Indr12 Cassette
- Indr13 Cassette
- Indr14 Cassette
- Indr15 Cassette

Partial Load operation

Cancel OK

Outdoor unit (4/4)

Input new outdoor unit

Name: Oldr1

Comments:

Refrigerant: R410A

Model: VR-II Heat Recovery space saving combination

Type: ☐ Manual selection

Model: AJY270GALH

PS: 3N, 400V, 50Hz

Combination: 100%

Language No: 100 %

Outdoor dry bulb temperature

Cooling: C 35 Heating: C 7

Actual capacity

Cooling: 84.0 kW Heating: 94.5 kW

Piping

Actual piping length: m 7.5

Position of outdoor unit relative to indoor unit

☐ Higher ☒ Same Floor ☐ Lower

Height difference between outdoor and indoor units

m 0.0

Partial Load operation

Cancel OK

Select "OK"

Outdoor unit and indoor unit product information and image display.

Model	VR-II Heat Recovery space saving combination			
Type	AJY270GALH			
Model	3N, 400V, 50Hz			
PS				
Combination	Actual	98.8%	Max.	100%
Capacity	Cooling	85.0 kW	Heating	95.0 kW
Actual capacity	Cooling	84.0 kW	Heating	94.5 kW
Indoor connect count	15			
Total indoor capa	Cooling	84.0 kW	Heating	94.5 kW
Outdoor temp.	Cooling	35C	Heating	7C
Piping				
Actual piping length	7.5m			
Height difference between outdoor and indoor units	0.0m			
Position of outdoor unit relative to indoor unit	Same Floor			



Outdoor unit settings

Design Simulator

Indoor unit

Select "Indoor unit"

Confirm detail specifications on the Indoor unit screen .

Indoor unit

File Preference Tool Help Update

Indoor unit Outdoor unit Piping Wiring

Indoor unit Future unit

Details of indoor unit

Indoor unit type image

Name	Comments	Model	Tmp C (C/°)	Tmp H (C)	Rq TC (kW)	TC (kW)	Rq SC (kW)	SC (kW)	Rq HC (kW)	HC (kW)
Indr1		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr2		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr3		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr4		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr5		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr6		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr7		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr8		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr9		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr10		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr11		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr12		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr13		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr14		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr15		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0

Indoor unit value

Model
AUXD18GALH
Capacity
5.6 kW
Fan air flow rate
High / 319.4 l/s
Sound pressure level
36 dB(A)
Input power
39 W

Indoor unit

File Preference Tool Help Update

Indoor unit Future unit

Details of indoor unit

Indoor unit type image

Name	Comments	Model	Tmp C (C/°)	Tmp H (C)	Rq TC (kW)	TC (kW)	Rq SC (kW)	SC (kW)	Rq HC (kW)	HC (kW)
Indr1		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr2		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr3		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr4		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr5		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr6		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr7		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr8		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr9		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr10		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr11		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr12		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr13		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr14		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0
Indr15		AUXD18GALH	27.0/ 43.4	20	0.5	5.0	0.5	4.1	0.5	6.0

Indoor unit value

Model
AUXD18GALH
Capacity
5.6 kW
Fan air flow rate
High / 319.4 l/s
Sound pressure level
36 dB(A)
Input power
39 W

Outdoor capacity list (1/3)

Input new outdoor unit

Name: Otdr1
Comments:
Refrigerant: R410A
Model: VR-II Heat Recovery space saving combination
Type:
Model: ☐ Manual selection
AJYA90GALH
PS: 3N, 400V, 50Hz
Combination: 100% ☒ Full Load ☐ Partial Load
Language No: 100 %

Outdoor dry bulb temperature
Cooling: C 35 Heating: C 7
Actual capacity
Cooling: 28.0 kW Heating: 31.5 kW
Piping
Actual piping length: m 7.5
Position of outdoor unit relative to indoor unit
☐ Higher ☒ Same Floor ☐ Lower
Height difference between outdoor and indoor units: m 0.0

Partial L

The connection % and capacity are calculated and the largest outdoor unit from the combination value is selected when connected.

Input new outdoor unit

Name: Otdr1
Comments:
Refrigerant: R410A
Model: VR-II Heat Recovery space saving combination
Type:
Model: ☒ Manual selection
AJYA90GALH
PS: 3N, 400V, 50Hz
Combination: 100% ☒ Full Load ☐ Partial Load
Language No: 100 %

Outdoor dry bulb temperature
Cooling: C
Actual capacity
Cooling: 28.0 kW
Piping

Outdoor capacity list

Combination (%)	HP	Capacity (kW)	Model name	Outdoor unit	Outdoor unit	Outdoor unit
100.0	10	28.0	AJYA90GALH	AJYA90GALH		
83.6	12	33.5	AJY108GALH	AJY108GALH		
70.0	14	40.0	AJY126GALH	AJY126GALH		

Upper bound: 100%
Lower bound: 70%
Calculate
Cancel OK

Use the “outdoor capacity list” to be able to specify the range of the connection % and capacity calculation ratio and to be able to select the outdoor unit from several candidates

Outdoor capacity list (2/3)

Modify outdoor unit

+ Input new outdoor unit

Name


Comments

Refrigerant R410A

Model

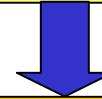
Type VR-II Heat Recovery space saving combination

Model ☒ Manual selection

AJHA72GALH 

PS 3N, 400V, 50Hz

Select "Outdoor capacity list"



Open "Outdoor capacity list"

Outdoor capacity list

Combination (%)	HP	Capacity (kW)	Model name	Outdoor unit	Outdoor unit	Outdoor unit
62.9	10	28.0	AJHA90GALH	AJHA90GALH		
52.5	12	33.5	AJH108GALH	AJH108GALH		

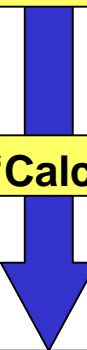
Upper bound 70%

Lower bound 50%

Calculate

Cancel OK

Select "bound"



Select "Calculation"

Outdoor units in the range are displayed in the list.

Outdoor capacity list (3/3)

Combination (%)	HP	Capacity (kW)	Model name	Outdoor unit	Outdoor unit	Outdoor unit
62.9	10	28.0	AJHA90GALH	AJHA90GALH		
52.5	12	33.5	AJH108GALH	AJH108GALH		

Select "Optimal outdoor model"

Modify outdoor unit

Name


Comments

Refrigerant R410A

Model

Type VR-II Heat Recovery space saving combination

Model ☒ Manual selection

▶ AJHA90GALH 

PS 3N, 400V, 50Hz

Combination 70%

Language No 70 %

☒ Full Load
☐ Partial Load

Outdoor dry bulb temperature

Cooling C Heating C




Actual capacity

Cooling 17.6 kW Heating 20.8 kW

Piping

Actual piping length m

Position of outdoor unit relative to indoor unit

☐ Higher 
☒ Same Floor 
☐ Lower 

Height difference between outdoor and indoor units m

Partial load function (1/6)

When Partial load is used, outdoor unit capacity can be lowered by adjusting indoor unit operation rate.

① When selected indoor unit performs 100% operation
→ Use Full load.

② Select when models are selected in consideration of non-operating indoor unit from all air conditioners. Operating ratio (%) can be set for cooling and heating.
→ Use Partial load.

③ Models are selected on the assumption that there are partial operating indoor units and 100% operating indoor units for each room.
→ Use Partial load operation.

Partial load operation (2/6)

Input new outdoor unit

Name: Otdr1

Comments:

Refrigerant: R410A

Model:

Type: VR-II Heat Recovery space saving combination

Model: ☒ Manual selection
AJHA72GALH

PS: 3N, 400V, 50Hz

Combination: 100%

Language No: 100 %

Outdoor dry bulb temperature

Cooling: C 35.0 Heating: C 7

Actual capacity

Cooling: 16.5 kW Heating: 19.5 kW

Piping

Actual piping length: m 7.5

Position of outdoor unit relative to indoor unit

☐ Higher ☒ Same Floor ☐ Lower

Height difference between outdoor and indoor units: m 0

Indoor unit not yet connected

Indr16 Compact cassette

Partial Load operation

Cancel OK

Indr1 AJHA72GALH 73.7%

Indr2 AUXB04GALH

Indr3 AUXB04GALH

Indr4 AUXB04GALH

Indr5 AUXB04GALH

Indr6 AUXB04GALH

Indr7 AUXB04GALH

Indr8 AUXB04GALH

Indr12 AUXB04GALH

Operating ratio C: 20%

Operating ratio H: 20%

Full Load

Partial Load

Select Full load

Select Partial load

*"Partial Load" value can be also set from "Preference"

Select Partial load operation

Partial load operation (3/6)

Input new outdoor unit

Name: Otdr1
Comments:
Refrigerant: R410A
Model: VR-II Heat Recovery space saving combination
Type:
Manual selection: ☒
Model: AJHA72GALH
PS: 3N, 400V, 50Hz
Combination: 100%
Language No: 100 %
Operating ratio C: 20%
Operating ratio H: 20%
Outdoor dry bulb temperature: Cooling: C 35.0 Heating: C 7
Actual capacity: Cooling: 16.5 kW Heating: 19.5 kW
Piping: Actual piping length: m 7.5
Position of outdoor unit relative to indoor unit: ☐ Higher ☒ Same Floor ☐ Lower
Height difference between outdoor and indoor units: m 0
Partial Load operation

Select "Partial load operation"



Open "Partial load operation"

Partial Load operation

Full Load operation Partial Load operation

Outdoor Model
Combination: 150%
Rated Capacity: Cooling Heating
Actual Capacity(outdoor): Cooling Heating
Actual Capacity(indoor): Cooling Heating
Partial load ratio: ☒ Operating ratio designation Cooling: 88 % Heating: 88 % ☐ Partial Indoor designation
Reset Check capacity
Cancel OK

The "Indoor / Outdoor" operating ratio can be changed

The operation ratio of all indoor units can be changed

Outdoor unit settings

Design Simulator

Partial load operation (4/6)

Partial Load operation

Full Load operation Partial Load operation

Outdoor Model

Combination

Rated Capacity

Cooling

Heating

Actual Capacity(outdoor)

Cooling

Heating

Total indoor capa.

Cooling

Heating

Actual Capacity(indoor)

Cooling

Heating

Combination: 150%

Partial load ratio

☒ Operating ratio designation

Cooling: 88 %

Heating: 88 %

☐ Partial Indoor designation

Reset

Check capacity

Cancel

OK

Select "Check capacity"



The calculation results appears.

Full Load operation Partial Load operation

Outdoor Model

Combination

Rated Capacity

Cooling

Heating

Actual Capacity(outdoor)

Cooling

Heating

Total indoor capa.

Cooling

Heating

Actual Capacity(indoor)

Cooling

Heating

Combination: 150%

Partial load ratio

☒ Operating ratio designation

Cooling: 88 %

Heating: 88 %

☐ Partial Indoor designation

Reset

Check capacity

Cancel

OK

	Full Load operation	Partial Load operation
Outdoor Model	AJY216LALBH	AJY198LALBH
Combination	132.4%	144.2%
Rated Capacity		
Cooling	68.0 kW	62.4 kW
Heating	76.5 kW	70.0 kW
Actual Capacity(outdoor)		
Cooling	69.9 kW	65.2 kW
Heating	60.6 kW	55.9 kW
Total indoor capa.		
Cooling	74.5 kW	74.5 kW
Heating	82.0 kW	82.0 kW
Actual Capacity(indoor)		
Cooling	74.5 kW	74.5 kW
Heating	60.5 kW	56 kW

The calculation results are shown.

Left: Full load operation

Right: Partial load operation

Partial load operation (5/6)

Combination
150%
150 %

Partial load ratio
☐ Operating ratio designation
☒ Partial Indoor designation

Cooling 88 %
Heating 88 %

Indoor Model	Check Cooling	Check Heating
ARXC60GATH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ARXC60GATH	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ARXC60GATH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ARXC60GATH	<input type="checkbox"/>	<input type="checkbox"/>
ARXC60GATH	<input type="checkbox"/>	<input type="checkbox"/>

Indoor Operating ratio
Check with the indoor unit is operating rate of 100%. Please enter the operating rate of the check without the indoor unit.

80 % 80 %

Reset Check capacity
Cancel OK

Select combination capacity

Select combination capacity

The operation ratio is re-calculated and displayed with the content set in "Partial indoor designation"

Check all

Select "Partial indoor designation"

Check with the indoor unit is operating rate of 100%.

Please enter the operating rate of the check without the indoor unit.

Partial load operation (6/6)

Partial Load operation

	Full Load operation	Partial Load operation
Outdoor Model	AJY216LALBH	AJY198LALBH
Combination	132.4%	144.2%
Rated Capacity		
Cooling	68.0 kW	62.4 kW
Heating	76.5 kW	70.0 kW
Actual Capacity(outdoor)		
Cooling	69.9 kW	65.2 kW
Heating	60.6 kW	55.9 kW
Total indoor capa.		
Cooling	74.5 kW	74.5 kW
Heating	82.0 kW	82.0 kW
Actual Capacity(indoor)		
Cooling	74.5 kW	74.5 kW
Heating	60.5 kW	56 kW

Combination: 150%
150 %

Partial load ratio
☐ Operating ratio designation
☒ Partial Indoor designation

Cooling: 88 %
Heating: 88 %

All All

Indoor Model	Check Cooling	Check Heating
ARXC60GATH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ARXC60GATH	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ARXC60GATH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ARXC60GATH	<input type="checkbox"/>	<input type="checkbox"/>
ARXC60GATH	<input type="checkbox"/>	<input type="checkbox"/>

Indoor Operating ratio
Check with the indoor unit is operating rate of 100%. Please enter the operating rate of the check without the indoor unit.

80 % 80 %

Reset Check capacity Cancel OK

The calculation results are shown.

Left: Full load operation

Right: Partial load operation

Downsizing of pipe diameter

Input new outdoor unit

Name: Otdr1

Comments:

Refrigerant: R410A

Model:

Type: V-III Heat pump energy efficiency combination

Model: ☐ Manual selection

PS: ---

Combination: 100% ☒ Full Load ☐ Partial Load

Language No:

Outdoor dry bulb temperature:

Cooling: C 35 Heating: C 7

Actual capacity:

Cooling: kW Heating: kW

Piping:

Actual piping length: m 7.5

Position of outdoor unit relative to indoor unit:

☐ Higher ☒ Same Floor ☐ Lower

Height difference between outdoor and indoor units: m 0.0

Downsizing of pipe diameter:

☐ Apply **Preview**

Partial Load operation

Indoor unit not yet connected:

- Indr1 Compact cassette
- Indr2 Compact cassette
- Indr3 Compact cassette
- Indr4 Compact cassette
- Indr5 Compact cassette
- Indr6 Compact cassette
- Indr7 Compact cassette
- Indr8 Compact cassette
- Indr9 Compact cassette
- Indr10 Compact cassette
- Indr20 Compact cassette
- Indr21 Compact cassette

***2: The description of the “Downsizing of pipe diameter” is described on the “Piping” screen**