

**SAMURAI SERIES**  
**AIR COOLED WATER CHILLERS AND**  
**AIR TO WATER HEAT PUMP**  
**-MODULAR-R134a-SCREW TYPE-**

**Technical Catalogue**

RCME-(40-70)AH1  
RCME-(080-210)/(2-3)AH1

RHME-(40-70)AH1  
RHME-(080-210)/(2-3)AH1





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# 1 . General information

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## 1.1 General notes

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Check and make sure that the explanations of each part of this document correspond to your model.

Refer to the models codification to confirm the main characteristics of your system.

Signal words (DANGER, CAUTION and NOTE) are used to identify levels of hazard seriousness. Definitions for identifying hazard levels are provided below with their respective signal words.

It is assumed that this unit will be operated and serviced by English speaking people. If this is not the case, the customer should add safety, caution and operating signs in the native language of the personal.

This water chiller has been designed for the working range described in the corresponding chapter.

## 1.2 Safety and applied symbols

During normal system design work or unit installation, greater attention must be paid in certain situations requiring particular care in order to avoid damage to the unit, the installation or the building or property.

Situations that jeopardise the safety of those in the surrounding area or that put the unit itself at risk will be clearly indicated in this manual.

To indicate these situations, a series of special symbols will be used to clearly identify these situations.

Pay close attention to these symbols and to the messages following them, as your safety and that of others depends on it.



### DANGER

- *The text following this symbol contains information and instructions relating directly to your safety and physical wellbeing.*
- *Not taking these instructions into account could lead to serious, very serious or even fatal injuries to you and others in the proximity of the unit.*
- *Hazards or unsafe practices which could result severe personal injury or death.*

In the texts following the danger symbol you can also find information on safe procedures during unit installation.



### CAUTION

- *The text following this symbol contains information and instructions relating directly to your safety and physical wellbeing.*
- *Not taking these instructions into account could lead to minor injuries to you and others in the proximities of the unit.*
- *Not taking these instructions into account could lead to unit damage.*

In the texts following the caution symbol you can also find information on safe procedures during unit installation.



### NOTE

- *The text following this symbol contains information or instructions that may be of use or that require a more thorough explanation.*
- *Instructions regarding inspections to be made on unit parts or systems may also be included.*

## 1.3 Product guide

### 1.3.1 Classification of water chiller models

#### ◆ Basic modules

Unit type (Modular water chiller):	RCM: Air cooled water chiller
	RHM: Air to water heat pump
E = Made in Europe	
Position-separating hyphen (fixed)	
Capacity (HP): 40, 50, 60, 70	
A = Air cooled	
H = R134a refrigerant	
Series 1	
R(C/H)M	E - XX A H 1

#### ◆ Factory built modules combinations

Unit type (Modular water chiller):	RCM	Air cooled water chiller
	RHM	Air to water heat pump
E = Made in Europe		
Position-separating hyphen (fixed)		
Total capacity (HP): 080, 090, 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210		
Position-separating slash (fixed)		
Nº of modules: 2, 3		
A = Air cooled		
H = R134a refrigerant		
Series 1		
R(C/H)M	E - XXX / X A H 1	

### 1.3.2 Product guide: Air cooled water chillers (RCME)

#### ◆ Basic modules

1



3N~ 400V 50Hz

Unit	Code
RCME-40AH1	8E041341
RCME-50AH1	8E051341
RCME-60AH1	8E061341
RCME-70AH1	8E071341

#### ◆ Factory built modules combinations



3N~ 400V 50Hz

Modules of 2 units	Code	Modules of 3 units	Code
RCME-080/2AH1	8E080201		
RCME-090/2AH1	8E090201		
RCME-100/2AH1	8E100201		
RCME-110/2AH1	8E110201		
RCME-120/2AH1	8E120201		
RCME-130/2AH1	8E130201		
RCME-140/2AH1	8E140201		
		RCME-150/3AH1	8E150301
		RCME-160/3AH1	8E160301
		RCME-170/3AH1	8E170301
		RCME-180/3AH1	8E180301
		RCME-190/3AH1	8E190301
		RCME-200/3AH1	8E200301
		RCME-210/3AH1	8E210301

### 1.3.3 Product guide: Air to water heat pump (RHME)

#### ◆ Basic modules

 3N~ 400V 50Hz	
Unit	Code
RHME-40AH1	9E041341
RHME-50AH1	9E051341
RHME-60AH1	9E061341
RHME-70AH1	9E071341

#### ◆ Factory built modules combinations

 3N~ 400V 50Hz			
Modules of 2 units	Code	Modules of 3 units	Code
RHME-080/2AH1	9E080201		
RHME-090/2AH1	9E090201		
RHME-100/2AH1	9E100201		
RHME-110/2AH1	9E110201		
RHME-120/2AH1	9E120201		
RHME-130/2AH1	9E130201		
RHME-140/2AH1	9E140201		
		RHME-150/3AH1	9E150301
		RHME-160/3AH1	9E160301
		RHME-170/3AH1	9E170301
		RHME-180/3AH1	9E180301
		RHME-190/3AH1	9E190301
		RHME-200/3AH1	9E200301
		RHME-210/3AH1	9E210301

## 2. Features and benefits

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## 2.1 Air Cooled Water Chiller RCME-AH1 and Air to Water Heat Pump RHME-AH1

HITACHI is a world leader in technology and with continual product research and development, which offers the new screw type Air Cooled Chillers RCME-AH1 and Air to Water Heat Pump RHME-AH1 series, from 95 kW to 1400 kW in cooling operation and from 92 kW to 1104 kW in heating operation.

### ◆ Unit picture



### ◆ New product line

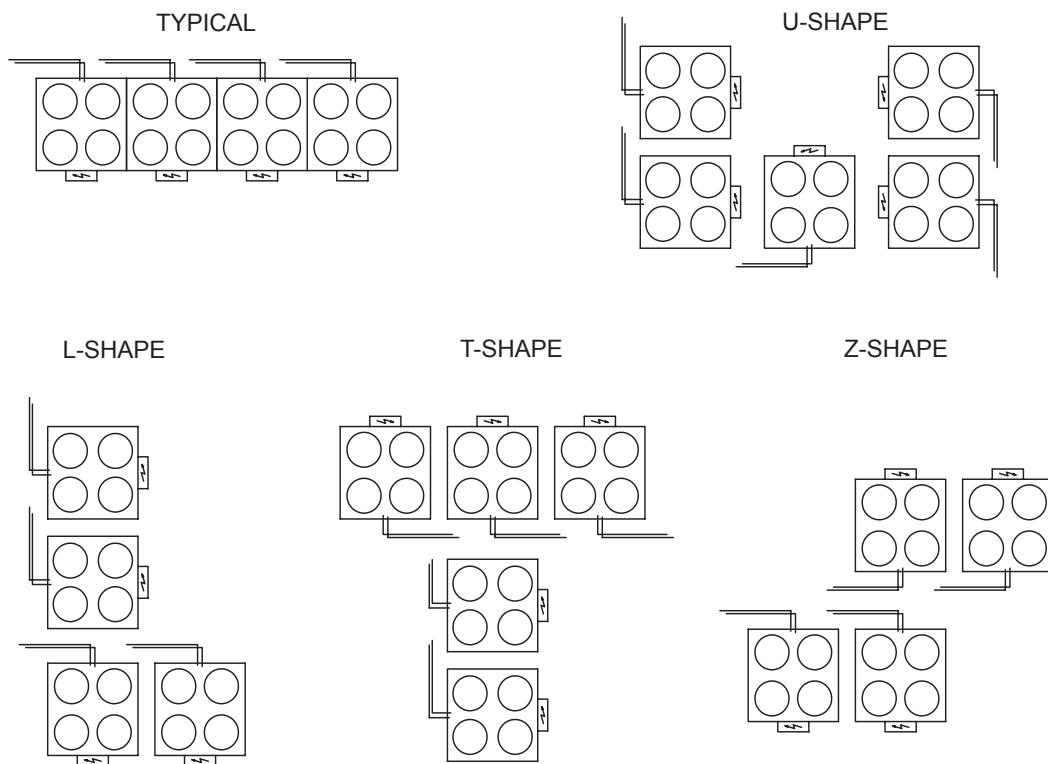
This new product line, with 4 basic modules of 40HP, 50HP, 60HP and 70HP, available in two different series of cooling only models and Heat Pump models, does not only increase the capacity range of the HITACHI Water Chillers but also the Seasonal Efficiency to respond to the needs of the market.

### ◆ Flexible space installation

Modular concept provides greater flexibility at the time of installation.

The only restriction is to keep the service space.

Some installation examples are as follows:



## 2.2 Modules combination

4 basic modules are available: 40HP, 50HP, 60HP and 70HP.

By combining these 4 modules higher capacity units can be achieved. In such units one module will be set as Master and the rest as Slaves. All the modules will operate as one single system.



### NOTE

Possible module combinations are: 40HP with 50HP, 50HP with 60HP and 60HP with 70HP. Other combinations will be not allowed due to possible poor water distribution.

The maximum number of modules to be combined is 8, without any additional controller.



Additionally, it is possible to combine Heat Pump models with Cooling-only models. When both series are mixed, a Heat Pump unit must be set as Master. When cooling mode is requested, all modules operate for water cooling; when hot water is requested, only the Heat Pump models operate heating up water.

### ◆ Operating modes

There are 2 running modes available as standard, through unit setting:

Standard mode:

- Steady water outlet temperature: all compressors running at the same load.

High efficiency mode:

- Compressors start/stop smart control.

### ◆ Modules combination advantages

Modules combination system offers several advantages

- Optimisation of the efficiency at any load by stopping/starting up to 8 continuous capacity control compressors through a smart unit control. (if High efficiency mode is selected).
- Customer can "customize" the unit based on "energy saving", "price" or "installation space".

#### Example of 600kW modules combination:

	Capacity	ESEER	Length	Price
6 x 40HP	570 kW	<b>4.62</b>	12m	Higher
4 x 60HP	572 kW	4.20	<b>8m</b>	<b>Lower</b>

Both combinations have almost the same capacity.

If customer is interested in high efficiency he will choose 6 x 40HP.

If customer is interested in unit length or low price he will choose 4 x 60HP.

- Flexibility in running mode: customer can put priority on efficiency or on stable water outlet temperature by unit setting.
- Possibility to add modules and expand the total capacity of the unit if installation load is increased later on.
- Redundancy: each module has its own compressor, refrigerant circuit and controller, therefore in case of 1 module failure, the rest can keep on running.

HITACHI offers as an option the possibility of providing up to 3 modules already connected from factory side.

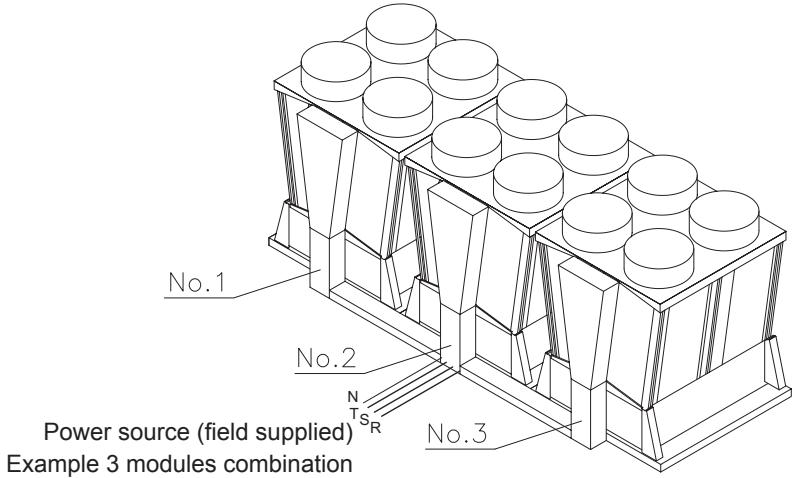
### 2.2.1 Factory built modules combinations

Up to 3 modules can be supplied connected (structure and electrical) from the factory



Customer is required connect power source cables only in one module.

- If 2 modules: connect to module No.1
- If 3 modules: connect to module No.2



Power wirings and control wiring between modules are factory built.

Common water pipe is also available as an accessory upon request.

Factory pre-assembled combinations available, in up to 14 varieties, as shown in the table:

◆ **Air cooled water chillers (RCME)**

Factory Build modules		No. 1	No. 2	No. 3
2 - modules	RCME-080/2AH1	RCME-40AH1	RCME-40AH1	
	RCME-090/2AH1	RCME-40AH1	RCME-50AH1	
	RCME-100/2AH1	RCME-50AH1	RCME-50AH1	
	RCME-110/2AH1	RCME-50AH1	RCME-60AH1	
	RCME-120/2AH1	RCME-60AH1	RCME-60AH1	
	RCME-130/2AH1	RCME-60AH1	RCME-70AH1	
	RCME-140/2AH1	RCME-70AH1	RCME-70AH1	
3 - modules	RCME-150/3AH1	RCME-50AH1	RCME-50AH1	RCME-50AH1
	RCME-160/3AH1	RCME-50AH1	RCME-50AH1	RCME-60AH1
	RCME-170/3AH1	RCME-50AH1	RCME-60AH1	RCME-60AH1
	RCME-180/3AH1	RCME-60AH1	RCME-60AH1	RCME-60AH1
	RCME-190/3AH1	RCME-60AH1	RCME-60AH1	RCME-70AH1
	RCME-200/3AH1	RCME-60AH1	RCME-70AH1	RCME-70AH1
	RCME-210/3AH1	RCME-70AH1	RCME-70AH1	RCME-70AH1

◆ **Air to water heat pump (RHME)**

Factory Build modules		No. 1	No. 2	No. 3
2 - modules	RHME-080/2AH1	RHME-40AH1	RHME-40AH1	
	RHME-090/2AH1	RHME-40AH1	RHME-50AH1	
	RHME-100/2AH1	RHME-50AH1	RHME-50AH1	
	RHME-110/2AH1	RHME-50AH1	RHME-60AH1	
	RHME-120/2AH1	RHME-60AH1	RHME-60AH1	
	RHME-130/2AH1	RHME-60AH1	RHME-70AH1	
	RHME-140/2AH1	RHME-70AH1	RHME-70AH1	
3 - modules	RHME-150/3AH1	RHME-50AH1	RHME-50AH1	RHME-50AH1
	RHME-160/3AH1	RHME-50AH1	RHME-50AH1	RHME-60AH1
	RHME-170/3AH1	RHME-50AH1	RHME-60AH1	RHME-60AH1
	RHME-180/3AH1	RHME-60AH1	RHME-60AH1	RHME-60AH1
	RHME-190/3AH1	RHME-60AH1	RHME-60AH1	RHME-70AH1
	RHME-200/3AH1	RHME-60AH1	RHME-70AH1	RHME-70AH1
	RHME-210/3AH1	RHME-70AH1	RHME-70AH1	RHME-70AH1

## 2.2.2 On-site module combinations

The following units and units combinations can be installed on site.



### NOTE

Possible module combinations are: 40HP with 50HP, 50HP with 60HP and 60HP with 70HP. Other combinations will be not allowed due to possible poor water distribution.

#### ◆ Air cooled water chillers

	HP	No. 1	No. 2	No. 3	No. 4
Individual	40	R(C/H)ME-40AH1			
	50	R(C/H)ME-50AH1			
	60	R(C/H)ME-60AH1			
	70	R(C/H)ME-70AH1			
2 - modules	80	R(C/H)ME-40AH1	R(C/H)ME-40AH1		
	90	R(C/H)ME-40AH1	R(C/H)ME-50AH1		
	100	R(C/H)ME-50AH1	R(C/H)ME-50AH1		
	110	R(C/H)ME-50AH1	R(C/H)ME-60AH1		
	120	R(C/H)ME-60AH1	R(C/H)ME-60AH1		
	130	R(C/H)ME-60AH1	R(C/H)ME-70AH1		
	140	R(C/H)ME-70AH1	R(C/H)ME-70AH1		
3 - modules	120	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	
	130	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	
	140	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	
	150	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	
	160	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	
	170	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	
	180	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	
	190	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	
	200	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	
	210	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	
4 - modules	160	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1
	170	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1
	180	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	190	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	200	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	210	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1
	220	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	230	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	240	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	250	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1
	260	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	270	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	280	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1

HP	No. 1	No. 2	No. 3	No. 4	No. 5	No. 6
5 - modules	200	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1
	210	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1
	220	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	230	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	240	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	250	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	260	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1
	270	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	280	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	290	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	300	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	310	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1
	320	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	330	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	340	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	350	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
6 - modules	240	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1
	250	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1
	260	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	270	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	280	R(C/H)ME-40AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	290	R(C/H)ME-40AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	300	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	310	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1
	320	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	330	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	340	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	350	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	360	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	370	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1
	380	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1
	390	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	400	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	410	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	420	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1



## 2.3 High efficiency class

All modules are Eurovent class A or B in terms of EER and class A,B or C in terms of COP.

◆ **Full load and partial load efficiencies are as follows:**

- Individual modules

	cooling operation			
	EER	ESEER	EER	ESEER
	without Pump		with Pump	
RCME-40AH1	3.68	4.54	3.63	4.39
RCME-50AH1	3.51	4.34	3.47	4.21
RCME-60AH1	3.19	4.25	3.16	4.14
RCME-70AH1	3.21	4.28	3.18	4.15

	cooling operation				heating operation		
	EER	ESEER	EER	ESEER	COP	COP	SCOP
	without Pump		with Pump		without Pump	with Pump	
RHME-40AH1	3.40	4.10	3.37	4.01	3.22	3.20	3.22
RHME-50AH1	3.25	3.91	3.22	3.84	3.07	3.06	3.10
RHME-60AH1	2.96	3.84	2.94	3.77	2.83	2.82	2.98
RHME-70AH1	2.95	3.83	2.93	3.75	2.83	2.82	2.98



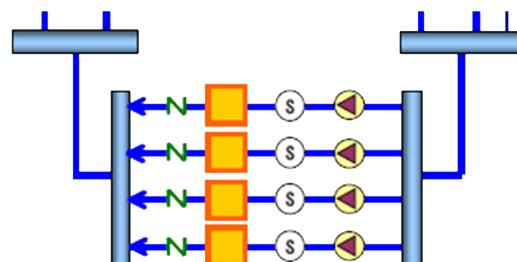
**NOTE**

SCOP figures are based on Low Temperature application in Average climate, according to the European Standard EN 14825.

- Factory built combinations

- a. High efficiency mode.

Oriented to optimize the seasonal efficiency. Individual water pump shall be installed for each module.



The installation of an individual pump for each module together with the smart control unit results in improved seasonal efficiency. Efficiencies will be as follows:

	cooling operation			
	EER	ESEER	EER	ESEER
	without Pump		with Pump	
RCME-080/2AH1	3.68	4.95	3.63	4.76
RCME-090/2AH1	3.58	4.94	3.54	4.72
RCME-100/2AH1	3.51	4.73	3.47	4.56
RCME-110/2AH1	3.33	4.71	3.30	4.60
RCME-120/2AH1	3.19	4.57	3.16	4.46
RCME-130/2AH1	3.20	4.60	3.17	4.49
RCME-140/2AH1	3.21	4.59	3.18	4.48
RCME-150/3AH1	3.51	4.89	3.47	4.79
RCME-160/3AH1	3.38	4.84	3.35	4.75
RCME-170/3AH1	3.28	4.76	3.25	4.68
RCME-180/3AH1	3.19	4.65	3.16	4.58
RCME-190/3AH1	3.20	4.69	3.17	4.57
RCME-200/3AH1	3.21	4.70	3.17	4.61
RCME-210/3AH1	3.21	4.68	3.18	4.59

	cooling operation				heating operation	
	EER	ESEER	EER	ESEER	COP	COP
	without Pump		with Pump		without Pump	with Pump
RHME-080/2AH1	3.40	4.42	3.37	4.34	3.22	3.20
RHME-090/2AH1	3.31	4.37	3.29	4.30	3.14	3.12
RHME-100/2AH1	3.25	4.22	3.22	4.15	3.07	3.06
RHME-110/2AH1	3.08	4.26	3.06	4.18	2.93	2.92
RHME-120/2AH1	2.96	4.12	2.94	4.06	2.83	2.82
RHME-130/2AH1	2.95	4.14	2.93	4.07	2.83	2.82
RHME-140/2AH1	2.95	4.11	2.93	4.04	2.83	2.82
RHME-150/3AH1	3.25	4.41	3.22	4.35	3.07	3.06
RHME-160/3AH1	3.13	4.36	3.11	4.31	2.98	2.96
RHME-170/3AH1	3.04	4.30	3.02	4.24	2.89	2.88
RHME-180/3AH1	2.96	4.20	2.94	4.15	2.83	2.82
RHME-190/3AH1	2.95	4.20	2.93	4.14	2.83	2.82
RHME-200/3AH1	2.95	4.21	2.93	4.15	2.83	2.82
RHME-210/3AH1	2.95	4.19	2.93	4.13	2.83	2.82

**NOTE**

Data with pump are according to EN14511-3:2011 Standard.

In case of module combinations, in high efficiency mode, the seasonal efficiencies can be improved thanks to the smart unit control.

RCME	cooling operation	
	ESEER (2~8 modules)	
	without Pump	with Pump
40HP combinations	4,90 ~ 5,13	4,76 ~ 5,02
50HP combinations	4,68 ~ 4,90	4,56 ~ 4,80
60HP combinations	4,57 ~ 4,69	4,46 ~ 4,61
70HP combinations	4,59 ~ 4,72	4,48 ~ 4,62

RCME	cooling operation	
	ESEER (2~8 modules)	
	without Pump	with Pump
40HP combinations	4,57 ~ 4,63	4,49 ~ 4,56
50HP combinations	4,36 ~ 4,42	4,30 ~ 4,36
60HP combinations	4,20 ~ 4,24	4,13 ~ 4,18
70HP combinations	4,19 ~ 4,23	4,12 ~ 4,16

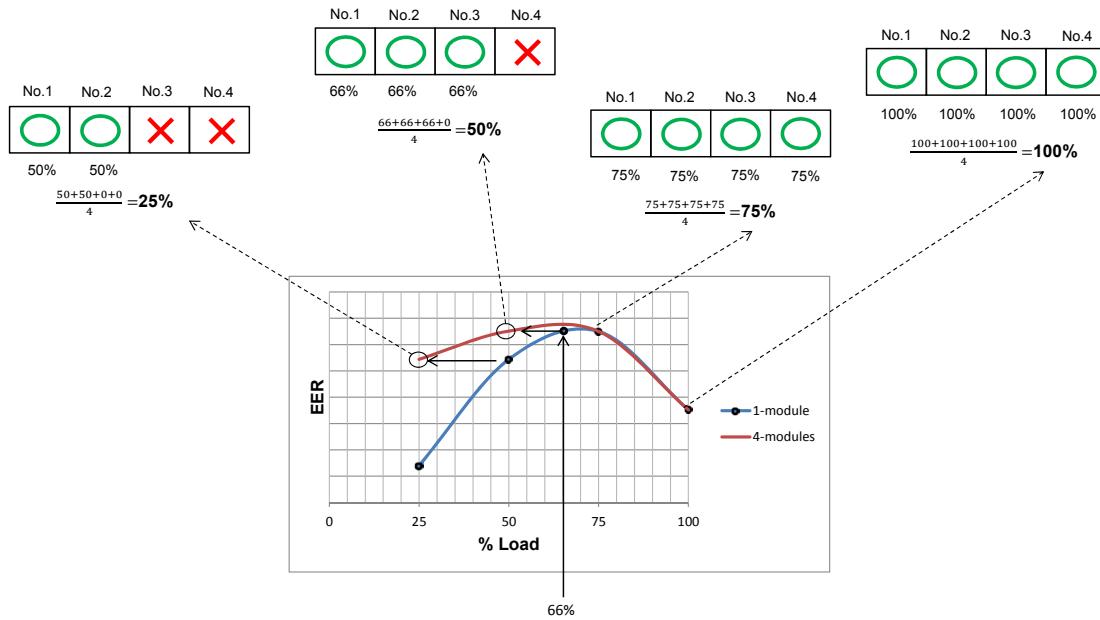


## NOTE

### Smart unit control

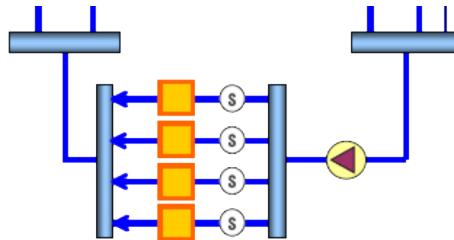
The control is stopping and starting compressors in order to ensure that the compressors which are running are at the optimum load in terms of efficiency.

Example of 4-modules unit:



**b. Standard mode**

Oriented to put priority on achieving steady water outlet temperature. 1 water pump shall be installed for all the modules.



Efficiencies will be as follows (with 1 unique pump for all the modules):

	cooling operation			
	EER	ESEER	EER	ESEER
	without Pump		with Pump	
RCME-080/2AH1	3.68	4.54	3.64	4.42
RCME-090/2AH1	3.58	4.43	3.55	4.32
RCME-100/2AH1	3.51	4.34	3.48	4.24
RCME-110/2AH1	3.33	4.28	3.30	4.19
RCME-120/2AH1	3.19	4.25	3.17	4.16
RCME-130/2AH1	3.20	4.26	3.18	4.17
RCME-140/2AH1	3.21	4.28	3.18	4.17
RCME-150/3AH1	3.51	4.34	3.48	4.25
RCME-160/3AH1	3.38	4.30	3.36	4.22
RCME-170/3AH1	3.28	4.27	3.26	4.19
RCME-180/3AH1	3.19	4.25	3.17	4.17
RCME-190/3AH1	3.20	4.26	3.18	4.18
RCME-200/3AH1	3.21	4.27	3.18	4.18
RCME-210/3AH1	3.21	4.28	3.19	4.19

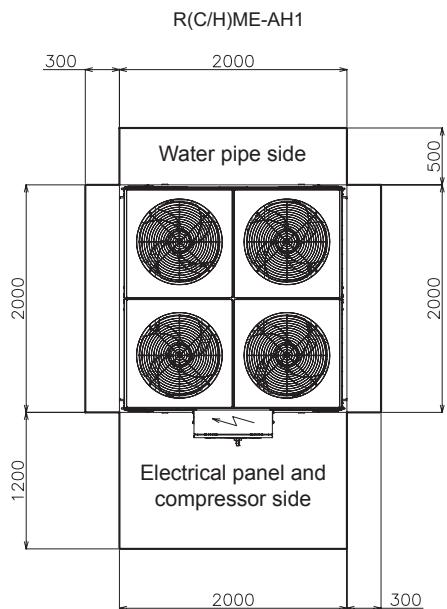
	cooling operation				heating operation	
	EER	ESEER	EER	ESEER	COP	COP
	without Pump		with Pump		without Pump	with Pump
RHME-080/2AH1	3.40	4.10	3.38	4.02	3.22	3.21
RHME-090/2AH1	3.31	3.99	3.29	3.93	3.14	3.13
RHME-100/2AH1	3.25	3.91	3.23	3.85	3.07	3.06
RHME-110/2AH1	3.08	3.87	3.07	3.81	2.93	2.92
RHME-120/2AH1	2.96	3.84	2.94	3.78	2.83	2.82
RHME-130/2AH1	2.95	3.83	2.94	3.77	2.83	2.82
RHME-140/2AH1	2.95	3.83	2.93	3.76	2.83	2.82
RHME-150/3AH1	3.25	3.91	3.23	3.86	3.07	3.07
RHME-160/3AH1	3.13	3.88	3.12	3.83	2.98	2.97
RHME-170/3AH1	3.04	3.86	3.02	3.81	2.89	2.89
RHME-180/3AH1	2.96	3.84	2.94	3.79	2.83	2.82
RHME-190/3AH1	2.95	3.84	2.94	3.78	2.83	2.82
RHME-200/3AH1	2.95	3.83	2.94	3.78	2.83	2.82
RHME-210/3AH1	2.95	3.83	2.93	3.77	2.83	2.82


**NOTE**

Data with pump are according to EN14511-3:2011 Standard.

## 2.4 Small service space

The compressor and the electrical panel are located at the same side of the unit and therefore the service space is reduced as follows:



2

## 2.5 Control

HITACHI Controls have been developed to achieve the best performance of the units and the interaction with the user.

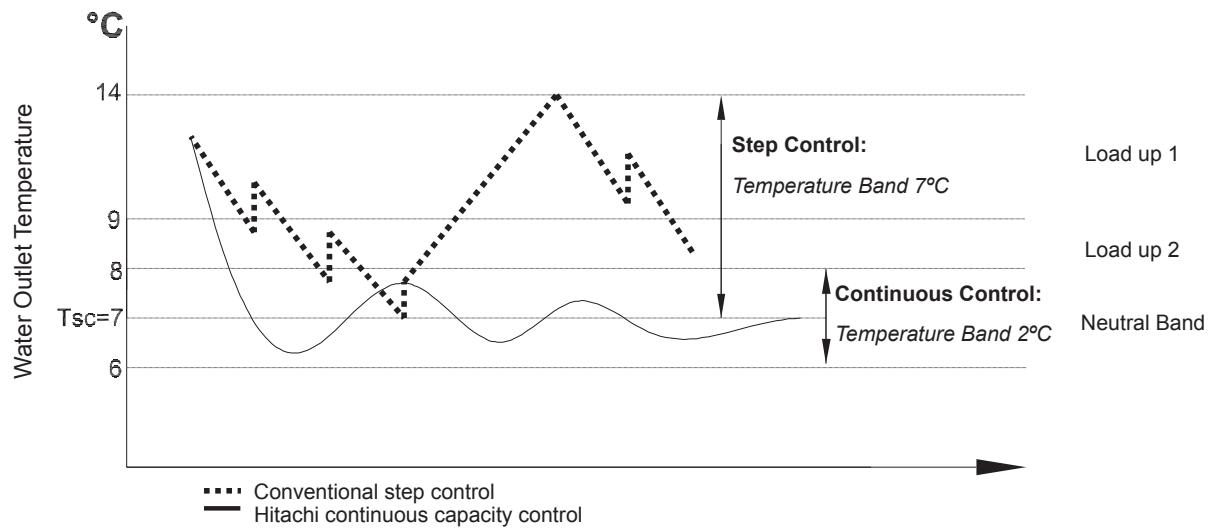
### ◆ Many functions

- a. Current limiter
- b. Forced compressor load control
- c. 2 different temperatures setting
- d. Various fan speed control
- e. Memory data in alarm
- f. Automatic restart after power failure
- g. Output signal for free cooling application
- h. External thermostat operation, etc...

### ◆ Precise temperature control

Combinations of “Continuous Capacity Control Compressor” and “HITACHI’s unique electronic controls” enable the Chiller to control outlet water temperature precisely, independent of cooling load.

This control benefits not only Air-conditioning but also industrial process use.



Conventional step control  
Hitachi continuous capacity control

## 2.6 LCD Touch Panel

Each HITACHI module of RCME-AH1 and RHME-AH1 series are equipped with a user-friendly colour touch panel which allows:

- Visualize the unit parameters like unit status, cycle temperatures and pressures, compressor running hours, alarm codes and descriptions, etc...
- Set the unit configuration: water outlet temperature, high efficiency mode, etc... for adapting the unit to each specific application and thus optimizing the performance of the unit.

### ◆ Main specifications

- 3.5" display size
- TFT display type
- 320 x 240 pixels (QVGA)
- 65.536 colours
- 8-level brightness
- Available in several languages



2

### ◆ Main functions

<p>1 Display status of the unit, pump, fan, alarm, warnings</p>		
<p>2 Display unit conditions: temperature, pressure, etc...</p>		
<p>3 Adjust settings using up/down arrow keys</p>		
<p>4 Display up to 10 recent alarms and store detailed condition for the last 3 ones</p>		

## 2.7 R134a Refrigerant

The unit will be charged with R134a refrigerant.

Main advantages against R407C:

- This refrigerant has no fractionation (change in composition of a refrigerant mixture by e.g. evaporation of the more volatile component(s) or condensation of the less volatile component(s)).
- Lower Global Warming Power (GWP):

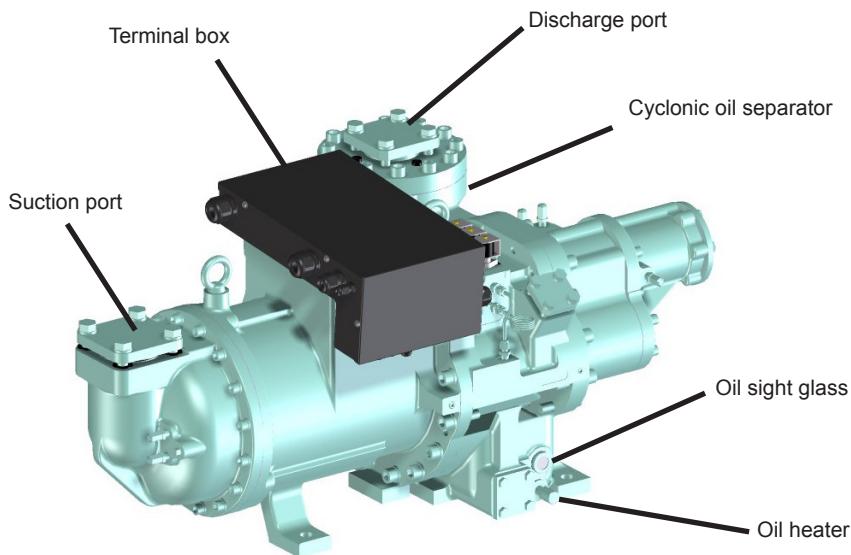
R410A	R407C	R134a
2088	1774	<b>1430</b>

## 2.8 New Compressor

The HITACHI Samurai range incorporates a new twin screw compressor optimized for R134a refrigerant and the latest development of Hitachi's screw compressor technology with the Hitachi's Infinity Capacity Control from 25% to 100%.

Thanks to this modulation the compressor load is always matching with the requested load, and thus accurate chilled water temperature is achieved without expensive inverter devices.

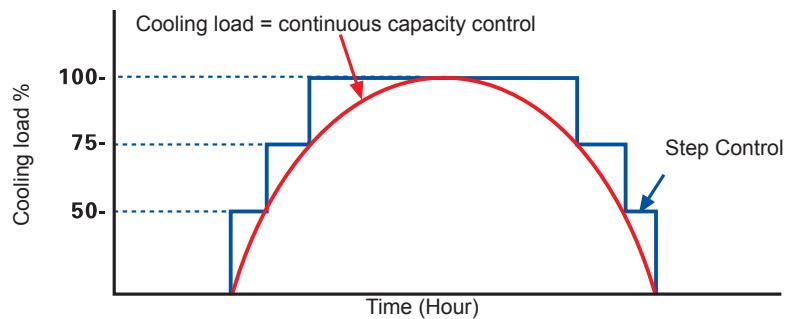
- Cyclonic oil separator to reduce oil carry over and increase efficiency
- The bearing has been improved and the recommended overhaul timing is now expanded from 24.000h to 40.000h.
- Additional oil port.
- New rotor
- Light casing



### ◆ Infinity capacity control

HITACHI's Infinity Capacity Control system uses advanced electronic controls to position the infinitely variable slide valve within each compressor.

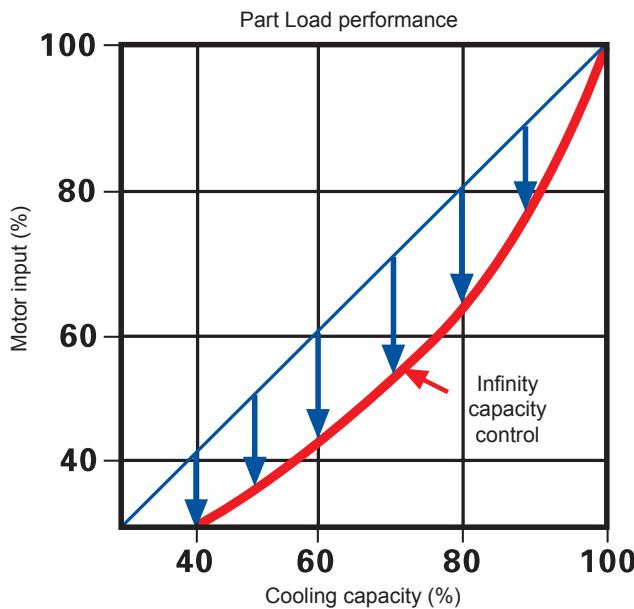
This modulation allows exact load control and accurate chilled water temperature without the need for expensive inverters.



### ◆ Energy Saving

Thanks to Infinity Capacity Control, 15~20% energy saving is possible compared with current step control systems due to the following:

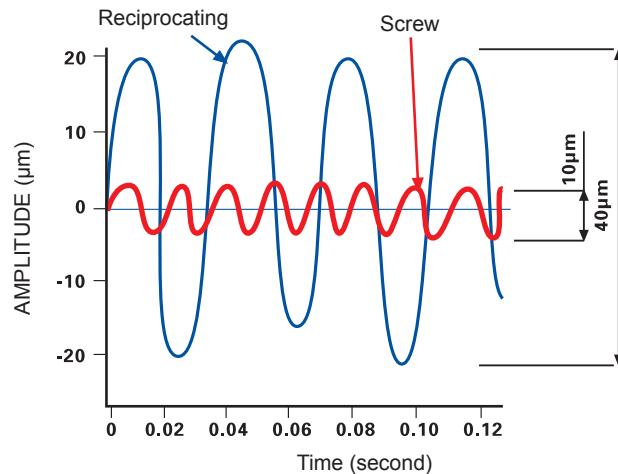
- The cooling load can be more closely matched
- Continuous Capacity Control takes advantage of high efficiency part load performance.
- Frequent compressor starts and stops are eliminated.



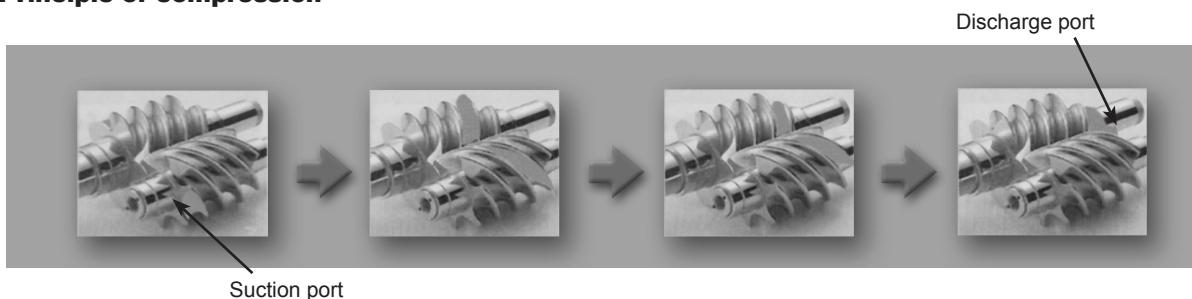
### ◆ Twin screw compressor

By having so few moving parts, it has become highly reliable with very low noise level and low vibration.

#### LOW VIBRATION



### ◆ Principle of compression

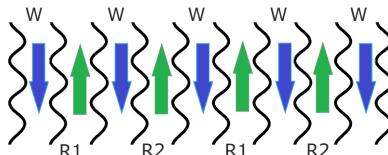


## 2.9 New True Dual brazed plate heat exchangers

RCME-AH1 and RHME-AH1 series are designed with a brazed plate heat exchanger "true dual type" system, which have 2 refrigerant inlets to improve the distribution of the gas/liquid mixture inside the evaporator.

Highly efficient and very compact solution for cooling systems, allowing an accurate control of evaporation temperature.

Cross-section view of the channels inside a True Dual Type.



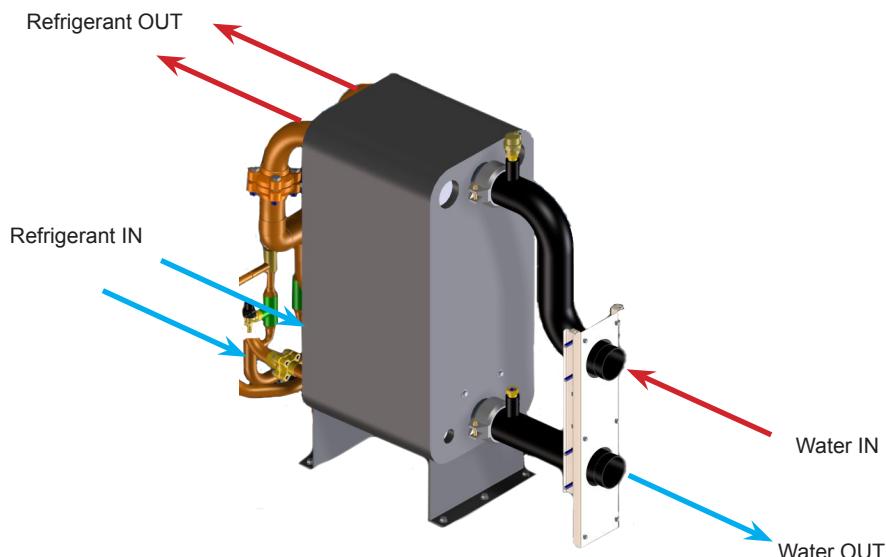
### NOTE

- W: Water
- Refrigerant lines are separated in two lines (R1 and R2) for each module.
  - R1: Refrigerant circuit 1
  - R2: Refrigerant circuit 2

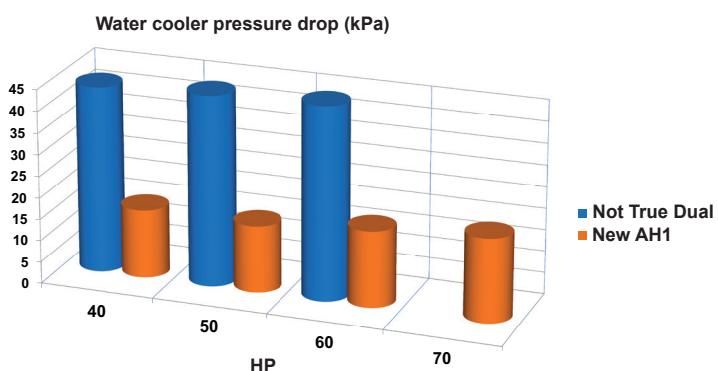
Additionally the pressure drop is reduced significantly. Low pressure drop on the water side, low pump input power, giving improved ESEER and EER figures.

Made of stainless steel AISI316 for higher corrosion resistance.

Easier disassembly thanks to flange connections on refrigerant side and screw couplings on water side.



- Improvement of the pressure drop (example)

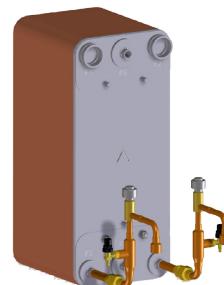


## 2.10 Twin Electronic Expansion Valve per Circuit

The electronic expansion valve provides reduced power consumption compared to the classical system of thermostatic expansion valve types, and combined with sophisticated control it offers an accurate adjustment of the refrigerant circuit at any condition.

The double electronic expansion valves system ensures equal distribution to both inlets of the plate heat exchanger.

Hitachi furnishes electronic expansion valves as standard, whereas it is usually an optional extra in the case of competitors.



## 2.11 EC Fan motor

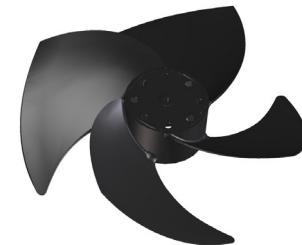
All fan motors are inverter type, getting less power consumption and higher efficiency of the unit.

Thanks to the capability of regulating the rotation speed (rpm) by changing the frequency, the condensing temperature can be kept at an optimized level at any condition.

Hitachi furnishes EC fan motors as standard, whereas it is usually an optional extra in the case of competitors.

### ◆ Propeller

- 4 blades propeller fan, specially designed for this unit, is bigger (710mm diameter) aiming to the best efficiency.
- Hitachi uses high technology to achieve the lowest sound. The new four bladed propeller specially designed for this unit achieves a reduction of noise level, increases air flow volume, and at the same time provides an important reduction of motor power input aiming to the best efficiency.
- Made of light but impact resistant material.



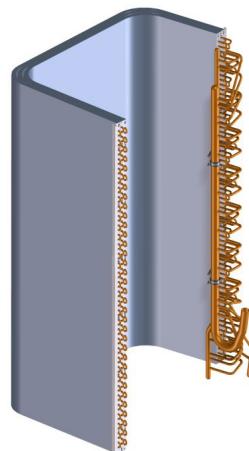
## 2.12 U-shaped Air Heat Exchangers

The new Chiller takes advantage of latest technology applied in the Modular Set Free series by using the same air heat exchangers.

"U"-shaped style brings more than 20% more exchange surface compared traditional flat heat exchangers.

7mm diameter copper pipes for higher heat transfer ratio.

Additional sub-cooling circuit to increase the seasonal efficiency by keeping proper subcool even at low load conditions.

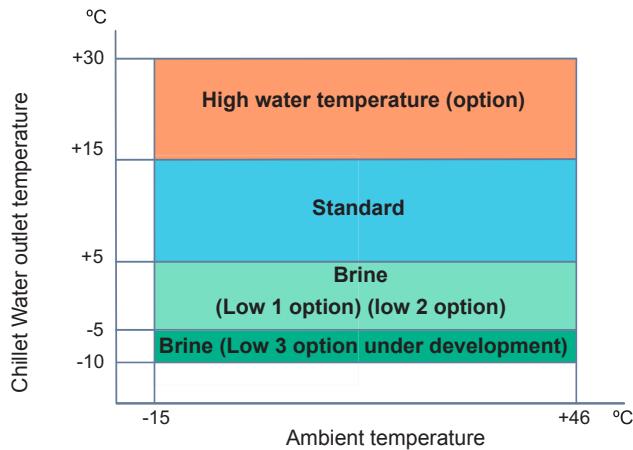


The chiller constructive form with heat exchanger placement, inclined respect the fans, allow better air distributions along all heat exchanger surface.

## 2.13 Working range options

Chilled water outlet temperature range, in cooling operation, is increased offering a high and low water outlet temperature, as an option.

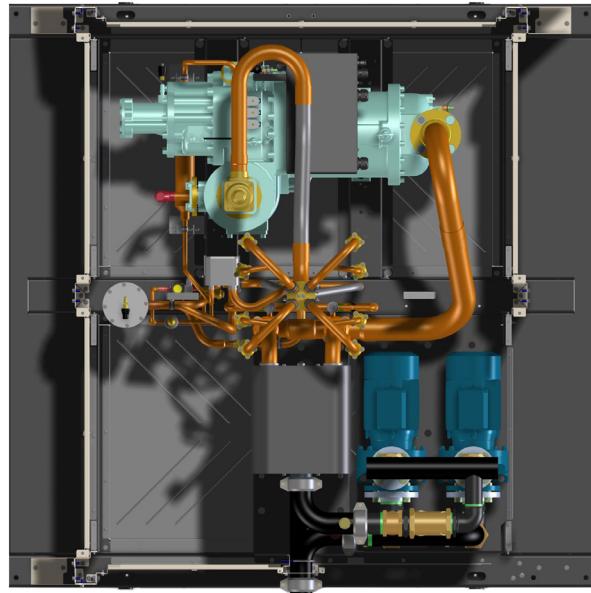
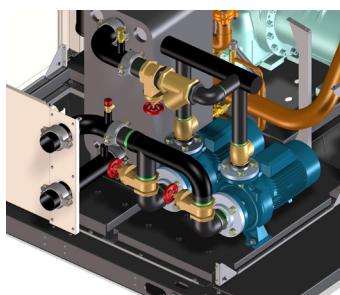
### ◆ R(C/H)ME-AH1 (cooling operation)



## 2.14 New options

### ◆ Pump kit

- A new pump kit can be supplied assembled at factory integrated in the unit
- 2 possibilities: single pump or double pump
- 2 different pump sizes.
- Filter, safety valve, air purge are included.
- Shut off valves before and after the pumps for easier maintenance/servicing.
- Additional valve for regulating the water flow.



### ◆ Heavy anticorrosion air heat exchanger

Special anti-corrosion treatment on the copper/Aluminium air heat exchangers for larger endurance for 3500 hours in specific high corrosion environments.

### ◆ Heavy anticorrosion structure

For 1440 hours endurance. This option includes the "Heavy anticorrosion air heat exchanger"

### ◆ Super Low Noise

Reduction of 2dB(A) of the unit sound power further to the "Low Noise option".

### ◆ Leak Detection

Unit is stopped and refrigerant confined inside Air Heat Exchangers

### ◆ Power cable routing

Covers and connectors are assembled to simplify the connection of the module-to-module cables

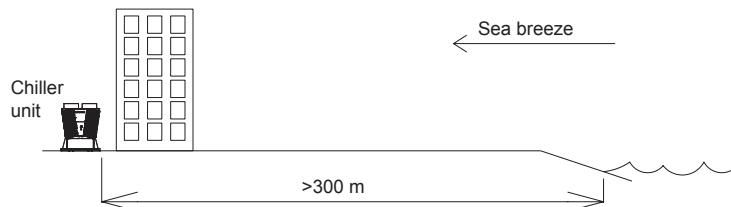
## 2.15 Options and accessories

### 2.15.1 Improvement of protection against corrosion

#### ◆ Standard unit

The protection of the components of standard units allows withstanding 480h in salty spray test according to DIN50021-SS.

The unit shall be located at a distance greater than 300m from the seaside, and shall not be exposed to direct sea breeze.



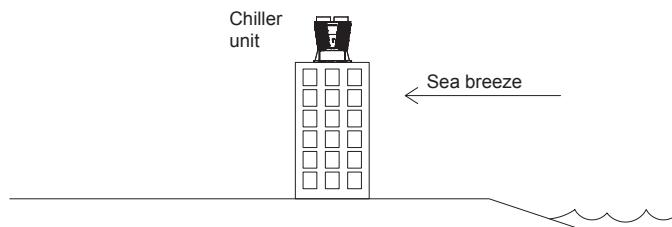
2

#### ◆ Heavy corrosion option

The components of the units are protected to withstand 1440h in salty spray test according to DIN50021-SS.

Typical installation environments (in temperate climates) are industrial areas with high humidity and aggressive atmosphere, and coastal and offshore areas with high salinity.

The unit can be located close to the seaside, and can be exposed to direct sea breeze. However, the unit shall be protected from direct contact with salty water.



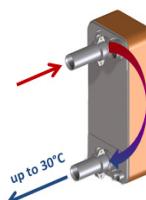
### 2.15.2 High water outlet temperature option

The maximum water outlet temperature is increased from 15°C up to 30°C.

The software will automatically change the superheat target aiming to decrease the suction pressure and optimize the performance.

The water pipe is changed from carbon steel to stainless steel to reduce pipes erosion.

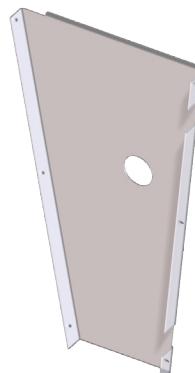
An additional 2 litres charge of oil is made to protect the compressor, especially under overload conditions.



### 2.15.3 Electrical box lower safety cover

This accessory provides additional protection for the electrical Box components by adding a strong and impact resistant polyester cover.

Thanks to this cover, the electrical components located behind the lower door of the electrical box cannot be touched accidentally.



### 2.15.4 Power Meter

This device is used to visualize electrical data of the unit like: power consumption, current, frequency, power factor, voltage phase to phase and phase to neutral. Assembled at factory (inside electrical box).

With hour counter integrated.

Communication port protocol: Modbus, RS485 interface

This device is used to visualize electrical data of the unit like:

- Power Consumption (active/reactive).
- Voltage (V) voltage phase to phase and phase to neutral
- Current (I), frequency (Hz), power factor, etc...
- Average, maximum and instant values.
- Hour counter integrated.
- etc...



### 2.15.5 Magnetic circuit breaker

Application of Thermal Magnetic Circuit Breakers (MCB) instead of Fuses to protect the Fans and Compressor motors.

MCB offers better magnetic protection as these devices are adjustable, as well as complementary thermal protection to the overcurrent relay.

Thanks to this option, in case of some trouble, it is not necessary to change any part, just reset the MCB device and start the unit again.



### 2.15.6 Water flow switch

The Water Flow Switch is a safety device used to avoid the chiller running when the system water flow is insufficient or stopped, and therefore avoid water freezing inside the Plate Heat Exchanger.

Thanks to this device, the unit can be protected under several conditions like pump stopped or locked, pipe clogging, dirty Plate Heat Exchanger, and so on.

It shall be installed at site at the water pipe of the customer (either inlet or outlet pipe).



### 2.15.7 Water strainer

Units equipped with Plate Heat Exchangers are very sensitive to clogging and consequently could potentially freeze and be permanently damaged unless special care is taken.

The Water Strainer is a safety device used to protect the Plate Heat Exchanger against dirty water.

It shall be installed on site at the inlet water pipe of the system.



### 2.15.8 Common water pipe

The Common Water Pipe collects water from each module (up to 3), providing a single water inlet and outlet connections.

Thanks to this accessory the water distribution is equal to each module, avoiding bad water distribution that could cause unit malfunction.

The maximum allowable pressure is 16bar.



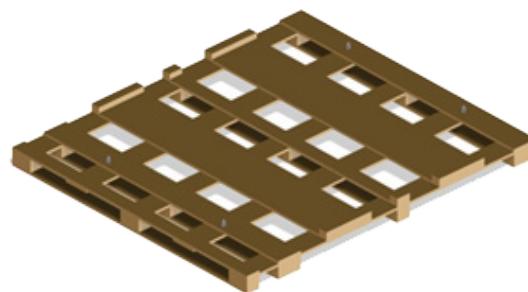
### 2.15.9 Wood base

Additional Wood Base under the unit (130mm height).

Thanks to the Wood Base it is possible to load/unload the whole unit using a fork lift.

Note: Wooden base is required when removal of the chiller unit from the transport vehicle by crane is not possible

Applicable only when is purchased an individual module units:  
R(C/H)ME-40AH1, R(C/H)ME-50AH1, R(C/H)ME-60AH1  
and R(C/H)ME- 70AH1.



### 2.15.10 Dual safety valve

Additional safety valve assembled together with a changeover valve.

Thanks to this option one safety valve can be taken out (for servicing, repairing, etc...) without emptying the refrigerant circuit, while the other valve is enabled and therefore protecting the unit against high pressure condition.



### 2.15.11 Discharge and suction valve

Assemble Shut-off valve on the compressor discharge and suction line, just after the Check Valve.

Thanks to this option the refrigerant cycle can be closed and compressor maintenance made easier.



### 2.15.12 Water cooler heater

This option includes an electric heater installed around both Plate Heat Exchangers to heat up the internal water volume and protect them against freezing.

The heater is activated when the unit is stopped, and is protecting the Plate Heat Exchangers in case of low ambient temperatures as well as low water temperatures.



### 2.15.13 Stainless steel water pipe

Application of stainless steel to the water piping of the unit instead of using carbon steel pipes.

Corrosion of the water pipes will be considerably reduced.

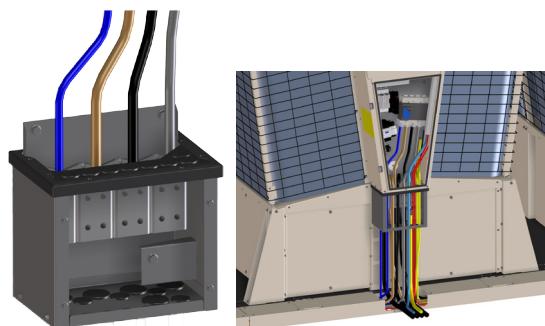
Less potential erosion of the pipes due to the greater hardness of the stainless steel against carbon steel.



### 2.15.14 Kit for electrical power connections

Kit for electrical power connections for simplifying the electrical connections module-to-module (Maximum 3 modules).

Applicable only when is purchased an individual module units: R(C/H)ME-40AH1, R(C/H)ME-50AH1, R(C/H)ME-60AH1 and R(C/H)ME-70AH1. In the case of factory built configuration with 2 or 3 modules, the kit is supplied as standard.

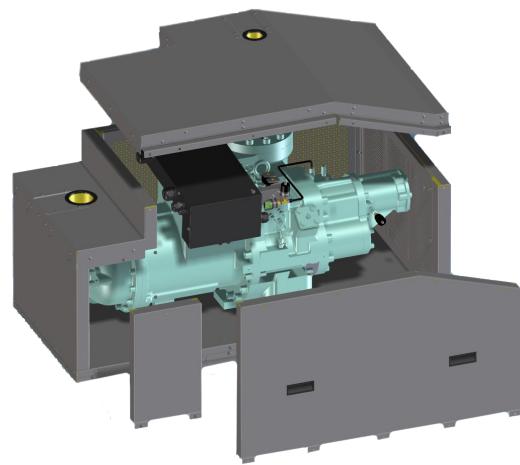
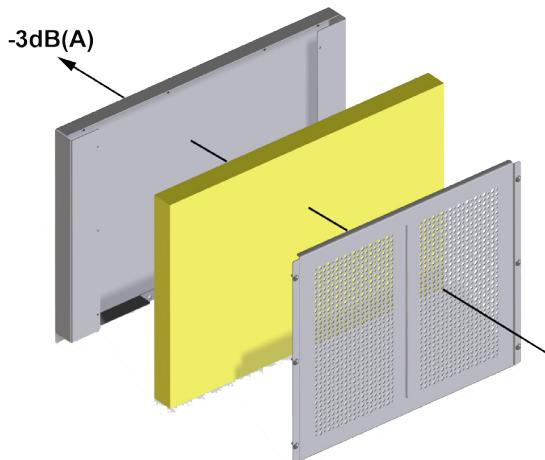


### 2.15.15 Low noise

3dB(A) less compared to the standard unit, without any decrease in performance or operating range.

Compressor enclosure assembled for reducing the sound of the compressor.

Sandwich panel with special acoustic material to reduce the sound transmission as well as the sound absorption.



### 2.15.16 Differential water pressure switch

The differential pressure Switch is a safety device used to avoid the chiller running when the system water flow is insufficient, and therefore avoid water freezing inside the Plate Heat Exchanger.

It measures the water pressure difference between water inlet and water outlet.

Thanks to this device, the unit can be protected under several conditions like pump stopped or locked, pipe clogging, dirty Plate Heat Exchanger, etc...



### 2.15.17 Antivibration Rubber Mat

The Antivibration Rubber Mat is a set of 2 pieces of rubber used to reduce the transmission of the unit vibrations to the ground.

Thanks to this accessory, the vibration isolation grade achieved will be between 70% and 85%, depending on the model.

It shall be installed at site between the base of the unit and the ground.



### 2.15.18 Antivibration Spring System

The Antivibration Spring System is used to reduce the transmission of the unit vibrations to the ground.

Thanks to this accessory, the vibration isolation grade achieved will be 95%.

It shall be installed at site between the base of the unit and the ground. Only for single modules



### 2.15.19 Water Flange Connection

The Water Flange Connection (PN16) is a set of 4 steel flanges that converts the standard water pipe connection type (both Victaulic type and welded type) into flange connection.

It shall be installed at site on both the unit water pipes and customer water pipes (both inlet and outlet pipes).

The maximum allowable pressure is 16bar.



### 2.15.20 Modbus Gateway CHL-MBS-02

This device is used to integrate the chiller units in a building management system (BMS) using MODBUS communication protocol.

Possible to manage:

- Switch unit ON/OFF
- Fix setting temperature
- Select cooling/heating
- Several units data monitoring



### 2.15.21 Bacnet Gateway CHL-BAC-01

This device is used to integrate the chiller units in a building management system (BMS) using BHACNET communication protocol.

Possible to manage:

- Switch unit ON/OFF
- Fix setting temperature
- Select cooling/heating
- Several units data monitoring





# 3 . General data

3

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## 3.1 RCME-AH1 General Data

### 3.1.1 General notes for RCME-AH1

The following considerations are identified in the General Data tables by their corresponding number:

- (1) Data is based on the following conditions:

Pump input not included

In cooling operation:

Chilled Water Inlet / Outlet Temperature: 12 / 7°C.

Condenser Inlet Air Temperature : 35°C.

- (2) Pump input is included in the data (according to the European Standard EN 14511).
- (3) Low water temperature option requires Brine (antifreeze mixture of ethylene glycol type or propylene glycol type).
- All data refers to High Efficiency mode.
- All Sound Pressure Level data are measured at 10 m from the unit.

### 3.1.2 Hitachi Air-Cooled Water Chiller units RCME-(40-70)AH1 (Individual module)

Model			RCME-40AH1	RCME-50AH1	RCME-60AH1	RCME-70AH1				
Electrical power supply		-	3N~ 400V 50Hz							
Cooling Capacity (1)	kW	100	125	150	175					
Total Input power (1)	kW	27.2	35.6	47.0	54.5					
EER (1)	-	3.68	3.51	3.19	3.21					
ESEER (1)	-	4.54	4.34	4.25	4.28					
Cooling Capacity (2)	kW	99.7	124.7	149.7	174.6					
Total Input Power (2)	kW	27.5	35.9	47.3	54.9					
EER (2)	-	3.63	3.47	3.16	3.18					
ESEER (2)	-	4.39	4.21	4.14	4.15					
Outer dimension	Height	mm	2450							
	Width	mm	2230							
	Depth	mm	2000							
Cabinet colour	-	Natural Grey (Textured)								
Shipping weight	kg	1325	1360	1425	1450					
Operating weight	kg	1340	1380	1460	1480					
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw							
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z				
	Quantity	-	1							
	Oil Heater	W	150							
	Capacity control	-	Infinite Capacity Control							
	Working range	%	25~100							
Water Side Heat Exchanger	-	Brazed Plate Heat Exchanger								
Air Side Heat Exchanger	-	Multi-Pass Cross Finned Tube (Cu/Al)								
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)							
	Quantity	-	4							
Refrigerant	Type	-	R134a							
	Quantity	kg	34.5	34.5	40.0	40.0				
Flow control	-	Twin Electronic Expansion Valve								
Number of circuits	-	1								
Nominal water flow	m3/h	17.2	21.5	25.8	30.1					
Water pressure drop	kPa	15.9	15.5	14.7	19.5					
Permissible water pressure max.	MPa	1.0								
Water flow range	Min.	m3/h	10.8	13.4	16.1	18.8				
	Max.	m3/h	24.6	30.7	36.9	43.0				
Minimum internal system water volume	m3	0.4	0.5	0.5	0.6					
Water pipe connection	Size and type	in	2.1/2" Victaulic							
	Quantity	-	1 × Inlet , 1 × Outlet							
Control system	-	HITACHI Micro-Processor Control								
Chilled water outlet temperature	Standard	°C	+5 ~ +15							
	Low (option) (3)	°C	-5 ~ +5							
	High (option)	°C	+15 ~ +30							
Ambient air inlet temperature	°C	-15 ~ +46								
Sound power level	dB(A)	89	91	93	94					
Sound pressure level	dB(A)	61	63	65	66					

**3.1.3 Hitachi Air-Cooled Water Chiller units RCME-(080-140)/2AH1 (2 modules factory built)**

Model		RCME-080/2AH1	RCME-090/2AH1	RCME-100/2AH1	RCME-110/2AH1	RCME-120/2AH1	RCME-130/2AH1	RCME-140/2AH1				
Electrical power supply		-	3N~ 400V 50Hz									
Cooling Capacity (1)	kW	200	225	250	275	300	325	350				
Total Input power (1)	kW	54.4	62.8	71.2	82.6	94.0	101	109				
EER (1)	-	3.68	3.58	3.51	3.33	3.19	3.20	3.21				
ESEER (1)	-	4.95	4.94	4.73	4.71	4.57	4.60	4.59				
Cooling Capacity (2)	kW	200	224	249	274	299	324	349				
Total Input Power (2)	kW	54.9	63.4	71.8	83.3	94.7	102	110				
EER (2)	-	3.63	3.54	3.47	3.3	3.16	3.17	3.18				
ESEER (2)	-	4.76	4.72	4.56	4.6	4.46	4.49	4.48				
Outer dimension	Height	mm	2450									
	Width	mm	2250									
	Depth	mm	4000									
Cabinet colour		-	Natural Grey (Textured)									
Shipping weight		kg	2750	2785	2820	2885	2950	2975	3000			
Operating weight		kg	2780	2820	2860	2940	3020	3040	3060			
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw									
	Model	-	G30ASF-Z	G30 / G40ASF-Z	G40ASF-Z	G40 / G50ASF-Z	G50ASF-Z					
	Quantity	-	2	1/1	2	1/1	2					
	Oil Heater	W	2 x 150									
	Capacity control	-	Infinite Capacity Control									
	Working range	%	12.5 ~ 100									
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger									
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)									
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)									
	Quantity	-	8									
Refrigerant	Type	-	R134a									
	Quantity	kg	69	69	69	74.5	80	80	80			
Flow control		-	Twin Electronic Expansion Valve per Circuit									
Number of circuits		-	2									
Nominal water flow		m3/h	34.4	38.7	43.0	47.3	51.6	55.9	60.2			
Water pressure drop		kPa	15.9	15.7	15.5	15.1	14.7	17.1	19.5			
Permissible water pressure max.		MPa	1.0									
Water flow range	Min.	m3/h	21.5	24.2	26.9	29.6	32.3	34.9	37.6			
	Max.	m3/h	49.1	55.3	61.4	67.6	73.7	79.9	86.0			
Minimum internal system water volume		m3	0.7	0.8	0.9	1.0	1.1	1.2	1.3			
Water pipe connection	Size and type	in	2.1/2" Victaulic									
	Quantity	-	2 x Inlet , 2 x Outlet									
Control system		-	HITACHI Micro-Processor Control									
Chilled water outlet temperature	Standard	°C	+5 ~ +15									
	Low (option) (3)	°C	-5 ~ +5									
	High (option)	°C	+15 ~ +30									
Ambient air inlet temperature		°C	-15 ~ +46									
Sound power level		dB(A)	92	93	94	95	96	96	97			
Sound pressure level		dB(A)	64	65	66	67	68	68	69			

**3.1.4 Hitachi Air-Cooled Water Chiller units RCME-(150-210)/3AH1 (3 modules factory built)**

Model		RCME-150/3AH1	RCME-160/3AH1	RCME-170/3AH1	RCME-180/3AH1	RCME-190/3AH1	RCME-200/3AH1	RCME-210/3AH1				
Electrical power supply	-	3N~ 400V 50Hz										
Cooling Capacity (1)	kW	375	400	425	450	475	500	525				
Total Input power (1)	kW	107	118	130	141	148	156	163				
EER (1)	-	3.51	3.38	3.28	3.19	3.20	3.21	3.21				
ESEER (1)	-	4.89	4.84	4.76	4.65	4.69	4.70	4.68				
Cooling Capacity (2)	kW	374	399	424	449	474	499	524				
Total Input Power (2)	kW	108	119	131	142	150	157	165				
EER (2)	-	3.47	3.35	3.25	3.16	3.17	3.17	3.18				
ESEER (2)	-	4.79	4.75	4.68	4.58	4.57	4.61	4.59				
Outer dimension	Height	mm	2450									
	Width	mm	2250									
	Depth	mm	6000									
Cabinet colour	-	Natural Grey (Textured)										
Shipping weight	kg	4260	4325	4390	4455	4480	4505	4530				
Operating weight	kg	4320	4400	4480	4560	4580	4600	4620				
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw									
	Model	-	G40ASF-Z	G40 / G50ASF-Z	G40 / G50ASF-Z	G50ASF-Z						
	Quantity	-	3	2/1	1/2	3						
	Oil Heater	W	3 x 150									
	Capacity control	-	Infinite Capacity Control									
	Working range	%	6.7 ~ 100									
Water Side Heat Exchanger	-	Brazed Plate Heat Exchanger										
Air Side Heat Exchanger	-	Multi-Pass Cross Finned Tube (Cu/Al)										
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)									
	Quantity	-	12									
Refrigerant	Type	-	R134a									
	Quantity	kg	103.5	109	114.5	120	120	120	120			
Flow control	-	Twin Electronic Expansion Valve per Circuit										
Number of circuits	-	3										
Nominal water flow	m3/h	64.5	68.8	73.1	77.4	81.7	86.0	90.3				
Water pressure drop	kPa	15.5	15.2	15.0	14.7	16.3	17.9	19.5				
Permissible water pressure max.	MPa	1.0										
Water flow range	Min.	m3/h	40.3	43.0	45.7	48.4	51.1	53.8	56.4			
	Max.	m3/h	92.1	98.3	104.4	110.6	116.7	122.9	129.0			
Minimum internal system water volume	m3	1.4	1.5	1.5	1.6	1.7	1.8	1.9				
Water pipe connection	Size and type	in	2.1/2" Victaulic									
	Quantity	-	3 x Inlet , 3 x Outlet									
Control system	-	HITACHI Micro-Processor Control										
Chilled water outlet temperature	Standard	°C	+5 ~ +15									
	Low (option) (3)	°C	-5 ~ +5									
	High (option)	°C	+15 ~ +30									
Ambient air inlet temperature	°C	-15 ~ +46										
Sound power level	dB(A)	95	96	97	97	98	98	98				
Sound pressure level	dB(A)	67	68	69	69	70	70	70				

## 3.2 RHME-AH1 General Data

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### 3.2.1 General notes for RHME-AH1

The following considerations are identified in the General Data tables by their corresponding number:

- (1) Data is based on the following conditions:

Pump input not included

In cooling operation:

Chilled Water Inlet / Outlet Temperature: 12 / 7°C.

Condenser Inlet Air Temperature : 35°C.

Heating Operation

Heated Water Inlet / Outlet Temperature : 40 / 45°C

Evaporator Air Inlet Temperature : 6°C WB

- (2) Pump input is included in the data (according to the European Standard EN 14511).
- (3) Low water temperature option requires Brine (antifreeze mixture of ethylene glycol type or propylene glycol type).
- All data refers to High Efficiency mode.
- All Sound Pressure Level data are measured at 10 m from the unit.
- SCOP figures are based on Low Temperature application in Average climate, according to the European Standard EN 14825.

### 3.2.2 Hitachi Air-Cooled Water Chiller units RHME-(40-70)AH1 (Individual module)

Model		RHME-40AH1	RHME-50AH1	RHME-60AH1	RHME-70AH1	
Electrical power supply		-	3N~ 400V 50Hz			
Cooling	Capacity (1)	kW	95	119	143	160
	Total Input power (1)	kW	27.9	36.6	48.4	54.2
	EER (1)	-	3.40	3.25	2.96	2.95
	ESEER (1)	-	4.10	3.91	3.84	3.83
	Capacity (2)	kW	94.8	118.8	142.7	159.7
	Total Input Power (2)	kW	28.1	36.8	48.6	54.6
	EER (2)	-	3.37	3.22	2.94	2.93
	ESEER (2)	-	4.01	3.84	3.77	3.75
Heating	Capacity (1)	kW	92	115	138	138
	Total input power (1)	kW	28.6	37.4	48.8	48.7
	COP (1)	-	3.22	3.07	2.83	2.83
	Capacity (2)	kW	92.2	115.2	138.3	138.3
	Total Input Power (2)	kW	28.8	37.6	49.1	49.0
	COP (2)	-	3.20	3.06	2.82	2.82
	SCOP (2)	-	3.22	3.10	2.98	2.98
Outer dimension	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	2000			
Cabinet colour		-	Natural Grey (Textured)			
Shipping weight		kg	1425	1460	1525	1550
Operating weight		kg	1440	1480	1560	1580
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	1			
	Oil Heater	W	150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	25~100			
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	4			
Refrigerant	Type	-	R134a			
Flow control	-	-	Twin Electronic Expansion Valve			
Number of circuits	-	-	1			
Nominal water flow	-	m3/h	16.3	20.5	24.6	27.5
Water pressure drop	-	kPa	9.4	9.7	10.6	13.0
Permissible water pressure max.	-	MPa	1.0			
Water flow range	Min.	m3/h	10.2	12.8	15.4	17.2
	Max.	m3/h	23.3	29.2	35.1	39.3
Minimum internal system water volume		m3	0.34	0.43	0.52	0.58
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	1 × Inlet , 1 × Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Heated Water Outlet Temperature		°C	+35 ~ +55			
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46			
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)			
Sound power level		dB(A)	89	91	93	94
Sound pressure level		dB(A)	61	63	65	66

**3.2.3 Hitachi Air-Cooled Water Chiller units RHME-(080-140)/2AH1 (2 modules factory built)**

Model			RHME-080/2AH1	RHME-090/2AH1	RHME-100/2AH1	RHME-110/2AH1
Electrical power supply		-	3N~ 400V 50Hz			
Cooling	Capacity (1)	kW	190	214	238	262
	Total Input power (1)	kW	55.9	64.6	73.2	85.0
	EER (1)	-	3.40	3.31	3.25	3.08
	ESEER (1)	-	4.42	4.37	4.22	4.26
	Capacity (2)	kW	189.6	213.6	237.6	261.5
	Total Input Power (2)	kW	56.2	65.0	73.7	85.4
	EER (2)	-	3.37	3.29	3.22	3.06
	ESEER (2)	-	4.34	4.30	4.15	4.18
Heating	Capacity (1)	kW	184	207	230	253
	Total input power (1)	kW	57.2	66.0	74.8	86.3
	COP (1)	-	3.22	3.14	3.07	2.93
	Capacity (2)	kW	184.4	207.4	230.4	253.5
	Total Input Power (2)	kW	57.6	66.4	75.3	86.7
	COP (2)	-	3.20	3.12	3.06	2.92
Outer dimension	Height	mm	2450			
	Width	mm	2250			
	Depth	mm	4000			
Cabinet colour		-	Natural Grey (Textured)			
Shipping weight		kg	2950	2985	3020	3085
Operating weight		kg	2980	3020	3060	3140
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G30 / G40ASF-Z	G40ASF-Z	G40 / G50ASF-Z
	Quantity	-	2	1/1	2	1/1
	Oil Heater	W	2 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	12.5 ~ 100			
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	8			
Refrigerant	Type	-	R134a			
Flow control	-	-	Twin Electronic Expansion Valve per Circuit			
Number of circuits	-	-	2			
Nominal water flow	-	m3/h	32.7	36.8	40.9	45.1
Water pressure drop	-	kPa	9.4	9.6	9.7	10.1
Permissible water pressure max.	-	MPa	1.0			
Water flow range	Min.	m3/h	20.4	23.0	25.6	28.2
	Max.	m3/h	46.7	52.6	58.5	64.4
Minimum internal system water volume		m3	0.69	0.77	0.86	0.95
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	2 × Inlet , 2 × Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Heated Water Outlet Temperature		°C	+35 ~ +55			
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46			
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)			
Sound power level		dB(A)	92	93	94	95
Sound pressure level		dB(A)	64	65	66	67

Model			RHME-120/2AH1	RHME-130/2AH1	RHME-140/2AH1
Electrical power supply		-	3N~ 400V 50Hz		
Cooling	Capacity (1)	kW	286	303	320
	Total Input power (1)	kW	96.7	103	108
	EER (1)	-	2.96	2.95	2.95
	ESEER (1)	-	4.12	4.14	4.11
	Capacity (2)	kW	285.5	302.4	319.4
	Total Input Power (2)	kW	97.2	103.2	109.1
	EER (2)	-	2.94	2.93	2.93
	ESEER (2)	-	4.06	4.07	4.04
Heating	Capacity (1)	kW	276	276	276
	Total input power (1)	kW	97.7	97.6	97.5
	COP (1)	-	2.83	2.83	2.83
	Capacity (2)	kW	276.5	276.6	276.6
	Total Input Power (2)	kW	98.2	98.1	98.1
	COP (2)	-	2.82	2.82	2.82
Outer dimension	Height	mm	2450		
	Width	mm	2250		
	Depth	mm	4000		
Cabinet colour		-	Natural Grey (Textured)		
Shipping weight		kg	3150	3175	3200
Operating weight		kg	3220	3240	3260
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw		
	Model	-	G50ASF-Z		
	Quantity	-	2		
	Oil Heater	W	2 x 150		
	Capacity control	-	Infinite Capacity Control		
	Working range	%	12.5 ~ 100		
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger		
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)		
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)		
	Quantity	-	8		
Refrigerant	Type	-	R134a		
Flow control	-	-	Twin Electronic Expansion Valve per Circuit		
Number of circuits		-	2		
Nominal water flow		m3/h	49.2	52.1	55.0
Water pressure drop		kPa	10.6	11.8	13.0
Permissible water pressure max.		MPa	1.0		
Water flow range	Min.	m3/h	30.7	32.6	34.4
	Max.	m3/h	70.3	74.5	78.6
Minimum internal system water volume		m3	1.03	1.10	1.16
Water pipe connection	Size and type	in	2.1/2" Victaulic		
	Quantity	-	2 x Inlet , 2 x Outlet		
Control system		-	HITACHI Micro-Processor Control		
Chilled water outlet tem- perature	Standard	°C	+5 ~ +15		
	Low (option) (3)	°C	-5 ~ +5		
	High (option)	°C	+15 ~ +30		
Heated Water Outlet Temperature		°C	+35 ~ +55		
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46		
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)		
Sound power level		dB(A)	96	96	97
Sound pressure level		dB(A)	68	68	69

**3.2.4 Hitachi Air-Cooled Water Chiller units RHME-(150-210)/3AH1 (3 modules factory built)**

Model			RHME-150/3AH1	RHME-160/3AH1	RHME-170/3AH1	RHME-180/3AH1
Electrical power supply		-	3N~ 400V 50Hz			
Cooling	Capacity (1)	kW	357	381	405	429
	Total Input power (1)	kW	110	122	133	145
	EER (1)	-	3.25	3.13	3.04	2.96
	ESEER (1)	-	4.41	4.36	4.30	4.20
	Capacity (2)	kW	356.4	380.3	404.3	428.2
	Total Input Power (2)	kW	110.5	122.3	134.1	145.8
	EER (2)	-	3.22	3.11	3.02	2.94
	ESEER (2)	-	4.35	4.31	4.24	4.15
Heating	Capacity (1)	kW	345	368	391	414
	Total input power (1)	kW	112.2	123.7	135.1	146.5
	COP (1)	-	3.07	2.98	2.89	2.83
	Capacity (2)	kW	345.6	368.7	391.7	414.8
	Total Input Power (2)	kW	112.9	124.4	135.8	147.3
	COP (2)	-	3.06	2.96	2.88	2.82
Outer dimension	Height	mm	2450			
	Width	mm	2250			
	Depth	mm	6000			
Cabinet colour		-	Natural Grey (Textured)			
Shipping weight		kg	4560	4625	4690	4755
Operating weight		kg	4620	4700	4780	4860
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G40ASF-Z	G40 / G50ASF-Z	G40 / G50ASF-Z	G50ASF-Z
	Quantity	-	3	2/1	1/2	3
	Oil Heater	W	3 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	8.3 ~ 100			
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	12			
Refrigerant	Type	-	R134a			
Flow control	-	-	Twin Electronic Expansion Valve per Circuit			
Number of circuits		-	3			
Nominal water flow		m3/h	61.4	65.5	69.7	73.8
Water pressure drop		kPa	9.7	10.0	10.3	10.6
Permissible water pressure max.		MPa	1.0			
Water flow range	Min.	m3/h	38.4	41.0	43.5	46.1
	Max.	m3/h	87.7	93.6	99.5	105.4
Minimum internal system water volume		m3	1.29	1.38	1.46	1.55
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	3 x Inlet , 3 x Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Heated Water Outlet Temperature		°C	+35 ~ +55			
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46			
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)			
Sound power level		dB(A)	95	96	97	97
Sound pressure level		dB(A)	67	68	69	69

Model			RHME-190/3AH1	RHME-200/3AH1	RHME-210/3AH1
Electrical power supply		-	3N~ 400V 50Hz		
Cooling	Capacity (1)	kW	446	463	480
	Total Input power (1)	kW	151	157	163
	EER (1)	-	2.95	2.95	2.95
	ESEER (1)	-	4.20	4.21	4.19
	Capacity (2)	kW	445.2	462.1	479.0
	Total Input Power (2)	kW	151.8	157.7	163.7
	EER (2)	-	2.93	2.93	2.93
	ESEER (2)	-	4.14	4.15	4.13
Heating	Capacity (1)	kW	414	414	414
	Total input power (1)	kW	146.4	146.3	146.2
	COP (1)	-	2.83	2.83	2.83
	Capacity (2)	kW	414.8	414.9	415.0
	Total Input Power (2)	kW	147.2	147.2	147.1
	COP (2)	-	2.82	2.82	2.82
Outer dimension	Height	mm	2450		
	Width	mm	2250		
	Depth	mm	6000		
Cabinet colour		-	Natural Grey (Textured)		
Shipping weight		kg	4780	4805	4830
Operating weight		kg	4880	4900	4920
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw		
	Model	-	G50ASF-Z		
	Quantity	-	3		
	Oil Heater	W	3 x 150		
	Capacity control	-	Infinite Capacity Control		
	Working range	%	8.3 ~ 100		
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger		
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)		
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)		
	Quantity	-	12		
Refrigerant	Type	-	R134a		
Flow control	-	-	Twin Electronic Expansion Valve per Circuit		
Number of circuits		-	2		
Nominal water flow		m3/h	76.7	79.6	82.6
Water pressure drop		kPa	11.4	12.2	13.0
Permissible water pressure max.		MPa	1.0		
Water flow range	Min.	m3/h	47.9	49.8	51.6
	Max.	m3/h	109.6	113.8	117.9
Minimum internal system water volume		m3	1.61	1.67	1.74
Water pipe connection	Size and type	in	2.1/2" Victaulic		
	Quantity	-	3 x Inlet , 3 x Outlet		
Control system		-	HITACHI Micro-Processor Control		
Chilled water outlet tem- perature	Standard	°C	+5 ~ +15		
	Low (option) (3)	°C	-5 ~ +5		
	High (option)	°C	+15 ~ +30		
Heated Water Outlet Temperature		°C	+35 ~ +55		
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46		
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)		
Sound power level		dB(A)	98	98	98
Sound pressure level		dB(A)	70	70	70

### 3.3 Sound Data

Model	Sound Power level (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
R(C/H)ME-40AH1	91	87	84	87	86	78	62	54	89	
R(C/H)ME-50AH1	101	92	88	87	88	78	65	57	91	
R(C/H)ME-60AH1	103	94	90	89	90	80	67	59	93	
R(C/H)ME-70AH1	104	95	91	90	91	81	68	60	94	
R(C/H)ME-080/2AH1	94	90	87	90	89	81	65	57	92	
R(C/H)ME-090/2AH1	101	93	90	90	90	81	67	59	93	
R(C/H)ME-100/2AH1	104	95	91	90	91	81	68	60	94	
R(C/H)ME-110/2AH1	105	96	92	91	93	82	69	61	95	
R(C/H)ME-120/2AH1	106	97	93	92	93	83	70	62	96	
R(C/H)ME-130/2AH1	106	98	94	92	94	84	71	62	96	
R(C/H)ME-140/2AH1	107	98	94	93	94	84	71	63	97	
R(C/H)ME-150/3AH1	105	97	93	92	93	83	70	61	95	
R(C/H)ME-160/3AH1	106	98	94	92	94	84	71	62	96	
R(C/H)ME-170/3AH1	107	98	94	93	95	84	71	63	97	
R(C/H)ME-180/3AH1	107	99	95	94	95	85	72	63	97	
R(C/H)ME-190/3AH1	108	99	95	94	96	85	72	64	98	
R(C/H)ME-200/3AH1	108	100	96	94	96	85	73	64	98	
R(C/H)ME-210/3AH1	108	100	96	95	96	86	73	64	98	



#### NOTE

- For LOW NOISE option the values of the tables are reduced by -3dB.
- For SUPER LOW NOISE option the values of the tables are reduced by -5bB.

Model	Sound Pressure level at 1m (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
R(C/H)ME-40AH1	67	67	68	69	71	61	45	36	73	
R(C/H)ME-50AH1	82	78	75	74	76	64	50	42	78	
R(C/H)ME-60AH1	84	80	77	76	78	66	52	44	80	
R(C/H)ME-70AH1	85	81	78	77	79	67	53	45	81	
R(C/H)ME-080/2AH1	70	70	71	72	74	64	48	39	76	
R(C/H)ME-090/2AH1	82	79	76	75	77	65	52	43	79	
R(C/H)ME-100/2AH1	85	81	78	77	79	67	53	45	81	
R(C/H)ME-110/2AH1	86	83	79	78	80	68	55	46	82	
R(C/H)ME-120/2AH1	87	83	80	79	81	69	55	47	83	
R(C/H)ME-130/2AH1	87	84	80	79	81	69	56	47	83	
R(C/H)ME-140/2AH1	88	84	81	80	82	70	56	48	84	
R(C/H)ME-150/3AH1	87	83	79	78	81	68	55	47	83	
R(C/H)ME-160/3AH1	87	84	80	79	81	69	56	47	83	
R(C/H)ME-170/3AH1	88	85	81	80	82	70	57	48	84	
R(C/H)ME-180/3AH1	89	85	81	80	83	70	57	49	85	
R(C/H)ME-190/3AH1	89	86	82	81	83	71	58	49	85	
R(C/H)ME-200/3AH1	89	86	82	81	83	71	58	49	85	
R(C/H)ME-210/3AH1	90	86	82	81	84	71	58	50	86	



#### NOTE

- For LOW NOISE option the values of the tables are reduced by -3dB.
- For SUPER LOW NOISE option the values of the tables are reduced by -5bB.

Model	Sound Pressure level at 10m (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
R(C/H)ME-40AH1	63	59	56	59	58	50	34	26	61	
R(C/H)ME-50AH1	73	64	60	59	60	50	37	29	63	
R(C/H)ME-60AH1	75	66	62	61	62	52	39	31	65	
R(C/H)ME-70AH1	76	67	63	62	63	53	40	32	66	
R(C/H)ME-080/2AH1	66	62	59	62	61	53	37	29	64	
R(C/H)ME-090/2AH1	73	65	62	62	62	53	39	31	65	
R(C/H)ME-100/2AH1	76	67	63	62	63	53	40	32	66	
R(C/H)ME-110/2AH1	77	68	64	63	65	54	41	33	67	
R(C/H)ME-120/2AH1	78	69	65	64	65	55	42	34	68	
R(C/H)ME-130/2AH1	78	70	66	64	66	56	43	34	68	
R(C/H)ME-140/2AH1	79	70	66	65	66	56	43	35	69	
R(C/H)ME-150/3AH1	77	69	65	64	65	55	42	33	67	
R(C/H)ME-160/3AH1	78	70	66	64	66	56	43	34	68	
R(C/H)ME-170/3AH1	79	70	66	65	67	56	43	35	69	
R(C/H)ME-180/3AH1	79	71	67	66	67	57	44	35	69	
R(C/H)ME-190/3AH1	80	71	67	66	68	57	44	36	70	
R(C/H)ME-200/3AH1	80	72	68	66	68	57	45	36	70	
R(C/H)ME-210/3AH1	80	72	68	67	68	58	45	36	70	

**NOTE**

- For LOW NOISE option the values of the tables are reduced by -3dB.
- For SUPER LOW NOISE option the values of the tables are reduced by -5dB.

Model	Sound Pressure level at 30m (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
R(C/H)ME-40AH1	53	49	46	50	49	40	25	17	52	
R(C/H)ME-50AH1	63	55	51	49	51	40	28	19	53	
R(C/H)ME-60AH1	65	57	53	51	53	42	30	21	55	
R(C/H)ME-70AH1	66	58	54	52	54	43	31	22	56	
R(C/H)ME-080/2AH1	56	52	49	53	52	43	28	20	55	
R(C/H)ME-090/2AH1	64	56	52	52	53	43	29	21	55	
R(C/H)ME-100/2AH1	66	58	54	52	54	43	31	22	56	
R(C/H)ME-110/2AH1	67	59	55	53	55	45	32	23	57	
R(C/H)ME-120/2AH1	68	60	56	54	56	45	33	24	58	
R(C/H)ME-130/2AH1	69	60	56	55	56	46	33	25	59	
R(C/H)ME-140/2AH1	69	61	57	55	57	46	34	25	59	
R(C/H)ME-150/3AH1	68	59	55	54	56	45	32	24	58	
R(C/H)ME-160/3AH1	69	60	56	55	56	46	33	25	59	
R(C/H)ME-170/3AH1	69	61	57	55	57	47	34	25	59	
R(C/H)ME-180/3AH1	70	61	57	56	58	47	34	26	60	
R(C/H)ME-190/3AH1	70	62	58	56	58	48	35	26	60	
R(C/H)ME-200/3AH1	71	62	58	57	58	48	35	27	61	
R(C/H)ME-210/3AH1	71	62	58	57	59	48	35	27	61	

**NOTE**

- For LOW NOISE option the values of the tables are reduced by -3dB.
- For SUPER LOW NOISE option the values of the tables are reduced by -5dB.

## 3.4 Water Chillers options and accessories

### 3.4.1 Included functions

Specifications		Remarks
General	Low Ambient Fan Control (-15°C)	
	Factory built modules connection	up to 3 modules
Control system	Current Limiter	
	Star-Delta starting	For compressors
	Main Isolator Switch	
	LCD touch panel	
	Local/Remote Changeover Switch	
	Individual Alarm	By Alarm Code
	Compressor Operation Hour Meter	Display on LCD
	Pressure Sensor (High and Low)	
	Pump Freeze Protection Operation	Pump ON/OFF Operation
	Pump Operation Circuit	Pump ON/OFF Contact
	Non Voltage Contact for Remote indication	Pump, Operation, Alarm
	DC24V External Control	Level or pulse
	Short Period Power OFF Protection	
	Power Failure Recover Control	
	2 Different Temperatures Setting	
	Remote Control (Field Supplied) socket	AC 230V
	Electrical Power estimation	Display on LCD
	% of instantaneous load	Display on LCD
Air condenser	Numbered Cables	
	Power source terminals	AC 230V
Refrigeration cycle	Output ON/OFF Signal for Free Cooling	
	Output ON/OFF Signal for Fan operation	Snow Protection
	Input Signal for Forcing Compressor Load	
	Coil Guard Nets	
	Coated Aluminium Fin	
Water system	Independent Circuit	
	Insulation suction pipe	Low pressure side
	Compressor Safety Valve	
	Pressure Display (High and Low)	Display on LCD
	Leak Detection	
Water system	10 bar Water Pressure	
	Lower panels enclosure	

### 3.4.2 Options



#### NOTE

Options (on order) are factory built. They shall be ordered together with the Chiller unit.

Specifications		Remarks
General	Low Noise add-on	Compressor Enclosure Included in "Low Noise" and "Super Low Noise" options
	Super Low Noise add-on	
High water temperature	Outlet temperature 15 ~ 30°C (High1)	
Control system	Magnetic Circuit Breaker Protector	Both compressor and fans
	Power Meter (Factory installed)	Factory installed
Air condenser	Heavy Corrosion Air Heat Exchangers	
	Discharge Valve	
	Suction Valve	
	Compressor Dual Safety Valve	
Water cooler	Water Cooler Heater	
Water system	Differential Water Pressure Switch	
	Stainless Steel Water Pipe	AISI 304. Included in "high Water Outlet Temperature" option
	Pump kit	Option single or dual and option for standard or high pressure
Others	Wooden Crate	
	Power cable routing	
	EBOX Lower Safety Cover	
	Wood Base	Only for single modules
	Heavy Corrosion Protection	
	Witness Test	
	Water pressure port	



#### NOTE

Incompatibilities:

Stainless Steel Water Pipe Option + Common Water Pipe Accessory.

Super Low Noise + Low Noise.

Stainless Steel Water Pipe + High Water Outlet Temperature.

Brine option (low1) + Brine option (low2)

In the High Water Outlet Temperature Option is included Stainless Steel Water Pipe.

In the Heavy Corrosion Option is included Stainless Steel Water Pipe and Heavy Corrosion Air Heat Exchangers.

Pump Kit options can not mix.

### 3.4.3 Accessories

Description	Specifications	Code	Remarks (number of accessories)
CHL-WFS-01	Water Flow Switch	8E500001	40 - 210 HP: 1
CHL-WST-01	Water Strainer 2.1/2"	8E500002	40-70HP: 1 ; 080-140: 2 ; 150-210HP: 3
CHL-WST-04	Water Strainer 5"	8E500005	080-210HP: 1; only if Common water pipe option is assembled
CHL-CWP-03	Common Water Pipe L-R	8E500024	080-140: 1
CHL-CWP-04	Common Water Pipe -M-	8E500025	150-210HP: 1 + 8E500024
CHL-AVR-01	Antivibration Rubber Mat	8E500008	40-70HP: 1 ; 080-140: 2 ; 150-210HP: 3
CHL-AVS-02	Antivibration Spring System	8E500026	RCME-(40-70)AH1(only): 1
CHL-AVS-03	Antivibration Spring System	8E500028	RHME-(40-70)AH1(only): 1
CHL-FLA-01	Water Flange Connection 2.1/2"	8E500011	40-70HP: 1 ; 080-140: 2 ; 150-210HP: 3
CHL-MBS-02	Modbus BMS Gateway	8E500021	all: 1
CHL-BAC-01	BAC NET Gateway	8E500027	all: 1
CHL-PMM-01	Power Meter (200A)	8E500016	40-70HP: 1
CHL-PMM-02	Power Meter (400A)	8E500017	080-140: 1
CHL-PMM-03	Power Meter (1000A)	8E500018	150-210HP: 1



#### NOTE

Accessories are field installed. They shall be ordered separately.

## 3.5 Components data

### 3.5.1 Compressor

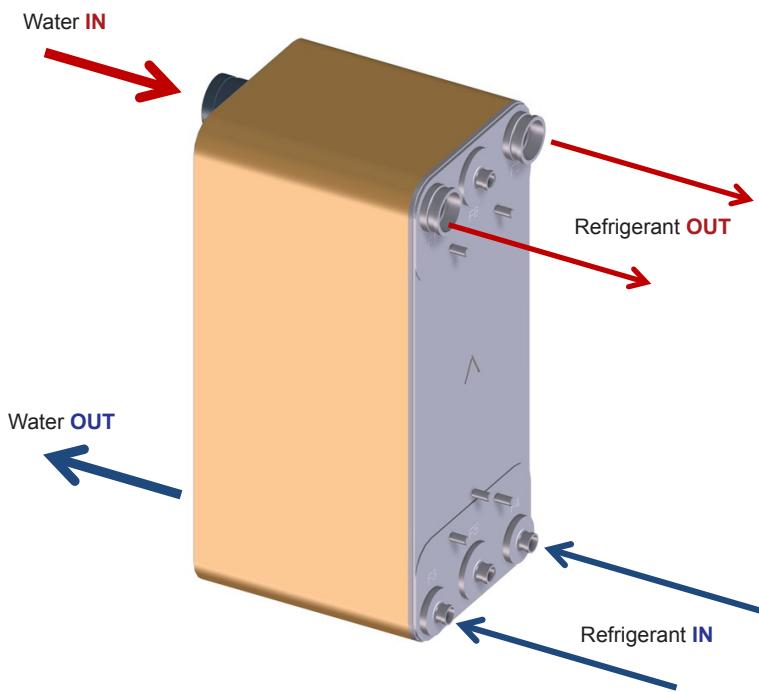
Model		G30ASF-Z		G40ASF-Z		G50ASF-Z			
Type		HITACHI semi-hermetic screw type							
Revolution	rpm	2880							
Displacement	m³/h	167.8		211.7		272.0			
Capacity Control	%	25 ~ 100							
Pneumatic Pressure									
High Side	MPa	2.02							
Low Side	MPa	2.02							
Motor	Type		Special Squirrel Cage Three-Phase Motor						
	Starting Method		Star-Delta Starting						
	Nominal Output	kW	22	30		37			
	Poles		2						
	Insulation		E						
Oil	Name		JX Nippon Oil & Energy, Ze-GLES RB 68						
	Charge	Litre	6						
Net Weight		kg	420	440		485			

### 3.5.2 Condenser and Condenser Fan

Model R(C/H)ME-AH1			40 HP	50 HP	60 HP	70 HP		
Air Heat Exchanger	Type		Multi-Pass Cross Finned tube					
	Piping	Material	Copper Tube					
		Outer Diameter	mm		7.00			
	Fin	Rows			3			
		Pitch			1.70			
	Quantity	Material	Aluminium					
		Maximum Operating Pressure	MPa		4			
Fan	Fan	Type	Direct-Driven Propeller Fan					
		Quantity	4					
		Outer diameter	710					
		Revolution	780	855	900	900		
		Air Flow	m³/min	830	910	960		
	Motor	Type	Drip-proof type enclosure					
			DC					
		Poles	8					
		Quantity	4					
		Nominal Output	kW	1.2				
	Starting Method		Direct-On-Line Starting					

### 3.5.3 Water Cooler

	Brazed plate heat exchanger type			
	A	B	C	D
Dimensions	Height (H) mm	694	694	694
	Width (W) mm	304	304	304
	Depth (D) mm	208	265	332
Maximum permissible pressure	Refrigerant side MPa	3.1	3.1	3.1
	Water side MPa	2.8	2.8	2.8
Internal volume	Refrigerant side Litre	16.3	21.1	26.8
	Water side Litre	17.3	22.3	28.2
Material	AISI316			
Net weight (without water)	68	83	101	117



Model RCME-AH1	Brazed plate heat exchanger type
RCME-40AH1	A
RCME-50AH1	B
RCME-60AH1	C
RCME-70AH1	
RHME-40AH1	B
RHME-50AH1	C
RHME-60AH1	D
RHME-70AH1	

## 3.6 Typical on-site module combinations

### 3.6.1 General Data for RCME-AH1

The following considerations are identified in the General Data tables by their corresponding number:

- (1) Data is based on the following conditions:

Pump input not included

In cooling operation:

Chilled Water Inlet / Outlet Temperature: 12 / 7°C.

Condenser Inlet Air Temperature : 35°C.

- (2) Pump input is included in the data (according to the European Standard EN 14511).
- (3) Low water temperature option requires Brine (antifreeze mixture of ethylene glycol type or propylene glycol type).
- All data refers to High Efficiency mode.
- All Sound Pressure Level data are measured at 10 m from the unit.

**◆ 4 Modules RCME-AH1**

Model			4 x RCME-40AH1	4 x RCME-50AH1	4 x RCME-60AH1	4 x RCME-70AH1
Electrical power supply	-		3N~ 400V 50Hz			
Cooling Capacity (1)	kW	400	500	600	700	
Total Input power (1)	kW	109	142	188	218	
EER (1)	-	3.68	3.51	3.19	3.21	
ESEER (1)	-	5.06	4.83	4.65	4.67	
Cooling Capacity (2)	kW	399	499	599	698	
Total Input Power (2)	kW	110	144	189	220	
EER (2)	-	3.63	3.47	3.16	3.18	
ESEER (2)	-	4.93	4.72	4.55	4.57	
Outer dimension	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	8000			
Cabinet colour	-		Natural Grey T (textured)			
Shipping weight	kg	5300	5440	5700	5800	
Operating weight	kg	5360	5520	5840	5920	
Compressor	Type	-	HITACHI Semi-Hermetic Screw Type			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	4			
	Oil Heater	W	4 x 150			
	Capacity control	-	Continuous Capacity Control			
	Working range	%	6.2 ~ 100			
Water Side Heat Exchanger	-		Brazing Plate Type			
Air Side Heat Exchanger	-		Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	16			
Refrigerant	Type	-	R134a			
	Quantity	kg	138	138	160	160
Flow control	-		Twin Electronic Expansion Valve per Circuit			
Number of circuits	-		4			
Nominal water flow	m3/h	68.8	86.0	103.2	120.4	
Water pressure drop	kPa	15.9	15.5	14.7	19.5	
Permissible water pressure max.	MPa		1.0			
Water flow range	Min.	m3/h	43.0	53.8	64.5	75.3
	Max.	m3/h	98.3	122.9	147.4	172.0
Minimum internal system water volume	m3	1.5	1.8	2.2	2.5	
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	4 x Inlet . 4 x Outlet			
Control system	-		HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Ambient air inlet temperature	°C		-15 ~ +46			
Sound power level	dB(A)	95	97	99	100	
Sound pressure level	dB(A)	67	69	71	72	

### ◆ 5 Modules RCME-AH1

Model			5 x RCME-40AH1	5 x RCME-50AH1	5 x RCME-60AH1	5 x RCME-70AH1				
Electrical power supply	-		3N~ 400V 50Hz							
Cooling Capacity (1)	kW	500	625	750	875					
Total Input power (1)	kW	136	178	235	272					
EER (1)	-	3.68	3.51	3.19	3.21					
ESEER (1)	-	5.12	4.89	4.69	4.72					
Cooling Capacity (2)	kW	499	624	748	873					
Total Input Power (2)	kW	137	180	237	275					
EER (2)	-	3.63	3.47	3.16	3.18					
ESEER (2)	-	5.01	4.79	4.60	4.61					
Outer dimension	Height	mm	2450							
	Width	mm	2230							
	Depth	mm	10000							
Cabinet colour	-		Natural Grey (Textured)							
Shipping weight	kg	6625	6800	7125	7250					
Operating weight	kg	6700	6900	7300	7400					
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw							
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z				
	Quantity	-	5							
	Oil Heater	W	5 x 150							
	Capacity control	-	Infinite Capacity Control							
	Working range	%	5.0 ~ 100							
Water Side Heat Exchanger	-	Brazed Plate Heat Exchanger								
Air Side Heat Exchanger	-	Multi-Pass Cross Finned Tube (Cu/Al)								
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)							
	Quantity	-	20							
Refrigerant	Type	-	R134a							
	Quantity	kg	172.5	172.5	200	200				
Flow control	-	Twin Electronic Expansion Valve per Circuit								
Number of circuits	-	5								
Nominal water flow	m3/h	86.0	107.5	129.0	150.5					
Water pressure drop	kPa	15.9	15.5	14.7	19.5					
Permissible water pressure max.	MPa	1.0								
Water flow range	Min.	m3/h	53.8	67.2	80.6	94.1				
	Max.	m3/h	122.9	153.6	184.3	215.0				
Minimum internal system water volume	m3	1.8	2.3	2.7	3.2					
Water pipe connection	Size and type	in	2.1/2" Victaulic							
	Quantity	-	5 x Inlet . 5 x Outlet							
Control system	-	HITACHI Micro-Processor Control								
Chilled water outlet temperature	Standard	°C	+5 ~ +15							
	Low (option) (3)	°C	-5 ~ +5							
	High (option)	°C	+15 ~ +30							
Ambient air inlet temperature	°C	-15 ~ +46								
Sound power level	dB(A)	96	98	100	101					
Sound pressure level	dB(A)	68	70	72	73					

### ◆ 6 Modules RCME-AH1

Model			6 x RCME-40AH1	6 x RCME-50AH1	6 x RCME-60AH1	6 x RCME-70AH1
<b>Electrical power supply</b>		-	3N~ 400V 50Hz			
<b>Cooling Capacity (1)</b>		kW	600	750	900	1050
<b>Total Input power (1)</b>		kW	163	214	282	327
<b>EER (1)</b>		-	3.68	3.51	3.19	3.21
<b>ESEER (1)</b>		-	5.12	4.89	4.67	4.69
<b>Cooling Capacity (2)</b>		kW	598	748	898	1047
<b>Total Input Power (2)</b>		kW	165	216	284	330
<b>EER (2)</b>		-	3.63	3.47	3.16	3.18
<b>ESEER (2)</b>		-	5.01	4.79	4.58	4.59
<b>Outer dimension</b>	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	12000			
<b>Cabinet colour</b>		-	Natural Grey (Textured)			
<b>Shipping weight</b>		kg	7950	8160	8550	8700
<b>Operating weight</b>		kg	8040	8280	8760	8880
<b>Compressor</b>	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	6			
	Oil Heater	W	6 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	4.2 ~ 100			
<b>Water Side Heat Exchanger</b>		-	Brazed Plate Heat Exchanger			
<b>Air Side Heat Exchanger</b>		-	Multi-Pass Cross Finned Tube (Cu/Al)			
<b>Fan Motor</b>	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	24			
<b>Refrigerant</b>	Type	-	R134a			
	Quantity	kg	207	207	240	240
<b>Flow control</b>		-	Twin Electronic Expansion Valve per Circuit			
<b>Number of circuits</b>		-	6			
<b>Nominal water flow</b>		m3/h	103.2	129.0	154.8	180.6
<b>Water pressure drop</b>		kPa	15.9	15.5	14.7	19.5
<b>Permissible water pressure max.</b>		MPa	1.0			
<b>Water flow range</b>	Min.	m3/h	64.5	80.6	96.8	112.9
	Max.	m3/h	147.4	184.3	221.1	258.0
<b>Minimum internal system water volume</b>		m3	2.2	2.7	3.3	3.8
<b>Water pipe connection</b>	Size and type	in	2 1/2" Victaulic			
	Quantity	-	6 x Inlet . 6 x Outlet			
<b>Control system</b>		-	HITACHI Micro-Processor Control			
<b>Chilled water outlet temperature</b>	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
<b>Ambient air inlet temperature</b>		°C	-15 ~ +46			
<b>Sound power level</b>		dB(A)	97	98	100	101
<b>Sound pressure level</b>		dB(A)	69	70	72	73

**◆ 7 Modules RCME-AH1**

3

Model			7 x RCME-40AH1	7 x RCME-50AH1	7 x RCME-60AH1	7 x RCME-70AH1
<b>Electrical power supply</b>		-	3N~ 400V 50Hz			
Cooling Capacity (1)	kW	700	875	1050	1225	
Total Input power (1)	kW	190	249	329	381	
EER (1)	-	3.68	3.51	3.19	3.21	
ESEER (1)	-	5.12	4.89	4.68	4.71	
Cooling Capacity (2)	kW	698	873	1048	1222	
Total Input Power (2)	kW	192	251	331	385	
EER (2)	-	3.63	3.47	3.16	3.18	
ESEER (2)	-	4.99	4.78	4.59	4.61	
Outer dimension	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	14000			
Cabinet colour	-		Natural Grey (Textured)			
Shipping weight	kg	9275	9520	9975	10150	
Operating weight	kg	9380	9660	10220	10360	
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	7			
	Oil Heater	W	7 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	3.6 ~ 100			
Water Side Heat Exchanger	-		Brazed Plate Heat Exchanger			
Air Side Heat Exchanger	-		Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	28			
Refrigerant	Type	-	R134a			
	Quantity	kg	241.5	241.5	280	280
Flow control	-		Twin Electronic Expansion Valve per Circuit			
Number of circuits	-		7			
Nominal water flow	m3/h	120.4	150.5	180.6	210.7	
Water pressure drop	kPa	15.9	15.5	14.7	19.5	
Permissible water pressure max.	MPa		1.0			
Water flow range	Min.	m3/h	75.3	94.1	112.9	131.7
	Max.	m3/h	172.0	215.0	258.0	301.0
Minimum internal system water volume	m3	2.5	3.2	3.8	4.4	
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	7 x Inlet . 7 x Outlet			
Control system	-		HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Ambient air inlet temperature	°C		-15 ~ +46			
Sound power level	dB(A)	98	99	101	102	
Sound pressure level	dB(A)	70	71	73	74	

**◆ 8 Modules RCME-AH1**

Model			8 x RCME-40AH1	8 x RCME-50AH1	8 x RCME-60AH1	8 x RCME-70AH1
Electrical power supply		-	3N~ 400V 50Hz			
Cooling Capacity (1)		kW	800	1000	1200	1400
Total Input power (1)		kW	218	285	376	436
EER (1)		-	3.68	3.51	3.19	3.21
ESEER (1)		-	5.13	4.9	4.69	4.72
Cooling Capacity (2)		kW	798	998	1197	1396
Total Input Power (2)		kW	220	287	379	440
EER (2)		-	3.63	3.47	3.16	3.18
ESEER (2)		-	5.02	4.80	4.61	4.62
Outer dimension	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	16000			
Cabinet colour		-	Natural Grey (Textured)			
Shipping weight		kg	10600	10880	11400	11600
Operating weight		kg	10720	11040	11680	11840
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	8			
	Oil Heater	W	8 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	3.1 ~ 100			
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	32			
Refrigerant	Type	-	R134a			
	Quantity	kg	276	276	320	320
Flow control		-	Twin Electronic Expansion Valve per Circuit			
Number of circuits		-	8			
Nominal water flow		m3/h	137.6	172.0	206.4	240.8
Water pressure drop		kPa	15.9	15.5	14.7	19.5
Permissible water pressure max.		MPa	1.0			
Water flow range	Min.	m3/h	86.0	107.5	129.0	150.5
	Max.	m3/h	196.6	245.7	294.9	344.0
Minimum internal system water volume		m3	2.9	3.6	4.3	5.1
Water pipe connection	Size and type	in	2 1/2" Victaulic			
	Quantity	-	8 x Inlet . 8 x Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Ambient air inlet temperature		°C	-15 ~ +46			
Sound power level		dB(A)	98	100	102	103
Sound pressure level		dB(A)	70	72	74	75

### 3.6.2 General Data for RHME-AH1

The following considerations are identified in the General Data tables by their corresponding number:

- (1) Data is based on the following conditions:

Pump input not included

In cooling operation:

Chilled Water Inlet / Outlet Temperature: 12 / 7°C.

Condenser Inlet Air Temperature : 35°C.

Heating Operation

Heated Water Inlet / Outlet Temperature : 40 / 45°C

Evaporator Air Inlet Temperature : 6°C WB

- (2) Pump input is included in the data (according to the European Standard EN 14511).

- (3) Low water temperature option requires Brine (antifreeze mixture of ethylene glycol type or propylene glycol type).

- All data refers to High Efficiency mode.

- All Sound Pressure Level data are measured at 10 m from the unit.

**◆ 4 Modules RHME-AH1**

Model			4 x RHME-40AH1	4 x RHME-50AH1	4 x RHME-60AH1	4 x RHME-70AH1				
Electrical power supply		-	3N~ 400V 50Hz							
Cooling	Capacity (1)	kW	380	476	572	640				
	Total Input power (1)	kW	112	146	193	217				
	EER (1)	-	3.40	3.25	2.96	2.95				
	ESEER (1)	-	4.57	4.36	4.20	4.19				
	Capacity (2)	kW	379.3	475.1	571.0	638.7				
	Total Input Power (2)	kW	112.5	147.3	194.4	218.2				
	EER (2)	-	3.37	3.22	2.94	2.93				
	ESEER (2)	-	4.49	4.30	4.13	4.12				
Heating	Capacity (1)	kW	368	460	552	552				
	Total input power (1)	kW	114.4	149.7	195.4	194.9				
	COP (1)	-	3.22	3.07	2.83	2.83				
	Capacity (2)	kW	368.7	460.9	553.0	553.3				
	Total Input Power (2)	kW	115.1	150.5	196.4	196.2				
	COP (2)	-	3.20	3.06	2.82	2.82				
Outer dimension	Height	mm	2450							
	Width	mm	2230							
	Depth	mm	8000							
Cabinet colour	-		Natural Grey (Textured)							
Shipping weight	kg	4 x 1425	4 x 1460	4 x 1525	4 x 1550					
Operating weight	kg	5760	5920	6240	6320					
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw							
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z				
	Quantity	-	4							
	Oil Heater	W	4 x 150							
	Capacity control	-	Infinite Capacity Control							
	Working range	%	6.2 ~ 100							
Water Side Heat Exchanger	-	Brazed Plate Heat Exchanger								
Air Side Heat Exchanger	-	Multi-Pass Cross Finned Tube (Cu/Al)								
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)							
	Quantity	-	16							
Refrigerant	Type	-	R134a							
Flow control	-	-	Twin Electronic Expansion Valve per Circuit							
Number of circuits		-	4							
Nominal water flow		m3/h	65.4	81.9	98.4	110.1				
Water pressure drop		kPa	9.4	9.7	10.6	13.0				
Permissible water pressure max.		MPa	1.0							
Water flow range	Min.	m3/h	40.9	51.2	61.5	68.8				
	Max.	m3/h	93.4	117.0	140.5	157.3				
Minimum internal system water volume		m3	1.37	1.72	2.07	2.31				
Water pipe connection	Size and type	in	2.1/2" Victaulic							
	Quantity	-	4 × Inlet , 4 × Outlet							
Control system	-		HITACHI Micro-Processor Control							
Chilled water outlet temperature	Standard	°C	+5 ~ +15							
	Low (option) (3)	°C	-5 ~ +5							
	High (option)	°C	+15 ~ +30							
Heated Water Outlet Temperature		°C	+35 ~ +55							
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46							
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)							
Sound power level		dB(A)	95	97	99	100				
Sound pressure level		dB(A)	67	69	71	72				

### ◆ 5 Modules RHME-AH1

Model			5 x RHME-40AH1	5 x RHME-50AH1	5 x RHME-60AH1	5 x RHME-70AH1
Electrical power supply		-	3N~ 400V 50Hz			
Cooling	Capacity (1)	kW	475	595	715	800
	Total Input power (1)	kW	140	183	242	271
	EER (1)	-	3.40	3.25	2.96	2.95
	ESEER (1)	-	4.62	4.41	4.24	4.22
	Capacity (2)	kW	474.1	593.9	713.7	798.4
	Total Input Power (2)	kW	140.6	184.2	243.1	272.8
	EER (2)	-	3.37	3.22	2.94	2.93
	ESEER (2)	-	4.55	4.35	4.17	4.16
Heating	Capacity (1)	kW	460	575	690	690
	Total input power (1)	kW	143.0	187.1	244.2	243.6
	COP (1)	-	3.22	3.07	2.83	2.83
	Capacity (2)	kW	460.9	576.1	691.3	691.6
	Total Input Power (2)	kW	143.9	188.1	245.5	245.2
	COP (2)	-	3.20	3.06	2.82	2.82
Outer dimension	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	10000			
Cabinet colour		-	Natural Grey (Textured)			
Shipping weight		kg	5 x 1425	5 x 1460	5 x 1525	5 x 1550
Operating weight		kg	7200	7400	7800	7900
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	5			
	Oil Heater	W	5 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	5.0 ~ 100			
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	20			
Refrigerant	Type	-	R134a			
Flow control	-	-	Twin Electronic Expansion Valve per Circuit			
Number of circuits		-	5			
Nominal water flow		m3/h	81.7	102.3	123.0	137.6
Water pressure drop		kPa	9.4	9.7	10.6	13.0
Permissible water pressure max.		MPa	1.0			
Water flow range	Min.	m3/h	51.1	64.0	76.9	86.0
	Max.	m3/h	116.7	146.2	175.7	196.6
Minimum internal system water volume		m3	1.72	2.15	2.59	2.89
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	5 x Inlet , 5 x Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Heated Water Outlet Temperature		°C	+35 ~ +55			
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46			
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)			
Sound power level		dB(A)	96	98	100	101
Sound pressure level		dB(A)	68	70	72	73

## ◆ 6 Modules RHME-AH1

Model			6 x RHME-40AH1	6 x RHME-50AH1	6 x RHME-60AH1	6 x RHME-70AH1
Electrical power supply		-	3N~ 400V 50Hz			
Cooling	Capacity (1)	kW	570	714	858	960
	Total Input power (1)	kW	168	220	290	325
	EER (1)	-	3.40	3.25	2.96	2.95
	ESEER (1)	-	4.62	4.41	4.21	4.20
	Capacity (2)	kW	568.9	712.7	856.5	958.1
	Total Input Power (2)	kW	168.7	221.0	291.7	327.4
	EER (2)	-	3.37	3.22	2.94	2.93
	ESEER (2)	-	4.55	4.35	4.16	4.14
Heating	Capacity (1)	kW	552	690	828	828
	Total input power (1)	kW	171.6	224.5	293.1	292.4
	COP (1)	-	3.22	3.07	2.83	2.83
	Capacity (2)	kW	553.1	691.3	829.5	829.9
	Total Input Power (2)	kW	172.7	225.8	294.6	294.3
	COP (2)	-	3.20	3.06	2.82	2.82
Outer dimension	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	12000			
Cabinet colour		-	Natural Grey (Textured)			
Shipping weight		kg	6 x 1425	6 x 1460	6 x 1525	6 x 1550
Operating weight		kg	8640	8880	9360	9480
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	6			
	Oil Heater	W	6 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	4.2 ~ 100			
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	24			
Refrigerant	Type	-	R134a			
Flow control	-	-	Twin Electronic Expansion Valve per Circuit			
Number of circuits		-	6			
Nominal water flow		m3/h	98.0	122.8	147.6	165.1
Water pressure drop		kPa	9.4	9.7	10.6	13.0
Permissible water pressure max.		MPa	1.0			
Water flow range	Min.	m3/h	61.3	76.8	92.2	103.2
	Max.	m3/h	140.1	175.4	210.8	235.9
Minimum internal system water volume		m3	2.06	2.58	3.10	3.47
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	6 × Inlet , 6 × Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Heated Water Outlet Temperature		°C	+35 ~ +55			
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46			
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)			
Sound power level		dB(A)	97	98	100	101
Sound pressure level		dB(A)	69	70	72	73

### ◆ 7 Modules RHME-AH1

Model			7 x RHME-40AH1	7 x RHME-50AH1	7 x RHME-60AH1	7 x RHME-70AH1
Electrical power supply		-	3N~ 400V 50Hz			
Cooling	Capacity (1)	kW	665	833	1001	1120
	Total Input power (1)	kW	196	256	338	380
	EER (1)	-	3.40	3.25	2.96	2.95
	ESEER (1)	-	4.62	4.41	4.23	4.22
	Capacity (2)	kW	663.7	831.5	999.2	1117.8
	Total Input Power (2)	kW	196.8	257.8	340.3	381.9
	EER (2)	-	3.37	3.22	2.94	2.93
	ESEER (2)	-	4.54	4.35	4.17	4.15
Heating	Capacity (1)	kW	644	805	966	966
	Total input power (1)	kW	200.2	261.9	341.9	341.1
	COP (1)	-	3.22	3.07	2.83	2.83
	Capacity (2)	kW	645.3	806.5	967.8	968.2
	Total Input Power (2)	kW	201.5	263.4	343.7	343.3
	COP (2)	-	3.20	3.06	2.82	2.82
Outer dimension	Height	mm	2450			
	Width	mm	2230			
	Depth	mm	14000			
Cabinet colour	-		Natural Grey (Textured)			
Shipping weight		kg	7 x 1425	7 x 1460	7 x 1525	7 x 1550
Operating weight		kg	10080	10360	10920	11060
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-	7			
	Oil Heater	W	7 x 150			
	Capacity control	-	Infinite Capacity Control			
	Working range	%	3.6 ~ 100			
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	28			
Refrigerant	Type	-	R134a			
Flow control	-	-	Twin Electronic Expansion Valve per Circuit			
Number of circuits		-	7			
Nominal water flow		m3/h	114.4	143.3	172.2	192.6
Water pressure drop		kPa	9.4	9.7	10.6	13.0
Permissible water pressure max.		MPa	1.0			
Water flow range	Min.	m3/h	71.5	89.5	107.6	120.4
	Max.	m3/h	163.4	204.7	246.0	275.2
Minimum internal system water volume		m3	2.40	3.01	3.62	4.05
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	7 x Inlet , 7 x Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C	+5 ~ +15			
	Low (option) (3)	°C	-5 ~ +5			
	High (option)	°C	+15 ~ +30			
Heated Water Outlet Temperature		°C	+35 ~ +55			
Ambient Air Inlet Temperature	Cooling	°C	-15 ~ +46			
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)			
Sound power level		dB(A)	98	99	101	102
Sound pressure level		dB(A)	70	71	73	74

### ◆ 8 Modules RHME-AH1

Model			8 x RHME-40AH1	8 x RHME-50AH1	8 x RHME-60AH1	8 x RHME-70AH1
Electrical power supply		-	3N~ 400V 50Hz			
Cooling	Capacity (1)	kW	760	952	1144	1280
	Total Input power (1)	kW	224	293	387	434
	EER (1)	-	3.40	3.25	2.96	2.95
	ESEER (1)	-	4.63	4.42	4.24	4.23
	Capacity (2)	kW	758.6	950.3	1141.9	1277.4
	Total Input Power (2)	kW	225.0	294.7	388.9	436.5
	EER (2)	-	3.37	3.22	2.94	2.93
	ESEER (2)	-	4.56	4.36	4.18	4.16
Heating	Capacity (1)	kW	736	920	1104	1104
	Total input power (1)	kW	228.8	299.3	390.8	389.8
	COP (1)	-	3.22	3.07	2.83	2.83
	Capacity (2)	kW	737.4	921.7	1106.1	1106.6
	Total Input Power (2)	kW	230.3	301.0	392.8	392.4
	COP (2)	-	3.20	3.06	2.82	2.82
Outer dimension	Height	mm		2450		
	Width	mm		2230		
	Depth	mm		16000		
Cabinet colour	-		Natural Grey (Textured)			
Shipping weight	kg	8 x 1425	8 x 1460	8 x 1525	8 x 1550	
Operating weight	kg	11520	11840	12480	12640	
Compressor	Type	-	HITACHI Semi-Hermetic Twin Screw			
	Model	-	G30ASF-Z	G40ASF-Z	G50ASF-Z	G50ASF-Z
	Quantity	-		8		
	Oil Heater	W		8 x 150		
	Capacity control	-	Infinite Capacity Control			
	Working range	%		3.1 ~ 100		
Water Side Heat Exchanger		-	Brazed Plate Heat Exchanger			
Air Side Heat Exchanger		-	Multi-Pass Cross Finned Tube (Cu/Al)			
Fan Motor	Type	-	Direct-Driven propeller fan (EC motor)			
	Quantity	-	32			
Refrigerant	Type	-	R134a			
Flow control	-	-	Twin Electronic Expansion Valve per Circuit			
Number of circuits		-	8			
Nominal water flow		m3/h	130.7	163.7	196.8	220.2
Water pressure drop		kPa	9.4	9.7	10.6	13.0
Permissible water pressure max.		MPa		1.0		
Water flow range	Min.	m3/h	81.7	102.3	123.0	137.6
	Max.	m3/h	186.7	233.9	281.1	314.5
Minimum internal system water volume		m3	2.75	3.44	4.14	4.63
Water pipe connection	Size and type	in	2.1/2" Victaulic			
	Quantity	-	8 x Inlet , 8 x Outlet			
Control system		-	HITACHI Micro-Processor Control			
Chilled water outlet temperature	Standard	°C		+5 ~ +15		
	Low (option) (3)	°C		-5 ~ +5		
	High (option)	°C		+15 ~ +30		
Heated Water Outlet Temperature		°C		+35 ~ +55		
Ambient Air Inlet Tem-perature	Cooling	°C		-15 ~ +46		
	Heating	°C	-9.5 (DB) , -10 (WB) ~ +21 (DB) , +15.5 (WB)			
Sound power level		dB(A)	98	100	102	103
Sound pressure level		dB(A)	70	72	74	75

### 3.6.3 Sound Data

Combination	Sound Power level (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
4 x R(C/H)ME-40AH1	97	93	90	93	92	84	69	60	95	
4 x R(C/H)ME-50AH1	107	98	94	93	94	84	71	63	97	
4 x R(C/H)ME-60AH1	109	100	96	95	96	86	73	65	99	
4 x R(C/H)ME-70AH1	110	101	97	96	97	87	74	66	100	
5 x R(C/H)ME-40AH1	98	94	91	94	93	85	69	61	96	
5 x R(C/H)ME-50AH1	108	99	95	94	95	85	72	64	98	
5 x R(C/H)ME-60AH1	110	101	97	96	97	87	74	66	100	
5 x R(C/H)ME-70AH1	111	102	98	97	98	88	75	67	101	
6 x R(C/H)ME-40AH1	99	94	91	95	94	86	70	62	97	
6 x R(C/H)ME-50AH1	108	100	96	95	96	86	73	64	98	
6 x R(C/H)ME-60AH1	110	102	98	97	98	88	75	66	100	
6 x R(C/H)ME-70AH1	111	103	99	98	99	89	76	67	101	
7 x R(C/H)ME-40AH1	99	95	92	96	95	86	71	63	98	
7 x R(C/H)ME-50AH1	109	101	97	95	97	86	74	65	99	
7 x R(C/H)ME-60AH1	111	103	99	97	99	88	76	67	101	
7 x R(C/H)ME-70AH1	112	104	100	98	100	89	77	68	102	
8 x R(C/H)ME-40AH1	100	96	93	96	95	87	72	63	98	
8 x R(C/H)ME-50AH1	110	101	97	96	97	87	74	66	100	
8 x R(C/H)ME-60AH1	112	103	99	98	99	89	76	68	102	
8 x R(C/H)ME-70AH1	113	104	100	99	100	90	77	69	103	

Combination	Sound Pressure level at 1m (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
4 x R(C/H)ME-40AH1	73	73	74	75	77	67	51	42	79	
4 x R(C/H)ME-50AH1	88	84	81	80	82	70	56	48	84	
4 x R(C/H)ME-60AH1	90	86	83	82	84	72	58	50	86	
4 x R(C/H)ME-70AH1	91	87	84	83	85	73	59	51	87	
5 x R(C/H)ME-40AH1	74	74	75	76	78	68	52	43	80	
5 x R(C/H)ME-50AH1	89	85	82	81	83	71	57	49	85	
5 x R(C/H)ME-60AH1	91	87	84	83	85	73	59	51	87	
5 x R(C/H)ME-70AH1	92	88	85	84	86	74	60	52	88	
6 x R(C/H)ME-40AH1	75	75	76	76	79	69	53	44	81	
6 x R(C/H)ME-50AH1	90	86	82	81	84	71	58	50	86	
6 x R(C/H)ME-60AH1	92	88	84	83	86	73	60	52	88	
6 x R(C/H)ME-70AH1	93	89	85	84	87	74	61	53	89	
7 x R(C/H)ME-40AH1	76	76	77	77	79	69	54	44	81	
7 x R(C/H)ME-50AH1	90	87	83	82	84	72	59	50	86	
7 x R(C/H)ME-60AH1	92	89	85	84	86	74	61	52	88	
7 x R(C/H)ME-70AH1	93	90	86	85	87	75	62	53	89	
8 x R(C/H)ME-40AH1	76	76	77	78	80	70	54	45	82	
8 x R(C/H)ME-50AH1	91	88	84	83	85	73	59	51	87	
8 x R(C/H)ME-60AH1	93	90	86	85	87	75	61	53	89	
8 x R(C/H)ME-70AH1	94	91	87	86	88	76	62	54	90	

## Typical on-site module combinations

Combination	Sound Pressure level at 10m (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
4 x R(C/H)ME-40AH1	69	65	62	65	64	56	41	32	67	
4 x R(C/H)ME-50AH1	79	70	66	65	66	56	43	35	69	
4 x R(C/H)ME-60AH1	81	72	68	67	68	58	45	37	71	
4 x R(C/H)ME-70AH1	82	73	69	68	69	59	46	38	72	
5 x R(C/H)ME-40AH1	70	66	63	66	65	57	41	33	68	
5 x R(C/H)ME-50AH1	80	71	67	66	67	57	44	36	70	
5 x R(C/H)ME-60AH1	82	73	69	68	69	59	46	38	72	
5 x R(C/H)ME-70AH1	83	74	70	69	70	60	47	39	73	
6 x R(C/H)ME-40AH1	71	66	63	67	66	58	42	34	69	
6 x R(C/H)ME-50AH1	80	72	68	67	68	58	45	36	70	
6 x R(C/H)ME-60AH1	82	74	70	69	70	60	47	38	72	
6 x R(C/H)ME-70AH1	83	75	71	70	71	61	48	39	73	
7 x R(C/H)ME-40AH1	71	67	64	68	67	58	43	35	70	
7 x R(C/H)ME-50AH1	81	73	69	67	69	58	46	37	71	
7 x R(C/H)ME-60AH1	83	75	71	69	71	60	48	39	73	
7 x R(C/H)ME-70AH1	84	76	72	70	72	61	49	40	74	
8 x R(C/H)ME-40AH1	72	68	65	68	67	59	44	35	70	
8 x R(C/H)ME-50AH1	82	73	69	68	69	59	46	38	72	
8 x R(C/H)ME-60AH1	84	75	71	70	71	61	48	40	74	
8 x R(C/H)ME-70AH1	85	76	72	71	72	62	49	41	75	

Combination	Sound Pressure level at 30m (dB)								Overall (dBA)	
	Frequency Band (Hz)									
	63	125	250	500	1000	2000	4000	8000		
4 x R(C/H)ME-40AH1	59	55	52	56	55	47	31	23	58	
4 x R(C/H)ME-50AH1	69	61	57	55	57	46	34	25	59	
4 x R(C/H)ME-60AH1	71	63	59	57	59	48	36	27	61	
4 x R(C/H)ME-70AH1	72	64	60	58	60	49	37	28	62	
5 x R(C/H)ME-40AH1	60	56	53	57	56	47	32	24	59	
5 x R(C/H)ME-50AH1	70	62	58	56	58	47	35	26	60	
5 x R(C/H)ME-60AH1	72	64	60	58	60	49	37	28	62	
5 x R(C/H)ME-70AH1	73	65	61	59	61	50	38	29	63	
6 x R(C/H)ME-40AH1	61	57	54	57	57	48	33	24	59	
6 x R(C/H)ME-50AH1	71	62	58	57	59	48	35	27	61	
6 x R(C/H)ME-60AH1	73	64	60	59	61	50	37	29	63	
6 x R(C/H)ME-70AH1	74	65	61	60	62	51	38	30	64	
7 x R(C/H)ME-40AH1	62	57	54	58	57	49	33	25	60	
7 x R(C/H)ME-50AH1	72	63	59	58	59	49	36	28	62	
7 x R(C/H)ME-60AH1	74	65	61	60	61	51	38	30	64	
7 x R(C/H)ME-70AH1	75	66	62	61	62	52	39	31	65	
8 x R(C/H)ME-40AH1	62	58	55	59	58	50	34	26	61	
8 x R(C/H)ME-50AH1	72	64	60	58	60	50	37	28	62	
8 x R(C/H)ME-60AH1	74	66	62	60	62	52	39	30	64	
8 x R(C/H)ME-70AH1	75	67	63	61	63	53	40	31	65	

## 3.7 Electrical Data

### 3.7.1 RCME-AH1

#### ◆ Factory built

Model	Unit main power			Applicable instantaneous voltage (V)		Rated conditions				Condenser fan motor		Maximum unit (for power supply installation sizing)							
						Compressor motor													
						Cooling mode													
	Ph	(V)	(Hz)	Max	Min	STC*1 (A)	RNC (A)	MC (A)	IPT (kW)	RNC (A)	IPT (kW)	Current (A)	STC*2 (A)	IPT (kW)					
RCME-40AH1	3N~	400	50	440	360	142	41.9	56.6	24.7	7.8	2.5	71.6	-	38.2					
RCME-50AH1	3N~	400	50	440	360	179	56.2	75.9	33.1	7.8	2.5	90.9	-	49.5					
RCME-60AH1	3N~	400	50	440	360	240	73.8	99.7	44.5	7.8	2.5	115	-	64.9					
RCME-70AH1	3N~	400	50	440	360	240	86.3	116	52.0	7.8	2.5	131	-	75.0					
RCME-080/2AH1	3N~	400	50	440	360	142	83.9	113	49.4	15.5	5	143	214	76.5					
RCME-090/2AH1	3N~	400	50	440	360	142/179	98.1	133	57.8	15.5	5	163	251	87.7					
RCME-100/2AH1	3N~	400	50	440	360	179	112	152	66.2	15.5	5	182	270	99.0					
RCME-110/2AH1	3N~	400	50	440	360	179/240	130	176	77.6	15.5	5	206	331	114					
RCME-120/2AH1	3N~	400	50	440	360	240	148	199	89.0	15.5	5	229	355	130					
RCME-130/2AH1	3N~	400	50	440	360	240	160	216	96.0	15.5	5	246	371	140					
RCME-140/2AH1	3N~	400	50	440	360	240	173	233	104	15.5	5	263	371	150					
RCME-150/3AH1	3N~	400	50	440	360	179	169	228	99.5	23.3	7.5	273	361	115					
RCME-160/3AH1	3N~	400	50	440	360	179/240	186	251	111	23.3	7.5	296	422	164					
RCME-170/3AH1	3N~	400	50	440	360	179/240	204	275	123	23.3	7.5	320	446	179					
RCME-180/3AH1	3N~	400	50	440	360	240	221	299	134	23.3	7.5	344	469	195					
RCME-190/3AH1	3N~	400	50	440	360	240	234	316	141	23.3	7.5	361	486	205					
RCME-200/3AH1	3N~	400	50	440	360	240	246	333	149	23.3	7.5	378	502	215					
RCME-210/3AH1	3N~	400	50	440	360	240	259	349	156	23.3	7.5	394	502	225					

STC: Starting Current (A) RNC: Running Current (A) MC: Maximum Current IPT: Input (kW) Ph: Number of phases



#### NOTE

- 1 This data is based on the following conditions:  
Chilled Water Inlet/Outlet Temperature: 12/7°C. Ambient Temperature: 35°C.
- 2 The "Maximum Unit Current" shown in the above table is the maximum total unit running current at the following conditions: Supply Voltage: 90% of the rated voltage. Unit Capacity: 100% at max. operating conditions.
- 3 The power supply cables must be sized to cover this maximum current value.
- 4 Starting Current (\*1, \*2) means as follows:  
\*1: Starting Current of the first Compressor.  
\*2: Maximum Starting Current of the unit when the last Compressor starts (Maximum current for the running compressors + STC for the last compressor to start operation).
- 5 Compressor motor is star-delta starting.

**◆ On-site module combination**

Model	Unit main power			Applicable instantaneous voltage (V)	Rated conditions				Condenser fan motor		Maximum unit (for power supply installation sizing)			
					Compressor motor		Cooling mode							
	Ph	(V)	(Hz)		STC*1 (A)	RNC (A)	MC (A)	IPT (kW)	RNC (A)	IPT (kW)	Current (A)	STC*2 (A)	IPT (kW)	
4 x RCME-40AH1	3N~	400	50	440	360	142	168	226	98.8	31.1	10.0	286	357	153
4 x RCME-50AH1	3N~	400	50	440	360	179	225	304	132	31.1	10.0	364	452	198
4 x RCME-60AH1	3N~	400	50	440	360	240	295	399	178	31.1	10.0	459	584	260
4 x RCME-70AH1	3N~	400	50	440	360	240	345	466	208	31.1	10.0	526	634	300
5 x RCME-40AH1	3N~	400	50	440	360	142	210	283	124	38.8	12.5	358	428	191
5 x RCME-50AH1	3N~	400	50	440	360	179	281	379	166	38.8	12.5	454	543	248
5 x RCME-60AH1	3N~	400	50	440	360	240	369	498	223	38.8	12.5	573	699	325
5 x RCME-70AH1	3N~	400	50	440	360	240	431	582	260	38.8	12.5	657	766	375
6 x RCME-40AH1	3N~	400	50	440	360	142	252	340	148	46.6	15.0	430	500	229
6 x RCME-50AH1	3N~	400	50	440	360	179	337	455	199	46.6	15.0	454	633	297
6 x RCME-60AH1	3N~	400	50	440	360	240	443	598	267	46.6	15.0	573	813	389
6 x RCME-70AH1	3N~	400	50	440	360	240	518	699	312	46.6	15.0	657	897	450
7 x RCME-40AH1	3N~	400	50	440	360	142	294	396	173	54.3	17.5	501	572	268
7 x RCME-50AH1	3N~	400	50	440	360	179	393	531	232	54.3	17.5	636	724	347
7 x RCME-60AH1	3N~	400	50	440	360	240	517	698	312	54.3	17.5	803	928	454
7 x RCME-70AH1	3N~	400	50	440	360	240	604	815	364	54.3	17.5	920	1029	525
8 x RCME-40AH1	3N~	400	50	440	360	142	336	453	198	62.1	20.0	573	643	306
8 x RCME-50AH1	3N~	400	50	440	360	179	450	607	265	62.1	20.0	727	815	396
8 x RCME-60AH1	3N~	400	50	440	360	240	591	797	356	62.1	20.0	917	1043	519
8 x RCME-70AH1	3N~	400	50	440	360	240	690	932	416	62.1	20.0	1052	1160	600

STC: Starting Current (A) RNC: Running Current (A) MC: Maximum Current IPT: Input (kW) Ph: Number of phases


**NOTE**

- 1 This data is based on the following conditions:  
Chilled Water Inlet/Outlet Temperature: 12/7°C. Ambient Temperature: 35°C.
- 2 The "Maximum Unit Current" shown in the above table is the maximum total unit running current at the following conditions: Supply Voltage: 90% of the rated voltage. Unit Capacity: 100% at max. operating conditions.
- 3 The power supply cables must be sized to cover this maximum current value.
- 4 Starting Current (\*1, \*2) means as follows:  
\*1: Starting Current of the first Compressor  
\*2: Maximum Starting Current of the unit when the last Compressor starts (Maximum current for the running compressors + STC for the last compressor to start operation).
- 5 Compressor motor is star-delta starting.

◆ Recommended values for the circuit breaker, earth leakage breaker, cables and bus bar

Model	CB (EF)	ELB - Is	Cable	Bus Bar	Cable
	4 poles	4 poles	Recommended		Maximum
	(A)	(mA)	(mm <sup>2</sup> )	(mm*mm)	(mm <sup>2</sup> )
RCME-40AH1	125	100	50	-	-
RCME-50AH1	125	100	50	-	-
RCME-60AH1	160	100	70	-	-
RCME-70AH1	160	100	70	-	-
RCME-080/2AH1	200	100	70	-	-
RCME-090/2AH1	200	100	70	-	-
RCME-100/2AH1	250	100	95	-	-
RCME-110/2AH1	250	100	95	-	-
RCME-120/2AH1	300	100	95	-	-
RCME-130/2AH1	300	100	95	-	-
RCME-140/2AH1	350	100	120	20x10 (*)	-
RCME-150/3AH1	350	100	120	20x10 (*)	-
RCME-160/3AH1	350	100	120	20x10 (*)	-
RCME-170/3AH1	400	100	150	30x10 (*)	-
RCME-180/3AH1	400	100	150	30x10 (*)	-
RCME-190/3AH1	630	100	240	30x10 (*)	-
RCME-200/3AH1	630	100	240	30x10 (*)	-
RCME-210/3AH1	630	100	240	30x10 (*)	-
4 x RCME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
4 x RCME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
4 x RCME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
4 x RCME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
5 x RCME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
5 x RCME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
5 x RCME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
5 x RCME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
6 x RCME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
6 x RCME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
6 x RCME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
6 x RCME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
7 x RCME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
7 x RCME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
7 x RCME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
7 x RCME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
8 x RCME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
8 x RCME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
8 x RCME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
8 x RCME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)



**NOTE**

- (\*): Provide additional insulation ( $\geq 500V$ ) in all the bus bars to avoid electric archs between circuits.
- The indicated values are the recommended values considering installation type described previously. In any case, follow local or national regulations.
- Recommended cables and bus bars are selected considering CB tripping value. Proposed CB tripping values are fixed standard rated values available on the market. If using variable CB which allows an accurate tripping value setting (based on maximum unit current and maximum starting current in electrical data) then, lower cable or bus bars sizes could be selected.
- Depending on the installations type, cable trays, maximum allowed temperature and other factors, different cables or bus bar types and sizes could apply.

### 3.7.2 RHME-AH1

#### ◆ Factory built

Model	Unit main power			Applicable instantaneous voltage (V)		Rated conditions						Condenser fan motor		Maximum unit (for power supply installation sizing)			
						Compressor motor											
		Cooling mode			Heating mode			RNC (A)	IPT (kW)	RNC (A)	IPT (kW)	RNC (A)	IPT (kW)				
	Ph	(V)	(Hz)	Max	Min	STC*1 (A)	RNC (A)	MC (A)	IPT (kW)	RNC (A)	MC (A)	IPT (kW)	RNC (A)	IPT (kW)	Current (A)	STC*2 (A)	IPT (kW)
RHME-40AH1	3N~	400	50	440	360	142	43.1	58.2	25.4	44.3	59.8	26.1	7.76	2.50	74.8	-	40.1
RHME-50AH1	3N~	400	50	440	360	179	57.9	78.2	34.1	59.3	80.0	34.9	7.76	2.50	95.0	-	52.0
RHME-60AH1	3N~	400	50	440	360	240	76.2	103	45.9	76.9	104	46.3	7.76	2.50	119	-	67.4
RHME-70AH1	3N~	400	50	440	360	240	85.8	116	51.7	76.7	104	46.2	7.76	2.50	131	-	75.0
RHME-080/2AH1	3N~	400	50	440	360	142	86.4	117	50.9	88.7	120	52.2	15.5	5.00	150	217	80.1
RHME-090/2AH1	3N~	400	50	440	360	142/179	101	137	59.6	104	140	61.0	15.5	5.00	170	254	92.0
RHME-100/2AH1	3N~	400	50	440	360	179	116	156	68.2	119	160	69.8	15.5	5.00	190	274	104
RHME-110/2AH1	3N~	400	50	440	360	179/240	134	181	80.0	136	184	81.3	15.5	5.00	214	335	119
RHME-120/2AH1	3N~	400	50	440	360	240	152	205	91.7	154	208	92.7	15.5	5.00	238	359	135
RHME-130/2AH1	3N~	400	50	440	360	240	163	219	98.0	154	207	92.6	15.5	5.00	249	371	142
RHME-140/2AH1	3N~	400	50	440	360	240	171	231	103	153	207	92.5	15.5	5.00	261	371	150
RHME-150/3AH1	3N~	400	50	440	360	179	174	235	103	178	240	105	23.3	7.50	270	369	120
RHME-160/3AH1	3N~	400	50	440	360	179/240	194	262	115	197	266	116	23.3	7.50	296	430	171
RHME-170/3AH1	3N~	400	50	440	360	179/240	208	281	126	212	286	128	23.3	7.50	316	454	187
RHME-180/3AH1	3N~	400	50	440	360	240	228	308	138	231	311	139	23.3	7.50	341	478	202
RHME-190/3AH1	3N~	400	50	440	360	240	238	321	144	230	311	139	23.3	7.50	351	490	210
RHME-200/3AH1	3N~	400	50	440	360	240	248	335	150	230	311	139	23.3	7.50	395	502	217
RHME-210/3AH1	3N~	400	50	440	360	240	258	348	156	230	311	139	23.3	7.50	408	502	225

STC: Starting Current (A) RNC: Running Current (A) MC: Maximum Current IPT: Input (kW) Ph: Number of phases



#### NOTE

- 1 This data is based on the following conditions:  
Chilled Water Inlet/Outlet Temperature: 12/7°C. Ambient Temperature: 35°C.  
Heating Operation: Water Inlet/Outlet Temperature: 40/45 °C, Ambient Temperature: 6°C WB
- 2 The "Maximum Unit Current" shown in the above table is the maximum total unit running current at the following conditions: Supply Voltage: 90% of the rated voltage. Unit Capacity: 100% at max. operating conditions.
- 3 The power supply cables must be sized to cover this maximum current value.
- 4 Starting Current (\*1, \*2) means as follows:  
\*1: Starting Current of the first Compressor.  
\*2: Maximum Starting Current of the unit when the last Compressor starts (Maximum current for the running compressors + STC for the last compressor to start operation).
- 5 Compressor motor is star-delta starting.

**◆ On-site module combination**

Model	Unit main power			Applicable instantaneous voltage (V)		Rated conditions						Condenser fan motor		Maximum unit (for power supply installation sizing)			
						Compressor motor				Cooling mode		Heating mode					
	STC*1 (A)	RNC (A)	MC (A)	IPT (kW)	RNC (A)	MC (A)	IPT (kW)	RNC (A)	IPT (kW)	Current (A)	STC*2 (A)	IPT (kW)					
Ph	(V)	(Hz)	Max	Min													
4 x RHME-40AH1	3N~	400	50	440	360	142	173	233	102	177	239	104	31.1	10.0	299	367	160
4 x RHME-50AH1	3N~	400	50	440	360	179	232	313	136	237	320	140	31.1	10.0	380	464	208
4 x RHME-60AH1	3N~	400	50	440	360	240	305	411	184	308	415	185	31.1	10.0	475	596	270
4 x RHME-70AH1	3N~	400	50	440	360	240	343	463	207	307	414	185	31.1	10.0	523	634	300
5 x RHME-40AH1	3N~	400	50	440	360	142	216	291	127	222	299	131	38.8	12.5	358	441	200
5 x RHME-50AH1	3N~	400	50	440	360	179	290	391	171	296	400	175	38.8	12.5	454	559	260
5 x RHME-60AH1	3N~	400	50	440	360	240	381	514	230	384	519	232	38.8	12.5	573	715	337
5 x RHME-70AH1	3N~	400	50	440	360	240	429	579	259	383	518	231	38.8	12.5	657	766	375
6 x RHME-40AH1	3N~	400	50	440	360	142	259	349	152	266	359	157	46.6	15.0	430	516	240
6 x RHME-50AH1	3N~	400	50	440	360	179	347	469	205	356	480	209	46.6	15.0	454	654	312
6 x RHME-60AH1	3N~	400	50	440	360	240	457	617	275	461	623	278	46.6	15.0	573	834	404
6 x RHME-70AH1	3N~	400	50	440	360	240	515	695	310	460	621	277	46.6	15.0	657	897	450
7 x RHME-40AH1	3N~	400	50	440	360	142	302	408	178	310	419	183	54.3	17.5	501	591	281
7 x RHME-50AH1	3N~	400	50	440	360	179	405	547	239	415	560	244	54.3	17.5	636	749	364
7 x RHME-60AH1	3N~	400	50	440	360	240	533	720	321	538	727	324	54.3	17.5	803	953	472
7 x RHME-70AH1	3N~	400	50	440	360	240	600	811	362	537	725	324	54.3	17.5	920	1029	525
8 x RHME-40AH1	3N~	400	50	440	360	142	345	466	203	355	479	209	62.1	20.0	573	666	321
8 x RHME-50AH1	3N~	400	50	440	360	179	463	625	273	474	640	279	62.1	20.0	727	844	416
8 x RHME-60AH1	3N~	400	50	440	360	240	609	822	367	615	830	371	62.1	20.0	917	1072	539
8 x RHME-70AH1	3N~	400	50	440	360	240	686	926	414	614	828	370	62.1	20.0	1052	1160	600

STC: Starting Current (A) RNC: Running Current (A) MC: Maximum Current IPT: Input (kW) Ph: Number of phases


**NOTE**

- 1 This data is based on the following conditions:  
Chilled Water Inlet/Outlet Temperature: 12/7°C. Ambient Temperature: 35°C.
- 2 The "Maximum Unit Current" shown in the above table is the maximum total unit running current at the following conditions: Supply Voltage: 90% of the rated voltage. Unit Capacity: 100% at max. operating conditions.
- 3 The power supply cables must be sized to cover this maximum current value.
- 4 Starting Current (\*1, \*2) means as follows:  
\*1: Starting Current of the first Compressor  
\*2: Maximum Starting Current of the unit when the last Compressor starts (Maximum current for the running compressors + STC for the last compressor to start operation).
- 5 Compressor motor is star-delta starting.

◆ Recommended values for the circuit breaker, earth leakage breaker, cables and bus bar

Model	CB (EF)	ELB - Is	Cable	Bus Bar	Cable
	4 poles	4 poles	Recommended		Maximum
	(A)	(mA)	(mm <sup>2</sup> )	(mm*mm)	(mm <sup>2</sup> )
RHME-40AH1	125	100	50	-	-
RHME-50AH1	125	100	50	-	-
RHME-60AH1	160	100	70	-	-
RHME-70AH1	160	100	70	-	-
RHME-080/2AH1	200	100	70	-	-
RHME-090/2AH1	200	100	70	-	-
RHME-100/2AH1	250	100	95	-	-
RHME-110/2AH1	250	100	95	-	-
RHME-120/2AH1	300	100	95	-	-
RHME-130/2AH1	300	100	95	-	-
RHME-140/2AH1	350	100	120	20x10 (*)	-
RHME-150/3AH1	350	100	120	20x10 (*)	-
RHME-160/3AH1	350	100	120	20x10 (*)	-
RHME-170/3AH1	400	100	150	30x10 (*)	-
RHME-180/3AH1	400	100	150	30x10 (*)	-
RHME-190/3AH1	630	100	240	30x10 (*)	-
RHME-200/3AH1	630	100	240	30x10 (*)	-
RHME-210/3AH1	630	100	240	30x10 (*)	-
4 x RHME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
4 x RHME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
4 x RHME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
4 x RHME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
5 x RHME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
5 x RHME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
5 x RHME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
5 x RHME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
6 x RHME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
6 x RHME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
6 x RHME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
6 x RHME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
7 x RHME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
7 x RHME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
7 x RHME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
7 x RHME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)
8 x RHME-40AH1	125 (each module)	100	50 (each module)	-	120 (each module)
8 x RHME-50AH1	125 (each module)	100	50 (each module)	-	120 (each module)
8 x RHME-60AH1	160 (each module)	100	70 (each module)	-	120 (each module)
8 x RHME-70AH1	160 (each module)	100	70 (each module)	-	120 (each module)



**NOTE**

- (\*): Provide additional insulation ( $\geq 500V$ ) in all the bus bars to avoid electric archs between circuits.
- The indicated values are the recommended values considering installation type described previously. In any case, follow local or national regulations.
- Recommended cables and bus bars are selected considering CB tripping value. Proposed CB tripping values are fixed standard rated values available on the market. If using variable CB which allows an accurate tripping value setting (based on maximum unit current and maximum starting current in electrical data) then, lower cable or bus bars sizes could be selected.
- Depending on the installations type, cable trays, maximum allowed temperature and other factors, different cables or bus bar types and sizes could apply.

# 4 . Model selection

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## 4.1 Individual modules

### 4.1.1 Cooling Operation

#### 4.1.1.1 Performance Table at full load - RCME-AH1

(Pump not included)

		RCME-40AH1				RCME-50AH1				RCME-60AH1				RCME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
25	5	103.4	17.8	16.9	22.4	129.2	22.2	16.4	29.3	155.0	26.7	15.6	38.6	180.9	31.1	20.7	44.8
	6	107.0	18.4	18.0	22.6	133.8	23.0	17.5	29.6	160.5	27.6	16.7	39.1	187.3	32.2	22.0	45.3
	7	110.7	19.0	19.1	22.9	138.3	23.8	18.6	30.0	166.0	28.5	17.7	39.6	193.6	33.3	23.4	45.9
	8	114.3	19.7	20.3	23.2	142.9	24.6	19.7	30.3	171.4	29.5	18.8	40.0	200.0	34.4	24.8	46.4
	9	117.9	20.3	21.5	23.4	147.4	25.4	20.9	30.7	176.9	30.4	19.9	40.5	206.4	35.5	26.3	47.0
	10	121.6	20.9	22.7	23.7	152.0	26.1	22.0	31.0	182.4	31.4	21.0	41.0	212.8	36.6	27.8	47.5
	11	125.2	21.5	23.9	24.0	156.5	26.9	23.3	31.4	187.8	32.3	22.2	41.5	219.2	37.7	29.3	48.1
	12	128.9	22.2	25.2	24.3	161.1	27.7	24.5	31.8	193.3	33.2	23.3	41.9	225.5	38.8	30.9	48.6
	13	132.5	22.8	26.5	24.5	165.7	28.5	25.8	32.1	198.8	34.2	24.6	42.4	231.9	39.9	32.5	49.2
	14	136.2	23.4	27.8	24.8	170.2	29.3	27.0	32.5	204.2	35.1	25.8	42.9	238.3	41.0	34.1	49.7
	15	139.8	24.0	29.2	25.1	174.8	30.1	28.4	32.8	209.7	36.1	27.1	43.3	244.7	42.1	35.8	50.3
30	5	99.5	17.1	15.8	24.6	124.4	21.4	15.4	32.1	149.3	25.7	14.6	42.4	174.2	30.0	19.3	49.2
	6	103.1	17.7	16.9	24.8	128.9	22.2	16.4	32.5	154.7	26.6	15.6	42.9	180.5	31.0	20.6	49.8
	7	106.7	18.4	17.9	25.1	133.4	23.0	17.4	32.9	160.1	27.5	16.6	43.4	186.8	32.1	21.9	50.3
	8	110.4	19.0	19.0	25.4	137.9	23.7	18.5	33.2	165.5	28.5	17.6	43.9	193.1	33.2	23.3	50.9
	9	114.0	19.6	20.2	25.7	142.5	24.5	19.6	33.6	171.0	29.4	18.7	44.4	199.4	34.3	24.7	51.5
	10	117.6	20.2	21.3	26.0	147.0	25.3	20.8	34.0	176.4	30.3	19.8	44.9	205.8	35.4	26.1	52.0
	11	121.2	20.8	22.5	26.2	151.5	26.1	21.9	34.3	181.8	31.3	20.9	45.3	212.1	36.5	27.6	52.6
	12	124.8	21.5	23.8	26.5	156.0	26.8	23.1	34.7	187.2	32.2	22.0	45.8	218.4	37.6	29.1	53.1
	13	128.4	22.1	25.0	26.8	160.5	27.6	24.3	35.1	192.6	33.1	23.2	46.3	224.7	38.7	30.7	53.7
	14	132.0	22.7	26.3	27.1	165.0	28.4	25.6	35.5	198.1	34.1	24.4	46.8	231.1	39.7	32.3	54.3
	15	135.6	23.3	27.6	27.4	169.6	29.2	26.9	35.8	203.5	35.0	25.6	47.3	237.4	40.8	33.9	54.8
35	5	93.0	16.0	14.0	26.6	116.3	20.0	13.6	34.8	139.5	24.0	12.9	46.0	162.8	28.0	17.1	53.3
	6	96.5	16.6	15.0	26.9	120.6	20.8	14.5	35.2	144.8	24.9	13.8	46.5	168.9	29.1	18.3	53.9
	7	100.0	17.2	15.9	27.2	125	21.5	15.5	35.6	150	25.8	14.7	47.0	175	30.1	19.5	54.5
	8	103.5	17.8	17.0	27.5	129.4	22.2	16.5	36.0	155.2	26.7	15.7	47.5	181.1	31.1	20.7	55.1
	9	107.0	18.4	18.0	27.8	133.7	23.0	17.5	36.4	160.5	27.6	16.6	48.0	187.2	32.2	22.0	55.7
	10	110.5	19.0	19.1	28.1	138.1	23.7	18.5	36.7	165.7	28.5	17.6	48.5	193.3	33.2	23.3	56.2
	11	114.0	19.6	20.2	28.4	142.4	24.5	19.6	37.1	170.9	29.4	18.7	49.0	199.4	34.3	24.7	56.8
	12	117.4	20.2	21.3	28.7	146.8	25.2	20.7	37.5	176.2	30.3	19.7	49.5	205.5	35.3	26.1	57.4
	13	120.9	20.8	22.5	28.9	151.2	26.0	21.8	37.9	181.4	31.2	20.8	50.0	211.6	36.4	27.5	58.0
	14	124.4	21.4	23.6	29.2	155.5	26.7	23.0	38.3	186.6	32.1	21.9	50.5	217.7	37.4	29.0	58.6
	15	127.9	22.0	24.8	29.5	159.9	27.5	24.2	38.6	191.9	33.0	23.0	51.0	223.8	38.5	30.5	59.1

		RCME-40AH1				RCME-50AH1				RCME-60AH1				RCME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
40	5	86.5	14.9	12.3	29.3	108.2	18.6	11.9	38.3	129.8	22.3	11.3	50.6	151.4	26.0	15.0	58.7
	6	89.9	15.5	13.2	29.6	112.4	19.3	12.8	38.7	134.8	23.2	12.1	51.1	157.3	27.1	16.1	59.3
	7	93.3	16.0	14.1	29.9	116.6	20.0	13.7	39.1	139.9	24.1	13.0	51.7	163.2	28.1	17.2	59.9
	8	96.6	16.6	15.0	30.2	120.8	20.8	14.6	39.5	144.9	24.9	13.8	52.2	169.1	29.1	18.3	60.5
	9	100.0	17.2	15.9	30.5	125.0	21.5	15.5	39.9	150.0	25.8	14.7	52.7	175.0	30.1	19.5	61.1
	10	103.3	17.8	16.9	30.8	129.2	22.2	16.4	40.3	155.0	26.7	15.6	53.2	180.9	31.1	20.7	61.7
	11	106.7	18.4	17.9	31.1	133.4	22.9	17.4	40.7	160.1	27.5	16.6	53.8	186.7	32.1	21.9	62.3
	12	110.1	18.9	19.0	31.4	137.6	23.7	18.4	41.1	165.1	28.4	17.5	54.3	192.6	33.1	23.2	63.0
	13	113.4	19.5	20.0	31.7	141.8	24.4	19.4	41.5	170.1	29.3	18.5	54.8	198.5	34.1	24.5	63.6
	14	116.8	20.1	21.1	32.0	146.0	25.1	20.5	41.9	175.2	30.1	19.5	55.3	204.4	35.2	25.8	64.2
	15	120.2	20.7	22.2	32.3	150.2	25.8	21.6	42.3	180.2	31.0	20.6	55.9	210.3	36.2	27.2	64.8
43	5	82.6	14.2	11.3	30.9	103.3	17.8	11.0	40.4	123.9	21.3	10.4	53.4	144.6	24.9	13.8	61.9
	6	85.9	14.8	12.1	31.2	107.4	18.5	11.8	40.8	128.9	22.2	11.2	53.9	150.4	25.9	14.8	62.5
	7	89.2	15.3	13.0	31.5	111.5	19.2	12.6	41.2	133.8	23.0	12.0	54.5	156.1	26.9	15.8	63.1
	8	92.5	15.9	13.9	31.8	115.6	19.9	13.5	41.7	138.7	23.9	12.8	55.0	161.9	27.8	16.9	63.8
	9	95.8	16.5	14.8	32.1	119.7	20.6	14.3	42.1	143.7	24.7	13.6	55.5	167.6	28.8	18.0	64.4
	10	99.1	17.0	15.7	32.5	123.8	21.3	15.2	42.5	148.6	25.6	14.5	56.1	173.4	29.8	19.2	65.0
	11	102.4	17.6	16.6	32.8	128.0	22.0	16.2	42.9	153.5	26.4	15.4	56.6	179.1	30.8	20.3	65.7
	12	105.6	18.2	17.6	33.1	132.1	22.7	17.1	43.3	158.5	27.3	16.3	57.2	184.9	31.8	21.5	66.3
	13	108.9	18.7	18.6	33.4	136.2	23.4	18.1	43.7	163.4	28.1	17.2	57.7	190.6	32.8	22.8	66.9
	14	112.2	19.3	19.6	33.7	140.3	24.1	19.1	44.1	168.3	29.0	18.2	58.3	196.4	33.8	24.0	67.6
	15	115.5	19.9	20.7	34.0	144.4	24.8	20.1	44.5	173.3	29.8	19.1	58.8	202.1	34.8	25.3	68.2
46	5	78.7	13.5	10.4	32.5	98.4	16.9	10.1	42.5	118.1	20.3	9.5	56.1	137.8	23.7	12.6	65.1
	6	81.9	14.1	11.1	32.8	102.4	17.6	10.8	42.9	122.9	21.1	10.3	56.7	143.4	24.7	13.6	65.7
	7	85.2	14.6	11.9	33.1	106.5	18.3	11.6	43.4	127.7	22.0	11.0	57.2	149.0	25.6	14.6	66.4
	8	88.4	15.2	12.8	33.5	110.5	19.0	12.4	43.8	132.6	22.8	11.8	57.8	154.7	26.6	15.6	67.0
	9	91.6	15.8	13.6	33.8	114.5	19.7	13.2	44.2	137.4	23.6	12.6	58.4	160.3	27.6	16.6	67.7
	10	94.8	16.3	14.5	34.1	118.5	20.4	14.1	44.6	142.2	24.5	13.4	58.9	165.9	28.5	17.7	68.3
	11	98.0	16.9	15.4	34.4	122.5	21.1	14.9	45.1	147.0	25.3	14.2	59.5	171.5	29.5	18.8	69.0
	12	101.2	17.4	16.3	34.7	126.5	21.8	15.8	45.5	151.8	26.1	15.1	60.0	177.1	30.5	19.9	69.6
	13	104.4	18.0	17.2	35.1	130.5	22.5	16.8	45.9	156.7	26.9	15.9	60.6	182.8	31.4	21.1	70.3
	14	107.7	18.5	18.2	35.4	134.6	23.1	17.7	46.3	161.5	27.8	16.8	61.2	188.4	32.4	22.3	70.9
	15	110.9	19.1	19.2	35.7	138.6	23.8	18.7	46.7	166.3	28.6	17.8	61.7	194.0	33.4	23.5	71.6

ABT: Condenser Air Inlet Temperature (°C)

COT: Chilled Water outlet Temperature (°C)

CCAP: Cooling Capacity (kW)

CFR: Chilled Water Flow Rate at  $\Delta T=5^{\circ}\text{C}$  (m<sup>3</sup>/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

For multiple module combinations, use above data combining individual module data to provide the final chiller performance.

**3 modules combination example (at ABT: 35°C / COT 10°C)**

Combination	CCAP	CFR	CPD	IPT
RCME-40AH1	110.5	19.0	19.1	28.1
RCME-40AH1	110.5	19.0	19.1	28.1
RCME-50AH1	138.1	23.7	18.5	36.7
	110.5+110.5+138.1 = 359.1	19.0+19.0+23.7 = 61.7	19.1+19.1+18.5=56.7 56.7 / 3 units = 18.9	28.1+28.1+36.7=92.9
Final performance	359.1 kW	61.7 m³/h	18.9 kPa	92.9 kW

**5 modules combination example (at ABT: 35°C / COT 10°C)**

Combination	CCAP	CFR	CPD	IPT
RCME-50AH1	138.1	23.7	18.5	36.7
RCME-50AH1	138.1	23.7	18.5	36.7
RCME-50AH1	138.1	23.7	18.5	36.7
RCME-60AH1	165.7	28.5	17.6	48.5
RCME-60AH1	165.7	28.5	17.6	48.5
	138.1+138.1+138.1 +165.7+165.7= 745.7	23.7+23.7+23.7 +28.5+28.5= 128.1	18.5+18.5+18.5 +17.6+17.6= 90.7 90.7 / 5 units= 18.14	36.7+36.7+36.7 48.5+48.5= 207.1
Final performance	745.7 kW	128.1 m³/h	18.14 kPa	207.1 kW

**4.1.1.2 Performance Table at full load - RHME-AH1**

(Pump not included)

		RHME-40AH1				RHME-50AH1				RHME-60AH1				RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
25	5	98.5	16.9	10.1	23.1	123.4	21.2	10.3	30.3	148.3	25.5	11.3	40.1	165.9	28.5	13.9	44.9
	6	102.1	17.6	10.8	23.4	127.9	22.0	11.0	30.6	153.7	26.4	12.1	40.5	172.0	29.6	14.8	45.4
	7	105.8	18.2	11.5	23.6	132.5	22.8	11.8	31.0	159.2	27.4	12.9	41.0	178.2	30.6	15.8	45.9
	8	109.4	18.8	12.2	23.9	137.1	23.6	12.5	31.4	164.7	28.3	13.7	41.5	184.3	31.7	16.8	46.4
	9	113.1	19.4	12.9	24.2	141.6	24.4	13.3	31.7	170.2	29.3	14.5	41.9	190.4	32.8	17.8	47.0
	10	116.7	20.1	13.7	24.5	146.2	25.1	14.1	32.1	175.7	30.2	15.4	42.4	196.6	33.8	18.9	47.5
	11	120.4	20.7	14.5	24.7	150.8	25.9	14.9	32.4	181.2	31.2	16.3	42.9	202.7	34.9	20.0	48.0
	12	124.0	21.3	15.3	25.0	155.3	26.7	15.7	32.8	186.7	32.1	17.2	43.4	208.8	35.9	21.1	48.6
	13	127.6	22.0	16.1	25.3	159.9	27.5	16.5	33.1	192.1	33.0	18.1	43.8	215.0	37.0	22.3	49.1
	14	131.3	22.6	16.9	25.5	164.5	28.3	17.4	33.5	197.6	34.0	19.1	44.3	221.1	38.0	23.4	49.6
	15	134.9	23.2	17.8	25.8	169.0	29.1	18.3	33.9	203.1	34.9	20.1	44.8	227.3	39.1	24.6	50.1
30	5	94.5	16.3	9.3	25.3	118.4	20.4	9.6	33.2	142.3	24.5	10.5	43.8	159.2	27.4	12.9	49.1
	6	98.1	16.9	10.0	25.6	122.9	21.1	10.3	33.5	147.7	25.4	11.2	44.3	165.3	28.4	13.8	49.6
	7	101.7	17.5	10.7	25.8	127.4	21.9	11.0	33.9	153.2	26.3	12.0	44.8	171.4	29.5	14.7	50.2
	8	105.4	18.1	11.4	26.1	132.0	22.7	11.7	34.3	158.6	27.3	12.8	45.3	177.4	30.5	15.7	50.7
	9	109.0	18.7	12.1	26.4	136.5	23.5	12.4	34.6	164.0	28.2	13.6	45.8	183.5	31.6	16.7	51.3
	10	112.6	19.4	12.8	26.7	141.0	24.3	13.2	35.0	169.5	29.1	14.4	46.3	189.6	32.6	17.7	51.8
	11	116.2	20.0	13.6	27.0	145.6	25.0	13.9	35.4	174.9	30.1	15.3	46.8	195.7	33.7	18.8	52.4
	12	119.8	20.6	14.3	27.2	150.1	25.8	14.7	35.7	180.3	31.0	16.2	47.3	201.8	34.7	19.8	52.9
	13	123.4	21.2	15.1	27.5	154.6	26.6	15.6	36.1	185.8	32.0	17.1	47.7	207.9	35.8	20.9	53.5
	14	127.0	21.9	15.9	27.8	159.1	27.4	16.4	36.5	191.2	32.9	18.0	48.2	214.0	36.8	22.1	54.0
	15	130.6	22.5	16.8	28.1	163.7	28.1	17.3	36.8	196.7	33.8	18.9	48.7	220.0	37.8	23.2	54.6
35	5	88.0	15.1	8.2	27.3	110.3	19.0	8.4	35.8	132.5	22.8	9.2	47.4	148.3	25.5	11.3	53.1
	6	91.5	15.7	8.8	27.6	114.6	19.7	9.0	36.2	137.7	23.7	9.9	47.9	154.1	26.5	12.1	53.6
	7	95.0	16.3	9.4	27.9	119.0	20.5	9.7	36.6	143.0	24.6	10.6	48.4	160.0	27.5	13.0	54.2
	8	98.5	16.9	10.1	28.2	123.4	21.2	10.3	37.0	148.3	25.5	11.3	48.9	165.9	28.5	13.9	54.8
	9	102.0	17.5	10.7	28.5	127.7	22.0	11.0	37.4	153.5	26.4	12.0	49.4	171.7	29.5	14.8	55.3
	10	105.5	18.1	11.4	28.8	132.1	22.7	11.7	37.7	158.8	27.3	12.8	49.9	177.6	30.6	15.7	55.9
	11	109.0	18.7	12.1	29.1	136.5	23.5	12.4	38.1	164.0	28.2	13.6	50.4	183.5	31.6	16.7	56.5
	12	112.4	19.3	12.8	29.4	140.8	24.2	13.1	38.5	169.3	29.1	14.4	50.9	189.4	32.6	17.7	57.0
	13	115.9	19.9	13.5	29.6	145.2	25.0	13.9	38.9	174.5	30.0	15.2	51.4	195.2	33.6	18.7	57.6
	14	119.4	20.5	14.3	29.9	149.6	25.7	14.7	39.3	179.8	30.9	16.1	51.9	201.1	34.6	19.7	58.1
	15	122.9	21.1	15.0	30.2	154.0	26.5	15.4	39.6	185.0	31.8	16.9	52.4	207.0	35.6	20.8	58.7
40	5	81.5	14.0	7.2	30.0	102.1	17.6	7.3	39.3	122.7	21.1	8.0	52.0	137.3	23.6	9.8	58.2
	6	84.9	14.6	7.7	30.3	106.3	18.3	7.9	39.7	127.8	22.0	8.6	52.5	143.0	24.6	10.6	58.8
	7	88.3	15.2	8.3	30.6	110.6	19.0	8.5	40.1	132.8	22.8	9.3	53.1	148.6	25.6	11.4	59.4
	8	91.6	15.8	8.8	30.9	114.8	19.7	9.1	40.5	137.9	23.7	9.9	53.6	154.3	26.5	12.2	60.0
	9	95.0	16.3	9.4	31.2	119.0	20.5	9.7	40.9	143.0	24.6	10.6	54.1	160.0	27.5	13.0	60.6
	10	98.3	16.9	10.0	31.5	123.2	21.2	10.3	41.3	148.0	25.5	11.3	54.7	165.6	28.5	13.8	61.2
	11	101.7	17.5	10.7	31.8	127.4	21.9	11.0	41.7	153.1	26.3	12.0	55.2	171.3	29.5	14.7	61.8
	12	105.1	18.1	11.3	32.1	131.6	22.6	11.6	42.1	158.2	27.2	12.7	55.7	177.0	30.4	15.6	62.4
	13	108.4	18.7	12.0	32.4	135.8	23.4	12.3	42.5	163.2	28.1	13.5	56.3	182.6	31.4	16.5	63.0
	14	111.8	19.2	12.7	32.7	140.0	24.1	13.0	42.9	168.3	28.9	14.2	56.8	188.3	32.4	17.5	63.6
	15	115.2	19.8	13.4	33.0	144.3	24.8	13.7	43.3	173.3	29.8	15.0	57.3	194.0	33.4	18.5	64.2

		RHME-40AH1				RHME-50AH1				RHME-60AH1				RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
43	5	77.6	13.4	6.6	31.6	97.2	16.7	6.7	41.4	116.9	20.1	7.3	54.8	130.7	22.5	9.0	61.4
	6	80.9	13.9	7.1	31.9	101.4	17.4	7.2	41.8	121.8	21.0	7.9	55.3	136.3	23.4	9.7	62.0
	7	84.2	14.5	7.6	32.2	105.5	18.1	7.8	42.3	126.8	21.8	8.5	55.9	141.8	24.4	10.4	62.6
	8	87.5	15.0	8.1	32.5	109.6	18.9	8.3	42.7	131.7	22.7	9.1	56.4	147.4	25.3	11.2	63.2
	9	90.8	15.6	8.7	32.8	113.7	19.6	8.9	43.1	136.7	23.5	9.7	57.0	152.9	26.3	12.0	63.8
	10	94.1	16.2	9.3	33.2	117.8	20.3	9.5	43.5	141.6	24.4	10.4	57.5	158.4	27.3	12.8	64.4
	11	97.4	16.7	9.9	33.5	122.0	21.0	10.1	43.9	146.6	25.2	11.1	58.1	164.0	28.2	13.6	65.0
	12	100.6	17.3	10.5	33.8	126.1	21.7	10.7	44.3	151.5	26.1	11.8	58.6	169.5	29.2	14.4	65.6
	13	103.9	17.9	11.1	34.1	130.2	22.4	11.4	44.7	156.5	26.9	12.5	59.2	175.1	30.1	15.3	66.2
	14	107.2	18.4	11.7	34.4	134.3	23.1	12.1	45.1	161.4	27.8	13.2	59.7	180.6	31.1	16.2	66.9
	15	110.5	19.0	12.4	34.7	138.4	23.8	12.7	45.6	166.3	28.6	13.9	60.2	186.1	32.0	17.1	67.5
46	5	73.7	12.7	6.0	33.2	92.4	15.9	6.1	43.5	111.0	19.1	6.7	57.6	124.2	21.4	8.2	64.5
	6	76.9	13.2	6.4	33.5	96.4	16.6	6.6	44.0	115.8	19.9	7.2	58.1	129.6	22.3	8.8	65.1
	7	80.2	13.8	6.9	33.8	100.4	17.3	7.1	44.4	120.7	20.8	7.8	58.7	135.0	23.2	9.5	65.7
	8	83.4	14.3	7.5	34.2	104.4	18.0	7.6	44.8	125.5	21.6	8.3	59.2	140.4	24.2	10.2	66.3
	9	86.6	14.9	8.0	34.5	108.5	18.7	8.2	45.2	130.3	22.4	8.9	59.8	145.8	25.1	11.0	67.0
	10	89.8	15.4	8.5	34.8	112.5	19.3	8.7	45.7	135.2	23.2	9.6	60.4	151.2	26.0	11.7	67.6
	11	93.0	16.0	9.1	35.1	116.5	20.0	9.3	46.1	140.0	24.1	10.2	60.9	156.7	26.9	12.5	68.2
	12	96.2	16.6	9.7	35.4	120.5	20.7	9.9	46.5	144.8	24.9	10.8	61.5	162.1	27.9	13.3	68.9
	13	99.4	17.1	10.2	35.8	124.6	21.4	10.5	46.9	149.7	25.7	11.5	62.1	167.5	28.8	14.1	69.5
	14	102.7	17.7	10.9	36.1	128.6	22.1	11.1	47.3	154.5	26.6	12.2	62.6	172.9	29.7	15.0	70.1
	15	105.9	18.2	11.5	36.4	132.6	22.8	11.8	47.8	159.4	27.4	12.9	63.2	178.3	30.7	15.8	70.7

ABT: Condenser Air Inlet Temperature (°C)

CFR: Chilled Water Flow Rate at  $\Delta T=5^{\circ}\text{C}$  (m<sup>3</sup>/h)

1kW= 860 kcal/h

COT: Chilled Water outlet Temperature (°C)

CPD: Water Cooler Pressure Drop (kPa)

1kW=3412 Btu/h

CCAP: Cooling Capacity (kW)

IPT: Input power (kW)

1kPa=0.102 mAq

### 4.1.1.3 Capacity tables at partial load - R(C/H)ME-AH1

Model	Table
R(C/H)ME-40AH1	A
R(C/H)ME-50AH1	A

Model	Table
R(C/H)ME-60AH1	B
R(C/H)ME-70AH1	B

#### ◆ Table A

Model: R(C/H)ME-(40/50)AH1

Ambient Temperature (°C)	Full load ↓ Performance	Compressor load 25-99%									
		25	30	40	50	60	70	75	80	85	-
46	Capacity	25	30	40	50	60	70	75	80	85	-
	Input	72	66	65	68	76	85	91	97	122	-
	EER	35	45	62	73	79	82	82	80	70	-
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	65	60	60	64	71	80	86	91	116	-
	EER	39	50	67	78	84	87	87	86	77	-
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	58	55	55	60	66	75	81	86	98	110
	EER	43	55	72	84	90	93	93	93	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	37	38	41	46	53	60	64	69	78	87
	EER	67	79	97	108	114	117	117	117	116	115
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	29	31	35	39	45	51	54	58	66	77
	EER	85	96	114	127	135	138	139	138	136	130
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	131	143	161	173	179	179	177	174	165	152

#### ◆ Table B

Model: R(C/H)ME(60/70)AH1

Ambient Temperature (°C)	Full load ↓ Performance	Compressor load 25-99%									
		25	30	40	50	60	70	75	80	85	-
46	Capacity	25	30	40	50	60	70	75	80	90	-
	Input	69	63	62	66	73	82	88	94	122	-
	EER	36	47	65	76	83	85	85	82	70	-
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	62	58	57	61	68	77	83	89	116	-
	EER	41	52	70	82	88	91	90	88	77	-
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	55	52	53	57	64	72	78	83	96	110
	EER	46	57	76	88	94	97	97	96	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	35	36	39	43	49	56	61	65	76	87
	EER	72	84	103	115	122	124	124	123	119	115
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	24	26	30	34	40	46	50	54	64	77
	EER	105	117	134	145	150	151	149	147	140	129
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	130	142	161	173	179	179	177	174	165	152

**NOTE**

**1** The previous table shows the amount of reduction or increase in capacity, input and EER from a reference 100% value.

Capacity (%)	100
Input (%)	100
EER (%)	100

**2** The values for a 100% rate in capacity, input and EER correspond to the values in the Performance Table (cooling operation at full load), and for the following conditions:

- Ambient temperature (ABT): 35 °C
- Chilled Water outlet Temperature target (COT) (°C) (from 5 to 15°C)
- Water flow rate constant
- Capacity: cooling capacity (kW)
- Input (IPT): total input power (compressors + fans) (kW)
- EER: Capacity / Input (kW/kW)
- All condenser fans running

**3** Calculation example:

**Model RCME-50AH1**

Working conditions:

- Condenser Air Inlet Temperature 30 (°C)
- Chilled Water outlet Temperature 10 (°C)
- Partial Load 70 %

100 % rate calculation:

According to Performance Table (cooling operation at full load) and the following conditions:

- Condenser Air Inlet Temperature 35 (°C)
- Chilled Water outlet Temperature 10 (°C)

Capacity (CCAP) (kW)	138.1
Input (IPT) (kW)	36.7
EER (CCAP / IPT)	138.1 / 36.7 = 3.76

Performance at partial load calculation:

According to Cooling capacity tables at partial load:

- Condenser Air Inlet Temperature 30 (°C)
- Partial Load 70 %

Capacity (%)	70%	138.1 x 70% = 96.7
Input (%)	60%	36.7 x 60% = 22.0
EER (%)	117%	3.76 x 117% = 4.40

## 4.1.2 Heating Operation

### 4.1.2.1 Performance Table at full load - RHME-AH1

(Pump not included)

ABTW	HOT	RHME-40AH1				RHME-50AH1				RHME-60AH1				RHME-70AH1			
		HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT
15	35	102.9	17.7	10.9	24.4	128.6	22.1	11.1	32.0	154.3	26.5	12.2	41.7	154.3	26.5	12.2	41.7
	40	102.4	17.6	10.8	26.3	128.1	22.0	11.1	33.2	153.6	26.4	12.1	45.0	153.6	26.4	12.1	45.0
	45	102.0	17.5	10.7	29.4	127.5	21.9	11.0	38.4	153.0	26.3	12.0	50.2	153.0	26.3	12.0	50.2
	50	101.6	17.5	10.6	33.6	127.0	21.8	10.9	44.0	152.4	26.2	11.9	57.3	152.4	26.2	11.9	57.3
	55	97.0	16.7	9.8	38.9	121.2	20.8	10.0	50.8	145.5	25.0	10.9	66.3	145.5	25.0	10.9	66.3
10	35	101.2	17.4	10.6	24.0	126.5	21.8	10.8	31.5	151.8	26.1	11.8	41.0	151.8	26.1	11.8	41.0
	40	100.3	17.2	10.4	26.0	125.3	21.6	10.6	34.0	150.4	25.9	11.6	44.3	150.4	25.9	11.6	44.3
	45	99.4	17.1	10.2	29.0	124.1	21.3	10.4	37.9	148.9	25.6	11.4	49.4	148.9	25.6	11.4	49.4
	50	98.3	16.9	10.0	32.9	123.0	21.2	10.3	43.0	147.6	25.4	11.2	56.2	147.6	25.4	11.2	56.2
	55	93.4	16.1	9.1	37.9	116.7	20.1	9.4	49.6	140.1	24.1	10.2	64.7	140.1	24.1	10.2	64.7
6	35	94.7	16.3	9.4	23.7	118.4	20.4	9.6	31.0	142.0	24.4	10.5	40.5	142.0	24.4	10.5	40.5
	40	93.4	16.1	9.1	25.7	116.7	20.1	9.3	33.6	140.0	24.1	10.2	43.8	140.0	24.1	10.2	43.8
	<b>45</b>	<b>92.0</b>	<b>15.8</b>	<b>8.9</b>	<b>28.6</b>	<b>115.0</b>	<b>19.8</b>	<b>9.1</b>	<b>37.4</b>	<b>138.0</b>	<b>23.7</b>	<b>9.9</b>	<b>48.8</b>	<b>138.0</b>	<b>23.7</b>	<b>9.9</b>	<b>48.8</b>
	50	90.6	15.6	8.7	32.4	113.3	19.5	8.9	42.4	136.0	23.4	9.7	55.3	136.0	23.4	9.7	55.3
	55	85.6	14.7	7.8	37.1	107.0	18.4	8.0	48.6	128.3	22.1	8.7	63.4	128.3	22.1	8.7	63.4
5	35	92.6	15.9	9.0	23.7	115.7	19.9	9.2	30.9	138.8	23.9	10.0	40.4	138.8	23.9	10.0	40.4
	40	91.2	15.7	8.8	25.6	113.9	19.6	8.9	33.5	136.7	23.5	9.8	43.7	136.7	23.5	9.8	43.7
	45	89.7	15.4	8.5	28.5	112.1	19.3	8.7	37.3	134.5	23.1	9.5	48.6	134.5	23.1	9.5	48.6
	50	88.2	15.2	8.3	32.3	110.3	19.0	8.4	42.2	132.4	22.8	9.2	55.1	132.4	22.8	9.2	55.1
	55	83.2	14.3	7.4	36.9	104.0	17.9	7.6	48.3	124.8	21.5	8.3	63.0	124.8	21.5	8.3	63.0
0	35	82.1	14.1	7.2	23.3	102.5	17.6	7.4	30.4	123.0	21.2	8.0	39.7	123.0	21.2	8.0	39.7
	40	80.1	13.8	6.9	25.3	100.1	17.2	7.1	33.1	120.2	20.7	7.7	43.1	120.2	20.7	7.7	43.1
	45	78.2	13.5	6.6	28.1	97.7	16.8	6.8	36.7	117.2	20.2	7.4	47.9	117.2	20.2	7.4	47.9
	50	76.3	13.1	6.3	31.6	95.3	16.4	6.5	41.4	114.4	19.7	7.0	54.0	114.4	19.7	7.0	54.0
	55	71.2	12.2	5.6	36.0	89.0	15.3	5.7	47.0	106.8	18.4	6.2	61.4	106.8	18.4	6.2	61.4
-5	35	64.3	11.1	4.7	20.6	80.4	13.8	4.8	26.9	96.5	16.6	5.2	35.1	96.5	16.6	5.2	35.1
	40	62.1	10.7	4.4	22.4	77.6	13.4	4.5	29.3	93.2	16.0	4.8	38.3	93.2	16.0	4.8	38.3
	45	60.0	10.3	4.1	24.8	75.0	12.9	4.2	32.5	90.0	15.5	4.5	42.4	90.0	15.5	4.5	42.4
	50	57.8	9.9	3.8	27.9	72.2	12.4	3.9	36.5	86.7	14.9	4.2	47.6	86.7	14.9	4.2	47.6
	55	53.3	9.2	3.3	31.5	66.6	11.5	3.4	41.2	79.9	13.8	3.7	53.8	79.9	13.8	3.7	53.8
-10	35	54.8	9.4	3.5	20.2	68.5	11.8	3.6	26.4	82.2	14.1	3.9	34.5	82.2	14.1	3.9	34.5
	40	52.2	9.0	3.2	22.1	65.2	11.2	3.3	28.9	78.3	13.5	3.5	37.7	78.3	13.5	3.5	37.7
	45	49.6	8.5	2.9	24.4	62.0	10.7	3.0	32.0	74.4	12.8	3.2	41.7	74.4	12.8	3.2	41.7
	50	47.0	8.1	2.6	27.3	58.7	10.1	2.7	35.7	70.5	12.1	2.9	46.6	70.5	12.1	2.9	46.6

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at  $\Delta T=5^{\circ}\text{C}$  (m<sup>3</sup>/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

#### 4.1.2.2 Capacity tables at partial load - RHME-AH1

Model	Table
RHME-40AH1	A
RHME-50AH1	A

Model	Table
RHME-60AH1	A
RHME-70AH1	A

##### ◆ Table A

Model: RHME-(40-70)AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%											Full load
		28	30	40	50	60	70	75	80	90	100	111	
15	Capacity	28	30	40	50	60	70	75	80	90	100	111	
	Input	39	41	47	53	59	66	69	73	81	90	103	
	COP	70	73	84	94	101	106	108	110	111	111	108	
10	Capacity	27	30	40	50	60	70	75	80	90	100	108	
	Input	39	41	48	54	60	67	70	74	83	93	101	
	COP	69	73	84	93	100	105	107	108	109	108	106	
7	Capacity	25	30	40	50	60	70	75	80	90	100		
	Input	38	42	49	56	63	71	75	79	89	100		
	COP	66	71	81	89	95	99	100	101	101	100		
5	Capacity	25	30	40	50	60	70	75	80	90	98		
	Input	39	43	50	57	64	72	76	81	91	100		
	COP	65	70	80	88	93	97	98	99	99	98		
0	Capacity	25	30	40	50	60	70	75	80	85			
	Input	41	45	54	62	70	80	86	92	98			
	COP	61	66	75	81	86	87	88	87	87			
-5	Capacity	25	30	40	50	60	65						
	Input	42	47	56	66	79	87						
	COP	59	64	71	75	76	75						
-10	Capacity	25	30	40	50	54							
	Input	46	52	64	79	85							
	COP	54	58	63	64	63							

## 4.2 Factory built modules

### 4.2.1 Cooling Operation

#### 4.2.1.1 Performance Table at full load - RCME-AH1

(Pump not included)

##### ◆ 2 Modules

ABT	COT	RCME-080/2AH1				RCME-090/2AH1				RCME-100/2AH1				RCME-110/2AH1			
		CCAP	CFR	CPD	IPT												
25	5	206,7	35,6	16,9	44,7	232,6	40,0	16,7	51,6	258,4	44,4	16,4	58,5	284,3	48,9	16,0	67,9
	6	214,0	36,8	18,0	45,3	240,8	41,4	17,8	52,2	267,5	46,0	17,5	59,2	294,3	50,6	17,1	68,7
	7	221,3	38,1	19,1	45,8	249,0	42,8	18,9	52,9	276,6	47,6	18,6	59,9	304,3	52,3	18,1	69,5
	8	228,6	39,3	20,3	46,3	257,2	44,2	20,0	53,5	285,7	49,1	19,7	60,7	314,3	54,1	19,2	70,4
	9	235,9	40,6	21,5	46,9	265,4	45,6	21,2	54,1	294,9	50,7	20,9	61,4	324,3	55,8	20,4	71,2
	10	243,2	41,8	22,7	47,4	273,6	47,1	22,4	54,8	304,0	52,3	22,0	62,1	334,4	57,5	21,5	72,0
	11	250,5	43,1	23,9	48,0	281,8	48,5	23,6	55,4	313,1	53,8	23,3	62,8	344,4	59,2	22,7	72,9
	12	257,8	44,3	25,2	48,5	290,0	49,9	24,8	56,0	322,2	55,4	24,5	63,5	354,4	61,0	23,9	73,7
	13	265,0	45,6	26,5	49,1	298,2	51,3	26,1	56,6	331,3	57,0	25,8	64,2	364,4	62,7	25,2	74,5
	14	272,3	46,8	27,8	49,6	306,4	52,7	27,4	57,3	340,4	58,6	27,0	64,9	374,5	64,4	26,4	75,3
	15	279,6	48,1	29,2	50,2	314,6	54,1	28,8	57,9	349,5	60,1	28,4	65,6	384,5	66,1	27,7	76,2
30	5	199,0	34,2	15,8	49,1	223,9	38,5	15,6	56,7	248,8	42,8	15,4	64,3	273,7	47,1	15,0	74,6
	6	206,3	35,5	16,9	49,7	232,0	39,9	16,6	57,3	257,8	44,3	16,4	65,0	283,6	48,8	16,0	75,4
	7	213,5	36,7	17,9	50,2	240,2	41,3	17,7	58,0	266,9	45,9	17,4	65,7	293,5	50,5	17,0	76,3
	8	220,7	38,0	19,0	50,8	248,3	42,7	18,8	58,6	275,9	47,5	18,5	66,5	303,5	52,2	18,1	77,1
	9	227,9	39,2	20,2	51,4	256,4	44,1	19,9	59,3	284,9	49,0	19,6	67,2	313,4	53,9	19,1	78,0
	10	235,2	40,4	21,3	51,9	264,6	45,5	21,0	59,9	294,0	50,6	20,8	68,0	323,4	55,6	20,3	78,8
	11	242,4	41,7	22,5	52,5	272,7	46,9	22,2	60,6	303,0	52,1	21,9	68,7	333,3	57,3	21,4	79,7
	12	249,6	42,9	23,8	53,1	280,8	48,3	23,4	61,2	312,0	53,7	23,1	69,4	343,2	59,0	22,6	80,6
	13	256,8	44,2	25,0	53,6	289,0	49,7	24,7	61,9	321,1	55,2	24,3	70,2	353,2	60,7	23,8	81,4
	14	264,1	45,4	26,3	54,2	297,1	51,1	25,9	62,5	330,1	56,8	25,6	70,9	363,1	62,5	25,0	82,3
	15	271,3	46,7	27,6	54,7	305,2	52,5	27,2	63,2	339,1	58,3	26,9	71,6	373,0	64,2	26,2	83,1
35	5	186,0	32,0	14,0	53,2	209,3	36,0	13,8	61,5	232,6	40,0	13,6	69,7	255,8	44,0	13,3	80,8
	6	193,0	33,2	15,0	53,8	217,2	37,4	14,7	62,1	241,3	41,5	14,5	70,4	265,4	45,7	14,2	81,7
	7	200	34,4	15,9	54,4	225	38,7	15,7	62,8	250	43,0	15,5	71,2	275	47,3	15,1	82,6
	8	207,0	35,6	17,0	55,0	232,8	40,0	16,7	63,5	258,7	44,5	16,5	72,0	284,6	48,9	16,1	83,5
	9	214,0	36,8	18,0	55,6	240,7	41,4	17,7	64,1	267,4	46,0	17,5	72,7	294,2	50,6	17,1	84,4
	10	220,9	38,0	19,1	56,1	248,5	42,7	18,8	64,8	276,2	47,5	18,5	73,5	303,8	52,2	18,1	85,2
	11	227,9	39,2	20,2	56,7	256,4	44,1	19,9	65,5	284,9	49,0	19,6	74,2	313,4	53,9	19,1	86,1
	12	234,9	40,4	21,3	57,3	264,2	45,4	21,0	66,1	293,6	50,5	20,7	75,0	323,0	55,5	20,2	87,0
	13	241,9	41,6	22,5	57,9	272,1	46,8	22,1	66,8	302,3	52,0	21,8	75,8	332,6	57,2	21,3	87,9
	14	248,8	42,8	23,6	58,5	279,9	48,1	23,3	67,5	311,0	53,5	23,0	76,5	342,1	58,8	22,4	88,8
	15	255,8	44,0	24,8	59,0	287,8	49,5	24,5	68,2	319,8	55,0	24,2	77,3	351,7	60,5	23,6	89,6

		RCME-080/2AH1				RCME-090/2AH1				RCME-100/2AH1				RCME-110/2AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
40	5	173,1	29,8	12,3	58,6	194,7	33,5	12,1	67,6	216,3	37,2	11,9	76,7	238,0	40,9	11,6	88,9
	6	179,8	30,9	13,2	59,2	202,3	34,8	13,0	68,3	224,7	38,7	12,8	77,5	247,2	42,5	12,5	89,9
	7	186,5	32,1	14,1	59,8	209,8	36,1	13,9	69,0	233,1	40,1	13,7	78,3	256,5	44,1	13,3	90,8
	8	193,2	33,2	15,0	60,4	217,4	37,4	14,8	69,7	241,5	41,5	14,6	79,1	265,7	45,7	14,2	91,7
	9	200,0	34,4	15,9	61,0	225,0	38,7	15,7	70,4	250,0	43,0	15,5	79,9	274,9	47,3	15,1	92,6
	10	206,7	35,6	16,9	61,6	232,5	40,0	16,7	71,1	258,4	44,4	16,4	80,7	284,2	48,9	16,0	93,6
	11	213,4	36,7	17,9	62,2	240,1	41,3	17,7	71,8	266,8	45,9	17,4	81,5	293,4	50,5	17,0	94,5
	12	220,1	37,9	19,0	62,8	247,7	42,6	18,7	72,5	275,2	47,3	18,4	82,3	302,7	52,1	18,0	95,4
	13	226,9	39,0	20,0	63,5	255,2	43,9	19,7	73,3	283,6	48,8	19,4	83,0	311,9	53,7	19,0	96,3
	14	233,6	40,2	21,1	64,1	262,8	45,2	20,8	74,0	292,0	50,2	20,5	83,8	321,2	55,2	20,0	97,3
	15	240,3	41,3	22,2	64,7	270,4	46,5	21,9	74,7	300,4	51,7	21,6	84,6	330,4	56,8	21,1	98,2
43	5	165,3	28,4	11,3	61,8	185,9	32,0	11,1	71,3	206,6	35,5	11,0	80,8	227,2	39,1	10,7	93,8
	6	171,8	29,6	12,1	62,4	193,3	33,3	12,0	72,0	214,8	36,9	11,8	81,7	236,3	40,6	11,5	94,7
	7	178,4	30,7	13,0	63,0	200,7	34,5	12,8	72,8	223,0	38,4	12,6	82,5	245,3	42,2	12,3	95,7
	8	185,0	31,8	13,9	63,7	208,1	35,8	13,7	73,5	231,2	39,8	13,5	83,3	254,4	43,8	13,1	96,6
	9	191,6	32,9	14,8	64,3	215,5	37,1	14,5	74,2	239,5	41,2	14,3	84,1	263,4	45,3	14,0	97,6
	10	198,1	34,1	15,7	64,9	222,9	38,3	15,5	74,9	247,7	42,6	15,2	85,0	272,4	46,9	14,9	98,6
	11	204,7	35,2	16,6	65,5	230,3	39,6	16,4	75,7	255,9	44,0	16,2	85,8	281,5	48,4	15,8	99,5
	12	211,3	36,3	17,6	66,2	237,7	40,9	17,4	76,4	264,1	45,4	17,1	86,6	290,5	50,0	16,7	100,5
	13	217,9	37,5	18,6	66,8	245,1	42,2	18,3	77,1	272,3	46,8	18,1	87,4	299,6	51,5	17,6	101,4
	14	224,4	38,6	19,6	67,4	252,5	43,4	19,4	77,8	280,6	48,3	19,1	88,2	308,6	53,1	18,6	102,4
	15	231,0	39,7	20,7	68,1	259,9	44,7	20,4	78,6	288,8	49,7	20,1	89,1	317,7	54,6	19,6	103,3
46	5	157,5	27,1	10,4	65,0	177,2	30,5	10,2	75,0	196,8	33,9	10,1	85,0	216,5	37,2	9,8	98,6
	6	163,9	28,2	11,1	65,6	184,4	31,7	11,0	75,7	204,9	35,2	10,8	85,9	225,4	38,8	10,5	99,6
	7	170,3	29,3	11,9	66,3	191,6	33,0	11,8	76,5	212,9	36,6	11,6	86,7	234,2	40,3	11,3	100,6
	8	176,7	30,4	12,8	66,9	198,8	34,2	12,6	77,2	220,9	38,0	12,4	87,6	243,0	41,8	12,1	101,6
	9	183,2	31,5	13,6	67,6	206,1	35,4	13,4	78,0	229,0	39,4	13,2	88,4	251,9	43,3	12,9	102,6
	10	189,6	32,6	14,5	68,2	213,3	36,7	14,3	78,7	237,0	40,8	14,1	89,3	260,7	44,8	13,7	103,6
	11	196,0	33,7	15,4	68,8	220,5	37,9	15,2	79,5	245,0	42,1	14,9	90,1	269,5	46,4	14,6	104,5
	12	202,5	34,8	16,3	69,5	227,8	39,2	16,1	80,2	253,1	43,5	15,8	91,0	278,4	47,9	15,4	105,5
	13	208,9	35,9	17,2	70,1	235,0	40,4	17,0	81,0	261,1	44,9	16,8	91,8	287,2	49,4	16,3	106,5
	14	215,3	37,0	18,2	70,8	242,2	41,7	18,0	81,7	269,1	46,3	17,7	92,7	296,0	50,9	17,3	107,5
	15	221,7	38,1	19,2	71,4	249,4	42,9	18,9	82,5	277,2	47,7	18,7	93,5	304,9	52,4	18,2	108,5

ABT	COT	RCME-120/2AH1				RCME-130/2AH1				RCME-140/2AH1			
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	310,1	53,3	15,6	77,3	335,9	57,8	18,2	83,4	361,8	62,2	20,7	89,6
	6	321,0	55,2	16,7	78,2	347,8	59,8	19,3	84,4	374,5	64,4	22,0	90,7
	7	332,0	57,1	17,7	79,1	359,6	61,9	20,6	85,5	387,3	66,6	23,4	91,8
	8	342,9	59,0	18,8	80,1	371,5	63,9	21,8	86,5	400,0	68,8	24,8	92,9
	9	353,8	60,9	19,9	81,0	383,3	65,9	23,1	87,5	412,8	71,0	26,3	94,0
	10	364,8	62,7	21,0	82,0	395,2	68,0	24,4	88,5	425,6	73,2	27,8	95,0
	11	375,7	64,6	22,2	82,9	407,0	70,0	25,7	89,5	438,3	75,4	29,3	96,1
	12	386,6	66,5	23,3	83,8	418,8	72,0	27,1	90,5	451,1	77,6	30,9	97,2
	13	397,6	68,4	24,6	84,8	430,7	74,1	28,5	91,6	463,8	79,8	32,5	98,3
	14	408,5	70,3	25,8	85,7	442,5	76,1	30,0	92,6	476,6	82,0	34,1	99,4
	15	419,4	72,1	27,1	86,7	454,4	78,2	31,4	93,6	489,3	84,2	35,8	100,5
30	5	298,6	51,4	14,6	84,9	323,4	55,6	17,0	91,6	348,3	59,9	19,3	98,4
	6	309,4	53,2	15,6	85,8	335,2	57,7	18,1	92,7	361,0	62,1	20,6	99,5
	7	320,2	55,1	16,6	86,8	346,9	59,7	19,3	93,7	373,6	64,3	21,9	100,7
	8	331,1	56,9	17,6	87,8	358,7	61,7	20,5	94,8	386,3	66,4	23,3	101,8
	9	341,9	58,8	18,7	88,7	370,4	63,7	21,7	95,8	398,9	68,6	24,7	102,9
	10	352,8	60,7	19,8	89,7	382,1	65,7	23,0	96,9	411,5	70,8	26,1	104,0
	11	363,6	62,5	20,9	90,7	393,9	67,7	24,2	97,9	424,2	73,0	27,6	105,2
	12	374,4	64,4	22,0	91,7	405,6	69,8	25,6	99,0	436,8	75,1	29,1	106,3
	13	385,3	66,3	23,2	92,6	417,4	71,8	26,9	100,0	449,5	77,3	30,7	107,4
	14	396,1	68,1	24,4	93,6	429,1	73,8	28,3	101,1	462,1	79,5	32,3	108,6
	15	406,9	70,0	25,6	94,6	440,9	75,8	29,7	102,1	474,8	81,7	33,9	109,7
35	5	279,1	48,0	12,9	92,0	302,3	52,0	15,0	99,3	325,6	56,0	17,1	106,7
	6	289,5	49,8	13,8	93,0	313,7	54,0	16,0	100,4	337,8	58,1	18,3	107,8
	7	300	51,6	14,7	94,0	325	55,9	17,1	101	350	60,2	19,5	109
	8	310,5	53,4	15,7	95,0	336,3	57,8	18,2	102,6	362,2	62,3	20,7	110,2
	9	320,9	55,2	16,6	96,0	347,7	59,8	19,3	103,7	374,4	64,4	22,0	111,3
	10	331,4	57,0	17,6	97,0	359,0	61,7	20,5	104,7	386,6	66,5	23,3	112,5
	11	341,9	58,8	18,7	98,0	370,3	63,7	21,7	105,8	398,8	68,6	24,7	113,6
	12	352,3	60,6	19,7	99,0	381,7	65,6	22,9	106,9	411,0	70,7	26,1	114,8
	13	362,8	62,4	20,8	100,0	393,0	67,6	24,2	108,0	423,2	72,8	27,5	116,0
	14	373,2	64,2	21,9	101,0	404,4	69,5	25,4	109,1	435,5	74,9	29,0	117,1
	15	383,7	66,0	23,0	102,0	415,7	71,5	26,7	110,2	447,7	77,0	30,5	118,3
40	5	259,6	44,6	11,3	101,2	281,2	48,4	13,2	109,3	302,9	52,1	15,0	117,4
	6	269,7	46,4	12,1	102,3	292,1	50,2	14,1	110,4	314,6	54,1	16,1	118,6
	7	279,8	48,1	13,0	103,3	303,1	52,1	15,1	111,6	326,4	56,1	17,2	119,8
	8	289,9	49,9	13,8	104,4	314,0	54,0	16,1	112,7	338,2	58,2	18,3	121,0
	9	299,9	51,6	14,7	105,4	324,9	55,9	17,1	113,8	349,9	60,2	19,5	122,2
	10	310,0	53,3	15,6	106,5	335,9	57,8	18,2	115,0	361,7	62,2	20,7	123,5
	11	320,1	55,1	16,6	107,5	346,8	59,6	19,2	116,1	373,5	64,2	21,9	124,7
	12	330,2	56,8	17,5	108,6	357,7	61,5	20,4	117,3	385,2	66,3	23,2	125,9
	13	340,3	58,5	18,5	109,6	368,7	63,4	21,5	118,4	397,0	68,3	24,5	127,1
	14	350,4	60,3	19,5	110,7	379,6	65,3	22,7	119,5	408,8	70,3	25,8	128,4
	15	360,5	62,0	20,6	111,8	390,5	67,2	23,9	120,7	420,6	72,3	27,2	129,6
43	5	247,9	42,6	10,4	106,7	268,6	46,2	12,1	115,2	289,2	49,7	13,8	123,8
	6	257,8	44,3	11,2	107,8	279,2	48,0	13,0	116,4	300,7	51,7	14,8	125,0
	7	267,6	46,0	12,0	108,9	289,9	49,9	13,9	117,6	312,2	53,7	15,8	126,3
	8	277,5	47,7	12,8	110,0	300,6	51,7	14,9	118,8	323,7	55,7	16,9	127,5
	9	287,4	49,4	13,6	111,1	311,3	53,5	15,8	119,9	335,2	57,7	18,0	128,8
	10	297,2	51,1	14,5	112,2	322,0	55,4	16,8	121,1	346,8	59,6	19,2	130,1
	11	307,1	52,8	15,4	113,2	332,7	57,2	17,8	122,3	358,3	61,6	20,3	131,3
	12	316,9	54,5	16,3	114,3	343,4	59,1	18,9	123,5	369,8	63,6	21,5	132,6
	13	326,8	56,2	17,2	115,4	354,0	60,9	20,0	124,6	381,3	65,6	22,8	133,8
	14	336,7	57,9	18,2	116,5	364,7	62,7	21,1	125,8	392,8	67,6	24,0	135,1
	15	346,5	59,6	19,1	117,6	375,4	64,6	22,2	127,0	404,3	69,5	25,3	136,4

		RCME-120/2AH1				RCME-130/2AH1				RCME-140/2AH1			
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
46	5	236,2	40,6	9,5	112,3	255,9	44,0	11,1	121,2	275,6	47,4	12,6	130,2
	6	245,8	42,3	10,3	113,4	266,3	45,8	11,9	122,4	286,8	49,3	13,6	131,5
	7	255,5	43,9	11,0	114,5	276,8	47,6	12,8	123,6	298,1	51,3	14,6	132,8
	8	265,1	45,6	11,8	115,6	287,2	49,4	13,7	124,8	309,3	53,2	15,6	134,1
	9	274,8	47,3	12,6	116,7	297,7	51,2	14,6	126,0	320,6	55,1	16,6	135,4
	10	284,4	48,9	13,4	117,8	308,1	53,0	15,5	127,2	331,8	57,1	17,7	136,7
	11	294,0	50,6	14,2	119,0	318,5	54,8	16,5	128,5	343,0	59,0	18,8	137,9
	12	303,7	52,2	15,1	120,1	329,0	56,6	17,5	129,7	354,3	60,9	19,9	139,2
	13	313,3	53,9	15,9	121,2	339,4	58,4	18,5	130,9	365,5	62,9	21,1	140,5
	14	323,0	55,5	16,8	122,3	349,9	60,2	19,6	132,1	376,8	64,8	22,3	141,8
	15	332,6	57,2	17,8	123,4	360,3	62,0	20,6	133,3	388,0	66,7	23,5	143,1

### ◆ 3 Modules

		RCME-150/3AH1					RCME-160/3AH1				RCME-170/3AH1				RCME-180/3AH1			
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	
25	5	387,6	66,7	16,4	87,8	413,5	71,1	16,2	97,1	439,3	75,6	15,9	106,5	465,1	80,0	15,6	115,9	
	6	401,3	69,0	17,5	88,8	428,0	73,6	17,2	98,3	454,8	78,2	16,9	107,8	481,5	82,8	16,7	117,3	
	7	414,9	71,4	18,6	89,9	442,6	76,1	18,3	99,5	470,3	80,9	18,0	109,1	497,9	85,6	17,7	118,7	
	8	428,6	73,7	19,7	91,0	457,2	78,6	19,4	100,7	485,8	83,6	19,1	110,4	514,3	88,5	18,8	120,1	
	9	442,3	76,1	20,9	92,1	471,8	81,1	20,5	101,9	501,3	86,2	20,2	111,7	530,7	91,3	19,9	121,5	
	10	455,9	78,4	22,0	93,1	486,3	83,7	21,7	103,1	516,7	88,9	21,3	113,0	547,1	94,1	21,0	122,9	
	11	469,6	80,8	23,3	94,2	500,9	86,2	22,9	104,3	532,2	91,5	22,5	114,3	563,5	96,9	22,2	124,4	
	12	483,3	83,1	24,5	95,3	515,5	88,7	24,1	105,4	547,7	94,2	23,7	115,6	579,9	99,7	23,3	125,8	
	13	497,0	85,5	25,8	96,3	530,1	91,2	25,4	106,6	563,2	96,9	25,0	116,9	596,3	102,6	24,6	127,2	
	14	510,6	87,8	27,0	97,4	544,7	93,7	26,6	107,8	578,7	99,5	26,2	118,2	612,7	105,4	25,8	128,6	
	15	524,3	90,2	28,4	98,5	559,2	96,2	27,9	109,0	594,2	102,2	27,5	119,5	629,1	108,2	27,1	130,0	
30	5	373,2	64,2	15,4	96,4	398,1	68,5	15,1	106,7	423,0	72,7	14,9	117,0	447,8	77,0	14,6	127,3	
	6	386,7	66,5	16,4	97,5	412,5	71,0	16,1	107,9	438,3	75,4	15,8	118,3	464,1	79,8	15,6	128,7	
	7	400,3	68,9	17,4	98,6	427,0	73,4	17,1	109,2	453,7	78,0	16,9	119,7	480,4	82,6	16,6	130,2	
	8	413,8	71,2	18,5	99,7	441,4	75,9	18,2	110,4	469,0	80,7	17,9	121,0	496,6	85,4	17,6	131,7	
	9	427,4	73,5	19,6	100,8	455,9	78,4	19,3	111,6	484,4	83,3	19,0	122,4	512,9	88,2	18,7	133,1	
	10	440,9	75,8	20,8	101,9	470,3	80,9	20,4	112,8	499,7	86,0	20,1	123,7	529,1	91,0	19,8	134,6	
	11	454,5	78,2	21,9	103,0	484,8	83,4	21,6	114,0	515,1	88,6	21,2	125,0	545,4	93,8	20,9	136,0	
	12	468,0	80,5	23,1	104,2	499,2	85,9	22,7	115,3	530,4	91,2	22,4	126,4	561,6	96,6	22,0	137,5	
	13	481,6	82,8	24,3	105,3	513,7	88,4	24,0	116,5	545,8	93,9	23,6	127,7	577,9	99,4	23,2	139,0	
	14	495,1	85,2	25,6	106,4	528,1	90,8	25,2	117,7	561,2	96,5	24,8	129,1	594,2	102,2	24,4	140,4	
	15	508,7	87,5	26,9	107,5	542,6	93,3	26,4	118,9	576,5	99,2	26,0	130,4	610,4	105,0	25,6	141,9	
35	5	348,8	60,0	13,6	104,5	372,1	64,0	13,4	115,7	395,4	68,0	13,1	126,8	418,6	72,0	12,9	138,0	
	6	361,9	62,3	14,5	105,7	386,0	66,4	14,3	116,9	410,2	70,6	14,1	128,2	434,3	74,7	13,8	139,5	
	7	375	64,5	15,5	107	400	68,8	15,2	118	425	73,1	15,0	130	450	77,4	14,7	141	
	8	388,1	66,7	16,5	107,9	414,0	71,2	16,2	119,5	439,8	75,6	15,9	131,0	465,7	80,1	15,7	142,5	
	9	401,2	69,0	17,5	109,1	427,9	73,6	17,2	120,7	454,6	78,2	16,9	132,4	481,4	82,8	16,6	144,0	
	10	414,2	71,2	18,5	110,2	441,9	76,0	18,2	122,0	469,5	80,7	17,9	133,7	497,1	85,5	17,6	145,5	
	11	427,3	73,5	19,6	111,4	455,8	78,4	19,3	123,2	484,3	83,3	19,0	135,1	512,8	88,2	18,7	147,0	
	12	440,4	75,7	20,7	112,5	469,8	80,8	20,4	124,5	499,1	85,8	20,0	136,5	528,5	90,9	19,7	148,5	
	13	453,5	78,0	21,8	113,6	483,7	83,2	21,5	125,8	513,9	88,4	21,1	137,9	544,2	93,6	20,8	150,0	
	14	466,6	80,2	23,0	114,8	497,7	85,6	22,6	127,0	528,8	90,9	22,3	139,3	559,9	96,3	21,9	151,5	
	15	479,6	82,5	24,2	115,9	511,6	88,0	23,8	128,3	543,6	93,5	23,4	140,7	575,6	99,0	23,0	153,0	

ABT	COT	RCME-150/3AH1				RCME-160/3AH1				RCME-170/3AH1				RCME-180/3AH1			
		CCAP	CFR	CPD	IPT												
40	5	324,5	55,8	11,9	115,0	346,1	59,5	11,7	127,3	367,7	63,3	11,5	139,5	389,4	67,0	11,3	151,8
	6	337,1	58,0	12,8	116,2	359,6	61,8	12,6	128,6	382,0	65,7	12,4	141,0	404,5	69,6	12,1	153,4
	7	349,7	60,1	13,7	117,4	373,0	64,2	13,4	129,9	396,3	68,2	13,2	142,4	419,6	72,2	13,0	155,0
	8	362,3	62,3	14,6	118,6	386,5	66,5	14,3	131,2	410,6	70,6	14,1	143,9	434,8	74,8	13,8	156,6
	9	374,9	64,5	15,5	119,8	399,9	68,8	15,2	132,6	424,9	73,1	15,0	145,4	449,9	77,4	14,7	158,1
	10	387,5	66,7	16,4	121,0	413,4	71,1	16,2	133,9	439,2	75,5	15,9	146,8	465,0	80,0	15,6	159,7
	11	400,2	68,8	17,4	122,2	426,8	73,4	17,1	135,2	453,5	78,0	16,9	148,3	480,2	82,6	16,6	161,3
	12	412,8	71,0	18,4	123,4	440,3	75,7	18,1	136,5	467,8	80,5	17,8	149,7	495,3	85,2	17,5	162,9
	13	425,4	73,2	19,4	124,6	453,7	78,0	19,1	137,9	482,1	82,9	18,8	151,2	510,4	87,8	18,5	164,5
	14	438,0	75,3	20,5	125,8	467,2	80,4	20,2	139,2	496,4	85,4	19,9	152,6	525,6	90,4	19,5	166,0
	15	450,6	77,5	21,6	127,0	480,6	82,7	21,2	140,5	510,7	87,8	20,9	154,1	540,7	93,0	20,6	167,6
43	5	309,9	53,3	11,0	121,3	330,5	56,9	10,8	134,2	351,2	60,4	10,6	147,1	371,8	64,0	10,4	160,1
	6	322,2	55,4	11,8	122,5	343,7	59,1	11,6	135,6	365,2	62,8	11,4	148,6	386,6	66,5	11,2	161,7
	7	334,5	57,5	12,6	123,7	356,8	61,4	12,4	136,9	379,1	65,2	12,2	150,1	401,4	69,0	12,0	163,4
	8	346,9	59,7	13,5	125,0	370,0	63,6	13,2	138,3	393,1	67,6	13,0	151,6	416,2	71,6	12,8	165,0
	9	359,2	61,8	14,3	126,2	383,1	65,9	14,1	139,7	407,1	70,0	13,9	153,1	431,0	74,1	13,6	166,6
	10	371,5	63,9	15,2	127,4	396,3	68,2	15,0	141,0	421,1	72,4	14,7	154,6	445,8	76,7	14,5	168,2
	11	383,9	66,0	16,2	128,7	409,4	70,4	15,9	142,4	435,0	74,8	15,6	156,1	460,6	79,2	15,4	169,9
	12	396,2	68,1	17,1	129,9	422,6	72,7	16,8	143,8	449,0	77,2	16,6	157,6	475,4	81,8	16,3	171,5
	13	408,5	70,3	18,1	131,1	435,7	74,9	17,8	145,1	463,0	79,6	17,5	159,1	490,2	84,3	17,2	173,1
	14	420,8	72,4	19,1	132,4	448,9	77,2	18,8	146,5	477,0	82,0	18,5	160,6	505,0	86,9	18,2	174,8
	15	433,2	74,5	20,1	133,6	462,0	79,5	19,8	147,9	490,9	84,4	19,5	162,1	519,8	89,4	19,1	176,4
46	5	295,3	50,8	10,1	127,5	314,9	54,2	9,9	141,2	334,6	57,6	9,7	154,8	354,3	60,9	9,5	168,4
	6	307,3	52,9	10,8	128,8	327,8	56,4	10,6	142,6	348,3	59,9	10,4	156,3	368,8	63,4	10,3	170,1
	7	319,4	54,9	11,6	130,1	340,6	58,6	11,4	144,0	361,9	62,3	11,2	157,8	383,2	65,9	11,0	171,7
	8	331,4	57,0	12,4	131,4	353,5	60,8	12,2	145,4	375,6	64,6	12,0	159,4	397,7	68,4	11,8	173,4
	9	343,5	59,1	13,2	132,6	366,3	63,0	13,0	146,8	389,2	67,0	12,8	160,9	412,1	70,9	12,6	175,1
	10	355,5	61,1	14,1	133,9	379,2	65,2	13,8	148,2	402,9	69,3	13,6	162,5	426,6	73,4	13,4	176,8
	11	367,5	63,2	14,9	135,2	392,1	67,4	14,7	149,6	416,6	71,6	14,4	164,0	441,1	75,9	14,2	178,4
	12	379,6	65,3	15,8	136,4	404,9	69,6	15,6	151,0	430,2	74,0	15,3	165,6	455,5	78,3	15,1	180,1
	13	391,6	67,4	16,8	137,7	417,8	71,9	16,5	152,4	443,9	76,3	16,2	167,1	470,0	80,8	15,9	181,8
	14	403,7	69,4	17,7	139,0	430,6	74,1	17,4	153,8	457,5	78,7	17,1	168,6	484,4	83,3	16,8	183,5
	15	415,7	71,5	18,7	140,2	443,5	76,3	18,4	155,2	471,2	81,0	18,1	170,2	498,9	85,8	17,8	185,2

ABT	COT	RCME-190/3AH1				RCME-200/3AH1				RCME-210/3AH1			
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	491,0	84,4	17,3	122,1	516,8	88,9	19,0	128,2	542,7	93,3	20,7	134,4
	6	508,3	87,4	18,5	123,5	535,0	92,0	20,2	129,8	561,8	96,6	22,0	136,0
	7	525,6	90,4	19,6	125,0	553,3	95,2	21,5	131,3	580,9	99,9	23,4	137,7
	8	542,9	93,4	20,8	126,5	571,5	98,3	22,8	132,9	600,1	103,2	24,8	139,3
	9	560,2	96,4	22,0	128,0	589,7	101,4	24,1	134,5	619,2	106,5	26,3	140,9
	10	577,5	99,3	23,3	129,5	607,9	104,6	25,5	136,0	638,3	109,8	27,8	142,6
	11	594,8	102,3	24,5	131,0	626,2	107,7	26,9	137,6	657,5	113,1	29,3	144,2
	12	612,2	105,3	25,9	132,5	644,4	110,8	28,4	139,2	676,6	116,4	30,9	145,8
	13	629,5	108,3	27,2	133,9	662,6	114,0	29,8	140,7	695,7	119,7	32,5	147,5
	14	646,8	111,2	28,6	135,4	680,8	117,1	31,3	142,3	714,9	123,0	34,1	149,1
	15	664,1	114,2	30,0	136,9	699,0	120,2	32,9	143,8	734,0	126,2	35,8	150,8
30	5	472,7	81,3	16,2	134,1	497,6	85,6	17,7	140,8	522,5	89,9	19,3	147,6
	6	489,9	84,3	17,3	135,6	515,7	88,7	18,9	142,4	541,4	93,1	20,6	149,3
	7	507,0	87,2	18,4	137,1	533,7	91,8	20,2	144,1	560,4	96,4	21,9	151,0
	8	524,2	90,2	19,5	138,7	551,8	94,9	21,4	145,7	579,4	99,7	23,3	152,7
	9	541,4	93,1	20,7	140,2	569,9	98,0	22,7	147,3	598,3	102,9	24,7	154,4
	10	558,5	96,1	21,9	141,7	587,9	101,1	24,0	148,9	617,3	106,2	26,1	156,1
	11	575,7	99,0	23,1	143,3	606,0	104,2	25,4	150,5	636,3	109,4	27,6	157,8
	12	592,8	102,0	24,4	144,8	624,1	107,3	26,8	152,1	655,3	112,7	29,1	159,4
	13	610,0	104,9	25,7	146,4	642,1	110,4	28,2	153,7	674,2	116,0	30,7	161,1
	14	627,2	107,9	27,0	147,9	660,2	113,6	29,6	155,4	693,2	119,2	32,3	162,8
	15	644,3	110,8	28,4	149,4	678,2	116,7	31,1	157,0	712,2	122,5	33,9	164,5
35	5	441,9	76,0	14,3	145,3	465,1	80,0	15,7	152,7	488,4	84,0	17,1	160,0
	6	458,4	78,9	15,3	146,9	482,6	83,0	16,8	154,3	506,7	87,2	18,3	161,8
	7	475	81,7	16,3	148	500	86,0	17,9	156	525	90,3	19,5	163
	8	491,6	84,5	17,4	150,1	517,4	89,0	19,1	157,7	543,3	93,4	20,7	165,2
	9	508,1	87,4	18,4	151,7	534,9	92,0	20,2	159,3	561,6	96,6	22,0	167,0
	10	524,7	90,2	19,5	153,2	552,3	95,0	21,4	161,0	579,9	99,7	23,3	168,7
	11	541,3	93,1	20,7	154,8	569,8	98,0	22,7	162,7	598,2	102,9	24,7	170,5
	12	557,8	95,9	21,8	156,4	587,2	101,0	24,0	164,3	616,6	106,0	26,1	172,2
	13	574,4	98,8	23,0	158,0	604,6	104,0	25,3	166,0	634,9	109,2	27,5	174,0
	14	591,0	101,6	24,3	159,6	622,1	107,0	26,6	167,6	653,2	112,3	29,0	175,7
	15	607,5	104,5	25,5	161,2	639,5	110,0	28,0	169,3	671,5	115,5	30,5	177,4
40	5	411,0	70,7	12,6	159,9	432,6	74,4	13,8	168,0	454,3	78,1	15,0	176,0
	6	427,0	73,4	13,4	161,5	449,5	77,3	14,8	169,7	471,9	81,2	16,1	177,9
	7	443,0	76,2	14,4	163,2	466,3	80,2	15,8	171,5	489,6	84,2	17,2	179,7
	8	458,9	78,9	15,3	164,9	483,1	83,1	16,8	173,2	507,2	87,2	18,3	181,5
	9	474,9	81,7	16,3	166,5	499,9	86,0	17,9	175,0	524,9	90,3	19,5	183,4
	10	490,9	84,4	17,3	168,2	516,7	88,9	19,0	176,7	542,6	93,3	20,7	185,2
	11	506,9	87,2	18,4	169,9	533,5	91,8	20,1	178,5	560,2	96,4	21,9	187,0
	12	522,8	89,9	19,4	171,5	550,4	94,7	21,3	180,2	577,9	99,4	23,2	188,9
	13	538,8	92,7	20,5	173,2	567,2	97,6	22,5	182,0	595,5	102,4	24,5	190,7
	14	554,8	95,4	21,6	174,9	584,0	100,4	23,7	183,7	613,2	105,5	25,8	192,5
	15	570,8	98,2	22,8	176,5	600,8	103,3	25,0	185,5	630,8	108,5	27,2	194,4
43	5	392,5	67,5	11,5	168,6	413,2	71,1	12,7	177,1	433,8	74,6	13,8	185,6
	6	408,1	70,2	12,4	170,3	429,6	73,9	13,6	178,9	451,1	77,6	14,8	187,5
	7	423,7	72,9	13,3	172,0	446,0	76,7	14,6	180,7	468,3	80,6	15,8	189,4
	8	439,4	75,6	14,2	173,8	462,5	79,5	15,5	182,5	485,6	83,5	16,9	191,3
	9	455,0	78,3	15,1	175,5	478,9	82,4	16,6	184,3	502,9	86,5	18,0	193,2
	10	470,6	80,9	16,0	177,2	495,4	85,2	17,6	186,1	520,1	89,5	19,2	195,1
	11	486,2	83,6	17,0	178,9	511,8	88,0	18,7	187,9	537,4	92,4	20,3	197,0
	12	501,8	86,3	18,0	180,6	528,2	90,9	19,8	189,7	554,7	95,4	21,5	198,9
	13	517,4	89,0	19,1	182,3	544,7	93,7	20,9	191,6	571,9	98,4	22,8	200,8
	14	533,1	91,7	20,1	184,1	561,1	96,5	22,1	193,4	589,2	101,3	24,0	202,7
	15	548,7	94,4	21,2	185,8	577,6	99,3	23,3	195,2	606,4	104,3	25,3	204,5

ABT	COT	RCME-190/3AH1				RCME-200/3AH1				RCME-210/3AH1			
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
46	5	374,0	64,3	10,6	177,3	393,7	67,7	11,6	186,3	413,4	71,1	12,6	195,2
	6	389,3	67,0	11,4	179,1	409,7	70,5	12,5	188,1	430,2	74,0	13,6	197,2
	7	404,5	69,6	12,2	180,9	425,8	73,2	13,4	190,0	447,1	76,9	14,6	199,1
	8	419,8	72,2	13,0	182,6	441,9	76,0	14,3	191,9	464,0	79,8	15,6	201,1
	9	435,0	74,8	13,9	184,4	457,9	78,8	15,3	193,7	480,8	82,7	16,6	203,0
	10	450,3	77,5	14,8	186,2	474,0	81,5	16,2	195,6	497,7	85,6	17,7	205,0
	11	465,6	80,1	15,7	187,9	490,1	84,3	17,3	197,4	514,6	88,5	18,8	206,9
	12	480,8	82,7	16,7	189,7	506,1	87,1	18,3	199,3	531,4	91,4	19,9	208,9
	13	496,1	85,3	17,7	191,5	522,2	89,8	19,4	201,1	548,3	94,3	21,1	210,8
	14	511,3	88,0	18,7	193,2	538,3	92,6	20,5	203,0	565,2	97,2	22,3	212,8
	15	526,6	90,6	19,7	195,0	554,3	95,3	21,6	204,9	582,0	100,1	23,5	214,7

#### 4.2.1.2 Performance Table at full load - RHME-AH1

(Pump not included)

##### ◆ 2 Modules

ABT	COT	RHME-080/2AH1				RHME-090/2AH1				RHME-100/2AH1				RHME-110/2AH1			
		CCAP	CFR	CPD	IPT												
25	5	197.0	33.9	10.1	46.2	221.9	38.2	10.2	53.4	246.7	42.4	10.3	60.6	271.6	46.7	10.8	70.3
	6	204.3	35.1	10.8	46.7	230.1	39.6	10.9	54.0	255.9	44.0	11.0	61.3	281.7	48.4	11.6	71.2
	7	211.6	36.4	11.5	47.3	238.3	41.0	11.6	54.6	265.0	45.6	11.8	62.0	291.7	50.2	12.3	72.0
	8	218.8	37.6	12.2	47.8	246.5	42.4	12.3	55.3	274.1	47.2	12.5	62.7	301.8	51.9	13.1	72.8
	9	226.1	38.9	12.9	48.4	254.7	43.8	13.1	55.9	283.3	48.7	13.3	63.4	311.8	53.6	13.9	73.7
	10	233.4	40.1	13.7	48.9	262.9	45.2	13.9	56.5	292.4	50.3	14.1	64.2	321.9	55.4	14.7	74.5
	11	240.7	41.4	14.5	49.4	271.1	46.6	14.7	57.2	301.5	51.9	14.9	64.9	331.9	57.1	15.6	75.3
	12	248.0	42.7	15.3	50.0	279.3	48.0	15.5	57.8	310.7	53.4	15.7	65.6	342.0	58.8	16.5	76.2
	13	255.3	43.9	16.1	50.5	287.5	49.5	16.3	58.4	319.8	55.0	16.5	66.3	352.0	60.5	17.3	77.0
	14	262.6	45.2	16.9	51.1	295.7	50.9	17.2	59.0	328.9	56.6	17.4	67.0	362.1	62.3	18.3	77.8
	15	269.9	46.4	17.8	51.6	304.0	52.3	18.0	59.7	338.0	58.1	18.3	67.7	372.1	64.0	19.2	78.6
30	5	189.0	32.5	9.3	50.5	212.9	36.6	9.5	58.4	236.8	40.7	9.6	66.3	260.7	44.8	10.0	77.0
	6	196.3	33.8	10.0	51.1	221.1	38.0	10.1	59.1	245.8	42.3	10.3	67.0	270.6	46.5	10.7	77.9
	7	203.5	35.0	10.7	51.7	229.2	39.4	10.8	59.7	254.9	43.8	11.0	67.8	280.6	48.3	11.5	78.7
	8	210.7	36.2	11.4	52.2	237.3	40.8	11.5	60.4	263.9	45.4	11.7	68.5	290.6	50.0	12.2	79.6
	9	217.9	37.5	12.1	52.8	245.5	42.2	12.3	61.0	273.0	47.0	12.4	69.3	300.5	51.7	13.0	80.4
	10	225.2	38.7	12.8	53.4	253.6	43.6	13.0	61.7	282.1	48.5	13.2	70.0	310.5	53.4	13.8	81.3
	11	232.4	40.0	13.6	53.9	261.7	45.0	13.8	62.3	291.1	50.1	13.9	70.7	320.5	55.1	14.6	82.1
	12	239.6	41.2	14.3	54.5	269.9	46.4	14.5	63.0	300.2	51.6	14.7	71.5	330.4	56.8	15.5	83.0
	13	246.8	42.5	15.1	55.0	278.0	47.8	15.3	63.6	309.2	53.2	15.6	72.2	340.4	58.5	16.3	83.9
	14	254.1	43.7	15.9	55.6	286.2	49.2	16.2	64.3	318.3	54.7	16.4	73.0	350.4	60.3	17.2	84.7
	15	261.3	44.9	16.8	56.2	294.3	50.6	17.0	64.9	327.3	56.3	17.3	73.7	360.3	62.0	18.1	85.6
35	5	176.0	30.3	8.2	54.6	198.3	34.1	8.3	63.2	220.5	37.9	8.4	71.7	242.8	41.8	8.8	83.2
	6	183.0	31.5	8.8	55.2	206.1	35.5	8.9	63.8	229.3	39.4	9.0	72.4	252.4	43.4	9.5	84.1
	7	190.0	32.7	9.4	55.8	214	36.8	9.6	64.5	238	40.9	9.7	73.2	262	45.1	10.1	85.0
	8	197.0	33.9	10.1	56.4	221.9	38.2	10.2	65.2	246.7	42.4	10.3	74.0	271.6	46.7	10.8	85.9
	9	204.0	35.1	10.7	57.0	229.7	39.5	10.9	65.8	255.5	43.9	11.0	74.7	281.2	48.4	11.5	86.8
	10	210.9	36.3	11.4	57.5	237.6	40.9	11.5	66.5	264.2	45.4	11.7	75.5	290.9	50.0	12.3	87.7
	11	217.9	37.5	12.1	58.1	245.4	42.2	12.2	67.2	273.0	46.9	12.4	76.2	300.5	51.7	13.0	88.5
	12	224.9	38.7	12.8	58.7	253.3	43.6	13.0	67.9	281.7	48.5	13.1	77.0	310.1	53.3	13.8	89.4
	13	231.9	39.9	13.5	59.3	261.1	44.9	13.7	68.5	290.4	50.0	13.9	77.8	319.7	55.0	14.6	90.3
	14	238.8	41.1	14.3	59.9	269.0	46.3	14.5	69.2	299.2	51.5	14.7	78.5	329.3	56.6	15.4	91.2
	15	245.8	42.3	15.0	60.4	276.9	47.6	15.2	69.9	307.9	53.0	15.4	79.3	339.0	58.3	16.2	92.1
40	5	163.1	28.0	7.2	60.0	183.7	31.6	7.2	69.3	204.3	35.1	7.3	78.7	224.8	38.7	7.7	91.4
	6	169.8	29.2	7.7	60.6	191.2	32.9	7.8	70.0	212.7	36.6	7.9	79.5	234.1	40.3	8.3	92.3
	7	176.5	30.4	8.3	61.2	198.8	34.2	8.4	70.7	221.1	38.0	8.5	80.3	243.4	41.9	8.9	93.2
	8	183.2	31.5	8.8	61.8	206.4	35.5	8.9	71.4	229.5	39.5	9.1	81.1	252.7	43.5	9.5	94.1
	9	190.0	32.7	9.4	62.4	214.0	36.8	9.6	72.1	238.0	40.9	9.7	81.9	261.9	45.1	10.1	95.1
	10	196.7	33.8	10.0	63.0	221.5	38.1	10.2	72.8	246.4	42.4	10.3	82.7	271.2	46.7	10.8	96.0
	11	203.4	35.0	10.7	63.6	229.1	39.4	10.8	73.6	254.8	43.8	11.0	83.5	280.5	48.2	11.5	96.9
	12	210.1	36.1	11.3	64.2	236.7	40.7	11.5	74.3	263.2	45.3	11.6	84.3	289.8	49.8	12.2	97.9
	13	216.9	37.3	12.0	64.9	244.3	42.0	12.1	75.0	271.7	46.7	12.3	85.1	299.0	51.4	12.9	98.8
	14	223.6	38.5	12.7	65.5	251.8	43.3	12.8	75.7	280.1	48.2	13.0	85.9	308.3	53.0	13.6	99.7
	15	230.3	39.6	13.4	66.1	259.4	44.6	13.5	76.4	288.5	49.6	13.7	86.7	317.6	54.6	14.4	100.7

ABT	COT	RHME-080/2AH1				RHME-090/2AH1				RHME-100/2AH1				RHME-110/2AH1			
		CCAP	CFR	CPD	IPT												
43	5	155.3	26.7	6.6	63.2	174.9	30.1	6.6	73.0	194.5	33.5	6.7	82.9	214.1	36.8	7.0	96.2
	6	161.8	27.8	7.1	63.8	182.3	31.4	7.1	73.7	202.7	34.9	7.2	83.7	223.2	38.4	7.6	97.2
	7	168.4	29.0	7.6	64.4	189.7	32.6	7.7	74.5	211.0	36.3	7.8	84.5	232.2	39.9	8.1	98.1
	8	175.0	30.1	8.1	65.1	197.1	33.9	8.2	75.2	219.2	37.7	8.3	85.3	241.3	41.5	8.7	99.1
	9	181.6	31.2	8.7	65.7	204.5	35.2	8.8	75.9	227.4	39.1	8.9	86.2	250.4	43.1	9.3	100.1
	10	188.1	32.4	9.3	66.3	211.9	36.4	9.4	76.6	235.7	40.5	9.5	87.0	259.4	44.6	10.0	101.0
	11	194.7	33.5	9.9	66.9	219.3	37.7	10.0	77.4	243.9	42.0	10.1	87.8	268.5	46.2	10.6	102.0
	12	201.3	34.6	10.5	67.6	226.7	39.0	10.6	78.1	252.1	43.4	10.7	88.6	277.6	47.7	11.3	102.9
	13	207.9	35.8	11.1	68.2	234.1	40.3	11.2	78.8	260.4	44.8	11.4	89.5	286.6	49.3	11.9	103.9
	14	214.4	36.9	11.7	68.8	241.5	41.5	11.9	79.6	268.6	46.2	12.1	90.3	295.7	50.9	12.6	104.8
46	5	147.5	25.4	6.0	66.4	166.1	28.6	6.0	76.7	184.7	31.8	6.1	87.1	203.4	35.0	6.4	101.1
	6	153.9	26.5	6.4	67.0	173.3	29.8	6.5	77.5	192.8	33.2	6.6	87.9	212.2	36.5	6.9	102.1
	7	160.3	27.6	6.9	67.7	180.6	31.1	7.0	78.2	200.8	34.5	7.1	88.8	221.1	38.0	7.4	103.1
	8	166.7	28.7	7.5	68.3	187.8	32.3	7.5	79.0	208.9	35.9	7.6	89.6	229.9	39.5	8.0	104.0
	9	173.2	29.8	8.0	69.0	195.0	33.5	8.1	79.7	216.9	37.3	8.2	90.5	238.8	41.1	8.6	105.0
	10	179.6	30.9	8.5	69.6	202.3	34.8	8.6	80.5	225.0	38.7	8.7	91.3	247.7	42.6	9.1	106.0
	11	186.0	32.0	9.1	70.2	209.5	36.0	9.2	81.2	233.0	40.1	9.3	92.2	256.5	44.1	9.8	107.0
	12	192.5	33.1	9.7	70.9	216.8	37.3	9.8	81.9	241.1	41.5	9.9	93.0	265.4	45.6	10.4	108.0
	13	198.9	34.2	10.2	71.5	224.0	38.5	10.4	82.7	249.1	42.8	10.5	93.9	274.2	47.2	11.0	109.0
	14	205.3	35.3	10.9	72.2	231.2	39.8	11.0	83.4	257.2	44.2	11.1	94.7	283.1	48.7	11.7	110.0
	15	211.7	36.4	11.5	72.8	238.5	41.0	11.6	84.2	265.2	45.6	11.8	95.5	292.0	50.2	12.3	111.0

ABT	COT	RHME-120/2AH1				RHME-130/2AH1				RHME-140/2AH1			
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	296.5	51.0	11.3	80.1	314.1	54.0	12.6	84.9	331.8	57.1	13.9	89.7
	6	307.5	52.9	12.1	81.1	325.8	56.0	13.5	85.9	344.0	59.2	14.8	90.8
	7	318.4	54.8	12.9	82.0	337.4	58.0	14.3	86.9	356.3	61.3	15.8	91.8
	8	329.4	56.7	13.7	82.9	349.0	60.0	15.3	87.9	368.6	63.4	16.8	92.9
	9	340.4	58.5	14.5	83.9	360.6	62.0	16.2	88.9	380.9	65.5	17.8	93.9
	10	351.4	60.4	15.4	84.8	372.2	64.0	17.2	89.9	393.1	67.6	18.9	95.0
	11	362.3	62.3	16.3	85.8	383.9	66.0	18.2	90.9	405.4	69.7	20.0	96.1
	12	373.3	64.2	17.2	86.7	395.5	68.0	19.2	91.9	417.7	71.8	21.1	97.1
	13	384.3	66.1	18.1	87.7	407.1	70.0	20.2	92.9	430.0	74.0	22.3	98.2
	14	395.3	68.0	19.1	88.6	418.7	72.0	21.3	93.9	442.2	76.1	23.4	99.2
	15	406.2	69.9	20.1	89.6	430.4	74.0	22.4	94.9	454.5	78.2	24.6	100.3
30	5	284.6	48.9	10.5	87.7	301.5	51.9	11.7	92.9	318.4	54.8	12.9	98.2
	6	295.4	50.8	11.2	88.7	313.0	53.8	12.5	94.0	330.5	56.9	13.8	99.3
	7	306.3	52.7	12.0	89.6	324.5	55.8	13.4	95.0	342.7	58.9	14.7	100.4
	8	317.2	54.6	12.8	90.6	336.0	57.8	14.2	96.0	354.9	61.0	15.7	101.5
	9	328.1	56.4	13.6	91.6	347.6	59.8	15.1	97.1	367.1	63.1	16.7	102.6
	10	338.9	58.3	14.4	92.6	359.1	61.8	16.1	98.1	379.2	65.2	17.7	103.7
	11	349.8	60.2	15.3	93.5	370.6	63.7	17.0	99.1	391.4	67.3	18.8	104.8
	12	360.7	62.0	16.2	94.5	382.1	65.7	18.0	100.2	403.6	69.4	19.8	105.8
	13	371.6	63.9	17.1	95.5	393.7	67.7	19.0	101.2	415.7	71.5	20.9	106.9
	14	382.4	65.8	18.0	96.5	405.2	69.7	20.0	102.3	427.9	73.6	22.1	108.0
	15	393.3	67.7	18.9	97.5	416.7	71.7	21.1	103.3	440.1	75.7	23.2	109.1
35	5	265.0	45.6	9.2	94.8	280.8	48.3	10.3	100.5	296.5	51.0	11.3	106.1
	6	275.5	47.4	9.9	95.8	291.9	50.2	11.0	101.5	308.3	53.0	12.1	107.3
	7	286	49.2	10.6	96.8	303	52.1	11.8	103	320	55.0	13.0	108
	8	296.5	51.0	11.3	97.8	314.1	54.0	12.6	103.7	331.7	57.1	13.9	109.5
	9	307.0	52.8	12.0	98.8	325.2	55.9	13.4	104.7	343.5	59.1	14.8	110.7
	10	317.5	54.6	12.8	99.8	336.4	57.9	14.3	105.8	355.2	61.1	15.7	111.8
	11	328.0	56.4	13.6	100.8	347.5	59.8	15.1	106.9	367.0	63.1	16.7	112.9
	12	338.5	58.2	14.4	101.8	358.6	61.7	16.0	107.9	378.7	65.1	17.7	114.0
	13	349.0	60.0	15.2	102.8	369.7	63.6	17.0	109.0	390.5	67.2	18.7	115.2
	14	359.5	61.8	16.1	103.8	380.9	65.5	17.9	110.1	402.2	69.2	19.7	116.3
	15	370.0	63.6	16.9	104.8	392.0	67.4	18.9	111.1	414.0	71.2	20.8	117.4
40	5	245.4	42.2	8.0	104.0	260.0	44.7	8.9	110.3	274.6	47.2	9.8	116.5
	6	255.6	44.0	8.6	105.1	270.8	46.6	9.6	111.4	286.0	49.2	10.6	117.7
	7	265.7	45.7	9.3	106.2	281.5	48.4	10.3	112.5	297.3	51.1	11.4	118.9
	8	275.8	47.4	9.9	107.2	292.2	50.3	11.0	113.6	308.6	53.1	12.2	120.1
	9	285.9	49.2	10.6	108.3	302.9	52.1	11.8	114.8	319.9	55.0	13.0	121.2
	10	296.1	50.9	11.3	109.3	313.7	54.0	12.6	115.9	331.3	57.0	13.8	122.4
	11	306.2	52.7	12.0	110.4	324.4	55.8	13.4	117.0	342.6	58.9	14.7	123.6
	12	316.3	54.4	12.7	111.4	335.1	57.6	14.2	118.1	353.9	60.9	15.6	124.8
	13	326.4	56.1	13.5	112.5	345.8	59.5	15.0	119.2	365.2	62.8	16.5	126.0
	14	336.6	57.9	14.2	113.6	356.6	61.3	15.9	120.4	376.6	64.8	17.5	127.2
	15	346.7	59.6	15.0	114.6	367.3	63.2	16.7	121.5	387.9	66.7	18.5	128.4
43	5	233.7	40.2	7.3	109.6	247.6	42.6	8.2	116.1	261.5	45.0	9.0	122.7
	6	243.6	41.9	7.9	110.7	258.1	44.4	8.8	117.3	272.6	46.9	9.7	123.9
	7	253.5	43.6	8.5	111.8	268.6	46.2	9.5	118.5	283.6	48.8	10.4	125.2
	8	263.4	45.3	9.1	112.9	279.1	48.0	10.1	119.6	294.7	50.7	11.2	126.4
	9	273.3	47.0	9.7	113.9	289.6	49.8	10.9	120.8	305.8	52.6	12.0	127.6
	10	283.2	48.7	10.4	115.0	300.0	51.6	11.6	121.9	316.9	54.5	12.8	128.8
	11	293.1	50.4	11.1	116.1	310.5	53.4	12.3	123.1	327.9	56.4	13.6	130.0
	12	303.0	52.1	11.8	117.2	321.0	55.2	13.1	124.2	339.0	58.3	14.4	131.3
	13	312.9	53.8	12.5	118.3	331.5	57.0	13.9	125.4	350.1	60.2	15.3	132.5
	14	322.8	55.5	13.2	119.4	342.0	58.8	14.7	126.6	361.2	62.1	16.2	133.7
	15	332.7	57.2	13.9	120.5	352.5	60.6	15.5	127.7	372.3	64.0	17.1	134.9

		RHME-120/2AH1				RHME-130/2AH1				RHME-140/2AH1			
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
46	5	222.0	38.2	6.7	115.1	235.2	40.5	7.4	122.0	248.4	42.7	8.2	128.9
	6	231.7	39.8	7.2	116.2	245.4	42.2	8.0	123.2	259.2	44.6	8.8	130.2
	7	241.3	41.5	7.8	117.4	255.7	44.0	8.7	124.4	270.0	46.4	9.5	131.4
	8	251.0	43.2	8.3	118.5	265.9	45.7	9.3	125.6	280.8	48.3	10.2	132.7
	9	260.7	44.8	8.9	119.6	276.2	47.5	10.0	126.8	291.7	50.2	11.0	134.0
	10	270.3	46.5	9.6	120.7	286.4	49.3	10.6	128.0	302.5	52.0	11.7	135.2
	11	280.0	48.2	10.2	121.9	296.7	51.0	11.3	129.2	313.3	53.9	12.5	136.5
	12	289.7	49.8	10.8	123.0	306.9	52.8	12.1	130.4	324.1	55.8	13.3	137.7
	13	299.4	51.5	11.5	124.1	317.2	54.6	12.8	131.5	335.0	57.6	14.1	139.0
	14	309.0	53.2	12.2	125.2	327.4	56.3	13.6	132.7	345.8	59.5	15.0	140.2
	15	318.7	54.8	12.9	126.4	337.7	58.1	14.4	133.9	356.6	61.3	15.8	141.5

### ◆ 3 Modules

		RHME-150/3AH1				RHME-160/3AH1				RHME-170/3AH1				RHME-180/3AH1			
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	370.1	63.7	10.3	90.9	395.0	67.9	10.7	100.6	419.9	72.2	11.0	110.4	444.8	76.5	11.3	120.2
	6	383.8	66.0	11.0	91.9	409.6	70.5	11.4	101.8	435.4	74.9	11.7	111.7	461.2	79.3	12.1	121.6
	7	397.5	68.4	11.8	93.0	424.2	73.0	12.1	103.0	450.9	77.6	12.5	113.0	477.7	82.2	12.9	123.0
	8	411.2	70.7	12.5	94.1	438.8	75.5	12.9	104.2	466.5	80.2	13.3	114.3	494.1	85.0	13.7	124.4
	9	424.9	73.1	13.3	95.2	453.5	78.0	13.7	105.4	482.0	82.9	14.1	115.6	510.6	87.8	14.5	125.8
	10	438.6	75.4	14.1	96.2	468.1	80.5	14.5	106.6	497.6	85.6	15.0	116.9	527.0	90.7	15.4	127.3
	11	452.3	77.8	14.9	97.3	482.7	83.0	15.3	107.8	513.1	88.3	15.8	118.2	543.5	93.5	16.3	128.7
	12	466.0	80.1	15.7	98.4	497.3	85.5	16.2	108.9	528.6	90.9	16.7	119.5	560.0	96.3	17.2	130.1
	13	479.7	82.5	16.5	99.4	511.9	88.1	17.1	110.1	544.2	93.6	17.6	120.8	576.4	99.1	18.1	131.5
	14	493.4	84.9	17.4	100.5	526.5	90.6	18.0	111.3	559.7	96.3	18.5	122.1	592.9	102.0	19.1	132.9
	15	507.1	87.2	18.3	101.6	541.2	93.1	18.9	112.5	575.2	98.9	19.5	123.4	609.3	104.8	20.1	134.3
30	5	355.2	61.1	9.6	99.5	379.1	65.2	9.9	110.1	402.9	69.3	10.2	120.8	426.8	73.4	10.5	131.5
	6	368.8	63.4	10.3	100.6	393.6	67.7	10.6	111.4	418.4	72.0	10.9	122.2	443.1	76.2	11.2	133.0
	7	382.3	65.8	11.0	101.7	408.1	70.2	11.3	112.6	433.8	74.6	11.7	123.5	459.5	79.0	12.0	134.5
	8	395.9	68.1	11.7	102.8	422.5	72.7	12.0	113.8	449.2	77.3	12.4	124.9	475.8	81.8	12.8	135.9
	9	409.5	70.4	12.4	103.9	437.0	75.2	12.8	115.1	464.6	79.9	13.2	126.2	492.1	84.6	13.6	137.4
	10	423.1	72.8	13.2	105.0	451.5	77.7	13.6	116.3	480.0	82.6	14.0	127.6	508.4	87.4	14.4	138.8
	11	436.7	75.1	13.9	106.1	466.0	80.2	14.4	117.5	495.4	85.2	14.8	128.9	524.7	90.3	15.3	140.3
	12	450.2	77.4	14.7	107.2	480.5	82.6	15.2	118.7	510.8	87.9	15.7	130.3	541.0	93.1	16.2	141.8
	13	463.8	79.8	15.6	108.3	495.0	85.1	16.1	120.0	526.2	90.5	16.6	131.6	557.4	95.9	17.1	143.2
	14	477.4	82.1	16.4	109.4	509.5	87.6	16.9	121.2	541.6	93.2	17.5	133.0	573.7	98.7	18.0	144.7
	15	491.0	84.4	17.3	110.5	524.0	90.1	17.8	122.4	557.0	95.8	18.4	134.3	590.0	101.5	18.9	146.2
35	5	330.8	56.9	8.4	107.5	353.0	60.7	8.7	119.1	375.3	64.5	9.0	130.6	397.5	68.4	9.2	142.2
	6	343.9	59.1	9.0	108.7	367.0	63.1	9.3	120.3	390.1	67.1	9.6	132.0	413.2	71.1	9.9	143.7
	7	<b>357</b>	<b>61.4</b>	<b>9.7</b>	<b>110</b>	<b>381</b>	<b>65.5</b>	<b>10.0</b>	<b>122</b>	<b>405</b>	<b>69.7</b>	<b>10.3</b>	<b>133</b>	<b>429</b>	<b>73.8</b>	<b>10.6</b>	<b>145</b>
	8	370.1	63.7	10.3	110.9	395.0	67.9	10.7	122.9	419.9	72.2	11.0	134.8	444.8	76.5	11.3	146.7
	9	383.2	65.9	11.0	112.1	409.0	70.3	11.4	124.1	434.7	74.8	11.7	136.2	460.5	79.2	12.0	148.2
	10	396.3	68.2	11.7	113.2	423.0	72.8	12.1	125.4	449.6	77.3	12.4	137.6	476.3	81.9	12.8	149.7
	11	409.4	70.4	12.4	114.4	437.0	75.2	12.8	126.7	464.5	79.9	13.2	138.9	492.0	84.6	13.6	151.2
	12	422.5	72.7	13.1	115.5	450.9	77.6	13.6	127.9	479.3	82.4	14.0	140.3	507.8	87.3	14.4	152.7
	13	435.6	74.9	13.9	116.6	464.9	80.0	14.3	129.2	494.2	85.0	14.8	141.7	523.5	90.0	15.2	154.3
	14	448.8	77.2	14.7	117.8	478.9	82.4	15.1	130.4	509.1	87.6	15.6	143.1	539.3	92.8	16.1	155.8
	15	461.9	79.4	15.4	118.9	492.9	84.8	15.9	131.7	524.0	90.1	16.4	144.5	555.0	95.5	16.9	157.3

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		RHME-150/3AH1				RHME-160/3AH1				RHME-170/3AH1				RHME-180/3AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
40	5	306.4	52.7	7.3	118.0	327.0	56.2	7.6	130.7	347.6	59.8	7.8	143.4	368.2	63.3	8.0	156.0
	6	319.0	54.9	7.9	119.2	340.5	58.6	8.1	132.0	361.9	62.2	8.4	144.8	383.4	65.9	8.6	157.6
	7	331.7	57.0	8.5	120.4	353.9	60.9	8.7	133.3	376.2	64.7	9.0	146.3	398.5	68.5	9.3	159.2
	8	344.3	59.2	9.1	121.6	367.4	63.2	9.3	134.7	390.6	67.2	9.6	147.7	413.7	71.2	9.9	160.8
	9	356.9	61.4	9.7	122.8	380.9	65.5	10.0	136.0	404.9	69.6	10.3	149.2	428.9	73.8	10.6	162.4
	10	369.6	63.6	10.3	124.0	394.4	67.8	10.6	137.3	419.3	72.1	11.0	150.7	444.1	76.4	11.3	164.0
	11	382.2	65.7	11.0	125.2	407.9	70.2	11.3	138.7	433.6	74.6	11.6	152.1	459.3	79.0	12.0	165.6
	12	394.8	67.9	11.6	126.4	421.4	72.5	12.0	140.0	447.9	77.0	12.4	153.6	474.5	81.6	12.7	167.2
	13	407.5	70.1	12.3	127.6	434.9	74.8	12.7	141.3	462.3	79.5	13.1	155.0	489.7	84.2	13.5	168.8
	14	420.1	72.3	13.0	128.8	448.4	77.1	13.4	142.7	476.6	82.0	13.8	156.5	504.8	86.8	14.2	170.3
	15	432.8	74.4	13.7	130.0	461.8	79.4	14.2	144.0	490.9	84.4	14.6	158.0	520.0	89.4	15.0	171.9
43	5	291.7	50.2	6.7	124.3	311.3	53.6	6.9	137.7	331.0	56.9	7.1	151.0	350.6	60.3	7.3	164.4
	6	304.1	52.3	7.2	125.5	324.5	55.8	7.5	139.0	345.0	59.3	7.7	152.5	365.4	62.9	7.9	166.0
	7	316.4	54.4	7.8	126.8	337.7	58.1	8.0	140.4	359.0	61.7	8.3	154.0	380.3	65.4	8.5	167.6
	8	328.8	56.6	8.3	128.0	350.9	60.4	8.6	141.8	373.0	64.2	8.9	155.5	395.1	68.0	9.1	169.3
	9	341.2	58.7	8.9	129.2	364.1	62.6	9.2	143.1	387.0	66.6	9.5	157.0	410.0	70.5	9.7	170.9
	10	353.5	60.8	9.5	130.5	377.3	64.9	9.8	144.5	401.0	69.0	10.1	158.5	424.8	73.1	10.4	172.6
	11	365.9	62.9	10.1	131.7	390.5	67.2	10.4	145.9	415.1	71.4	10.8	160.0	439.7	75.6	11.1	174.2
	12	378.2	65.1	10.7	133.0	403.7	69.4	11.1	147.2	429.1	73.8	11.4	161.5	454.5	78.2	11.8	175.8
	13	390.6	67.2	11.4	134.2	416.8	71.7	11.8	148.6	443.1	76.2	12.1	163.0	469.4	80.7	12.5	177.5
	14	402.9	69.3	12.1	135.4	430.0	74.0	12.4	150.0	457.1	78.6	12.8	164.5	484.2	83.3	13.2	179.1
	15	415.3	71.4	12.7	136.7	443.2	76.2	13.1	151.4	471.1	81.0	13.5	166.0	499.0	85.8	13.9	180.7
46	5	277.1	47.7	6.1	130.6	295.7	50.9	6.3	144.6	314.3	54.1	6.5	158.7	333.0	57.3	6.7	172.7
	6	289.2	49.7	6.6	131.9	308.6	53.1	6.8	146.0	328.0	56.4	7.0	160.2	347.5	59.8	7.2	174.4
	7	301.2	51.8	7.1	133.1	321.5	55.3	7.3	147.4	341.7	58.8	7.5	161.7	362.0	62.3	7.8	176.1
	8	313.3	53.9	7.6	134.4	334.4	57.5	7.9	148.9	355.4	61.1	8.1	163.3	376.5	64.8	8.3	177.7
	9	325.4	56.0	8.2	135.7	347.3	59.7	8.4	150.3	369.1	63.5	8.7	164.8	391.0	67.3	8.9	179.4
	10	337.5	58.0	8.7	137.0	360.1	61.9	9.0	151.7	382.8	65.8	9.3	166.4	405.5	69.7	9.6	181.1
	11	349.5	60.1	9.3	138.2	373.0	64.2	9.6	153.1	396.5	68.2	9.9	167.9	420.0	72.2	10.2	182.8
	12	361.6	62.2	9.9	139.5	385.9	66.4	10.2	154.5	410.2	70.6	10.5	169.5	434.5	74.7	10.8	184.5
	13	373.7	64.3	10.5	140.8	398.8	68.6	10.8	155.9	423.9	72.9	11.2	171.0	449.0	77.2	11.5	186.2
	14	385.8	66.3	11.1	142.0	411.7	70.8	11.5	157.3	437.6	75.3	11.8	172.6	463.6	79.7	12.2	187.8
	15	397.8	68.4	11.8	143.3	424.6	73.0	12.2	158.7	451.3	77.6	12.5	174.1	478.1	82.2	12.9	189.5

ABT	COT	RHME-190/3AH1				RHME-200/3AH1				RHME-210/3AH1			
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	462.4	79.5	12.2	125.0	480.0	82.6	13.0	129.8	497.6	85.6	13.9	134.6
	6	479.5	82.5	13.0	126.4	497.8	85.6	13.9	131.3	516.0	88.8	14.8	136.2
	7	496.6	85.4	13.9	127.9	515.5	88.7	14.8	132.8	534.5	91.9	15.8	137.7
	8	513.7	88.4	14.7	129.4	533.3	91.7	15.8	134.4	552.9	95.1	16.8	139.3
	9	530.8	91.3	15.6	130.9	551.1	94.8	16.7	135.9	571.3	98.3	17.8	140.9
	10	547.9	94.2	16.6	132.3	568.8	97.8	17.7	137.4	589.7	101.4	18.9	142.5
	11	565.0	97.2	17.5	133.8	586.6	100.9	18.8	139.0	608.1	104.6	20.0	144.1
	12	582.1	100.1	18.5	135.3	604.3	103.9	19.8	140.5	626.5	107.8	21.1	145.7
	13	599.3	103.1	19.5	136.8	622.1	107.0	20.9	142.0	644.9	110.9	22.3	147.3
	14	616.4	106.0	20.5	138.2	639.9	110.1	22.0	143.5	663.4	114.1	23.4	148.9
	15	633.5	109.0	21.6	139.7	657.6	113.1	23.1	145.1	681.8	117.3	24.6	150.4
30	5	443.7	76.3	11.3	136.8	460.7	79.2	12.1	142.0	477.6	82.1	12.9	147.3
	6	460.7	79.2	12.1	138.3	478.3	82.3	12.9	143.6	495.8	85.3	13.8	148.9
	7	477.7	82.2	12.9	139.8	495.9	85.3	13.8	145.2	514.1	88.4	14.7	150.6
	8	494.6	85.1	13.8	141.3	513.5	88.3	14.7	146.8	532.3	91.6	15.7	152.2
	9	511.6	88.0	14.6	142.9	531.1	91.3	15.7	148.4	550.6	94.7	16.7	153.8
	10	528.6	90.9	15.5	144.4	548.7	94.4	16.6	149.9	568.8	97.8	17.7	155.5
	11	545.5	93.8	16.4	145.9	566.3	97.4	17.6	151.5	587.1	101.0	18.8	157.1
	12	562.5	96.7	17.4	147.4	583.9	100.4	18.6	153.1	605.4	104.1	19.8	158.8
	13	579.4	99.7	18.4	149.0	601.5	103.5	19.6	154.7	623.6	107.3	20.9	160.4
	14	596.4	102.6	19.3	150.5	619.1	106.5	20.7	156.3	641.9	110.4	22.1	162.1
	15	613.4	105.5	20.4	152.0	636.7	109.5	21.8	157.9	660.1	113.5	23.2	163.7
35	5	413.2	71.1	9.9	147.9	429.0	73.8	10.6	153.5	444.8	76.5	11.3	159.2
	6	429.6	73.9	10.6	149.4	446.0	76.7	11.4	155.2	462.4	79.5	12.1	160.9
	7	446	76.7	11.4	151	463	79.6	12.2	157	480	82.6	13.0	163
	8	462.4	79.5	12.2	152.6	480.0	82.6	13.0	158.4	497.6	85.6	13.9	164.3
	9	478.8	82.3	13.0	154.1	497.0	85.5	13.9	160.1	515.2	88.6	14.8	166.0
	10	495.1	85.2	13.8	155.7	514.0	88.4	14.8	161.7	532.9	91.7	15.7	167.7
	11	511.5	88.0	14.6	157.3	531.0	91.3	15.7	163.3	550.5	94.7	16.7	169.4
	12	527.9	90.8	15.5	158.8	548.0	94.3	16.6	164.9	568.1	97.7	17.7	171.1
	13	544.3	93.6	16.4	160.4	565.0	97.2	17.5	166.6	585.7	100.7	18.7	172.7
	14	560.6	96.4	17.3	162.0	582.0	100.1	18.5	168.2	603.4	103.8	19.7	174.4
	15	577.0	99.2	18.2	163.6	599.0	103.0	19.5	169.8	621.0	106.8	20.8	176.1
40	5	382.8	65.8	8.6	162.3	397.3	68.3	9.2	168.5	411.9	70.9	9.8	174.7
	6	398.5	68.5	9.3	163.9	413.7	71.2	9.9	170.2	428.9	73.8	10.6	176.5
	7	414.3	71.3	10.0	165.6	430.1	74.0	10.7	171.9	445.9	76.7	11.4	178.3
	8	430.1	74.0	10.7	167.2	446.5	76.8	11.4	173.7	462.9	79.6	12.2	180.1
	9	445.9	76.7	11.4	168.9	462.9	79.6	12.2	175.4	479.9	82.5	13.0	181.9
	10	461.7	79.4	12.1	170.5	479.3	82.4	13.0	177.1	496.9	85.5	13.8	183.6
	11	477.5	82.1	12.9	172.2	495.7	85.3	13.8	178.8	513.9	88.4	14.7	185.4
	12	493.3	84.8	13.7	173.8	512.1	88.1	14.7	180.5	530.9	91.3	15.6	187.2
	13	509.1	87.6	14.5	175.5	528.5	90.9	15.5	182.2	547.9	94.2	16.5	189.0
	14	524.9	90.3	15.3	177.2	544.9	93.7	16.4	184.0	564.9	97.2	17.5	190.8
	15	540.6	93.0	16.2	178.8	561.2	96.5	17.3	185.7	581.9	100.1	18.5	192.5
43	5	364.5	62.7	7.9	170.9	378.4	65.1	8.4	177.5	392.2	67.5	9.0	184.1
	6	379.9	65.3	8.5	172.6	394.4	67.8	9.1	179.3	408.9	70.3	9.7	185.9
	7	395.3	68.0	9.1	174.3	410.4	70.6	9.8	181.0	425.5	73.2	10.4	187.7
	8	410.8	70.7	9.8	176.0	426.4	73.3	10.5	182.8	442.1	76.0	11.2	189.6
	9	426.2	73.3	10.5	177.7	442.5	76.1	11.2	184.6	458.7	78.9	12.0	191.4
	10	441.6	76.0	11.2	179.4	458.5	78.9	12.0	186.3	475.3	81.8	12.8	193.2
	11	457.1	78.6	11.9	181.1	474.5	81.6	12.7	188.1	491.9	84.6	13.6	195.1
	12	472.5	81.3	12.7	182.8	490.5	84.4	13.5	189.9	508.5	87.5	14.4	196.9
	13	488.0	83.9	13.4	184.5	506.6	87.1	14.4	191.6	525.2	90.3	15.3	198.7
	14	503.4	86.6	14.2	186.3	522.6	89.9	15.2	193.4	541.8	93.2	16.2	200.6
	15	518.8	89.2	15.0	188.0	538.6	92.6	16.1	195.2	558.4	96.0	17.1	202.4

		RHME-190/3AH1				RHME-200/3AH1				RHME-210/3AH1			
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
46	5	346.2	59.5	7.2	179.6	359.4	61.8	7.7	186.5	372.6	64.1	8.2	193.4
	6	361.3	62.1	7.8	181.3	375.0	64.5	8.3	188.3	388.8	66.9	8.8	195.3
	7	376.3	64.7	8.4	183.1	390.7	67.2	8.9	190.1	405.0	69.7	9.5	197.2
	8	391.4	67.3	9.0	184.8	406.3	69.9	9.6	191.9	421.3	72.5	10.2	199.0
	9	406.5	69.9	9.6	186.6	422.0	72.6	10.3	193.8	437.5	75.2	11.0	200.9
	10	421.6	72.5	10.3	188.3	437.7	75.3	11.0	195.6	453.7	78.0	11.7	202.8
	11	436.7	75.1	11.0	190.1	453.3	78.0	11.7	197.4	470.0	80.8	12.5	204.7
	12	451.8	77.7	11.7	191.8	469.0	80.7	12.5	199.2	486.2	83.6	13.3	206.6
	13	466.8	80.3	12.4	193.6	484.6	83.4	13.3	201.0	502.4	86.4	14.1	208.5
	14	481.9	82.9	13.1	195.4	500.3	86.1	14.0	202.9	518.7	89.2	15.0	210.4
	15	497.0	85.5	13.9	197.1	516.0	88.7	14.9	204.7	534.9	92.0	15.8	212.2

#### 4.2.1.3 Capacity tables at partial load - R(C/H)ME-AH1

Model	Table
R(C/H)ME-080/2AH1	A
R(C/H)ME-090/2AH1	A
R(C/H)ME-100/2AH1	A
R(C/H)ME-110/2AH1	C
R(C/H)ME-120/2AH1	B
R(C/H)ME-130/2AH1	B
R(C/H)ME-140/2AH1	B

Model	Table
R(C/H)ME-150/3AH1	A
R(C/H)ME-160/3AH1	D
R(C/H)ME-170/3AH1	E
R(C/H)ME-180/3AH1	B
R(C/H)ME-190/3AH1	B
R(C/H)ME-200/3AH1	B
R(C/H)ME-210/3AH1	B

◆ Table A

Model: R(C/H)ME-(080-100)/2AH1, R(C/H)ME-150/3AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%										Full load
		25	30	40	50	60	70	75	80	85	-	
46	Capacity	25	30	40	50	60	70	75	80	89	-	
	Input	72	66	65	68	76	85	91	97	122	-	
	EER	35	45	62	73	79	82	82	80	70	-	
43	Capacity	25	30	40	50	60	70	75	80	89	-	
	Input	65	60	60	64	71	80	86	91	116	-	
	EER	39	50	67	78	84	87	87	86	77	-	
40	Capacity	25	30	40	50	60	70	75	80	90	93	
	Input	58	55	55	60	66	75	81	86	98	110	
	EER	43	55	72	84	90	93	93	93	89	85	
35	Capacity	25	30	40	50	60	70	75	80	90	100	
	Input	46	45	46	50	56	64	69	74	86	100	
	EER	54	67	87	100	107	109	109	108	104	100	
30	Capacity	25	30	40	50	60	70	75	80	90	100	106
	Input	37	38	41	46	53	60	64	69	78	87	93
	EER	67	79	97	108	114	117	117	117	116	115	114
25	Capacity	25	30	40	50	60	70	75	80	90	100	110
	Input	29	31	35	39	45	51	54	58	66	77	85
	EER	85	96	114	127	135	138	139	138	136	130	129
20	Capacity	25	30	40	50	60	70	75	80	90	100	111
	Input	19	21	25	29	34	39	42	46	55	66	76
	EER	131	143	161	173	179	179	177	174	165	152	145

**◆ Table B**

Model: R(C/H)ME-(120-140)/2AH1, R(C/H)ME-(180-210)3AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%									Full load ↓
		25	30	40	50	60	70	75	80	85	
46	Capacity	25	30	40	50	60	70	75	80	85	-
	Input	69	63	62	66	73	82	88	94	122	-
	EER	36	47	65	76	83	85	85	82	70	-
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	62	58	57	61	68	77	83	89	116	-
	EER	41	52	70	82	88	91	90	88	77	-
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	55	52	53	57	64	72	78	83	96	110
	EER	46	57	76	88	94	97	97	96	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	35	36	39	43	49	56	61	65	76	87
	EER	72	84	103	115	122	124	124	123	119	115
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	24	26	30	34	40	46	50	54	64	77
	EER	105	117	134	145	150	151	149	147	140	130
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	130	142	161	173	179	179	177	174	165	152

**◆ Table C**

Model: R(C/H)ME-110/2AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%									Full load ↓
		25	30	40	50	60	70	75	80	85	
46	Capacity	25	30	40	50	60	70	75	80	85	-
	Input	71	65	64	67	75	84	90	96	122	-
	EER	36	46	64	75	81	84	84	81	70	-
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	64	59	59	63	70	79	85	90	116	-
	EER	40	51	69	80	86	89	89	87	77	-
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	57	54	54	59	65	74	80	85	97	110
	EER	45	56	74	86	92	95	95	95	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	106
	Input	36	37	40	45	51	58	63	67	77	87
	EER	70	82	100	112	118	121	121	120	118	115
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	27	29	33	37	43	49	52	56	65	77
	EER	95	107	124	136	143	145	144	143	138	130
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	131	143	161	173	179	179	177	174	165	152

**◆ Table D**

Model: RHME-160/3AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%									Full load
		25	30	40	50	60	70	75	80	85	
46	Capacity	25	30	40	50	60	70	75	80	85	-
	Input	71	65	64	67	75	84	90	96	122	-
	EER	35	46	63	74	80	83	83	81	70	-
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	64	59	59	63	70	79	85	90	116	-
	EER	40	51	68	79	85	88	88	87	77	-
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	57	54	54	59	65	74	80	85	97	110
	EER	44	56	73	85	91	94	94	94	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	36	37	40	45	52	59	63	68	77	87
	EER	69	81	99	110	117	119	119	119	117	114
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	27	29	33	37	43	49	53	57	65	77
	EER	92	103	121	133	140	142	142	141	137	129
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	131	143	161	173	179	179	177	174	165	152

4

**◆ Table E**

Model: R(C/H)ME-170/3AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%									Full load
		25	30	40	50	60	70	75	80	85	
46	Capacity	25	30	40	50	60	70	75	80	85	-
	Input	70	64	63	67	74	83	89	95	122	-
	EER	36	46	64	75	82	84	84	81	70	-
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	63	59	58	62	69	78	84	90	116	-
	EER	40	51	69	81	87	90	89	87	77	-
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	56	53	54	58	65	73	79	84	97	110
	EER	45	56	75	87	93	96	96	95	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	36	37	40	44	50	57	62	66	77	87
	EER	70	82	101	113	119	122	122	121	118	115
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	26	28	32	36	42	48	51	55	65	77
	EER	98	110	127	139	145	147	146	144	139	129
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	130	142	161	173	179	179	177	174	165	152

**NOTE**

**1** The previous table shows the amount of reduction or increase in capacity, input and EER from a reference 100% value.

Capacity (%)	100
Input (%)	100
EER (%)	100

**2** The values for a 100% rate in capacity, input and EER correspond to the values in the Performance Table (cooling operation at full load), and for the following conditions:

- Ambient temperature (ABT): 35°C
- Chilled Water outlet Temperature target (COT) (°C) (from 5 to 15°C)
- Water flow rate constant
- Capacity: cooling capacity (kW)
- Input (IPT): total input power (compressors + fans) (kW)
- EER: Capacity / Input (kW/kW)
- All condenser fans running

**3** Calculation example:

**Model RCME-160/3AH1**

Working conditions:

- Condenser Air Inlet Temperature 30 (°C)
- Chilled Water outlet Temperature 10 (°C)
- Partial Load 70 %

100 % rate calculation:

According to Performance Table (cooling operation at full load) and the following conditions:

- Condenser Air Inlet Temperature 35 (°C)
- Chilled Water outlet Temperature 10 (°C)

Capacity (CCAP) (kW)	441.9
Input (IPT) (kW)	122.0
EER (CCAP / IPT)	441.9 / 122.0 = 3.62

Performance at partial load calculation:

According to Cooling capacity tables at partial load:

- Condenser Air Inlet Temperature 30 (°C)
- Partial Load 70 %

Capacity (%)	70%	$441.9 \times 70\% = 309.3$
Input (%)	59%	$122.0 \times 59\% = 72.0$
EER (%)	119%	$3.62 \times 119\% = 4.30$

## 4.2.2 Heating Operation

### 4.2.2.1 Performance Table at full load - RHME-AH1

(Pump not included)

#### ◆ 2 Modules

		RHME-080/2AH1					RHME-090/2AH1					RHME-100/2AH1					RHME-110/2AH1				
ABTW	HOT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT
15	35	205.8	35.4	10.9	48.8	231.5	39.8	11.0	56.4	257.2	44.2	11.1	64.0	282.9	48.6	11.7	73.7				
	40	204.8	35.2	10.8	52.6	230.5	39.6	11.0	59.5	256.2	44.0	11.1	66.4	281.7	48.4	11.6	78.2				
	45	204.0	35.0	10.7	58.8	229.5	39.4	10.9	67.8	255.0	43.8	11.0	76.8	280.5	48.2	11.5	88.6				
	50	203.2	35.0	10.6	67.2	228.6	39.3	10.8	77.6	254.0	43.6	10.9	88.0	279.4	48.0	11.4	101.3				
	55	194.0	33.4	9.8	77.8	218.2	37.5	9.9	89.7	242.4	41.6	10.0	101.6	266.7	45.8	10.5	117.1				
10	35	202.4	34.8	10.6	48.0	227.7	39.2	10.7	55.5	253.0	43.6	10.8	63.0	278.3	47.9	11.3	72.5				
	40	200.6	34.4	10.4	52.0	225.6	38.8	10.5	60.0	250.6	43.2	10.6	68.0	275.7	47.5	11.1	78.3				
	45	198.8	34.2	10.2	58.0	223.5	38.4	10.3	66.9	248.2	42.6	10.4	75.8	273.0	46.9	10.9	87.3				
	50	196.6	33.8	10.0	65.8	221.3	38.1	10.2	75.9	246.0	42.4	10.3	86.0	270.6	46.6	10.8	99.2				
	55	186.8	32.2	9.1	75.8	210.1	36.2	9.3	87.5	233.4	40.2	9.4	99.2	256.8	44.2	9.8	114.3				
6	35	189.4	32.6	9.4	47.4	213.1	36.7	9.5	54.7	236.8	40.8	9.6	62.0	260.4	44.8	10.1	71.5				
	40	186.8	32.2	9.1	51.4	210.1	36.2	9.2	59.3	233.4	40.2	9.3	67.2	256.7	44.2	9.8	77.4				
	45	184.0	31.6	8.9	57.2	207.0	35.6	9.0	66.0	230.0	39.6	9.1	74.8	253.0	43.5	9.5	86.2				
	50	181.2	31.2	8.7	64.8	203.9	35.1	8.8	74.8	226.6	39.0	8.9	84.8	249.3	42.9	9.3	97.7				
	55	171.2	29.4	7.8	74.2	192.6	33.1	7.9	85.7	214.0	36.8	8.0	97.2	235.3	40.5	8.4	112.0				
5	35	185.2	31.8	9.0	47.4	208.3	35.8	9.1	54.6	231.4	39.8	9.2	61.8	254.5	43.8	9.6	71.3				
	40	182.4	31.4	8.8	51.2	205.1	35.3	8.9	59.1	227.8	39.2	8.9	67.0	250.6	43.1	9.4	77.2				
	45	179.4	30.8	8.5	57.0	201.8	34.7	8.6	65.8	224.2	38.6	8.7	74.6	246.6	42.4	9.1	85.9				
	50	176.4	30.4	8.3	64.6	198.5	34.2	8.4	74.5	220.6	38.0	8.4	84.4	242.7	41.8	8.8	97.3				
	55	166.4	28.6	7.4	73.8	187.2	32.2	7.5	85.2	208.0	35.8	7.6	96.6	228.8	39.4	8.0	111.3				
0	35	164.2	28.2	7.2	46.6	184.6	31.7	7.3	53.7	205.0	35.2	7.4	60.8	225.5	38.8	7.7	70.1				
	40	160.2	27.6	6.9	50.6	180.2	31.0	7.0	58.4	200.2	34.4	7.1	66.2	220.3	37.9	7.4	76.2				
	45	156.4	27.0	6.6	56.2	175.9	30.3	6.7	64.8	195.4	33.6	6.8	73.4	214.9	37.0	7.1	84.6				
	50	152.6	26.2	6.3	63.2	171.6	29.5	6.4	73.0	190.6	32.8	6.5	82.8	209.7	36.1	6.8	95.4				
	55	142.4	24.4	5.6	72.0	160	27.5	5.7	83.0	178	30.6	5.7	94.0	196	33.7	6.0	108.4				
-5	35	128.6	22.2	4.7	41.2	144.7	24.9	4.8	47.5	160.8	27.6	4.8	53.8	176.9	30.4	5.0	62.0				
	40	124.2	21.4	4.4	44.8	139.7	24.1	4.5	51.7	155.2	26.8	4.5	58.6	170.8	29.4	4.7	67.6				
	45	120.0	20.6	4.1	49.6	135.0	23.2	4.2	57.3	150.0	25.8	4.2	65.0	165.0	28.4	4.4	74.9				
	50	115.6	19.8	3.8	55.8	130.0	22.3	3.9	64.4	144.4	24.8	3.9	73.0	158.9	27.3	4.1	84.1				
	55	106.6	18.4	3.3	63.0	119.9	20.7	3.4	72.7	133.2	23.0	3.4	82.4	146.5	25.3	3.6	95.0				
-10	35	109.6	18.8	3.5	40.4	123.3	21.2	3.6	46.6	137.0	23.6	3.6	52.8	150.7	25.9	3.8	60.9				
	40	104.4	18.0	3.2	44.2	117.4	20.2	3.3	51.0	130.4	22.4	3.3	57.8	143.5	24.7	3.4	66.6				
	45	99.2	17.0	2.9	48.8	111.6	19.2	3.0	56.4	124.0	21.4	3.0	64.0	136.4	23.5	3.1	73.7				
	50	94.0	16.2	2.6	54.6	105.7	18.2	2.7	63.0	117.4	20.2	2.7	71.4	129.2	22.2	2.8	82.3				

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at ΔT=5°C (m3/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

		RHME-120/2AH1				RHME-130/2AH1				RHME-140/2AH1			
ABTW	HOT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT
15	35	308.6	53.0	12.2	83.4	308.6	53.0	12.2	83.4	308.6	53.0	12.2	83.4
	40	307.2	52.8	12.1	90.0	307.2	52.8	12.1	90.0	307.2	52.8	12.1	90.0
	45	306.0	52.6	12.0	100.4	306.0	52.6	12.0	100.4	306.0	52.6	12.0	100.4
	50	304.8	52.4	11.9	114.6	304.8	52.4	11.9	114.6	304.8	52.4	11.9	114.6
	55	291.0	50.0	10.9	132.6	291.0	50.0	10.9	132.6	291.0	50.0	10.9	132.6
10	35	303.6	52.2	11.8	82.0	303.6	52.2	11.8	82.0	303.6	52.2	11.8	82.0
	40	300.8	51.8	11.6	88.6	300.8	51.8	11.6	88.6	300.8	51.8	11.6	88.6
	45	297.8	51.2	11.4	98.8	297.8	51.2	11.4	98.8	297.8	51.2	11.4	98.8
	50	295.2	50.8	11.2	112.4	295.2	50.8	11.2	112.4	295.2	50.8	11.2	112.4
	55	280.2	48.2	10.2	129.4	280.2	48.2	10.2	129.4	280.2	48.2	10.2	129.4
6	35	284.0	48.8	10.5	81.0	284.0	48.8	10.5	81.0	284.0	48.8	10.5	81.0
	40	280.0	48.2	10.2	87.6	280.0	48.2	10.2	87.6	280.0	48.2	10.2	87.6
	45	276.0	47.4	9.9	97.6	276.0	47.4	9.9	97.6	276.0	47.4	9.9	97.6
	50	272.0	46.8	9.7	110.6	272.0	46.8	9.7	110.6	272.0	46.8	9.7	110.6
	55	256.6	44.2	8.7	126.8	256.6	44.2	8.7	126.8	256.6	44.2	8.7	126.8
5	35	277.6	47.8	10.0	80.8	277.6	47.8	10.0	80.8	277.6	47.8	10.0	80.8
	40	273.4	47.0	9.8	87.4	273.4	47.0	9.8	87.4	273.4	47.0	9.8	87.4
	45	269.0	46.2	9.5	97.2	269.0	46.2	9.5	97.2	269.0	46.2	9.5	97.2
	50	264.8	45.6	9.2	110.2	264.8	45.6	9.2	110.2	264.8	45.6	9.2	110.2
	55	249.6	43.0	8.3	126.0	249.6	43.0	8.3	126.0	249.6	43.0	8.3	126.0
0	35	246.0	42.4	8.0	79.4	246.0	42.4	8.0	79.4	246.0	42.4	8.0	79.4
	40	240.4	41.4	7.7	86.2	240.4	41.4	7.7	86.2	240.4	41.4	7.7	86.2
	45	234.4	40.4	7.4	95.8	234.4	40.4	7.4	95.8	234.4	40.4	7.4	95.8
	50	228.8	39.4	7.0	108.0	228.8	39.4	7.0	108.0	228.8	39.4	7.0	108.0
	55	214	36.8	6.2	122.8	214	36.8	6.2	123	214	36.8	6.2	123
-5	35	193.0	33.2	5.2	70.2	193.0	33.2	5.2	70.2	193.0	33.2	5.2	70.2
	40	186.4	32.0	4.8	76.6	186.4	32.0	4.8	76.6	186.4	32.0	4.8	76.6
	45	180.0	31.0	4.5	84.8	180.0	31.0	4.5	84.8	180.0	31.0	4.5	84.8
	50	173.4	29.8	4.2	95.2	173.4	29.8	4.2	95.2	173.4	29.8	4.2	95.2
	55	159.8	27.6	3.7	107.6	159.8	27.6	3.7	107.6	159.8	27.6	3.7	107.6
-10	35	164.4	28.2	3.9	69.0	164.4	28.2	3.9	69.0	164.4	28.2	3.9	69.0
	40	156.6	27.0	3.5	75.4	156.6	27.0	3.5	75.4	156.6	27.0	3.5	75.4
	45	148.8	25.6	3.2	83.4	148.8	25.6	3.2	83.4	148.8	25.6	3.2	83.4
	50	141.0	24.2	2.9	93.2	141.0	24.2	2.9	93.2	141.0	24.2	2.9	93.2

ABTW: Evaporator Air Inlet Temperature (°C)

HFR: Heated Water Flow Rate at  $\Delta T=5^{\circ}\text{C}$  (m<sup>3</sup>/h)

1kW= 860 kcal/h

HOT: Heated Water outlet Temperature (°C)

CPD: Water Cooler Pressure Drop (kPa)

1kW=3412 Btu/h

HCAP: Heating Capacity (kW)

IPT: Input power (kW)

1kPa=0.102 mAq

(Pump not included)

**◆ 3 Modules**

ABTW	HOT	RHME-150/3AH1				RHME-160/3AH1				RHME-170/3AH1				RHME-180/3AH1			
		HCAP	HFR	CPD	IPT												
15	35	385.8	66.3	11.1	96.0	411.5	70.7	11.5	105.7	437.2	75.1	11.8	115.4	462.9	79.5	12.2	125.1
	40	384.3	66.0	11.1	99.6	409.8	70.4	11.4	111.4	435.3	74.8	11.8	123.2	460.8	79.2	12.1	135.0
	45	382.5	65.7	11.0	115.2	408.0	70.1	11.3	127.0	433.5	74.5	11.7	138.8	459.0	78.9	12.0	150.6
	50	381.0	65.4	10.9	132.0	406.4	69.8	11.2	145.3	431.8	74.2	11.6	158.6	457.2	78.6	11.9	171.9
	55	363.6	62.4	10.0	152.4	387.9	66.6	10.3	167.9	412.2	70.8	10.6	183.4	436.5	75.0	10.9	198.9
10	35	379.5	65.4	10.8	94.5	404.8	69.7	11.1	104.0	430.1	74.0	11.5	113.5	455.4	78.3	11.8	123.0
	40	375.9	64.8	10.6	102.0	401.0	69.1	10.9	112.3	426.1	73.4	11.3	122.6	451.2	77.7	11.6	132.9
	45	372.3	63.9	10.4	113.7	397.1	68.2	10.7	125.2	421.9	72.5	11.1	136.7	446.7	76.8	11.4	148.2
	50	369.0	63.6	10.3	129.0	393.6	67.8	10.6	142.2	418.2	72.0	10.9	155.4	442.8	76.2	11.2	168.6
	55	350.1	60.3	9.4	148.8	373.5	64.3	9.7	163.9	396.9	68.3	9.9	179.0	420.3	72.3	10.2	194.1
6	35	355.2	61.2	9.6	93.0	378.8	65.2	9.9	102.5	402.4	69.2	10.2	112.0	426.0	73.2	10.5	121.5
	40	350.1	60.3	9.3	100.8	373.4	64.3	9.6	111.0	396.7	68.3	9.9	121.2	420.0	72.3	10.2	131.4
	45	345.0	59.4	9.1	112.2	368.0	63.3	9.4	123.6	391.0	67.2	9.6	135.0	414.0	71.1	9.9	146.4
	50	339.9	58.5	8.9	127.2	362.6	62.4	9.2	140.1	385.3	66.3	9.4	153.0	408.0	70.2	9.7	165.9
	55	321.0	55.2	8.0	145.8	342.3	58.9	8.2	160.6	363.6	62.6	8.5	175.4	384.9	66.3	8.7	190.2
5	35	347.1	59.7	9.2	92.7	370.2	63.7	9.5	102.2	393.3	67.7	9.7	111.7	416.4	71.7	10.0	121.2
	40	341.7	58.8	8.9	100.5	364.5	62.7	9.2	110.7	387.3	66.6	9.5	120.9	410.1	70.5	9.8	131.1
	45	336.3	57.9	8.7	111.9	358.7	61.7	9.0	123.2	381.1	65.5	9.2	134.5	403.5	69.3	9.5	145.8
	50	330.9	57.0	8.4	126.6	353.0	60.8	8.7	139.5	375.1	64.6	8.9	152.4	397.2	68.4	9.2	165.3
	55	312.0	53.7	7.6	144.9	332.8	57.3	7.8	159.6	353.6	60.9	8.1	174.3	374.4	64.5	8.3	189.0
0	35	307.5	52.8	7.4	91.2	328.0	56.4	7.6	100.5	348.5	60.0	7.8	109.8	369.0	63.6	8.0	119.1
	40	300.3	51.6	7.1	99.3	320.4	55.1	7.3	109.3	340.5	58.6	7.5	119.3	360.6	62.1	7.7	129.3
	45	293.1	50.4	6.8	110.1	312.6	53.8	7.0	121.3	332.1	57.2	7.2	132.5	351.6	60.6	7.4	143.7
	50	285.9	49.2	6.5	124.2	305.0	52.5	6.7	136.8	324.1	55.8	6.8	149.4	343.2	59.1	7.0	162.0
	55	267	45.9	5.7	141	285	49.0	5.9	155	303	52.1	6.0	170	320	55.2	6.2	184
-5	35	241.2	41.4	4.8	80.7	257.3	44.2	4.9	88.9	273.4	47.0	5.1	97.1	289.5	49.8	5.2	105.3
	40	232.8	40.2	4.5	87.9	248.4	42.8	4.6	96.9	264.0	45.4	4.7	105.9	279.6	48.0	4.8	114.9
	45	225.0	38.7	4.2	97.5	240.0	41.3	4.3	107.4	255.0	43.9	4.4	117.3	270.0	46.5	4.5	127.2
	50	216.6	37.2	3.9	109.5	231.1	39.7	4.0	120.6	245.6	42.2	4.1	131.7	260.1	44.7	4.2	142.8
	55	199.8	34.5	3.4	123.6	213.1	36.8	3.5	136.2	226.4	39.1	3.6	148.8	239.7	41.4	3.7	161.4
-10	35	205.5	35.4	3.6	79.2	219.2	37.7	3.7	87.3	232.9	40.0	3.8	95.4	246.6	42.3	3.9	103.5
	40	195.6	33.6	3.3	86.7	208.7	35.9	3.4	95.5	221.8	38.2	3.4	104.3	234.9	40.5	3.5	113.1
	45	186.0	32.1	3.0	96.0	198.4	34.2	3.1	105.7	210.8	36.3	3.1	115.4	223.2	38.4	3.2	125.1
	50	176.1	30.3	2.7	107.1	187.9	32.3	2.8	118.0	199.7	34.3	2.8	128.9	211.5	36.3	2.9	139.8

ABTW: Evaporator Air Inlet Temperature (°C)

HFR: Heated Water Flow Rate at ΔT=5°C (m<sup>3</sup>/h)

1kW= 860 kcal/h

HOT: Heated Water outlet Temperature (°C)

CPD: Water Cooler Pressure Drop (kPa)

1kW=3412 Btu/h

HCAP: Heating Capacity (kW)

IPT: Input power (kW)

1kPa=0.102 mAq

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		RHME-190/3AH1					RHME-200/3AH1					RHME-210/3AH1					
ABTW	HOT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT
15	35	462.9	79.5	12.2	125.1	462.9	79.5	12.2	125.1	462.9	79.5	12.2	125.1				
	40	460.8	79.2	12.1	135.0	460.8	79.2	12.1	135.0	460.8	79.2	12.1	135.0				
	45	459.0	78.9	12.0	150.6	459.0	78.9	12.0	150.6	459.0	78.9	12.0	150.6				
	50	457.2	78.6	11.9	171.9	457.2	78.6	11.9	171.9	457.2	78.6	11.9	171.9				
	55	436.5	75.0	10.9	198.9	436.5	75.0	10.9	198.9	436.5	75.0	10.9	198.9				
10	35	455.4	78.3	11.8	123.0	455.4	78.3	11.8	123.0	455.4	78.3	11.8	123.0				
	40	451.2	77.7	11.6	132.9	451.2	77.7	11.6	132.9	451.2	77.7	11.6	132.9				
	45	446.7	76.8	11.4	148.2	446.7	76.8	11.4	148.2	446.7	76.8	11.4	148.2				
	50	442.8	76.2	11.2	168.6	442.8	76.2	11.2	168.6	442.8	76.2	11.2	168.6				
	55	420.3	72.3	10.2	194.1	420.3	72.3	10.2	194.1	420.3	72.3	10.2	194.1				
6	35	426.0	73.2	10.5	121.5	426.0	73.2	10.5	121.5	426.0	73.2	10.5	121.5				
	40	420.0	72.3	10.2	131.4	420.0	72.3	10.2	131.4	420.0	72.3	10.2	131.4				
	<b>45</b>	<b>414.0</b>	<b>71.1</b>	<b>9.9</b>	<b>146.4</b>	<b>414.0</b>	<b>71.1</b>	<b>9.9</b>	<b>146.4</b>	<b>414.0</b>	<b>71.1</b>	<b>9.9</b>	<b>146.4</b>				
	50	408.0	70.2	9.7	165.9	408.0	70.2	9.7	165.9	408.0	70.2	9.7	165.9				
	55	384.9	66.3	8.7	190.2	384.9	66.3	8.7	190.2	384.9	66.3	8.7	190.2				
5	35	416.4	71.7	10.0	121.2	416.4	71.7	10.0	121.2	416.4	71.7	10.0	121.2				
	40	410.1	70.5	9.8	131.1	410.1	70.5	9.8	131.1	410.1	70.5	9.8	131.1				
	45	403.5	69.3	9.5	145.8	403.5	69.3	9.5	145.8	403.5	69.3	9.5	145.8				
	50	397.2	68.4	9.2	165.3	397.2	68.4	9.2	165.3	397.2	68.4	9.2	165.3				
	55	374.4	64.5	8.3	189.0	374.4	64.5	8.3	189.0	374.4	64.5	8.3	189.0				
0	35	369.0	63.6	8.0	119.1	369.0	63.6	8.0	119.1	369.0	63.6	8.0	119.1				
	40	360.6	62.1	7.7	129.3	360.6	62.1	7.7	129.3	360.6	62.1	7.7	129.3				
	45	351.6	60.6	7.4	143.7	351.6	60.6	7.4	143.7	351.6	60.6	7.4	143.7				
	50	343.2	59.1	7.0	162.0	343.2	59.1	7.0	162.0	343.2	59.1	7.0	162.0				
	55	320	55.2	6.2	184	320	55.2	6.2	184	320	55.2	6.2	184				
-5	35	289.5	49.8	5.2	105.3	289.5	49.8	5.2	105.3	289.5	49.8	5.2	105.3				
	40	279.6	48.0	4.8	114.9	279.6	48.0	4.8	114.9	279.6	48.0	4.8	114.9				
	45	270.0	46.5	4.5	127.2	270.0	46.5	4.5	127.2	270.0	46.5	4.5	127.2				
	50	260.1	44.7	4.2	142.8	260.1	44.7	4.2	142.8	260.1	44.7	4.2	142.8				
	55	239.7	41.4	3.7	161.4	239.7	41.4	3.7	161.4	239.7	41.4	3.7	161.4				
-10	35	246.6	42.3	3.9	103.5	246.6	42.3	3.9	103.5	246.6	42.3	3.9	103.5				
	40	234.9	40.5	3.5	113.1	234.9	40.5	3.5	113.1	234.9	40.5	3.5	113.1				
	45	223.2	38.4	3.2	125.1	223.2	38.4	3.2	125.1	223.2	38.4	3.2	125.1				
	50	211.5	36.3	2.9	139.8	211.5	36.3	2.9	139.8	211.5	36.3	2.9	139.8				

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at ΔT=5°C (m³/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

#### 4.2.2.2 Capacity tables at partial load - RHME-AH1

Model	Table
RHME-080/2AH1	A
RHME-090/2AH1	A
RHME-100/2AH1	A
RHME-110/2AH1	A
RHME-120/2AH1	A
RHME-130/2AH1	A
RHME-140/2AH1	A

Model	Table
RHME-150/3AH1	A
RHME-160/3AH1	A
RHME-170/3AH1	A
RHME-180/3AH1	A
RHME-190/3AH1	A
RHME-200/3AH1	A
RHME-210/3AH1	A

#### ◆ Table A

Model: RHME-(080-140)/2AH1, RHME-(150-210)/3AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%											Full load
		25	30	40	50	60	70	75	80	90	100	111	
15	Capacity	25	30	40	50	60	70	75	80	90	100	111	
	Input	48	50	56	62	68	74	78	81	88	95	103	
	COP	54	60	71	80	88	94	97	99	103	106	108	
10	Capacity	25	30	40	50	60	70	75	80	90	100	108	
	Input	47	50	56	62	68	74	78	81	88	95	101	
	COP	54	60	71	80	88	94	97	99	103	105	107	
6	Capacity	25	30	40	50	60	70	75	80	90	100		
	Input	48	51	57	63	70	77	81	84	92	100		
	COP	52	59	70	79	86	91	93	95	98	100		
5	Capacity	25	30	40	50	60	70	75	80	90	98		
	Input	48	51	57	64	71	78	82	86	94	100		
	COP	53	59	69	77	85	90	92	94	96	98		
0	Capacity	25	30	40	50	60	70	75	80	90	98		
	Input	49	53	60	68	76	85	89	93	98			
	COP	50	56	66	73	79	83	85	86	87			
-5	Capacity	25	30	40	50	60	65						
	Input	49	53	62	71	81	87						
	COP	51	56	65	71	74	75						
-10	Capacity	25	30	40	50	54							
	Input	52	57	68	81	85							
	COP	47	52	59	62	63							
-15	Capacity	25	30	40	43								
	Input	58	65	80	84								
	COP	43	46	50	51								

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## 4.3 Typical on-site module combinations

### 4.3.1 Cooling Operation

#### 4.3.1.1 Performance Table at full load - RCME-AH1

##### ◆ 4 Modules

ABT	COT	4 x RCME-40AH1					4 x RCME-50AH1					4 x RCME-60AH1					4 x RCME-70AH1				
		CCAP	CFR	CPD	IPT		CCAP	CFR	CPD	IPT		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT		
25	5	413,5	71,1	16,9	89,4	516,8	88,9	16,4	117,0	620,2	106,7	15,6	154,5	723,5	124,4	20,7	179,2				
	6	428,0	73,6	18,0	90,5	535,0	92,0	17,5	118,5	642,0	110,4	16,7	156,4	749,1	128,8	22,0	181,4				
	7	442,6	76,1	19,1	91,6	553,3	95,2	18,6	119,9	663,9	114,2	17,7	158,3	774,6	133,2	23,4	183,5				
	8	457,2	78,6	20,3	92,7	571,5	98,3	19,7	121,3	685,8	118,0	18,8	160,2	800,1	137,6	24,8	185,7				
	9	471,8	81,1	21,5	93,8	589,7	101,4	20,9	122,7	707,7	121,7	19,9	162,0	825,6	142,0	26,3	187,9				
	10	486,3	83,7	22,7	94,9	607,9	104,6	22,0	124,2	729,5	125,5	21,0	163,9	851,1	146,4	27,8	190,1				
	11	500,9	86,2	23,9	96,0	626,2	107,7	23,3	125,6	751,4	129,2	22,2	165,8	876,6	150,8	29,3	192,3				
	12	515,5	88,7	25,2	97,0	644,4	110,8	24,5	127,0	773,3	133,0	23,3	167,7	902,1	155,2	30,9	194,5				
	13	530,1	91,2	26,5	98,1	662,6	114,0	25,8	128,4	795,1	136,8	24,6	169,6	927,6	159,6	32,5	196,6				
	14	544,7	93,7	27,8	99,2	680,8	117,1	27,0	129,9	817,0	140,5	25,8	171,5	953,2	163,9	34,1	198,8				
	15	559,2	96,2	29,2	100,3	699,0	120,2	28,4	131,3	838,9	144,3	27,1	173,3	978,7	168,3	35,8	201,0				
30	5	398,1	68,5	15,8	98,2	497,6	85,6	15,4	128,5	597,1	102,7	14,6	169,7	696,6	119,8	19,3	196,8				
	6	412,5	71,0	16,9	99,3	515,7	88,7	16,4	130,0	618,8	106,4	15,6	171,7	721,9	124,2	20,6	199,1				
	7	427,0	73,4	17,9	100,5	533,7	91,8	17,4	131,5	640,5	110,2	16,6	173,6	747,2	128,5	21,9	201,3				
	8	441,4	75,9	19,0	101,6	551,8	94,9	18,5	133,0	662,1	113,9	17,6	175,6	772,5	132,9	23,3	203,6				
	9	455,9	78,4	20,2	102,7	569,9	98,0	19,6	134,4	683,8	117,6	18,7	177,5	797,8	137,2	24,7	205,8				
	10	470,3	80,9	21,3	103,8	587,9	101,1	20,8	135,9	705,5	121,3	19,8	179,4	823,1	141,6	26,1	208,1				
	11	484,8	83,4	22,5	105,0	606,0	104,2	21,9	137,4	727,2	125,1	20,9	181,4	848,4	145,9	27,6	210,3				
	12	499,2	85,9	23,8	106,1	624,1	107,3	23,1	138,9	748,9	128,8	22,0	183,3	873,7	150,3	29,1	212,6				
	13	513,7	88,4	25,0	107,2	642,1	110,4	24,3	140,3	770,5	132,5	23,2	185,3	899,0	154,6	30,7	214,9				
	14	528,1	90,8	26,3	108,4	660,2	113,6	25,6	141,8	792,2	136,3	24,4	187,2	924,3	159,0	32,3	217,1				
	15	542,6	93,3	27,6	109,5	678,2	116,7	26,9	143,3	813,9	140,0	25,6	189,2	949,5	163,3	33,9	219,4				
35	5	372,1	64,0	14,0	106,5	465,1	80,0	13,6	139,4	558,1	96,0	12,9	184,0	651,2	112,0	17,1	213,4				
	6	386,0	66,4	15,0	107,6	482,6	83,0	14,5	140,9	579,1	99,6	13,8	186,0	675,6	116,2	18,3	215,7				
	7	400	68,8	15,9	109	500	86,0	15,5	142	600	103,2	14,7	188	700	120,4	19,5	218				
	8	414,0	71,2	17,0	110,0	517,4	89,0	16,5	143,9	620,9	106,8	15,7	190,0	724,4	124,6	20,7	220,3				
	9	427,9	73,6	18,0	111,1	534,9	92,0	17,5	145,4	641,9	110,4	16,6	192,0	748,8	128,8	22,0	222,6				
	10	441,9	76,0	19,1	112,3	552,3	95,0	18,5	147,0	662,8	114,0	17,6	194,0	773,2	133,0	23,3	225,0				
	11	455,8	78,4	20,2	113,4	569,8	98,0	19,6	148,5	683,7	117,6	18,7	196,0	797,7	137,2	24,7	227,3				
	12	469,8	80,8	21,3	114,6	587,2	101,0	20,7	150,0	704,6	121,2	19,7	198,0	822,1	141,4	26,1	229,6				
	13	483,7	83,2	22,5	115,8	604,6	104,0	21,8	151,5	725,6	124,8	20,8	200,0	846,5	145,6	27,5	231,9				
	14	497,7	85,6	23,6	116,9	622,1	107,0	23,0	153,0	746,5	128,4	21,9	202,0	870,9	149,8	29,0	234,3				
	15	511,6	88,0	24,8	118,1	639,5	110,0	24,2	154,5	767,4	132,0	23,0	204,0	895,3	154,0	30,5	236,6				
40	5	346,1	59,5	12,3	117,1	432,6	74,4	11,9	153,3	519,2	89,3	11,3	202,4	605,7	104,2	15,0	234,7				
	6	359,6	61,8	13,2	118,4	449,5	77,3	12,8	154,9	539,4	92,8	12,1	204,5	629,2	108,2	16,1	237,2				
	7	373,0	64,2	14,1	119,6	466,3	80,2	13,7	156,5	559,5	96,2	13,0	206,6	652,8	112,3	17,2	239,6				
	8	386,5	66,5	15,0	120,8	483,1	83,1	14,6	158,1	579,7	99,7	13,8	208,7	676,3	116,3	18,3	242,0				
	9	399,9	68,8	15,9	122,0	499,9	86,0	15,5	159,7	599,9	103,2	14,7	210,8	699,9	120,4	19,5	244,5				
	10	413,4	71,1	16,9	123,2	516,7	88,9	16,4	161,3	620,1	106,7	15,6	213,0	723,4	124,4	20,7	246,9				
	11	426,8	73,4	17,9	124,5	533,5	91,8	17,4	162,9	640,2	110,1	16,6	215,1	746,9	128,5	21,9	249,4				
	12	440,3	75,7	19,0	125,7	550,4	94,7	18,4	164,5	660,4	113,6	17,5	217,2	770,5	132,5	23,2	251,8				
	13	453,7	78,0	20,0	126,9	567,2	97,6	19,4	166,1	680,6	117,1	18,5	219,3	794,0	136,6	24,5	254,3				
	14	467,2	80,4	21,1	128,1	584,0	100,4	20,5	167,7	700,8	120,5	19,5	221,4	817,6	140,6	25,8	256,7				
	15	480,6	82,7	22,2	129,3	600,8	103,3	21,6	169,3	721,0	124,0	20,6	223,5	841,1	144,7	27,2	259,2				

		4 x RCME-40AH1					4 x RCME-50AH1					4 x RCME-60AH1					4 x RCME-70AH1				
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
43	5	330,5	56,9	11,3	123,5	413,2	71,1	11,0	161,7	495,8	85,3	10,4	213,5	578,4	99,5	13,8	247,5				
	6	343,7	59,1	12,1	124,8	429,6	73,9	11,8	163,3	515,5	88,7	11,2	215,6	601,4	103,4	14,8	250,0				
	7	356,8	61,4	13,0	126,0	446,0	76,7	12,6	165,0	535,2	92,1	12,0	217,8	624,5	107,4	15,8	252,6				
	8	370,0	63,6	13,9	127,3	462,5	79,5	13,5	166,6	555,0	95,5	12,8	220,0	647,5	111,4	16,9	255,1				
	9	383,1	65,9	14,8	128,6	478,9	82,4	14,3	168,3	574,7	98,8	13,6	222,2	670,5	115,3	18,0	257,6				
	10	396,3	68,2	15,7	129,8	495,4	85,2	15,2	169,9	594,4	102,2	14,5	224,3	693,5	119,3	19,2	260,1				
	11	409,4	70,4	16,6	131,1	511,8	88,0	16,2	171,6	614,2	105,6	15,4	226,5	716,5	123,2	20,3	262,6				
	12	422,6	72,7	17,6	132,3	528,2	90,9	17,1	173,2	633,9	109,0	16,3	228,7	739,5	127,2	21,5	265,2				
	13	435,7	74,9	18,6	133,6	544,7	93,7	18,1	174,9	653,6	112,4	17,2	230,8	762,6	131,2	22,8	267,7				
	14	448,9	77,2	19,6	134,9	561,1	96,5	19,1	176,5	673,3	115,8	18,2	233,0	785,6	135,1	24,0	270,2				
	15	462,0	79,5	20,7	136,1	577,6	99,3	20,1	178,1	693,1	119,2	19,1	235,2	808,6	139,1	25,3	272,7				
46	5	314,9	54,2	10,4	129,9	393,7	67,7	10,1	170,1	472,4	81,3	9,5	224,5	551,1	94,8	12,6	260,3				
	6	327,8	56,4	11,1	131,2	409,7	70,5	10,8	171,7	491,7	84,6	10,3	226,7	573,6	98,7	13,6	262,9				
	7	340,6	58,6	11,9	132,5	425,8	73,2	11,6	173,4	511,0	87,9	11,0	229,0	596,1	102,5	14,6	265,5				
	8	353,5	60,8	12,8	133,8	441,9	76,0	12,4	175,1	530,2	91,2	11,8	231,2	618,6	106,4	15,6	268,1				
	9	366,3	63,0	13,6	135,1	457,9	78,8	13,2	176,8	549,5	94,5	12,6	233,5	641,1	110,3	16,6	270,7				
	10	379,2	65,2	14,5	136,4	474,0	81,5	14,1	178,5	568,8	97,8	13,4	235,7	663,6	114,1	17,7	273,3				
	11	392,1	67,4	15,4	137,7	490,1	84,3	14,9	180,2	588,1	101,1	14,2	237,9	686,1	118,0	18,8	275,9				
	12	404,9	69,6	16,3	139,0	506,1	87,1	15,8	181,9	607,4	104,5	15,1	240,2	708,6	121,9	19,9	278,5				
	13	417,8	71,9	17,2	140,3	522,2	89,8	16,8	183,6	626,6	107,8	15,9	242,4	731,1	125,7	21,1	281,1				
	14	430,6	74,1	18,2	141,6	538,3	92,6	17,7	185,3	645,9	111,1	16,8	244,6	753,6	129,6	22,3	283,7				
	15	443,5	76,3	19,2	142,9	554,3	95,3	18,7	187,0	665,2	114,4	17,8	246,9	776,1	133,5	23,5	286,3				

### ◆ 5 Modules

		5 x RCME-40AH1				5 x RCME-50AH1				5 x RCME-60AH1				5 x RCME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
25	5	516,8	88,9	16,9	111,8	646,0	111,1	16,4	146,3	775,2	133,3	15,6	193,1	904,4	155,6	20,7	224,0
	6	535,0	92,0	18,0	113,1	668,8	115,0	17,5	148,1	802,6	138,0	16,7	195,5	936,3	161,0	22,0	226,7
	7	553,3	95,2	19,1	114,5	691,6	119,0	18,6	149,9	829,9	142,7	17,7	197,9	968,2	166,5	23,4	229,4
	8	571,5	98,3	20,3	115,9	714,4	122,9	19,7	151,6	857,2	147,4	18,8	200,2	1000,1	172,0	24,8	232,2
	9	589,7	101,4	21,5	117,2	737,1	126,8	20,9	153,4	884,6	152,1	19,9	202,6	1032,0	177,5	26,3	234,9
	10	607,9	104,6	22,7	118,6	759,9	130,7	22,0	155,2	911,9	156,8	21,0	204,9	1063,9	183,0	27,8	237,6
	11	626,2	107,7	23,9	119,9	782,7	134,6	23,3	157,0	939,2	161,5	22,2	207,3	1095,8	188,5	29,3	240,3
	12	644,4	110,8	25,2	121,3	805,5	138,5	24,5	158,8	966,6	166,2	23,3	209,6	1127,7	194,0	30,9	243,1
	13	662,6	114,0	26,5	122,7	828,3	142,5	25,8	160,6	993,9	171,0	24,6	212,0	1159,6	199,4	32,5	245,8
	14	680,8	117,1	27,8	124,0	851,0	146,4	27,0	162,3	1021,2	175,7	25,8	214,3	1191,4	204,9	34,1	248,5
	15	699,0	120,2	29,2	125,4	873,8	150,3	28,4	164,1	1048,6	180,4	27,1	216,7	1223,3	210,4	35,8	251,3
30	5	497,6	85,6	15,8	122,8	622,0	107,0	15,4	160,7	746,4	128,4	14,6	212,1	870,8	149,8	19,3	246,0
	6	515,7	88,7	16,9	124,2	644,6	110,9	16,4	162,5	773,5	133,0	15,6	214,6	902,4	155,2	20,6	248,8
	7	533,7	91,8	17,9	125,6	667,2	114,8	17,4	164,4	800,6	137,7	16,6	217,0	934,0	160,7	21,9	251,6
	8	551,8	94,9	19,0	127,0	689,7	118,6	18,5	166,2	827,7	142,4	17,6	219,4	965,6	166,1	23,3	254,5
	9	569,9	98,0	20,2	128,4	712,3	122,5	19,6	168,1	854,8	147,0	18,7	221,9	997,2	171,5	24,7	257,3
	10	587,9	101,1	21,3	129,8	734,9	126,4	20,8	169,9	881,9	151,7	19,8	224,3	1028,9	177,0	26,1	260,1
	11	606,0	104,2	22,5	131,2	757,5	130,3	21,9	171,7	909,0	156,3	20,9	226,7	1060,5	182,4	27,6	262,9
	12	624,1	107,3	23,8	132,6	780,1	134,2	23,1	173,6	936,1	161,0	22,0	229,2	1092,1	187,8	29,1	265,7
	13	642,1	110,4	25,0	134,0	802,6	138,1	24,3	175,4	963,2	165,7	23,2	231,6	1123,7	193,3	30,7	268,6
	14	660,2	113,6	26,3	135,4	825,2	141,9	25,6	177,3	990,3	170,3	24,4	234,0	1155,3	198,7	32,3	271,4
	15	678,2	116,7	27,6	136,9	847,8	145,8	26,9	179,1	1017,4	175,0	25,6	236,5	1186,9	204,2	33,9	274,2
35	5	465,1	80,0	14,0	133,1	581,4	100,0	13,6	174,2	697,7	120,0	12,9	230,0	814,0	140,0	17,1	266,7
	6	482,6	83,0	15,0	134,6	603,2	103,8	14,5	176,1	723,8	124,5	13,8	232,5	844,5	145,3	18,3	269,6
	7	500	86,0	15,9	136	625	107,5	15,5	178	750	129,0	14,7	235	875	150,5	19,5	272
	8	517,4	89,0	17,0	137,5	646,8	111,2	16,5	179,9	776,2	133,5	15,7	237,5	905,5	155,7	20,7	275,4
	9	534,9	92,0	18,0	138,9	668,6	115,0	17,5	181,8	802,3	138,0	16,6	240,0	936,0	161,0	22,0	278,3
	10	552,3	95,0	19,1	140,4	690,4	118,7	18,5	183,7	828,5	142,5	17,6	242,5	966,6	166,2	23,3	281,2
	11	569,8	98,0	20,2	141,8	712,2	122,5	19,6	185,6	854,6	147,0	18,7	245,0	997,1	171,5	24,7	284,1
	12	587,2	101,0	21,3	143,3	734,0	126,2	20,7	187,5	880,8	151,5	19,7	247,5	1027,6	176,7	26,1	287,0
	13	604,6	104,0	22,5	144,7	755,8	130,0	21,8	189,4	907,0	156,0	20,8	250,0	1058,1	182,0	27,5	289,9
	14	622,1	107,0	23,6	146,2	777,6	133,7	23,0	191,3	933,1	160,5	21,9	252,5	1088,6	187,2	29,0	292,8
	15	639,5	110,0	24,8	147,6	799,4	137,5	24,2	193,2	959,3	165,0	23,0	255,0	1119,2	192,5	30,5	295,7
40	5	432,6	74,4	12,3	146,4	540,8	93,0	11,9	191,6	649,0	111,6	11,3	253,0	757,1	130,2	15,0	293,4
	6	449,5	77,3	13,2	147,9	561,8	96,6	12,8	193,6	674,2	116,0	12,1	255,6	786,6	135,3	16,1	296,4
	7	466,3	80,2	14,1	149,5	582,8	100,2	13,7	195,6	699,4	120,3	13,0	258,3	816,0	140,3	17,2	299,5
	8	483,1	83,1	15,0	151,0	603,9	103,9	14,6	197,6	724,6	124,6	13,8	260,9	845,4	145,4	18,3	302,6
	9	499,9	86,0	15,9	152,5	624,9	107,5	15,5	199,6	749,9	129,0	14,7	263,6	874,8	150,5	19,5	305,6
	10	516,7	88,9	16,9	154,1	645,9	111,1	16,4	201,6	775,1	133,3	15,6	266,2	904,3	155,5	20,7	308,7
	11	533,5	91,8	17,9	155,6	666,9	114,7	17,4	203,6	800,3	137,7	16,6	268,8	933,7	160,6	21,9	311,7
	12	550,4	94,7	19,0	157,1	687,9	118,3	18,4	205,6	825,5	142,0	17,5	271,5	963,1	165,7	23,2	314,8
	13	567,2	97,6	20,0	158,6	709,0	121,9	19,4	207,6	850,7	146,3	18,5	274,1	992,5	170,7	24,5	317,9
	14	584,0	100,4	21,1	160,2	730,0	125,6	20,5	209,6	876,0	150,7	19,5	276,7	1022,0	175,8	25,8	320,9
	15	600,8	103,3	22,2	161,7	751,0	129,2	21,6	211,6	901,2	155,0	20,6	279,4	1051,4	180,8	27,2	324,0
43	5	413,2	71,1	11,3	154,4	516,5	88,8	11,0	202,1	619,7	106,6	10,4	266,8	723,0	124,4	13,8	309,4
	6	429,6	73,9	12,1	156,0	537,0	92,4	11,8	204,2	644,4	110,8	11,2	269,5	751,8	129,3	14,8	312,5
	7	446,0	76,7	13,0	157,6	557,6	95,9	12,6	206,2	669,1	115,1	12,0	272,3	780,6	134,3	15,8	315,7
	8	462,5	79,5	13,9	159,1	578,1	99,4	13,5	208,3	693,7	119,3	12,8	275,0	809,3	139,2	16,9	318,8
	9	478,9	82,4	14,8	160,7	598,7	103,0	14,3	210,3	718,4	123,6	13,6	277,7	838,1	144,2	18,0	322,0
	10	495,4	85,2	15,7	162,3	619,2	106,5	15,2	212,4	743,0	127,8	14,5	280,4	866,9	149,1	19,2	325,2
	11	511,8	88,0	16,6	163,8	639,8	110,0	16,2	214,5	767,7	132,0	15,4	283,1	895,7	154,1	20,3	328,3
	12	528,2	90,9	17,6	165,4	660,3	113,6	17,1	216,5	792,4	136,3	16,3	285,8	924,4	159,0	21,5	331,5
	13	544,7	93,7	18,6	167,0	680,9	117,1	18,1	218,6	817,0	140,5	17,2	288,6	953,2	163,9	22,8	334,6
	14	561,1	96,5	19,6	168,6	701,4	120,6	19,1	220,6	841,7	144,8	18,2	291,3	982,0	168,9	24,0	337,8
	15	577,6	99,3	20,7	170,1	722,0	124,2	20,1	222,7	866,3	149,0	19,1	294,0	1010,7	173,8	25,3	340,9

		5 x RCME-40AH1				5 x RCME-50AH1				5 x RCME-60AH1				5 x RCME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
46	5	393,7	67,7	10,4	162,4	492,1	84,6	10,1	212,6	590,5	101,6	9,5	280,6	688,9	118,5	12,6	325,4
	6	409,7	70,5	11,1	164,0	512,2	88,1	10,8	214,7	614,6	105,7	10,3	283,4	717,0	123,3	13,6	328,7
	7	425,8	73,2	11,9	165,6	532,3	91,5	11,6	216,8	638,7	109,9	11,0	286,2	745,2	128,2	14,6	331,9
	8	441,9	76,0	12,8	167,3	552,3	95,0	12,4	218,9	662,8	114,0	11,8	289,0	773,3	133,0	15,6	335,1
	9	457,9	78,8	13,6	168,9	572,4	98,5	13,2	221,0	686,9	118,1	12,6	291,8	801,4	137,8	16,6	338,4
	10	474,0	81,5	14,5	170,5	592,5	101,9	14,1	223,2	711,0	122,3	13,4	294,6	829,5	142,7	17,7	341,6
	11	490,1	84,3	15,4	172,1	612,6	105,4	14,9	225,3	735,1	126,4	14,2	297,4	857,6	147,5	18,8	344,9
	12	506,1	87,1	16,3	173,7	632,7	108,8	15,8	227,4	759,2	130,6	15,1	300,2	885,7	152,3	19,9	348,1
	13	522,2	89,8	17,2	175,4	652,7	112,3	16,8	229,5	783,3	134,7	15,9	303,0	913,8	157,2	21,1	351,4
	14	538,3	92,6	18,2	177,0	672,8	115,7	17,7	231,6	807,4	138,9	16,8	305,8	942,0	162,0	22,3	354,6
	15	554,3	95,3	19,2	178,6	692,9	119,2	18,7	233,7	831,5	143,0	17,8	308,6	970,1	166,9	23,5	357,8

**◆ 6 Modules**

ABT	COT	6 x RCME-40AH1				6 x RCME-50AH1				6 x RCME-60AH1				6 x RCME-70AH1			
		CCAP	CFR	CPD	IPT												
25	5	620,2	106,7	16,9	134,1	775,2	133,3	16,4	175,6	930,3	160,0	15,6	231,8	1085,3	186,7	20,7	268,8
	6	642,0	110,4	18,0	135,8	802,6	138,0	17,5	177,7	963,1	165,6	16,7	234,6	1123,6	193,3	22,0	272,0
	7	663,9	114,2	19,1	137,4	829,9	142,7	18,6	179,8	995,9	171,3	17,7	237,4	1161,9	199,8	23,4	275,3
	8	685,8	118,0	20,3	139,0	857,2	147,4	19,7	182,0	1028,7	176,9	18,8	240,2	1200,1	206,4	24,8	278,6
	9	707,7	121,7	21,5	140,7	884,6	152,1	20,9	184,1	1061,5	182,6	19,9	243,1	1238,4	213,0	26,3	281,9
	10	729,5	125,5	22,7	142,3	911,9	156,8	22,0	186,3	1094,3	188,2	21,0	245,9	1276,7	219,6	27,8	285,1
	11	751,4	129,2	23,9	143,9	939,2	161,5	23,3	188,4	1127,1	193,9	22,2	248,7	1314,9	226,2	29,3	288,4
	12	773,3	133,0	25,2	145,6	966,6	166,2	24,5	190,5	1159,9	199,5	23,3	251,5	1353,2	232,7	30,9	291,7
	13	795,1	136,8	26,5	147,2	993,9	171,0	25,8	192,7	1192,7	205,1	24,6	254,4	1391,5	239,3	32,5	295,0
	14	817,0	140,5	27,8	148,8	1021,2	175,7	27,0	194,8	1225,5	210,8	25,8	257,2	1429,7	245,9	34,1	298,2
	15	838,9	144,3	29,2	150,5	1048,6	180,4	28,4	196,9	1258,3	216,4	27,1	260,0	1468,0	252,5	35,8	301,5
30	5	597,1	102,7	15,8	147,3	746,4	128,4	15,4	192,8	895,7	154,1	14,6	254,6	1044,9	179,7	19,3	295,2
	6	618,8	106,4	16,9	149,0	773,5	133,0	16,4	195,0	928,2	159,6	15,6	257,5	1082,9	186,3	20,6	298,6
	7	640,5	110,2	17,9	150,7	800,6	137,7	17,4	197,2	960,7	165,2	16,6	260,4	1120,8	192,8	21,9	302,0
	8	662,1	113,9	19,0	152,4	827,7	142,4	18,5	199,5	993,2	170,8	17,6	263,3	1158,8	199,3	23,3	305,4
	9	683,8	117,6	20,2	154,1	854,8	147,0	19,6	201,7	1025,7	176,4	18,7	266,2	1196,7	205,8	24,7	308,7
	10	705,5	121,3	21,3	155,8	881,9	151,7	20,8	203,9	1058,3	182,0	19,8	269,2	1234,6	212,4	26,1	312,1
	11	727,2	125,1	22,5	157,5	909,0	156,3	21,9	206,1	1090,8	187,6	20,9	272,1	1272,6	218,9	27,6	315,5
	12	748,9	128,8	23,8	159,2	936,1	161,0	23,1	208,3	1123,3	193,2	22,0	275,0	1310,5	225,4	29,1	318,9
	13	770,5	132,5	25,0	160,8	963,2	165,7	24,3	210,5	1155,8	198,8	23,2	277,9	1348,4	231,9	30,7	322,3
	14	792,2	136,3	26,3	162,5	990,3	170,3	25,6	212,7	1188,3	204,4	24,4	280,8	1386,4	238,5	32,3	325,7
	15	813,9	140,0	27,6	164,2	1017,4	175,0	26,9	214,9	1220,8	210,0	25,6	283,8	1424,3	245,0	33,9	329,0
35	5	558,1	96,0	14,0	159,7	697,7	120,0	13,6	209,0	837,2	144,0	12,9	276,0	976,8	168,0	17,1	320,0
	6	579,1	99,6	15,0	161,5	723,8	124,5	14,5	211,3	868,6	149,4	13,8	279,0	1013,4	174,3	18,3	323,5
	7	600	103,2	15,9	163	750	129,0	15,5	214	900	154,8	14,7	282	1050	180,6	19,5	327
	8	620,9	106,8	17,0	164,9	776,2	133,5	16,5	215,9	931,4	160,2	15,7	285,0	1086,6	186,9	20,7	330,5
	9	641,9	110,4	18,0	166,7	802,3	138,0	17,5	218,2	962,8	165,6	16,6	288,0	1123,2	193,2	22,0	334,0
	10	662,8	114,0	19,1	168,4	828,5	142,5	18,5	220,4	994,2	171,0	17,6	291,0	1159,9	199,5	23,3	337,5
	11	683,7	117,6	20,2	170,2	854,6	147,0	19,6	222,7	1025,6	176,4	18,7	294,0	1196,5	205,8	24,7	340,9
	12	704,6	121,2	21,3	171,9	880,8	151,5	20,7	225,0	1057,0	181,8	19,7	297,0	1233,1	212,1	26,1	344,4
	13	725,6	124,8	22,5	173,6	907,0	156,0	21,8	227,3	1088,4	187,2	20,8	300,0	1269,7	218,4	27,5	347,9
	14	746,5	128,4	23,6	175,4	933,1	160,5	23,0	229,5	1119,7	192,6	21,9	303,0	1306,4	224,7	29,0	351,4
	15	767,4	132,0	24,8	177,1	959,3	165,0	24,2	231,8	1151,1	198,0	23,0	306,1	1343,0	231,0	30,5	354,9
40	5	519,2	89,3	12,3	175,7	649,0	111,6	11,9	230,0	778,8	133,9	11,3	303,6	908,6	156,3	15,0	352,1
	6	539,4	92,8	13,2	177,5	674,2	116,0	12,8	232,4	809,0	139,2	12,1	306,8	943,9	162,3	16,1	355,7
	7	559,5	96,2	14,1	179,4	699,4	120,3	13,7	234,8	839,3	144,4	13,0	309,9	979,2	168,4	17,2	359,4
	8	579,7	99,7	15,0	181,2	724,6	124,6	14,6	237,2	869,6	149,6	13,8	313,1	1014,5	174,5	18,3	363,1
	9	599,9	103,2	15,9	183,0	749,9	129,0	15,5	239,6	899,8	154,8	14,7	316,3	1049,8	180,6	19,5	366,7
	10	620,1	106,7	16,9	184,9	775,1	133,3	16,4	242,0	930,1	160,0	15,6	319,4	1085,1	186,6	20,7	370,4
	11	640,2	110,1	17,9	186,7	800,3	137,7	17,4	244,4	960,4	165,2	16,6	322,6	1120,4	192,7	21,9	374,1
	12	660,4	113,6	19,0	188,5	825,5	142,0	18,4	246,8	990,6	170,4	17,5	325,8	1155,7	198,8	23,2	377,8
	13	680,6	117,1	20,0	190,4	850,7	146,3	19,4	249,1	1020,9	175,6	18,5	328,9	1191,0	204,9	24,5	381,4
	14	700,8	120,5	21,1	192,2	876,0	150,7	20,5	251,5	1051,2	180,8	19,5	332,1	1226,4	210,9	25,8	385,1
	15	721,0	124,0	22,2	194,0	901,2	155,0	21,6	253,9	1081,4	186,0	20,6	335,3	1261,7	217,0	27,2	388,8
43	5	495,8	85,3	11,3	185,3	619,7	106,6	11,0	242,5	743,7	127,9	10,4	320,2	867,6	149,2	13,8	371,3
	6	515,5	88,7	12,1	187,2	644,4	110,8	11,8	245,0	773,3	133,0	11,2	323,4	902,2	155,2	14,8	375,1
	7	535,2	92,1	13,0	189,1	669,1	115,1	12,6	247,5	802,9	138,1	12,0	326,7	936,7	161,1	15,8	378,8
	8	555,0	95,5	13,9	191,0	693,7	119,3	13,5	249,9	832,5	143,2	12,8	330,0	971,2	167,0	16,9	382,6
	9	574,7	98,8	14,8	192,8	718,4	123,6	14,3	252,4	862,1	148,3	13,6	333,2	1005,7	173,0	18,0	386,4
	10	594,4	102,2	15,7	194,7	743,0	127,8	15,2	254,9	891,6	153,4	14,5	336,5	1040,3	178,9	19,2	390,2
	11	614,2	105,6	16,6	196,6	767,7	132,0	16,2	257,3	921,2	158,5	15,4	339,7	1074,8	184,9	20,3	394,0
	12	633,9	109,0	17,6	198,5	792,4	136,3	17,1	259,8	950,8	163,5	16,3	343,0	1109,3	190,8	21,5	397,7
	13	653,6	112,4	18,6	200,4	817,0	140,5	18,1	262,3	980,4	168,6	17,2	346,3	1143,8	196,7	22,8	401,5
	14	673,3	115,8	19,6	202,3	841,7	144,8	19,1	264,7	1010,0	173,7	18,2	349,5	1178,4	202,7	24,0	405,3
	15	693,1	119,2	20,7	204,2	866,3	149,0	20,1	267,2	1039,6	178,8	19,1	352,8	1212,9	208,6	25,3	409,1

		6 x RCME-40AH1					6 x RCME-50AH1					6 x RCME-60AH1					6 x RCME-70AH1				
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
46	5	472,4	81,3	10,4	194,9	590,5	101,6	10,1	255,1	708,6	121,9	9,5	336,8	826,7	142,2	12,6	390,5				
	6	491,7	84,6	11,1	196,8	614,6	105,7	10,8	257,6	737,5	126,9	10,3	340,1	860,5	148,0	13,6	394,4				
	7	511,0	87,9	11,9	198,8	638,7	109,9	11,6	260,2	766,4	131,8	11,0	343,5	894,2	153,8	14,6	398,3				
	8	530,2	91,2	12,8	200,7	662,8	114,0	12,4	262,7	795,4	136,8	11,8	346,8	927,9	159,6	15,6	402,2				
	9	549,5	94,5	13,6	202,7	686,9	118,1	13,2	265,2	824,3	141,8	12,6	350,2	961,7	165,4	16,6	406,1				
	10	568,8	97,8	14,5	204,6	711,0	122,3	14,1	267,8	853,2	146,8	13,4	353,5	995,4	171,2	17,7	410,0				
	11	588,1	101,1	15,4	206,5	735,1	126,4	14,9	270,3	882,1	151,7	14,2	356,9	1029,1	177,0	18,8	413,8				
	12	607,4	104,5	16,3	208,5	759,2	130,6	15,8	272,9	911,0	156,7	15,1	360,2	1062,9	182,8	19,9	417,7				
	13	626,6	107,8	17,2	210,4	783,3	134,7	16,8	275,4	940,0	161,7	15,9	363,6	1096,6	188,6	21,1	421,6				
	14	645,9	111,1	18,2	212,4	807,4	138,9	17,7	278,0	968,9	166,6	16,8	367,0	1130,3	194,4	22,3	425,5				
	15	665,2	114,4	19,2	214,3	831,5	143,0	18,7	280,5	997,8	171,6	17,8	370,3	1164,1	200,2	23,5	429,4				

### ◆ 7 Modules

ABT	COT	7 x RCME-40AH1					7 x RCME-50AH1					7 x RCME-60AH1					7 x RCME-70AH1				
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	723,5	124,4	16,9	156,5	904,4	155,6	16,4	204,8	1085,3	186,7	15,6	270,4	1266,2	217,8	20,7	313,6				
	6	749,1	128,8	18,0	158,4	936,3	161,0	17,5	207,3	1123,6	193,3	16,7	273,7	1310,9	225,5	22,0	317,4				
	7	774,6	133,2	19,1	160,3	968,2	166,5	18,6	209,8	1161,9	199,8	17,7	277,0	1355,5	233,1	23,4	321,2				
	8	800,1	137,6	20,3	162,2	1000,1	172,0	19,7	212,3	1200,1	206,4	18,8	280,3	1400,1	240,8	24,8	325,0				
	9	825,6	142,0	21,5	164,1	1032,0	177,5	20,9	214,8	1238,4	213,0	19,9	283,6	1444,8	248,5	26,3	328,8				
	10	851,1	146,4	22,7	166,0	1063,9	183,0	22,0	217,3	1276,7	219,6	21,0	286,9	1489,4	256,2	27,8	332,7				
	11	876,6	150,8	23,9	167,9	1095,8	188,5	23,3	219,8	1314,9	226,2	22,2	290,2	1534,1	263,9	29,3	336,5				
	12	902,1	155,2	25,2	169,8	1127,7	194,0	24,5	222,3	1353,2	232,7	23,3	293,5	1578,7	271,5	30,9	340,3				
	13	927,6	159,6	26,5	171,7	1159,6	199,4	25,8	224,8	1391,5	239,3	24,6	296,8	1623,4	279,2	32,5	344,1				
	14	953,2	163,9	27,8	173,6	1191,4	204,9	27,0	227,3	1429,7	245,9	25,8	300,1	1668,0	286,9	34,1	347,9				
	15	978,7	168,3	29,2	175,6	1223,3	210,4	28,4	229,8	1468,0	252,5	27,1	303,4	1712,7	294,6	35,8	351,8				
30	5	696,6	119,8	15,8	171,9	870,8	149,8	15,4	225,0	1044,9	179,7	14,6	297,0	1219,1	209,7	19,3	344,4				
	6	721,9	124,2	16,9	173,9	902,4	155,2	16,4	227,5	1082,9	186,3	15,6	300,4	1263,4	217,3	20,6	348,3				
	7	747,2	128,5	17,9	175,8	934,0	160,7	17,4	230,1	1120,8	192,8	16,6	303,8	1307,6	224,9	21,9	352,3				
	8	772,5	132,9	19,0	177,8	965,6	166,1	18,5	232,7	1158,8	199,3	17,6	307,2	1351,9	232,5	23,3	356,2				
	9	797,8	137,2	20,2	179,8	997,2	171,5	19,6	235,3	1196,7	205,8	18,7	310,6	1396,1	240,1	24,7	360,2				
	10	823,1	141,6	21,3	181,7	1028,9	177,0	20,8	237,9	1234,6	212,4	19,8	314,0	1440,4	247,7	26,1	364,1				
	11	848,4	145,9	22,5	183,7	1060,5	182,4	21,9	240,4	1272,6	218,9	20,9	317,4	1484,7	255,4	27,6	368,1				
	12	873,7	150,3	23,8	185,7	1092,1	187,8	23,1	243,0	1310,5	225,4	22,0	320,8	1528,9	263,0	29,1	372,0				
	13	899,0	154,6	25,0	187,6	1123,7	193,3	24,3	245,6	1348,4	231,9	23,2	324,2	1573,2	270,6	30,7	376,0				
	14	924,3	159,0	26,3	189,6	1155,3	198,7	25,6	248,2	1386,4	238,5	24,4	327,7	1617,4	278,2	32,3	379,9				
	15	949,5	163,3	27,6	191,6	1186,9	204,2	26,9	250,8	1424,3	245,0	25,6	331,1	1661,7	285,8	33,9	383,9				
35	5	651,2	112,0	14,0	186,3	814,0	140,0	13,6	243,9	976,8	168,0	12,9	322,0	1139,5	196,0	17,1	373,4				
	6	675,6	116,2	15,0	188,4	844,5	145,3	14,5	246,5	1013,4	174,3	13,8	325,5	1182,3	203,4	18,3	377,4				
	7	700	120,4	15,9	190	875	150,5	15,5	249	1050	180,6	14,7	329	1225	210,7	19,5	381				
	8	724,4	124,6	17,0	192,4	905,5	155,7	16,5	251,9	1086,6	186,9	15,7	332,5	1267,7	218,0	20,7	385,6				
	9	748,8	128,8	18,0	194,5	936,0	161,0	17,5	254,5	1123,2	193,2	16,6	336,0	1310,5	225,4	22,0	389,6				
	10	773,2	133,0	19,1	196,5	966,6	166,2	18,5	257,2	1159,9	199,5	17,6	339,5	1353,2	232,7	23,3	393,7				
	11	797,7	137,2	20,2	198,5	997,1	171,5	19,6	259,8	1196,5	205,8	18,7	343,0	1395,9	240,1	24,7	397,8				
	12	822,1	141,4	21,3	200,6	1027,6	176,7	20,7	262,5	1233,1	212,1	19,7	346,5	1438,6	247,4	26,1	401,8				
	13	846,5	145,6	22,5	202,6	1058,1	182,0	21,8	265,1	1269,7	218,4	20,8	350,0	1481,4	254,8	27,5	405,9				
	14	870,9	149,8	23,6	204,6	1088,6	187,2	23,0	267,8	1306,4	224,7	21,9	353,6	1524,1	262,1	29,0	410,0				
	15	895,3	154,0	24,8	206,6	1119,2	192,5	24,2	270,5	1343,0	231,0	23,0	357,1	1566,8	269,5	30,5	414,0				
40	5	605,7	104,2	12,3	205,0	757,1	130,2	11,9	268,3	908,6	156,3	11,3	354,2	1060,0	182,3	15,0	410,7				
	6	629,2	108,2	13,2	207,1	786,6	135,3	12,8	271,1	943,9	162,3	12,1	357,9	1101,2	189,4	16,1	415,0				
	7	652,8	112,3	14,1	209,3	816,0	140,3	13,7	273,9	979,2	168,4	13,0	361,6	1142,4	196,5	17,2	419,3				
	8	676,3	116,3	15,0	211,4	845,4	145,4	14,6	276,7	1014,5	174,5	13,8	365,3	1183,6	203,6	18,3	423,6				
	9	699,9	120,4	15,9	213,5	874,8	150,5	15,5	279,5	1049,8	180,6	14,7	369,0	1224,8	210,7	19,5	427,9				
	10	723,4	124,4	16,9	215,7	904,3	155,5	16,4	282,3	1085,1	186,6	15,6	372,7	1266,0	217,7	20,7	432,1				
	11	746,9	128,5	17,9	217,8	933,7	160,6	17,4	285,1	1120,4	192,7	16,6	376,4	1307,2	224,8	21,9	436,4				
	12	770,5	132,5	19,0	220,0	963,1	165,7	18,4	287,9	1155,7	198,8	17,5	380,1	1348,4	231,9	23,2	440,7				
	13	794,0	136,6	20,0	222,1	992,5	170,7	19,4	290,7	1191,0	204,9	18,5	383,8	1389,6	239,0	24,5	445,0				
	14	817,6	140,6	21,1	224,2	1022,0	175,8	20,5	293,5	1226,4	210,9	19,5	387,4	1430,8	246,1	25,8	449,3				
	15	841,1	144,7	22,2	226,4	1051,4	180,8	21,6	296,3	1261,7	217,0	20,6	391,1	1471,9	253,2	27,2	453,6				

		7 x RCME-40AH1					7 x RCME-50AH1					7 x RCME-60AH1					7 x RCME-70AH1				
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
43	5	578,4	99,5	11,3	216,2	723,0	124,4	11,0	282,9	867,6	149,2	10,4	373,5	1012,2	174,1	13,8	433,2				
	6	601,4	103,4	12,1	218,4	751,8	129,3	11,8	285,8	902,2	155,2	11,2	377,4	1052,5	181,0	14,8	437,6				
	7	624,5	107,4	13,0	220,6	780,6	134,3	12,6	288,7	936,7	161,1	12,0	381,2	1092,8	188,0	15,8	442,0				
	8	647,5	111,4	13,9	222,8	809,3	139,2	13,5	291,6	971,2	167,0	12,8	385,0	1133,1	194,9	16,9	446,4				
	9	670,5	115,3	14,8	225,0	838,1	144,2	14,3	294,5	1005,7	173,0	13,6	388,8	1173,4	201,8	18,0	450,8				
	10	693,5	119,3	15,7	227,2	866,9	149,1	15,2	297,3	1040,3	178,9	14,5	392,6	1213,6	208,7	19,2	455,2				
	11	716,5	123,2	16,6	229,4	895,7	154,1	16,2	300,2	1074,8	184,9	15,4	396,4	1253,9	215,7	20,3	459,6				
	12	739,5	127,2	17,6	231,6	924,4	159,0	17,1	303,1	1109,3	190,8	16,3	400,2	1294,2	222,6	21,5	464,0				
	13	762,6	131,2	18,6	233,8	953,2	163,9	18,1	306,0	1143,8	196,7	17,2	404,0	1334,5	229,5	22,8	468,4				
	14	785,6	135,1	19,6	236,0	982,0	168,9	19,1	308,9	1178,4	202,7	18,2	407,8	1374,7	236,5	24,0	472,9				
	15	808,6	139,1	20,7	238,2	1010,7	173,8	20,1	311,8	1212,9	208,6	19,1	411,6	1415,0	243,4	25,3	477,3				
46	5	551,1	94,8	10,4	227,4	688,9	118,5	10,1	297,6	826,7	142,2	9,5	392,9	964,5	165,9	12,6	455,6				
	6	573,6	98,7	11,1	229,6	717,0	123,3	10,8	300,6	860,5	148,0	10,3	396,8	1003,9	172,7	13,6	460,1				
	7	596,1	102,5	11,9	231,9	745,2	128,2	11,6	303,5	894,2	153,8	11,0	400,7	1043,2	179,4	14,6	464,7				
	8	618,6	106,4	12,8	234,2	773,3	133,0	12,4	306,5	927,9	159,6	11,8	404,6	1082,6	186,2	15,6	469,2				
	9	641,1	110,3	13,6	236,4	801,4	137,8	13,2	309,5	961,7	165,4	12,6	408,5	1121,9	193,0	16,6	473,7				
	10	663,6	114,1	14,5	238,7	829,5	142,7	14,1	312,4	995,4	171,2	13,4	412,5	1161,3	199,7	17,7	478,3				
	11	686,1	118,0	15,4	241,0	857,6	147,5	14,9	315,4	1029,1	177,0	14,2	416,4	1200,7	206,5	18,8	482,8				
	12	708,6	121,9	16,3	243,2	885,7	152,3	15,8	318,3	1062,9	182,8	15,1	420,3	1240,0	213,3	19,9	487,4				
	13	731,1	125,7	17,2	245,5	913,8	157,2	16,8	321,3	1096,6	188,6	15,9	424,2	1279,4	220,1	21,1	491,9				
	14	753,6	129,6	18,2	247,8	942,0	162,0	17,7	324,3	1130,3	194,4	16,8	428,1	1318,7	226,8	22,3	496,4				
	15	776,1	133,5	19,2	250,0	970,1	166,9	18,7	327,2	1164,1	200,2	17,8	432,0	1358,1	233,6	23,5	501,0				

## ◆ 8 Modules

		8 x RCME-40AH1				8 x RCME-50AH1				8 x RCME-60AH1				8 x RCME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
25	5	826,9	142,2	16,9	178,8	1033,6	177,8	16,4	234,1	1240,4	213,3	15,6	309,0	1447,1	248,9	20,7	358,3
	6	856,1	147,2	18,0	181,0	1070,1	184,1	17,5	236,9	1284,1	220,9	16,7	312,8	1498,1	257,7	22,0	362,7
	7	885,2	152,3	19,1	183,2	1106,5	190,3	18,6	239,8	1327,8	228,4	17,7	316,6	1549,1	266,5	23,4	367,1
	8	914,4	157,3	20,3	185,4	1143,0	196,6	19,7	242,6	1371,6	235,9	18,8	320,3	1600,2	275,2	24,8	371,4
	9	943,5	162,3	21,5	187,6	1179,4	202,9	20,9	245,5	1415,3	243,4	19,9	324,1	1651,2	284,0	26,3	375,8
	10	972,7	167,3	22,7	189,7	1215,9	209,1	22,0	248,3	1459,0	251,0	21,0	327,9	1702,2	292,8	27,8	380,2
	11	1001,8	172,3	23,9	191,9	1252,3	215,4	23,3	251,2	1502,8	258,5	22,2	331,6	1753,2	301,6	29,3	384,5
	12	1031,0	177,3	25,2	194,1	1288,8	221,7	24,5	254,0	1546,5	266,0	23,3	335,4	1804,3	310,3	30,9	388,9
	13	1060,2	182,3	26,5	196,3	1325,2	227,9	25,8	256,9	1590,2	273,5	24,6	339,2	1855,3	319,1	32,5	393,3
	14	1089,3	187,4	27,8	198,5	1361,6	234,2	27,0	259,7	1634,0	281,0	25,8	342,9	1906,3	327,9	34,1	397,6
	15	1118,5	192,4	29,2	200,6	1398,1	240,5	28,4	262,6	1677,7	288,6	27,1	346,7	1957,3	336,7	35,8	402,0
30	5	796,2	136,9	15,8	196,4	995,2	171,2	15,4	257,1	1194,2	205,4	14,6	339,4	1393,3	239,6	19,3	393,6
	6	825,1	141,9	16,9	198,7	1031,3	177,4	16,4	260,0	1237,6	212,9	15,6	343,3	1443,8	248,3	20,6	398,1
	7	854,0	146,9	17,9	200,9	1067,5	183,6	17,4	263,0	1280,9	220,3	16,6	347,2	1494,4	257,0	21,9	402,6
	8	882,9	151,9	19,0	203,2	1103,6	189,8	18,5	265,9	1324,3	227,8	17,6	351,1	1545,0	265,7	23,3	407,1
	9	911,8	156,8	20,2	205,4	1139,7	196,0	19,6	268,9	1367,7	235,2	18,7	355,0	1595,6	274,4	24,7	411,6
	10	940,7	161,8	21,3	207,7	1175,8	202,2	20,8	271,8	1411,0	242,7	19,8	358,9	1646,2	283,1	26,1	416,2
	11	969,6	166,8	22,5	210,0	1212,0	208,5	21,9	274,8	1454,4	250,2	20,9	362,8	1696,8	291,8	27,6	420,7
	12	998,5	171,7	23,8	212,2	1248,1	214,7	23,1	277,7	1497,7	257,6	22,0	366,7	1747,3	300,5	29,1	425,2
	13	1027,4	176,7	25,0	214,5	1284,2	220,9	24,3	280,7	1541,1	265,1	23,2	370,6	1797,9	309,2	30,7	429,7
	14	1056,3	181,7	26,3	216,7	1320,4	227,1	25,6	283,6	1584,4	272,5	24,4	374,5	1848,5	317,9	32,3	434,2
	15	1085,2	186,7	27,6	219,0	1356,5	233,3	26,9	286,6	1627,8	280,0	25,6	378,4	1899,1	326,6	33,9	438,7
35	5	744,2	128,0	14,0	213,0	930,2	160,0	13,6	278,7	1116,3	192,0	12,9	368,0	1302,3	224,0	17,1	426,7
	6	772,1	132,8	15,0	215,3	965,1	166,0	14,5	281,8	1158,1	199,2	13,8	372,0	1351,2	232,4	18,3	431,4
	7	800	137,6	15,9	218	1000	172,0	15,5	285	1200	206,4	14,7	376	1400	240,8	19,5	436
	8	827,9	142,4	17,0	219,9	1034,9	178,0	16,5	287,8	1241,9	213,6	15,7	380,0	1448,8	249,2	20,7	440,6
	9	855,8	147,2	18,0	222,2	1069,8	184,0	17,5	290,9	1283,7	220,8	16,6	384,0	1497,7	257,6	22,0	445,3
	10	883,7	152,0	19,1	224,6	1104,6	190,0	18,5	293,9	1325,6	228,0	17,6	388,0	1546,5	266,0	23,3	449,9
	11	911,6	156,8	20,2	226,9	1139,5	196,0	19,6	296,9	1367,4	235,2	18,7	392,0	1595,3	274,4	24,7	454,6
	12	939,5	161,6	21,3	229,2	1174,4	202,0	20,7	300,0	1409,3	242,4	19,7	396,0	1644,2	282,8	26,1	459,2
	13	967,4	166,4	22,5	231,5	1209,3	208,0	21,8	303,0	1451,1	249,6	20,8	400,1	1693,0	291,2	27,5	463,9
	14	995,3	171,2	23,6	233,8	1244,2	214,0	23,0	306,1	1493,0	256,8	21,9	404,1	1741,8	299,6	29,0	468,5
	15	1023,2	176,0	24,8	236,2	1279,0	220,0	24,2	309,1	1534,8	264,0	23,0	408,1	1790,7	308,0	30,5	473,2
40	5	692,2	119,1	12,3	234,3	865,3	148,8	11,9	306,6	1038,3	178,6	11,3	404,8	1211,4	208,4	15,0	469,4
	6	719,1	123,7	13,2	236,7	898,9	154,6	12,8	309,8	1078,7	185,5	12,1	409,0	1258,5	216,5	16,1	474,3
	7	746,0	128,3	14,1	239,2	932,6	160,4	13,7	313,0	1119,1	192,5	13,0	413,3	1305,6	224,6	17,2	479,2
	8	772,9	132,9	15,0	241,6	966,2	166,2	14,6	316,2	1159,4	199,4	13,8	417,5	1352,7	232,7	18,3	484,1
	9	799,8	137,6	15,9	244,0	999,8	172,0	15,5	319,4	1199,8	206,4	14,7	421,7	1399,7	240,8	19,5	489,0
	10	826,8	142,2	16,9	246,5	1033,4	177,8	16,4	322,6	1240,1	213,3	15,6	425,9	1446,8	248,9	20,7	493,9
	11	853,7	146,8	17,9	248,9	1067,1	183,5	17,4	325,8	1280,5	220,2	16,6	430,1	1493,9	257,0	21,9	498,8
	12	880,6	151,5	19,0	251,4	1100,7	189,3	18,4	329,0	1320,8	227,2	17,5	434,4	1541,0	265,0	23,2	503,7
	13	907,5	156,1	20,0	253,8	1134,3	195,1	19,4	332,2	1361,2	234,1	18,5	438,6	1588,1	273,1	24,5	508,6
	14	934,4	160,7	21,1	256,3	1168,0	200,9	20,5	335,4	1401,6	241,1	19,5	442,8	1635,1	281,2	25,8	513,5
	15	961,3	165,3	22,2	258,7	1201,6	206,7	21,6	338,6	1441,9	248,0	20,6	447,0	1682,2	289,3	27,2	518,3
43	5	661,1	113,7	11,3	247,1	826,3	142,1	11,0	323,4	991,6	170,6	10,4	426,9	1156,8	199,0	13,8	495,0
	6	687,4	118,2	12,1	249,6	859,2	147,8	11,8	326,7	1031,0	177,3	11,2	431,3	1202,9	206,9	14,8	500,1
	7	713,7	122,8	13,0	252,1	892,1	153,4	12,6	329,9	1070,5	184,1	12,0	435,6	1248,9	214,8	15,8	505,1
	8	740,0	127,3	13,9	254,6	925,0	159,1	13,5	333,2	1110,0	190,9	12,8	440,0	1294,9	222,7	16,9	510,2
	9	766,3	131,8	14,8	257,1	957,8	164,7	14,3	336,5	1149,4	197,7	13,6	444,3	1341,0	230,6	18,0	515,2
	10	792,6	136,3	15,7	259,6	990,7	170,4	15,2	339,8	1188,9	204,5	14,5	448,6	1387,0	238,6	19,2	520,2
	11	818,9	140,8	16,6	262,2	1023,6	176,1	16,2	343,1	1228,3	211,3	15,4	453,0	1433,0	246,5	20,3	525,3
	12	845,2	145,4	17,6	264,7	1056,5	181,7	17,1	346,4	1267,8	218,1	16,3	457,3	1479,1	254,4	21,5	530,3
	13	871,5	149,9	18,6	267,2	1089,4	187,4	18,1	349,7	1307,2	224,8	17,2	461,7	1525,1	262,3	22,8	535,4
	14	897,8	154,4	19,6	269,7	1122,2	193,0	19,1	353,0	1346,7	231,6	18,2	466,0	1571,1	270,2	24,0	540,4
	15	924,1	158,9	20,7	272,2	1155,1	198,7	20,1	356,3	1386,1	238,4	19,1	470,4	1617,2	278,2	25,3	545,4

		8 x RCME-40AH1				8 x RCME-50AH1				8 x RCME-60AH1				8 x RCME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
46	5	629,9	108,3	10,4	259,9	787,4	135,4	10,1	340,1	944,8	162,5	9,5	449,0	1102,3	189,6	12,6	520,7
	6	655,6	112,8	11,1	262,4	819,5	141,0	10,8	343,5	983,4	169,1	10,3	453,5	1147,3	197,3	13,6	525,9
	7	681,3	117,2	11,9	265,0	851,6	146,5	11,6	346,9	1021,9	175,8	11,0	458,0	1192,3	205,1	14,6	531,0
	8	707,0	121,6	12,8	267,6	883,7	152,0	12,4	350,3	1060,5	182,4	11,8	462,4	1237,2	212,8	15,6	536,2
	9	732,7	126,0	13,6	270,2	915,9	157,5	13,2	353,7	1099,0	189,0	12,6	466,9	1282,2	220,5	16,6	541,4
	10	758,4	130,4	14,5	272,8	948,0	163,1	14,1	357,0	1137,6	195,7	13,4	471,4	1327,2	228,3	17,7	546,6
	11	784,1	134,9	15,4	275,4	980,1	168,6	14,9	360,4	1176,2	202,3	14,2	475,9	1372,2	236,0	18,8	551,8
	12	809,8	139,3	16,3	278,0	1012,3	174,1	15,8	363,8	1214,7	208,9	15,1	480,3	1417,2	243,8	19,9	557,0
	13	835,5	143,7	17,2	280,6	1044,4	179,6	16,8	367,2	1253,3	215,6	15,9	484,8	1462,1	251,5	21,1	562,2
	14	861,2	148,1	18,2	283,2	1076,5	185,2	17,7	370,6	1291,8	222,2	16,8	489,3	1507,1	259,2	22,3	567,4
	15	886,9	152,6	19,2	285,7	1108,7	190,7	18,7	374,0	1330,4	228,8	17,8	493,8	1552,1	267,0	23,5	572,5

### 4.3.1.2 Performance Table at full load - RHME-AH1

#### ◆ 4 Modules

		4 x RHME-40AH1					4 x RHME-50AH1					4 x RHME-60AH1					4 x RHME-70AH1				
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	394.0	67.8	10.1	92.4	493.5	84.9	10.3	121.2	593.0	102.0	11.3	160.2	663.5	114.1	13.9	179.4				
	6	408.5	70.3	10.8	93.5	511.7	88.0	11.0	122.6	614.9	105.8	12.1	162.1	688.1	118.3	14.8	181.5				
	7	423.1	72.8	11.5	94.5	530.0	91.2	11.8	124.0	636.9	109.5	12.9	164.0	712.6	122.6	15.8	183.7				
	8	437.7	75.3	12.2	95.6	548.3	94.3	12.5	125.5	658.8	113.3	13.7	165.9	737.2	126.8	16.8	185.8				
	9	452.3	77.8	12.9	96.7	566.5	97.4	13.3	126.9	680.8	117.1	14.5	167.8	761.7	131.0	17.8	187.9				
	10	466.8	80.3	13.7	97.8	584.8	100.6	14.1	128.3	702.7	120.9	15.4	169.7	786.3	135.2	18.9	190.0				
	11	481.4	82.8	14.5	98.9	603.0	103.7	14.9	129.7	724.7	124.6	16.3	171.6	810.8	139.5	20.0	192.1				
	12	496.0	85.3	15.3	100.0	621.3	106.9	15.7	131.2	746.6	128.4	17.2	173.5	835.4	143.7	21.1	194.2				
	13	510.6	87.8	16.1	101.1	639.6	110.0	16.5	132.6	768.6	132.2	18.1	175.3	859.9	147.9	22.3	196.4				
	14	525.2	90.3	16.9	102.2	657.8	113.1	17.4	134.0	790.5	136.0	19.1	177.2	884.5	152.1	23.4	198.5				
	15	539.7	92.8	17.8	103.3	676.1	116.3	18.3	135.5	812.4	139.7	20.1	179.1	909.0	156.4	24.6	200.6				
30	5	378.1	65.0	9.3	101.1	473.6	81.5	9.6	132.6	569.1	97.9	10.5	175.4	636.8	109.5	12.9	196.4				
	6	392.5	67.5	10.0	102.2	491.7	84.6	10.3	134.1	590.9	101.6	11.2	177.3	661.1	113.7	13.8	198.6				
	7	407.0	70.0	10.7	103.3	509.8	87.7	11.0	135.6	612.6	105.4	12.0	179.3	685.4	117.9	14.7	200.8				
	8	421.4	72.5	11.4	104.5	527.9	90.8	11.7	137.0	634.4	109.1	12.8	181.2	709.8	122.1	15.7	202.9				
	9	435.9	75.0	12.1	105.6	546.0	93.9	12.4	138.5	656.1	112.9	13.6	183.2	734.1	126.3	16.7	205.1				
	10	450.3	77.5	12.8	106.7	564.1	97.0	13.2	140.0	677.9	116.6	14.4	185.1	758.5	130.5	17.7	207.3				
	11	464.8	79.9	13.6	107.8	582.2	100.1	13.9	141.5	699.6	120.3	15.3	187.1	782.8	134.6	18.8	209.5				
	12	479.2	82.4	14.3	109.0	600.3	103.3	14.7	143.0	721.4	124.1	16.2	189.0	807.1	138.8	19.8	211.7				
	13	493.7	84.9	15.1	110.1	618.4	106.4	15.6	144.4	743.1	127.8	17.1	191.0	831.5	143.0	20.9	213.9				
	14	508.1	87.4	15.9	111.2	636.5	109.5	16.4	145.9	764.9	131.6	18.0	192.9	855.8	147.2	22.1	216.1				
	15	522.6	89.9	16.8	112.4	654.6	112.6	17.3	147.4	786.6	135.3	18.9	194.9	880.2	151.4	23.2	218.3				
35	5	352.1	60.6	8.2	109.3	441.0	75.9	8.4	143.4	530.0	91.2	9.2	189.6	593.0	102.0	11.3	212.3				
	6	366.0	63.0	8.8	110.4	458.5	78.9	9.0	144.9	551.0	94.8	9.9	191.6	616.5	106.0	12.1	214.5				
	7	380.0	65.4	9.4	111.6	476.0	81.9	9.7	146.4	572.0	98.4	10.6	193.6	640.0	110.1	13.0	216.8				
	8	394.0	67.8	10.1	112.8	493.5	84.9	10.3	147.9	593.0	102.0	11.3	195.6	663.5	114.1	13.9	219.1				
	9	407.9	70.2	10.7	113.9	511.0	87.9	11.0	149.4	614.0	105.6	12.0	197.6	687.0	118.2	14.8	221.3				
	10	421.9	72.6	11.4	115.1	528.4	90.9	11.7	151.0	635.0	109.2	12.8	199.6	710.5	122.2	15.7	223.6				
	11	435.8	75.0	12.1	116.2	545.9	93.9	12.4	152.5	656.0	112.8	13.6	201.6	734.0	126.2	16.7	225.8				
	12	449.8	77.4	12.8	117.4	563.4	96.9	13.1	154.0	677.0	116.4	14.4	203.7	757.5	130.3	17.7	228.1				
	13	463.7	79.8	13.5	118.6	580.9	99.9	13.9	155.5	698.0	120.1	15.2	205.7	781.0	134.3	18.7	230.3				
	14	477.7	82.2	14.3	119.7	598.3	102.9	14.7	157.1	719.0	123.7	16.1	207.7	804.5	138.4	19.7	232.6				
	15	491.6	84.6	15.0	120.9	615.8	105.9	15.4	158.6	740.0	127.3	16.9	209.7	828.0	142.4	20.8	234.8				
40	5	326.1	56.1	7.2	119.9	408.5	70.3	7.3	157.3	490.9	84.4	8.0	208.1	549.2	94.5	9.8	233.0				
	6	339.6	58.4	7.7	121.2	425.4	73.2	7.9	158.9	511.1	87.9	8.6	210.2	571.9	98.4	10.6	235.4				
	7	353.0	60.7	8.3	122.4	442.2	76.1	8.5	160.5	531.4	91.4	9.3	212.3	594.6	102.3	11.4	237.7				
	8	366.5	63.0	8.8	123.6	459.1	79.0	9.1	162.1	551.6	94.9	9.9	214.4	617.2	106.2	12.2	240.1				
	9	379.9	65.3	9.4	124.8	475.9	81.9	9.7	163.7	571.9	98.4	10.6	216.5	639.9	110.1	13.0	242.5				
	10	393.4	67.7	10.0	126.0	492.8	84.8	10.3	165.3	592.1	101.8	11.3	218.7	662.5	114.0	13.8	244.9				
	11	406.8	70.0	10.7	127.3	509.6	87.7	11.0	166.9	612.4	105.3	12.0	220.8	685.2	117.9	14.7	247.2				
	12	420.3	72.3	11.3	128.5	526.5	90.6	11.6	168.6	632.6	108.8	12.7	222.9	707.8	121.7	15.6	249.6				
	13	433.7	74.6	12.0	129.7	543.3	93.4	12.3	170.2	652.9	112.3	13.5	225.0	730.5	125.6	16.5	252.0				
	14	447.2	76.9	12.7	130.9	560.2	96.3	13.0	171.8	673.1	115.8	14.2	227.1	753.2	129.5	17.5	254.3				
	15	460.6	79.2	13.4	132.1	577.0	99.2	13.7	173.4	693.4	119.3	15.0	229.2	775.8	133.4	18.5	256.7				

		4 x RHME-40AH1				4 x RHME-50AH1				4 x RHME-60AH1				4 x RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
43	5	310.5	53.4	6.6	126.3	389.0	66.9	6.7	165.7	467.4	80.4	7.3	219.2	523.0	90.0	9.0	245.4
	6	323.7	55.7	7.1	127.6	405.5	69.7	7.2	167.4	487.2	83.8	7.9	221.3	545.1	93.8	9.7	247.9
	7	336.8	57.9	7.6	128.8	421.9	72.6	7.8	169.0	507.0	87.2	8.5	223.5	567.3	97.6	10.4	250.3
	8	350.0	60.2	8.1	130.1	438.4	75.4	8.3	170.7	526.8	90.6	9.1	225.7	589.4	101.4	11.2	252.8
	9	363.1	62.5	8.7	131.4	454.9	78.2	8.9	172.3	546.6	94.0	9.7	227.9	611.6	105.2	12.0	255.2
	10	376.3	64.7	9.3	132.6	471.4	81.1	9.5	174.0	566.4	97.4	10.4	230.1	633.7	109.0	12.8	257.6
	11	389.4	67.0	9.9	133.9	487.8	83.9	10.1	175.6	586.2	100.8	11.1	232.3	655.9	112.8	13.6	260.1
	12	402.6	69.2	10.5	135.1	504.3	86.7	10.7	177.3	606.0	104.2	11.8	234.4	678.0	116.6	14.4	262.5
	13	415.7	71.5	11.1	136.4	520.8	89.6	11.4	178.9	625.8	107.6	12.5	236.6	700.2	120.4	15.3	265.0
	14	428.9	73.8	11.7	137.7	537.2	92.4	12.1	180.6	645.6	111.0	13.2	238.8	722.4	124.2	16.2	267.4
	15	442.0	76.0	12.4	138.9	553.7	95.2	12.7	182.2	665.4	114.4	13.9	241.0	744.5	128.1	17.1	269.9
46	5	294.9	50.7	6.0	132.7	369.5	63.5	6.1	174.1	444.0	76.4	6.7	230.2	496.7	85.4	8.2	257.8
	6	307.8	52.9	6.4	134.0	385.5	66.3	6.6	175.8	463.3	79.7	7.2	232.5	518.4	89.2	8.8	260.4
	7	320.6	55.2	6.9	135.3	401.6	69.1	7.1	177.5	482.7	83.0	7.8	234.7	540.0	92.9	9.5	262.9
	8	333.5	57.4	7.5	136.6	417.7	71.9	7.6	179.2	502.0	86.3	8.3	237.0	561.7	96.6	10.2	265.4
	9	346.3	59.6	8.0	137.9	433.8	74.6	8.2	180.9	521.3	89.7	8.9	239.2	583.3	100.3	11.0	267.9
	10	359.2	61.8	8.5	139.2	449.9	77.4	8.7	182.6	540.7	93.0	9.6	241.5	605.0	104.1	11.7	270.4
	11	372.1	64.0	9.1	140.5	466.0	80.2	9.3	184.3	560.0	96.3	10.2	243.7	626.6	107.8	12.5	272.9
	12	384.9	66.2	9.7	141.8	482.1	82.9	9.9	186.0	579.4	99.7	10.8	246.0	648.3	111.5	13.3	275.4
	13	397.8	68.4	10.2	143.1	498.2	85.7	10.5	187.7	598.7	103.0	11.5	248.2	669.9	115.2	14.1	278.0
	14	410.6	70.6	10.9	144.4	514.3	88.5	11.1	189.4	618.1	106.3	12.2	250.5	691.6	118.9	15.0	280.5
	15	423.5	72.8	11.5	145.7	530.4	91.2	11.8	191.1	637.4	109.6	12.9	252.7	713.2	122.7	15.8	283.0

### ◆ 5 Modules

		5 x RHME-40AH1				5 x RHME-50AH1				5 x RHME-60AH1				5 x RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
25	5	492.4	84.7	10.1	115.5	616.8	106.1	10.3	151.5	741.3	127.5	11.3	200.3	829.4	142.7	13.9	224.3
	6	510.7	87.8	10.8	116.8	639.7	110.0	11.0	153.2	768.7	132.2	12.1	202.6	860.1	147.9	14.8	226.9
	7	528.9	91.0	11.5	118.2	662.5	114.0	11.8	155.0	796.1	136.9	12.9	205.0	890.8	153.2	15.8	229.6
	8	547.1	94.1	12.2	119.5	685.3	117.9	12.5	156.8	823.5	141.7	13.7	207.4	921.5	158.5	16.8	232.2
	9	565.3	97.2	12.9	120.9	708.2	121.8	13.3	158.6	851.0	146.4	14.5	209.7	952.1	163.8	17.8	234.9
	10	583.6	100.4	13.7	122.3	731.0	125.7	14.1	160.4	878.4	151.1	15.4	212.1	982.8	169.0	18.9	237.5
	11	601.8	103.5	14.5	123.6	753.8	129.7	14.9	162.2	905.8	155.8	16.3	214.5	1,013.5	174.3	20.0	240.2
	12	620.0	106.6	15.3	125.0	776.6	133.6	15.7	164.0	933.3	160.5	17.2	216.8	1,044.2	179.6	21.1	242.8
	13	638.2	109.8	16.1	126.3	799.5	137.5	16.5	165.7	960.7	165.2	18.1	219.2	1,074.9	184.9	22.3	245.5
	14	656.4	112.9	16.9	127.7	822.3	141.4	17.4	167.5	988.1	170.0	19.1	221.5	1,105.6	190.2	23.4	248.1
	15	674.7	116.0	17.8	129.1	845.1	145.4	18.3	169.3	1,015.6	174.7	20.1	223.9	1,136.3	195.4	24.6	250.7
30	5	472.6	81.3	9.3	126.4	592.0	101.8	9.6	165.8	711.4	122.4	10.5	219.2	795.9	136.9	12.9	245.5
	6	490.7	84.4	10.0	127.8	614.6	105.7	10.3	167.6	738.6	127.0	11.2	221.6	826.4	142.1	13.8	248.2
	7	508.7	87.5	10.7	129.2	637.2	109.6	11.0	169.5	765.8	131.7	12.0	224.1	856.8	147.4	14.7	250.9
	8	526.8	90.6	11.4	130.6	659.9	113.5	11.7	171.3	793.0	136.4	12.8	226.5	887.2	152.6	15.7	253.7
	9	544.9	93.7	12.1	132.0	682.5	117.4	12.4	173.1	820.2	141.1	13.6	229.0	917.7	157.8	16.7	256.4
	10	562.9	96.8	12.8	133.4	705.1	121.3	13.2	175.0	847.3	145.7	14.4	231.4	948.1	163.1	17.7	259.1
	11	581.0	99.9	13.6	134.8	727.8	125.2	13.9	176.8	874.5	150.4	15.3	233.9	978.5	168.3	18.8	261.9
	12	599.1	103.0	14.3	136.2	750.4	129.1	14.7	178.7	901.7	155.1	16.2	236.3	1,008.9	173.5	19.8	264.6
	13	617.1	106.1	15.1	137.6	773.0	133.0	15.6	180.5	928.9	159.8	17.1	238.7	1,039.4	178.8	20.9	267.4
	14	635.2	109.3	15.9	139.0	795.6	136.9	16.4	182.4	956.1	164.5	18.0	241.2	1,069.8	184.0	22.1	270.1
	15	653.2	112.4	16.8	140.4	818.3	140.7	17.3	184.2	983.3	169.1	18.9	243.6	1,100.2	189.2	23.2	272.8
35	5	440.1	75.7	8.2	136.6	551.3	94.8	8.4	179.2	662.5	113.9	9.2	237.0	741.3	127.5	11.3	265.4
	6	457.6	78.7	8.8	138.1	573.2	98.6	9.0	181.1	688.7	118.5	9.9	239.5	770.6	132.5	12.1	268.2
	7	475.0	81.7	9.4	136.0	595.0	102.3	9.7	178.0	715.0	123.0	10.6	235.0	800.0	137.6	13.0	272.0
	8	492.4	84.7	10.1	141.0	616.8	106.1	10.3	184.9	741.3	127.5	11.3	244.5	829.4	142.7	13.9	273.8
	9	509.9	87.7	10.7	142.4	638.7	109.9	11.0	186.8	767.5	132.0	12.0	247.0	858.7	147.7	14.8	276.6
	10	527.3	90.7	11.4	143.9	660.5	113.6	11.7	188.7	793.8	136.5	12.8	249.5	888.1	152.8	15.7	279.5
	11	544.8	93.7	12.1	145.3	682.4	117.4	12.4	190.6	820.0	141.0	13.6	252.1	917.5	157.8	16.7	282.3
	12	562.2	96.7	12.8	146.8	704.2	121.1	13.1	192.5	846.3	145.6	14.4	254.6	946.9	162.9	17.7	285.1
	13	579.6	99.7	13.5	148.2	726.1	124.9	13.9	194.4	872.5	150.1	15.2	257.1	976.2	167.9	18.7	287.9
	14	597.1	102.7	14.3	149.7	747.9	128.6	14.7	196.3	898.8	154.6	16.1	259.6	1,005.6	173.0	19.7	290.7
	15	614.5	105.7	15.0	151.1	769.8	132.4	15.4	198.2	925.0	159.1	16.9	262.1	1,035.0	178.0	20.8	293.5
40	5	407.6	70.1	7.2	149.9	510.6	87.8	7.3	196.7	613.6	105.5	8.0	260.1	686.6	118.1	9.8	291.2
	6	424.5	73.0	7.7	151.4	531.7	91.5	7.9	198.7	638.9	109.9	8.6	262.7	714.9	123.0	10.6	294.2
	7	441.3	75.9	8.3	153.0	552.8	95.1	8.5	200.7	664.2	114.2	9.3	265.4	743.2	127.8	11.4	297.2
	8	458.1	78.8	8.8	154.5	573.8	98.7	9.1	202.7	689.5	118.6	9.9	268.0	771.5	132.7	12.2	300.1
	9	474.9	81.7	9.4	156.0	594.9	102.3	9.7	204.7	714.9	123.0	10.6	270.7	799.8	137.6	13.0	303.1
	10	491.7	84.6	10.0	157.6	615.9	105.9	10.3	206.7	740.2	127.3	11.3	273.3	828.2	142.4	13.8	306.1
	11	508.5	87.5	10.7	159.1	637.0	109.6	11.0	208.7	765.5	131.7	12.0	276.0	856.5	147.3	14.7	309.0
	12	525.4	90.4	11.3	160.6	658.1	113.2	11.6	210.7	790.8	136.0	12.7	278.6	884.8	152.2	15.6	312.0
	13	542.2	93.3	12.0	162.1	679.1	116.8	12.3	212.7	816.1	140.4	13.5	281.3	913.1	157.1	16.5	315.0
	14	559.0	96.1	12.7	163.7	700.2	120.4	13.0	214.7	841.4	144.7	14.2	283.9	941.4	161.9	17.5	317.9
	15	575.8	99.0	13.4	165.2	721.3	124.1	13.7	216.7	866.7	149.1	15.0	286.6	969.8	166.8	18.5	320.9
43	5	388.2	66.8	6.6	157.9	486.2	83.6	6.7	207.2	584.3	100.5	7.3	273.9	653.7	112.4	9.0	306.8
	6	404.6	69.6	7.1	159.5	506.8	87.2	7.2	209.2	609.0	104.8	7.9	276.7	681.4	117.2	9.7	309.8
	7	421.0	72.4	7.6	161.1	527.4	90.7	7.8	211.3	633.8	109.0	8.5	279.4	709.1	122.0	10.4	312.9
	8	437.5	75.2	8.1	162.6	548.0	94.3	8.3	213.3	658.5	113.3	9.1	282.1	736.8	126.7	11.2	315.9
	9	453.9	78.1	8.7	164.2	568.6	97.8	8.9	215.4	683.3	117.5	9.7	284.9	764.5	131.5	12.0	319.0
	10	470.4	80.9	9.3	165.8	589.2	101.3	9.5	217.5	708.0	121.8	10.4	287.6	792.2	136.3	12.8	322.0
	11	486.8	83.7	9.9	167.3	609.8	104.9	10.1	219.5	732.8	126.0	11.1	290.3	819.9	141.0	13.6	325.1
	12	503.2	86.6	10.5	168.9	630.4	108.4	10.7	221.6	757.5	130.3	11.8	293.0	847.6	145.8	14.4	328.2
	13	519.7	89.4	11.1	170.5	651.0	112.0	11.4	223.7	782.3	134.5	12.5	295.8	875.3	150.5	15.3	331.2
	14	536.1	92.2	11.7	172.1	671.6	115.5	12.1	225.7	807.0	138.8	13.2	298.5	902.9	155.3	16.2	334.3
	15	552.6	95.0	12.4	173.6	692.2	119.1	12.7	227.8	831.7	143.1	13.9	301.2	930.6	160.1	17.1	337.3

ABT	COT	5 x RHME-40AH1				5 x RHME-50AH1				5 x RHME-60AH1				5 x RHME-70AH1			
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
46	5	368.7	63.4	6.0	165.9	461.8	79.4	6.1	217.6	555.0	95.5	6.7	287.8	620.9	106.8	8.2	322.3
	6	384.7	66.2	6.4	167.5	481.9	82.9	6.6	219.8	579.1	99.6	7.2	290.6	648.0	111.5	8.8	325.4
	7	400.8	68.9	6.9	169.1	502.1	86.4	7.1	221.9	603.3	103.8	7.8	293.4	675.0	116.1	9.5	328.6
	8	416.9	71.7	7.5	170.8	522.2	89.8	7.6	224.0	627.5	107.9	8.3	296.2	702.1	120.8	10.2	331.7
	9	432.9	74.5	8.0	172.4	542.3	93.3	8.2	226.1	651.7	112.1	8.9	299.0	729.2	125.4	11.0	334.9
	10	449.0	77.2	8.5	174.0	562.4	96.7	8.7	228.3	675.9	116.2	9.6	301.8	756.2	130.1	11.7	338.0
	11	465.1	80.0	9.1	175.6	582.6	100.2	9.3	230.4	700.0	120.4	10.2	304.7	783.3	134.7	12.5	341.2
	12	481.1	82.8	9.7	177.2	602.7	103.7	9.9	232.5	724.2	124.6	10.8	307.5	810.3	139.4	13.3	344.3
	13	497.2	85.5	10.2	178.9	622.8	107.1	10.5	234.6	748.4	128.7	11.5	310.3	837.4	144.0	14.1	347.5
	14	513.3	88.3	10.9	180.5	642.9	110.6	11.1	236.7	772.6	132.9	12.2	313.1	864.4	148.7	15.0	350.6
	15	529.3	91.0	11.5	182.1	663.0	114.0	11.8	238.9	796.8	137.0	12.9	315.9	891.5	153.3	15.8	353.7

**◆ 6 Modules**

		6 x RHME-40AH1				6 x RHME-50AH1				6 x RHME-60AH1				6 x RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
25	5	590.9	101.6	10.1	138.5	740.2	127.3	10.3	181.7	889.5	153.0	11.3	240.3	995.3	171.2	13.9	269.1
	6	612.8	105.4	10.8	140.2	767.6	132.0	11.0	183.9	922.4	158.7	12.1	243.2	1,032.1	177.5	14.8	272.3
	7	634.7	109.2	11.5	141.8	795.0	136.7	11.8	186.0	955.3	164.3	12.9	246.0	1,068.9	183.9	15.8	275.5
	8	656.5	112.9	12.2	143.4	822.4	141.5	12.5	188.2	988.3	170.0	13.7	248.8	1,105.7	190.2	16.8	278.7
	9	678.4	116.7	12.9	145.1	849.8	146.2	13.3	190.3	1,021.2	175.6	14.5	251.7	1,142.6	196.5	17.8	281.8
	10	700.3	120.4	13.7	146.7	877.2	150.9	14.1	192.5	1,054.1	181.3	15.4	254.5	1,179.4	202.9	18.9	285.0
	11	722.1	124.2	14.5	148.3	904.6	155.6	14.9	194.6	1,087.0	187.0	16.3	257.4	1,216.2	209.2	20.0	288.2
	12	744.0	128.0	15.3	150.0	932.0	160.3	15.7	196.8	1,119.9	192.6	17.2	260.2	1,253.1	215.5	21.1	291.4
	13	765.9	131.7	16.1	151.6	959.4	165.0	16.5	198.9	1,152.8	198.3	18.1	263.0	1,289.9	221.9	22.3	294.5
	14	787.7	135.5	16.9	153.3	986.7	169.7	17.4	201.0	1,185.8	203.9	19.1	265.9	1,326.7	228.2	23.4	297.7
	15	809.6	139.3	17.8	154.9	1,014.1	174.4	18.3	203.2	1,218.7	209.6	20.1	268.7	1,363.5	234.5	24.6	300.9
30	5	567.1	97.5	9.3	151.6	710.4	122.2	9.6	198.9	853.7	146.8	10.5	263.0	955.1	164.3	12.9	294.6
	6	588.8	101.3	10.0	153.3	737.5	126.9	10.3	201.1	886.3	152.4	11.2	266.0	991.6	170.6	13.8	297.9
	7	610.5	105.0	10.7	155.0	764.7	131.5	11.0	203.3	918.9	158.1	12.0	268.9	1,028.2	176.8	14.7	301.1
	8	632.1	108.7	11.4	156.7	791.8	136.2	11.7	205.6	951.5	163.7	12.8	271.8	1,064.7	183.1	15.7	304.4
	9	653.8	112.5	12.1	158.4	819.0	140.9	12.4	207.8	984.2	169.3	13.6	274.8	1,101.2	189.4	16.7	307.7
	10	675.5	116.2	12.8	160.1	846.2	145.5	13.2	210.0	1,016.8	174.9	14.4	277.7	1,137.7	195.7	17.7	311.0
	11	697.2	119.9	13.6	161.8	873.3	150.2	13.9	212.2	1,049.4	180.5	15.3	280.6	1,174.2	202.0	18.8	314.3
	12	718.9	123.6	14.3	163.5	900.5	154.9	14.7	214.4	1,082.1	186.1	16.2	283.6	1,210.7	208.2	19.8	317.5
	13	740.5	127.4	15.1	165.1	927.6	159.6	15.6	216.6	1,114.7	191.7	17.1	286.5	1,247.2	214.5	20.9	320.8
	14	762.2	131.1	15.9	166.8	954.8	164.2	16.4	218.9	1,147.3	197.3	18.0	289.4	1,283.7	220.8	22.1	324.1
	15	783.9	134.8	16.8	168.5	981.9	168.9	17.3	221.1	1,180.0	203.0	18.9	292.4	1,320.2	227.1	23.2	327.4
35	5	528.1	90.8	8.2	163.9	661.6	113.8	8.4	215.0	795.0	136.7	9.2	284.4	889.5	153.0	11.3	318.4
	6	549.1	94.4	8.8	165.7	687.8	118.3	9.0	217.3	826.5	142.2	9.9	287.4	924.8	159.1	12.1	321.8
	7	570.0	98.0	9.4	163.0	714.0	122.8	9.7	214.0	858.0	147.6	10.6	282.0	960.0	165.1	13.0	327.0
	8	590.9	101.6	10.1	169.1	740.2	127.3	10.3	221.9	889.5	153.0	11.3	293.4	995.2	171.2	13.9	328.6
	9	611.9	105.2	10.7	170.9	766.4	131.8	11.0	224.2	921.0	158.4	12.0	296.4	1,030.5	177.2	14.8	332.0
	10	632.8	108.8	11.4	172.6	792.6	136.3	11.7	226.4	952.5	163.8	12.8	299.5	1,065.7	183.3	15.7	335.3
	11	653.7	112.4	12.1	174.4	818.9	140.8	12.4	228.7	984.0	169.2	13.6	302.5	1,101.0	189.4	16.7	338.7
	12	674.6	116.0	12.8	176.1	845.1	145.4	13.1	231.0	1,015.5	174.7	14.4	305.5	1,136.2	195.4	17.7	342.1
	13	695.6	119.6	13.5	177.8	871.3	149.9	13.9	233.3	1,047.0	180.1	15.2	308.5	1,171.5	201.5	18.7	345.5
	14	716.5	123.2	14.3	179.6	897.5	154.4	14.7	235.6	1,078.5	185.5	16.1	311.5	1,206.7	207.6	19.7	348.9
	15	737.4	126.8	15.0	181.3	923.7	158.9	15.4	237.9	1,110.0	190.9	16.9	314.5	1,242.0	213.6	20.8	352.2
40	5	489.2	84.1	7.2	179.9	612.8	105.4	7.3	236.0	736.3	126.6	8.0	312.1	823.9	141.7	9.8	349.5
	6	509.4	87.6	7.7	181.7	638.0	109.7	7.9	238.4	766.7	131.9	8.6	315.3	857.9	147.6	10.6	353.1
	7	529.5	91.1	8.3	183.6	663.3	114.1	8.5	240.8	797.1	137.1	9.3	318.5	891.8	153.4	11.4	356.6
	8	549.7	94.5	8.8	185.4	688.6	118.4	9.1	243.2	827.5	142.3	9.9	321.6	925.8	159.2	12.2	360.2
	9	569.9	98.0	9.4	187.2	713.9	122.8	9.7	245.6	857.8	147.5	10.6	324.8	959.8	165.1	13.0	363.7
	10	590.1	101.5	10.0	189.1	739.1	127.1	10.3	248.0	888.2	152.8	11.3	328.0	993.8	170.9	13.8	367.3
	11	610.2	105.0	10.7	190.9	764.4	131.5	11.0	250.4	918.6	158.0	12.0	331.2	1,027.8	176.8	14.7	370.8
	12	630.4	108.4	11.3	192.7	789.7	135.8	11.6	252.8	948.9	163.2	12.7	334.3	1,061.8	182.6	15.6	374.4
	13	650.6	111.9	12.0	194.6	815.0	140.2	12.3	255.2	979.3	168.4	13.5	337.5	1,095.7	188.5	16.5	378.0
	14	670.8	115.4	12.7	196.4	840.2	144.5	13.0	257.6	1,009.7	173.7	14.2	340.7	1,129.7	194.3	17.5	381.5
	15	691.0	118.8	13.4	198.2	865.5	148.9	13.7	260.0	1,040.1	178.9	15.0	343.9	1,163.7	200.2	18.5	385.1
43	5	465.8	80.1	6.6	189.5	583.5	100.4	6.7	248.6	701.1	120.6	7.3	328.7	784.5	134.9	9.0	368.1
	6	485.5	83.5	7.1	191.4	608.2	104.6	7.2	251.1	730.8	125.7	7.9	332.0	817.7	140.6	9.7	371.8
	7	505.2	86.9	7.6	193.3	632.9	108.9	7.8	253.5	760.5	130.8	8.5	335.3	850.9	146.4	10.4	375.5
	8	525.0	90.3	8.1	195.2	657.6	113.1	8.3	256.0	790.2	135.9	9.1	338.6	884.2	152.1	11.2	379.1
	9	544.7	93.7	8.7	197.0	682.3	117.4	8.9	258.5	819.9	141.0	9.7	341.8	917.4	157.8	12.0	382.8
	10	564.4	97.1	9.3	198.9	707.0	121.6	9.5	261.0	849.6	146.1	10.4	345.1	950.6	163.5	12.8	386.5
	11	584.2	100.5	9.9	200.8	731.7	125.9	10.1	263.4	879.3	151.2	11.1	348.4	983.8	169.2	13.6	390.1
	12	603.9	103.9	10.5	202.7	756.4	130.1	10.7	265.9	909.0	156.3	11.8	351.6	1,017.1	174.9	14.4	393.8
	13	623.6	107.3	11.1	204.6	781.2	134.4	11.4	268.4	938.7	161.5	12.5	354.9	1,050.3	180.7	15.3	397.5
	14	643.3	110.7	11.7	206.5	805.9	138.6	12.1	270.9	968.4	166.6	13.2	358.2	1,083.5	186.4	16.2	401.1
	15	663.1	114.0	12.4	208.4	830.6	142.9	12.7	273.3	998.1	171.7	13.9	361.5	1,116.8	192.1	17.1	404.8

		6 x RHME-40AH1				6 x RHME-50AH1				6 x RHME-60AH1				6 x RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
46	5	442.4	76.1	6.0	199.1	554.2	95.3	6.1	261.2	665.9	114.5	6.7	345.4	745.1	128.2	8.2	386.8
	6	461.7	79.4	6.4	201.0	578.3	99.5	6.6	263.7	695.0	119.5	7.2	348.7	777.6	133.7	8.8	390.5
	7	481.0	82.7	6.9	203.0	602.5	103.6	7.1	266.3	724.0	124.5	7.8	352.1	810.0	139.3	9.5	394.3
	8	500.2	86.0	7.5	204.9	626.6	107.8	7.6	268.8	753.0	129.5	8.3	355.5	842.5	144.9	10.2	398.1
	9	519.5	89.4	8.0	206.9	650.8	111.9	8.2	271.4	782.0	134.5	8.9	358.9	875.0	150.5	11.0	401.9
	10	538.8	92.7	8.5	208.8	674.9	116.1	8.7	273.9	811.0	139.5	9.6	362.2	907.5	156.1	11.7	405.6
	11	558.1	96.0	9.1	210.7	699.1	120.2	9.3	276.5	840.1	144.5	10.2	365.6	939.9	161.7	12.5	409.4
	12	577.4	99.3	9.7	212.7	723.2	124.4	9.9	279.0	869.1	149.5	10.8	369.0	972.4	167.3	13.3	413.2
	13	596.6	102.6	10.2	214.6	747.4	128.5	10.5	281.6	898.1	154.5	11.5	372.3	1,004.9	172.8	14.1	416.9
	14	615.9	105.9	10.9	216.6	771.5	132.7	11.1	284.1	927.1	159.5	12.2	375.7	1,037.3	178.4	15.0	420.7
	15	635.2	109.3	11.5	218.5	795.7	136.9	11.8	286.6	956.1	164.5	12.9	379.1	1,069.8	184.0	15.8	424.5

## ◆ 7 Modules

ABT	COT	7 x RHME-40AH1					7 x RHME-50AH1					7 x RHME-60AH1					7 x RHME-70AH1				
		CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT	CCAP	CFR	CPD	IPT
25	5	689.4	118.6	10.1	161.6	863.6	148.5	10.3	212.0	1,037.8	178.5	11.3	280.4	1,161.1	199.7	13.9	314.0				
	6	714.9	123.0	10.8	163.5	895.5	154.0	11.0	214.5	1,076.2	185.1	12.1	283.7	1,204.1	207.1	14.8	317.7				
	7	740.4	127.4	11.5	165.4	927.5	159.5	11.8	217.0	1,114.6	191.7	12.9	287.0	1,247.1	214.5	15.8	321.4				
	8	766.0	131.7	12.2	167.4	959.5	165.0	12.5	219.5	1,153.0	198.3	13.7	290.3	1,290.0	221.9	16.8	325.1				
	9	791.5	136.1	12.9	169.3	991.4	170.5	13.3	222.0	1,191.4	204.9	14.5	293.6	1,333.0	229.3	17.8	328.8				
	10	817.0	140.5	13.7	171.2	1,023.4	176.0	14.1	224.5	1,229.8	211.5	15.4	296.9	1,376.0	236.7	18.9	332.5				
	11	842.5	144.9	14.5	173.1	1,055.3	181.5	14.9	227.0	1,268.2	218.1	16.3	300.2	1,418.9	244.1	20.0	336.2				
	12	868.0	149.3	15.3	175.0	1,087.3	187.0	15.7	229.5	1,306.6	224.7	17.2	303.6	1,461.9	251.4	21.1	339.9				
	13	893.5	153.7	16.1	176.9	1,119.2	192.5	16.5	232.0	1,345.0	231.3	18.1	306.9	1,504.9	258.8	22.3	343.6				
	14	919.0	158.1	16.9	178.8	1,151.2	198.0	17.4	234.5	1,383.4	237.9	19.1	310.2	1,547.8	266.2	23.4	347.3				
	15	944.5	162.5	17.8	180.7	1,183.2	203.5	18.3	237.0	1,421.8	244.5	20.1	313.5	1,590.8	273.6	24.6	351.0				
30	5	661.6	113.8	9.3	176.9	828.8	142.6	9.6	232.1	995.9	171.3	10.5	306.9	1,114.3	191.7	12.9	343.7				
	6	686.9	118.2	10.0	178.9	860.5	148.0	10.3	234.7	1,034.0	177.8	11.2	310.3	1,156.9	199.0	13.8	347.5				
	7	712.2	122.5	10.7	180.8	892.1	153.4	11.0	237.2	1,072.1	184.4	12.0	313.7	1,199.5	206.3	14.7	351.3				
	8	737.5	126.9	11.4	182.8	923.8	158.9	11.7	239.8	1,110.1	190.9	12.8	317.1	1,242.1	213.6	15.7	355.1				
	9	762.8	131.2	12.1	184.8	955.5	164.3	12.4	242.4	1,148.2	197.5	13.6	320.6	1,284.7	221.0	16.7	359.0				
	10	788.1	135.6	12.8	186.8	987.2	169.8	13.2	245.0	1,186.3	204.0	14.4	324.0	1,327.3	228.3	17.7	362.8				
	11	813.4	139.9	13.6	188.7	1,018.9	175.2	13.9	247.6	1,224.3	210.6	15.3	327.4	1,369.9	235.6	18.8	366.6				
	12	838.7	144.3	14.3	190.7	1,050.5	180.7	14.7	250.2	1,262.4	217.1	16.2	330.8	1,412.5	242.9	19.8	370.5				
	13	864.0	148.6	15.1	192.7	1,082.2	186.1	15.6	252.8	1,300.5	223.7	17.1	334.2	1,455.1	250.3	20.9	374.3				
	14	889.3	153.0	15.9	194.6	1,113.9	191.6	16.4	255.3	1,338.6	230.2	18.0	337.7	1,497.7	257.6	22.1	378.1				
	15	914.5	157.3	16.8	196.6	1,145.6	197.0	17.3	257.9	1,376.6	236.8	18.9	341.1	1,540.3	264.9	23.2	382.0				
35	5	616.2	106.0	8.2	191.2	771.8	132.8	8.4	250.9	927.5	159.5	9.2	331.8	1,037.8	178.5	11.3	371.5				
	6	640.6	110.2	8.8	193.3	802.4	138.0	9.0	253.5	964.2	165.9	9.9	335.3	1,078.9	185.6	12.1	375.5				
	7	665.0	114.4	9.4	190.0	833.0	143.3	9.7	249.0	1,001.0	172.2	10.6	329.0	1,120.0	192.6	13.0	381.0				
	8	689.4	118.6	10.1	197.3	863.6	148.5	10.3	258.9	1,037.8	178.5	11.3	342.3	1,161.1	199.7	13.9	383.3				
	9	713.8	122.8	10.7	199.4	894.2	153.8	11.0	261.5	1,074.5	184.8	12.0	345.8	1,202.2	206.8	14.8	387.3				
	10	738.2	127.0	11.4	201.4	924.8	159.1	11.7	264.2	1,111.3	191.1	12.8	349.4	1,243.4	213.9	15.7	391.2				
	11	762.7	131.2	12.1	203.4	955.3	164.3	12.4	266.9	1,148.0	197.5	13.6	352.9	1,284.5	220.9	16.7	395.2				
	12	787.1	135.4	12.8	205.5	985.9	169.6	13.1	269.5	1,184.8	203.8	14.4	356.4	1,325.6	228.0	17.7	399.1				
	13	811.5	139.6	13.5	207.5	1,016.5	174.8	13.9	272.2	1,221.5	210.1	15.2	359.9	1,366.7	235.1	18.7	403.1				
	14	835.9	143.8	14.3	209.5	1,047.1	180.1	14.7	274.8	1,258.3	216.4	16.1	363.5	1,407.9	242.2	19.7	407.0				
	15	860.3	148.0	15.0	211.5	1,077.7	185.4	15.4	277.5	1,295.0	222.7	16.9	367.0	1,449.0	249.2	20.8	410.9				
40	5	570.7	98.2	7.2	209.9	714.9	123.0	7.3	275.3	859.1	147.8	8.0	364.1	961.2	165.3	9.8	407.7				
	6	594.2	102.2	7.7	212.0	744.4	128.0	7.9	278.1	894.5	153.9	8.6	367.8	1,000.8	172.1	10.6	411.9				
	7	617.8	106.3	8.3	214.2	773.9	133.1	8.5	280.9	929.9	159.9	9.3	371.5	1,040.5	179.0	11.4	416.0				
	8	641.3	110.3	8.8	216.3	803.3	138.2	9.1	283.8	965.4	166.0	9.9	375.2	1,080.1	185.8	12.2	420.2				
	9	664.9	114.4	9.4	218.4	832.8	143.2	9.7	286.6	1,000.8	172.1	10.6	378.9	1,119.8	192.6	13.0	424.4				
	10	688.4	118.4	10.0	220.6	862.3	148.3	10.3	289.4	1,036.2	178.2	11.3	382.6	1,159.4	199.4	13.8	428.5				
	11	711.9	122.5	10.7	222.7	891.8	153.4	11.0	292.2	1,071.7	184.3	12.0	386.4	1,199.1	206.2	14.7	432.7				
	12	735.5	126.5	11.3	224.9	921.3	158.5	11.6	295.0	1,107.1	190.4	12.7	390.1	1,238.7	213.1	15.6	436.8				
	13	759.0	130.6	12.0	227.0	950.8	163.5	12.3	297.8	1,142.5	196.5	13.5	393.8	1,278.4	219.9	16.5	441.0				
	14	782.6	134.6	12.7	229.1	980.3	168.6	13.0	300.6	1,178.0	202.6	14.2	397.5	1,318.0	226.7	17.5	445.1				
	15	806.1	138.7	13.4	231.3	1,009.8	173.7	13.7	303.4	1,213.4	208.7	15.0	401.2	1,357.7	233.5	18.5	449.3				
43	5	543.4	93.5	6.6	221.1	680.7	117.1	6.7	290.0	818.0	140.7	7.3	383.5	915.2	157.4	9.0	429.5				
	6	566.4	97.4	7.1	223.3	709.5	122.0	7.2	292.9	852.6	146.7	7.9	387.3	954.0	164.1	9.7	433.8				
	7	589.5	101.4	7.6	225.5	738.4	127.0	7.8	295.8	887.3	152.6	8.5	391.2	992.8	170.8	10.4	438.0				
	8	612.5	105.3	8.1	227.7	767.2	132.0	8.3	298.7	921.9	158.6	9.1	395.0	1,031.5	177.4	11.2	442.3				
	9	635.5	109.3	8.7	229.9	796.0	136.9	8.9	301.6	956.6	164.5	9.7	398.8	1,070.3	184.1	12.0	446.6				
	10	658.5	113.3	9.3	232.1	824.9	141.9	9.5	304.5	991.2	170.5	10.4	402.6	1,109.1	190.8	12.8	450.9				
	11	681.5	117.2	9.9	234.3	853.7	146.8	10.1	307.3	1,025.9	176.4	11.1	406.4	1,147.8	197.4	13.6	455.1				
	12	704.5	121.2	10.5	236.5	882.5	151.8	10.7	310.2	1,060.5	182.4	11.8	410.3	1,186.6	204.1	14.4	459.4				
	13	727.6	125.																		

		7 x RHME-40AH1				7 x RHME-50AH1				7 x RHME-60AH1				7 x RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
46	5	516.1	88.8	6.0	232.3	646.5	111.2	6.1	304.7	776.9	133.6	6.7	402.9	869.3	149.5	8.2	451.2
	6	538.6	92.6	6.4	234.5	674.7	116.1	6.6	307.7	810.8	139.5	7.2	406.9	907.2	156.0	8.8	455.6
	7	561.1	96.5	6.9	236.8	702.9	120.9	7.1	310.6	844.6	145.3	7.8	410.8	945.1	162.5	9.5	460.0
	8	583.6	100.4	7.5	239.1	731.1	125.7	7.6	313.6	878.5	151.1	8.3	414.7	982.9	169.1	10.2	464.4
	9	606.1	104.3	8.0	241.3	759.2	130.6	8.2	316.6	912.4	156.9	8.9	418.7	1,020.8	175.6	11.0	468.8
	10	628.6	108.1	8.5	243.6	787.4	135.4	8.7	319.6	946.2	162.7	9.6	422.6	1,058.7	182.1	11.7	473.2
	11	651.1	112.0	9.1	245.9	815.6	140.3	9.3	322.5	980.1	168.6	10.2	426.5	1,096.6	188.6	12.5	477.6
	12	673.6	115.9	9.7	248.1	843.8	145.1	9.9	325.5	1,013.9	174.4	10.8	430.4	1,134.5	195.1	13.3	482.0
	13	696.1	119.7	10.2	250.4	871.9	150.0	10.5	328.5	1,047.8	180.2	11.5	434.4	1,172.3	201.6	14.1	486.4
	14	718.6	123.6	10.9	252.7	900.1	154.8	11.1	331.4	1,081.6	186.0	12.2	438.3	1,210.2	208.2	15.0	490.8
	15	741.1	127.5	11.5	254.9	928.3	159.7	11.8	334.4	1,115.5	191.9	12.9	442.2	1,248.1	214.7	15.8	495.2

### ◆ 8 Modules

ABT	COT	8 x RHME-40AH1				8 x RHME-50AH1				8 x RHME-60AH1				8 x RHME-70AH1			
		CCAP	CFR	CPD	IPT												
25	5	787.9	135.5	10.1	184.7	987.0	169.8	10.3	242.3	1,186.0	204.0	11.3	320.5	1,327.0	228.2	13.9	358.9
	6	817.1	140.5	10.8	186.9	1,023.5	176.0	11.0	245.2	1,229.9	211.5	12.1	324.2	1,376.1	236.7	14.8	363.1
	7	846.2	145.6	11.5	189.1	1,060.0	182.3	11.8	248.0	1,273.8	219.1	12.9	328.0	1,425.2	245.1	15.8	367.3
	8	875.4	150.6	12.2	191.3	1,096.5	188.6	12.5	250.9	1,317.7	226.6	13.7	331.8	1,474.3	253.6	16.8	371.6
	9	904.5	155.6	12.9	193.4	1,133.0	194.9	13.3	253.8	1,361.6	234.2	14.5	335.6	1,523.4	262.0	17.8	375.8
	10	933.7	160.6	13.7	195.6	1,169.6	201.2	14.1	256.6	1,405.5	241.7	15.4	339.4	1,572.5	270.5	18.9	380.0
	11	962.8	165.6	14.5	197.8	1,206.1	207.4	14.9	259.5	1,449.3	249.3	16.3	343.1	1,621.6	278.9	20.0	384.3
	12	992.0	170.6	15.3	200.0	1,242.6	213.7	15.7	262.3	1,493.2	256.8	17.2	346.9	1,670.7	287.4	21.1	388.5
	13	1,021.2	175.6	16.1	202.2	1,279.1	220.0	16.5	265.2	1,537.1	264.4	18.1	350.7	1,719.8	295.8	22.3	392.7
	14	1,050.3	180.7	16.9	204.3	1,315.7	226.3	17.4	268.1	1,581.0	271.9	19.1	354.5	1,769.0	304.3	23.4	397.0
	15	1,079.5	185.7	17.8	206.5	1,352.2	232.6	18.3	270.9	1,624.9	279.5	20.1	358.3	1,818.1	312.7	24.6	401.2
30	5	756.2	130.1	9.3	202.2	947.2	162.9	9.6	265.2	1,138.2	195.8	10.5	350.7	1,273.5	219.0	12.9	392.8
	6	785.1	135.0	10.0	204.4	983.4	169.1	10.3	268.2	1,181.7	203.3	11.2	354.6	1,322.2	227.4	13.8	397.1
	7	814.0	140.0	10.7	206.7	1,019.6	175.4	11.0	271.1	1,225.2	210.7	12.0	358.5	1,370.9	235.8	14.7	401.5
	8	842.9	145.0	11.4	208.9	1,055.8	181.6	11.7	274.1	1,268.7	218.2	12.8	362.5	1,419.6	244.2	15.7	405.9
	9	871.8	149.9	12.1	211.2	1,092.0	187.8	12.4	277.0	1,312.2	225.7	13.6	366.4	1,468.2	252.5	16.7	410.3
	10	900.7	154.9	12.8	213.4	1,128.2	194.1	13.2	280.0	1,355.7	233.2	14.4	370.3	1,516.9	260.9	17.7	414.6
	11	929.6	159.9	13.6	215.7	1,164.4	200.3	13.9	282.9	1,399.3	240.7	15.3	374.2	1,565.6	269.3	18.8	419.0
	12	958.5	164.9	14.3	217.9	1,200.6	206.5	14.7	285.9	1,442.8	248.2	16.2	378.1	1,614.3	277.7	19.8	423.4
	13	987.4	169.8	15.1	220.2	1,236.8	212.7	15.6	288.9	1,486.3	255.6	17.1	382.0	1,663.0	286.0	20.9	427.8
	14	1,016.3	174.8	15.9	222.4	1,273.0	219.0	16.4	291.8	1,529.8	263.1	18.0	385.9	1,711.6	294.4	22.1	432.1
	15	1,045.2	179.8	16.8	224.7	1,309.2	225.2	17.3	294.8	1,573.3	270.6	18.9	389.8	1,760.3	302.8	23.2	436.5
35	5	704.2	121.1	8.2	218.6	882.1	151.7	8.4	286.7	1,060.0	182.3	9.2	379.2	1,186.0	204.0	11.3	424.6
	6	732.1	125.9	8.8	220.9	917.0	157.7	9.0	289.8	1,102.0	189.5	9.9	383.2	1,233.0	212.1	12.1	429.1
	7	760.0	130.7	9.4	218.0	952.0	163.7	9.7	285.0	1,144.0	196.8	10.6	376.0	1,280.0	220.2	13.0	436.0
	8	787.9	135.5	10.1	225.5	987.0	169.8	10.3	295.8	1,186.0	204.0	11.3	391.2	1,327.0	228.2	13.9	438.1
	9	815.8	140.3	10.7	227.8	1,021.9	175.8	11.0	298.9	1,228.0	211.2	12.0	395.2	1,374.0	236.3	14.8	442.6
	10	843.7	145.1	11.4	230.2	1,056.9	181.8	11.7	301.9	1,270.0	218.4	12.8	399.3	1,421.0	244.4	15.7	447.1
	11	871.6	149.9	12.1	232.5	1,091.8	187.8	12.4	305.0	1,312.0	225.7	13.6	403.3	1,468.0	252.5	16.7	451.6
	12	899.5	154.7	12.8	234.8	1,126.8	193.8	13.1	308.0	1,354.0	232.9	14.4	407.3	1,515.0	260.6	17.7	456.1
	13	927.4	159.5	13.5	237.1	1,161.7	199.8	13.9	311.1	1,396.0	240.1	15.2	411.3	1,562.0	268.7	18.7	460.6
	14	955.3	164.3	14.3	239.4	1,196.7	205.8	14.7	314.1	1,438.0	247.3	16.1	415.4	1,609.0	276.7	19.7	465.1
	15	983.2	169.1	15.0	241.8	1,231.6	211.8	15.4	317.1	1,480.0	254.6	16.9	419.4	1,656.0	284.8	20.8	469.7
40	5	652.2	112.2	7.2	239.9	817.0	140.5	7.3	314.7	981.8	168.9	8.0	416.1	1,098.5	188.9	9.8	466.0
	6	679.1	116.8	7.7	242.3	850.7	146.3	7.9	317.9	1,022.3	175.8	8.6	420.4	1,143.8	196.7	10.6	470.7
	7	706.0	121.4	8.3	244.8	884.4	152.1	8.5	321.1	1,062.8	182.8	9.3	424.6	1,189.1	204.5	11.4	475.5
	8	732.9	126.1	8.8	247.2	918.1	157.9	9.1	324.3	1,103.3	189.8	9.9	428.8	1,234.4	212.3	12.2	480.2
	9	759.8	130.7	9.4	249.6	951.8	163.7	9.7	327.5	1,143.8	196.7	10.6	433.1	1,279.7	220.1	13.0	485.0
	10	786.8	135.3	10.0	252.1	985.5	169.5	10.3	330.7	1,184.3	203.7	11.3	437.3	1,325.1	227.9	13.8	489.7
	11	813.7	139.9	10.7	254.5	1,019.2	175.3	11.0	333.9	1,224.8	210.7	12.0	441.5	1,370.4	235.7	14.7	494.5
	12	840.6	144.6	11.3	257.0	1,052.9	181.1	11.6	337.1	1,265.3	217.6	12.7	445.8	1,415.7	243.5	15.6	499.2
	13	867.5	149.2	12.0	259.4	1,086.6	186.9	12.3	340.3	1,305.8	224.6	13.5	450.0	1,461.0	251.3	16.5	504.0
	14	894.4	153.8	12.7	261.9	1,120.3	192.7	13.0	343.5	1,346.3	231.6	14.2	454.3	1,506.3	259.1	17.5	508.7
	15	921.3	158.5	13.4	264.3	1,154.0	198.5	13.7	346.7	1,386.8	238.5	15.0	458.5	1,551.6	266.9	18.5	513.4
43	5	621.1	106.8	6.6	252.7	778.0	133.8	6.7	331.5	934.9	160.8	7.3	438.3	1,046.0	179.9	9.0	490.8
	6	647.4	111.3	7.1	255.2	810.9	139.5	7.2	334.8	974.4	167.6	7.9	442.7	1,090.3	187.5	9.7	495.7
	7	673.7	115.9	7.6	257.7	843.9	145.1	7.8	338.1	1,014.0	174.4	8.5	447.0	1,134.6	195.1	10.4	500.6
	8	700.0	120.4	8.1	260.2	876.8	150.8	8.3	341.4	1,053.6	181.2	9.1	451.4	1,178.9	202.8	11.2	505.5
	9	726.3	124.9	8.7	262.7	909.8	156.5	8.9	344.7	1,093.2	188.0	9.7	455.8	1,223.2	210.4	12.0	510.4
	10	752.6	129.4	9.3	265.2	942.7	162.1	9.5	348.0	1,132.8	194.8	10.4	460.1	1,267.5	218.0	12.8	515.3
	11	778.9	134.0	9.9	267.8	975.6	167.8	10.1	351.3	1,172.4	201.7	11.1	464.5	1,311.8	225.6	13.6	520.2
	12	805.2	138.5	10.5	270.3	1,008.6	173.5	10.7	354.6	1,212.0	208.5	11.8	468.9	1,356.1	233.2	14.4	525.1
	13	831.5	143.0	11.1	272.8	1,041.5	179.1	11.4	357.9	1,251.6	215.3	12.5	473.2	1,400.4	240.9	15.3	529.9
	14	857.8	147.5	11.7	275.3	1,074.5	184.8	12.1	361.2	1,291.2	222.1	13.2	477.6	1,444.7	248.5	16.2	534.8
	15	884.1	152.1	12.4	277.8	1,107.4	190.5	12.7	364.5	1,330.8	228.9	13.9	482.0	1,489.0	256.1	17.1	539.7

		8 x RHME-40AH1				8 x RHME-50AH1				8 x RHME-60AH1				8 x RHME-70AH1			
ABT	COT	CCAP	CFR	CPD	IPT												
46	5	589.9	101.5	6.0	265.5	738.9	127.1	6.1	348.2	887.9	152.7	6.7	460.5	993.5	170.9	8.2	515.7
	6	615.6	105.9	6.4	268.0	771.1	132.6	6.6	351.6	926.6	159.4	7.2	465.0	1,036.8	178.3	8.8	520.7
	7	641.3	110.3	6.9	270.6	803.3	138.2	7.1	355.0	965.3	166.0	7.8	469.5	1,080.1	185.8	9.5	525.7
	8	667.0	114.7	7.5	273.2	835.5	143.7	7.6	358.4	1,004.0	172.7	8.3	474.0	1,123.4	193.2	10.2	530.8
	9	692.7	119.1	8.0	275.8	867.7	149.2	8.2	361.8	1,042.7	179.3	8.9	478.5	1,166.6	200.7	11.0	535.8
	10	718.4	123.6	8.5	278.4	899.9	154.8	8.7	365.2	1,081.4	186.0	9.6	483.0	1,209.9	208.1	11.7	540.8
	11	744.1	128.0	9.1	281.0	932.1	160.3	9.3	368.6	1,120.1	192.7	10.2	487.5	1,253.2	215.6	12.5	545.9
	12	769.8	132.4	9.7	283.6	964.3	165.9	9.9	372.0	1,158.8	199.3	10.8	491.9	1,296.5	223.0	13.3	550.9
	13	795.5	136.8	10.2	286.2	996.5	171.4	10.5	375.4	1,197.5	206.0	11.5	496.4	1,339.8	230.4	14.1	555.9
	14	821.2	141.2	10.9	288.8	1,028.7	176.9	11.1	378.8	1,236.1	212.6	12.2	500.9	1,383.1	237.9	15.0	561.0
	15	846.9	145.7	11.5	291.3	1,060.9	182.5	11.8	382.2	1,274.8	219.3	12.9	505.4	1,426.4	245.3	15.8	566.0

### 4.3.1.3 Capacity tables at partial load - R(C/H)ME-AH1

Model	Table	Model	Table	Model	Table	Model	Table
4 x R(C/H)ME-40AH1	A	5 x R(C/H)ME-50AH1	A	6 x R(C/H)ME-60AH1	B	7 x R(C/H)ME-70AH1	B
4 x R(C/H)ME-50AH1	A	5 x R(C/H)ME-60AH1	B	6 x R(C/H)ME-70AH1	B	8 x R(C/H)ME-40AH1	A
4 x R(C/H)ME-60AH1	B	5 x R(C/H)ME-70AH1	B	7 x R(C/H)ME-40AH1	A	8 x R(C/H)ME-50AH1	A
4 x R(C/H)ME-70AH1	B	6 x R(C/H)ME-40AH1	A	7 x R(C/H)ME-50AH1	A	8 x R(C/H)ME-60AH1	B
5 x R(C/H)ME-40AH1	A	6 x R(C/H)ME-50AH1	A	7 x R(C/H)ME-60AH1	B	8 x R(C/H)ME-70AH1	B

◆ Table A

Model: 4 x R(C/H)ME-(40/50)/AH1, 5 x R(C/H)ME-(40/50)/AH1, 6 x R(C/H)ME-(40/50)/AH1, 7 x R(C/H)ME-(40/50)/AH1, 8 x R(C/H)ME-(40/50)/AH1

Ambient Temperature (°C)	Full load ↓ Performance	Compressor load 25-99%									-
		25	30	40	50	60	70	75	80	85	
46	Capacity	25	30	40	50	60	70	75	80	85	-
	Input	72	66	65	68	76	85	91	97	122	
	EER	35	45	62	73	79	82	82	80	70	
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	65	60	60	64	71	80	86	91	116	
	EER	39	50	67	78	84	87	87	86	77	
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	58	55	55	60	66	75	81	86	98	110
	EER	43	55	72	84	90	93	93	93	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	106
	Input	37	38	41	46	53	60	64	69	78	87
	EER	67	79	97	108	114	117	117	117	116	115
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	29	31	35	39	45	51	54	58	66	77
	EER	85	96	114	127	135	138	139	138	136	130
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	131	143	161	173	179	179	177	174	165	152

◆ Table B

Model: 4 x R(C/H)ME-(60/70)/AH1, 5 x R(C/H)ME-(60/70)/AH1, 6 x R(C/H)ME-(60/70)/AH1, 7 x R(C/H)ME-(60/70)/AH1, 8 x R(C/H)ME-(60/70)/AH1

Ambient Temperature (°C)	Full load ↓ Performance	Compressor load 25-99%									-
		25	30	40	50	60	70	75	80	85	
46	Capacity	25	30	40	50	60	70	75	80	90	-
	Input	69	63	62	66	73	82	88	94	122	
	EER	36	47	65	76	83	85	85	82	70	
43	Capacity	25	30	40	50	60	70	75	80	89	-
	Input	62	58	57	61	68	77	83	89	116	
	EER	41	52	70	82	88	91	90	88	77	
40	Capacity	25	30	40	50	60	70	75	80	90	93
	Input	55	52	53	57	64	72	78	83	96	110
	EER	46	57	76	88	94	97	97	96	89	85
35	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	46	45	46	50	56	64	69	74	86	100
	EER	54	67	87	100	107	109	109	108	104	100
30	Capacity	25	30	40	50	60	70	75	80	90	106
	Input	35	36	39	43	49	56	61	65	76	87
	EER	72	84	103	115	122	124	124	123	119	115
25	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	24	26	30	34	40	46	50	54	64	77
	EER	105	117	134	145	150	151	149	147	140	130
20	Capacity	25	30	40	50	60	70	75	80	90	100
	Input	19	21	25	29	34	39	42	46	55	66
	EER	130	142	161	173	179	179	177	174	165	152

**NOTE**

**1** The previous table shows the amount of reduction or increase in capacity, input and EER from a reference 100% value.

Capacity (%)	100
Input (%)	100
EER (%)	100

**2** The values for a 100% rate in capacity, input and EER correspond to the values in the Performance Table (cooling operation at full load), and for the following conditions:

- Ambient temperature (ABT): 35°C
- Chilled Water outlet Temperature target (COT) (°C) (from 5 to 15°C)
- Water flow rate constant
- Capacity: cooling capacity (kW)
- Input (IPT): total input power (compressors + fans) (kW)
- EER: Capacity / Input (kW/kW)
- All condenser fans running

**3** Calculation example:

**Model 5 x RCME-60AH1**

Working conditions:

- Condenser Air Inlet Temperature 30 (°C)
- Chilled Water outlet Temperature 10 (°C)
- Partial Load 70 %

100 % rate calculation:

According to Performance Table (cooling operation at full load) and the following conditions:

- Condenser Air Inlet Temperature 35 (°C)
- Chilled Water outlet Temperature 10 (°C)

Capacity (CCAP) (kW) (*)	5 x 165.7 = 828.5
Input (IPT) (kW) (*)	5 x 48.5 = 242.5
EER (CCAP / IPT)	828.5 / 242.5 = 3.42

(\*) Total Capacity and IPT is the addition of the all individual modules (in the example, module RCME-60AH1 x 5 modules)

Performance at partial load calculation:

According to Cooling capacity tables at partial load:

- Condenser Air Inlet Temperature 30 (°C)
- Partial Load 70 %

Capacity (%)	70%	828.5 x 70% = 580.0
Input (%)	56%	242.5 x 56% = 135.8
EER (%)	124%	3.42 x 124% = 4.24

## 4.3.2 Heating Operation

### 4.3.2.1 Performance Table at full load - RHME-AH1

(Pump not included)

#### ◆ 4 Modules

		4 x RHME-40AH1				4 x RHME-50AH1				4 x RHME-60AH1				4 x RHME-70AH1			
ABTW	HOT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT
15	35	411.6	70.8	10.9	97.6	514.4	88.4	11.1	128.0	617.2	106.0	12.2	166.8	617.2	106.0	12.2	166.8
	40	409.6	70.4	10.8	105.2	512.4	88.0	11.1	132.8	614.4	105.6	12.1	180.0	614.4	105.6	12.1	180.0
	45	408.0	70.0	10.7	117.6	510.0	87.6	11.0	153.6	612.0	105.2	12.0	200.8	612.0	105.2	12.0	200.8
	50	406.4	70.0	10.6	134.4	508.0	87.2	10.9	176.0	609.6	104.8	11.9	229.2	609.6	104.8	11.9	229.2
	55	388.0	66.8	9.8	155.6	484.8	83.2	10.0	203.2	582.0	100.0	10.9	265.2	582.0	100.0	10.9	265.2
10	35	404.8	69.6	10.6	96.0	506.0	87.2	10.8	126.0	607.2	104.4	11.8	164.0	607.2	104.4	11.8	164.0
	40	401.2	68.8	10.4	104.0	501.2	86.4	10.6	136.0	601.6	103.6	11.6	177.2	601.6	103.6	11.6	177.2
	45	397.6	68.4	10.2	116.0	496.4	85.2	10.4	151.6	595.6	102.4	11.4	197.6	595.6	102.4	11.4	197.6
	50	393.2	67.6	10.0	131.6	492.0	84.8	10.3	172.0	590.4	101.6	11.2	224.8	590.4	101.6	11.2	224.8
	55	373.6	64.4	9.1	151.6	466.8	80.4	9.4	198.4	560.4	96.4	10.2	258.8	560.4	96.4	10.2	258.8
6	35	378.8	65.2	9.4	94.8	473.6	81.6	9.6	124.0	568.0	97.6	10.5	162.0	568.0	97.6	10.5	162.0
	40	373.6	64.4	9.1	102.8	466.8	80.4	9.3	134.4	560.0	96.4	10.2	175.2	560.0	96.4	10.2	175.2
	45	368.0	63.2	8.9	114.4	460.0	79.2	9.1	149.6	552.0	94.8	9.9	195.2	552.0	94.8	9.9	195.2
	50	362.4	62.4	8.7	129.6	453.2	78.0	8.9	169.6	544.0	93.6	9.7	221.2	544.0	93.6	9.7	221.2
	55	342.4	58.8	7.8	148.4	428.0	73.6	8.0	194.4	513.2	88.4	8.7	253.6	513.2	88.4	8.7	253.6
5	35	370.4	63.6	9.0	94.8	462.8	79.6	9.2	123.6	555.2	95.6	10.0	161.6	555.2	95.6	10.0	161.6
	40	364.8	62.8	8.8	102.4	455.6	78.4	8.9	134.0	546.8	94.0	9.8	174.8	546.8	94.0	9.8	174.8
	45	358.8	61.6	8.5	114.0	448.4	77.2	8.7	149.2	538.0	92.4	9.5	194.4	538.0	92.4	9.5	194.4
	50	352.8	60.8	8.3	129.2	441.2	76.0	8.4	168.8	529.6	91.2	9.2	220.4	529.6	91.2	9.2	220.4
	55	332.8	57.2	7.4	147.6	416.0	71.6	7.6	193.2	499.2	86.0	8.3	252.0	499.2	86.0	8.3	252.0
0	35	328.4	56.4	7.2	93.2	410.0	70.4	7.4	121.6	492.0	84.8	8.0	158.8	492.0	84.8	8.0	158.8
	40	320.4	55.2	6.9	101.2	400.4	68.8	7.1	132.4	480.8	82.8	7.7	172.4	480.8	82.8	7.7	172.4
	45	312.8	54.0	6.6	112.4	390.8	67.2	6.8	146.8	468.8	80.8	7.4	191.6	468.8	80.8	7.4	191.6
	50	305.2	52.4	6.3	126.4	381.2	65.6	6.5	165.6	457.6	78.8	7.0	216.0	457.6	78.8	7.0	216.0
	55	285	48.8	5.6	144	356	61.2	5.7	188	427	73.6	6.2	246	427	73.6	6.2	246
-5	35	257.2	44.4	4.7	82.4	321.6	55.2	4.8	107.6	386.0	66.4	5.2	140.4	386.0	66.4	5.2	140.4
	40	248.4	42.8	4.4	89.6	310.4	53.6	4.5	117.2	372.8	64.0	4.8	153.2	372.8	64.0	4.8	153.2
	45	240.0	41.2	4.1	99.2	300.0	51.6	4.2	130.0	360.0	62.0	4.5	169.6	360.0	62.0	4.5	169.6
	50	231.2	39.6	3.8	111.6	288.8	49.6	3.9	146.0	346.8	59.6	4.2	190.4	346.8	59.6	4.2	190.4
	55	213.2	36.8	3.3	126.0	266.4	46.0	3.4	164.8	319.6	55.2	3.7	215.2	319.6	55.2	3.7	215.2
-10	35	219.2	37.6	3.5	80.8	274.0	47.2	3.6	105.6	328.8	56.4	3.9	138.0	328.8	56.4	3.9	138.0
	40	208.8	36.0	3.2	88.4	260.8	44.8	3.3	115.6	313.2	54.0	3.5	150.8	313.2	54.0	3.5	150.8
	45	198.4	34.0	2.9	97.6	248.0	42.8	3.0	128.0	297.6	51.2	3.2	166.8	297.6	51.2	3.2	166.8
	50	188.0	32.4	2.6	109.2	234.8	40.4	2.7	142.8	282.0	48.4	2.9	186.4	282.0	48.4	2.9	186.4

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at  $\Delta T=5^{\circ}\text{C}$  (m3/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

(Pump not included)

**◆ 5 Modules**

ABTW	HOT	5 x RHME-40AH1				5 x RHME-50AH1				5 x RHME-60AH1				5 x RHME-70AH1			
		HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT
15	35	514.5	88.5	10.9	122.0	643.0	110.5	11.1	160.0	771.5	132.5	12.2	208.5	771.5	132.5	12.2	208.5
	40	512.0	88.0	10.8	131.5	640.5	110.0	11.1	166.0	768.0	132.0	12.1	225.0	768.0	132.0	12.1	225.0
	45	510.0	87.5	10.7	147.0	637.5	109.5	11.0	192.0	765.0	131.5	12.0	251.0	765.0	131.5	12.0	251.0
	50	508.0	87.5	10.6	168.0	635.0	109.0	10.9	220.0	762.0	131.0	11.9	286.5	762.0	131.0	11.9	286.5
	55	485.0	83.5	9.8	194.5	606.0	104.0	10.0	254.0	727.5	125.0	10.9	331.5	727.5	125.0	10.9	331.5
10	35	506.0	87.0	10.6	120.0	632.5	109.0	10.8	157.5	759.0	130.5	11.8	205.0	759.0	130.5	11.8	205.0
	40	501.5	86.0	10.4	130.0	626.5	108.0	10.6	170.0	752.0	129.5	11.6	221.5	752.0	129.5	11.6	221.5
	45	497.0	85.5	10.2	145.0	620.5	106.5	10.4	189.5	744.5	128.0	11.4	247.0	744.5	128.0	11.4	247.0
	50	491.5	84.5	10.0	164.5	615.0	106.0	10.3	215.0	738.0	127.0	11.2	281.0	738.0	127.0	11.2	281.0
	55	467.0	80.5	9.1	189.5	583.5	100.5	9.4	248.0	700.5	120.5	10.2	323.5	700.5	120.5	10.2	323.5
6	35	473.5	81.5	9.4	118.5	592.0	102.0	9.6	155.0	710.0	122.0	10.5	202.5	710.0	122.0	10.5	202.5
	40	467.0	80.5	9.1	128.5	583.5	100.5	9.3	168.0	700.0	120.5	10.2	219.0	700.0	120.5	10.2	219.0
	45	460.0	79.0	8.9	143.0	575.0	99.0	9.1	187.0	690.0	118.5	9.9	244.0	690.0	118.5	9.9	244.0
	50	453.0	78.0	8.7	162.0	566.5	97.5	8.9	212.0	680.0	117.0	9.7	276.5	680.0	117.0	9.7	276.5
	55	428.0	73.5	7.8	185.5	535.0	92.0	8.0	243.0	641.5	110.5	8.7	317.0	641.5	110.5	8.7	317.0
5	35	463.0	79.5	9.0	118.5	578.5	99.5	9.2	154.5	694.0	119.5	10.0	202.0	694.0	119.5	10.0	202.0
	40	456.0	78.5	8.8	128.0	569.5	98.0	8.9	167.5	683.5	117.5	9.8	218.5	683.5	117.5	9.8	218.5
	45	448.5	77.0	8.5	142.5	560.5	96.5	8.7	186.5	672.5	115.5	9.5	243.0	672.5	115.5	9.5	243.0
	50	441.0	76.0	8.3	161.5	551.5	95.0	8.4	211.0	662.0	114.0	9.2	275.5	662.0	114.0	9.2	275.5
	55	416.0	71.5	7.4	184.5	520.0	89.5	7.6	241.5	624.0	107.5	8.3	315.0	624.0	107.5	8.3	315.0
0	35	410.5	70.5	7.2	116.5	512.5	88.0	7.4	152.0	615.0	106.0	8.0	198.5	615.0	106.0	8.0	198.5
	40	400.5	69.0	6.9	126.5	500.5	86.0	7.1	165.5	601.0	103.5	7.7	215.5	601.0	103.5	7.7	215.5
	45	391.0	67.5	6.6	140.5	488.5	84.0	6.8	183.5	586.0	101.0	7.4	239.5	586.0	101.0	7.4	239.5
	50	381.5	65.5	6.3	158.0	476.5	82.0	6.5	207.0	572.0	98.5	7.0	270.0	572.0	98.5	7.0	270.0
	55	356	61.0	5.6	136	445	76.5	5.7	178	534	92.0	6.2	235	534	92.0	6.2	272
-5	35	321.5	55.5	4.7	103.0	402.0	69.0	4.8	134.5	482.5	83.0	5.2	175.5	482.5	83.0	5.2	175.5
	40	310.5	53.5	4.4	112.0	388.0	67.0	4.5	146.5	466.0	80.0	4.8	191.5	466.0	80.0	4.8	191.5
	45	300.0	51.5	4.1	124.0	375.0	64.5	4.2	162.5	450.0	77.5	4.5	212.0	450.0	77.5	4.5	212.0
	50	289.0	49.5	3.8	139.5	361.0	62.0	3.9	182.5	433.5	74.5	4.2	238.0	433.5	74.5	4.2	238.0
	55	266.5	46.0	3.3	157.5	333.0	57.5	3.4	206.0	399.5	69.0	3.7	269.0	399.5	69.0	3.7	269.0
-10	35	274.0	47.0	3.5	101.0	342.5	59.0	3.6	132.0	411.0	70.5	3.9	172.5	411.0	70.5	3.9	172.5
	40	261.0	45.0	3.2	110.5	326.0	56.0	3.3	144.5	391.5	67.5	3.5	188.5	391.5	67.5	3.5	188.5
	45	248.0	42.5	2.9	122.0	310.0	53.5	3.0	160.0	372.0	64.0	3.2	208.5	372.0	64.0	3.2	208.5
	50	235.0	40.5	2.6	136.5	293.5	50.5	2.7	178.5	352.5	60.5	2.9	233.0	352.5	60.5	2.9	233.0

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at ΔT=5°C (m³/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

4

Pump not included)

## ◆ 6 Modules

ABTW	HOT	6 x RHME-40AH1				6 x RHME-50AH1				6 x RHME-60AH1				6 x RHME-70AH1			
		HCAP	HFR	CPD	IPT												
15	35	617.4	106.2	10.9	146.4	771.6	132.6	11.1	192.0	925.8	159.0	12.2	250.2	925.8	159.0	12.2	250.2
	40	614.4	105.6	10.8	157.8	768.6	132.0	11.1	199.2	921.6	158.4	12.1	270.0	921.6	158.4	12.1	270.0
	45	612.0	105.0	10.7	176.4	765.0	131.4	11.0	230.4	918.0	157.8	12.0	301.2	918.0	157.8	12.0	301.2
	50	609.6	105.0	10.6	201.6	762.0	130.8	10.9	264.0	914.4	157.2	11.9	343.8	914.4	157.2	11.9	343.8
	55	582.0	100.2	9.8	233.4	727.2	124.8	10.0	304.8	873.0	150.0	10.9	397.8	873.0	150.0	10.9	397.8
10	35	607.2	104.4	10.6	144.0	759.0	130.8	10.8	189.0	910.8	156.6	11.8	246.0	910.8	156.6	11.8	246.0
	40	601.8	103.2	10.4	156.0	751.8	129.6	10.6	204.0	902.4	155.4	11.6	265.8	902.4	155.4	11.6	265.8
	45	596.4	102.6	10.2	174.0	744.6	127.8	10.4	227.4	893.4	153.6	11.4	296.4	893.4	153.6	11.4	296.4
	50	589.8	101.4	10.0	197.4	738.0	127.2	10.3	258.0	885.6	152.4	11.2	337.2	885.6	152.4	11.2	337.2
	55	560.4	96.6	9.1	227.4	700.2	120.6	9.4	297.6	840.6	144.6	10.2	388.2	840.6	144.6	10.2	388.2
6	35	568.2	97.8	9.4	142.2	710.4	122.4	9.6	186.0	852.0	146.4	10.5	243.0	852.0	146.4	10.5	243.0
	40	560.4	96.6	9.1	154.2	700.2	120.6	9.3	201.6	840.0	144.6	10.2	262.8	840.0	144.6	10.2	262.8
	45	552.0	94.8	8.9	171.6	690.0	118.8	9.1	224.4	828.0	142.2	9.9	292.8	828.0	142.2	9.9	292.8
	50	543.6	93.6	8.7	194.4	679.8	117.0	8.9	254.4	816.0	140.4	9.7	331.8	816.0	140.4	9.7	331.8
	55	513.6	88.2	7.8	222.6	642.0	110.4	8.0	291.6	769.8	132.6	8.7	380.4	769.8	132.6	8.7	380.4
5	35	555.6	95.4	9.0	142.2	694.2	119.4	9.2	185.4	832.8	143.4	10.0	242.4	832.8	143.4	10.0	242.4
	40	547.2	94.2	8.8	153.6	683.4	117.6	8.9	201.0	820.2	141.0	9.8	262.2	820.2	141.0	9.8	262.2
	45	538.2	92.4	8.5	171.0	672.6	115.8	8.7	223.8	807.0	138.6	9.5	291.6	807.0	138.6	9.5	291.6
	50	529.2	91.2	8.3	193.8	661.8	114.0	8.4	253.2	794.4	136.8	9.2	330.6	794.4	136.8	9.2	330.6
	55	499.2	85.8	7.4	221.4	624.0	107.4	7.6	289.8	748.8	129.0	8.3	378.0	748.8	129.0	8.3	378.0
0	35	492.6	84.6	7.2	139.8	615.0	105.6	7.4	182.4	738.0	127.2	8.0	238.2	738.0	127.2	8.0	238.2
	40	480.6	82.8	6.9	151.8	600.6	103.2	7.1	198.6	721.2	124.2	7.7	258.6	721.2	124.2	7.7	258.6
	45	469.2	81.0	6.6	168.6	586.2	100.8	6.8	220.2	703.2	121.2	7.4	287.4	703.2	121.2	7.4	287.4
	50	457.8	78.6	6.3	189.6	571.8	98.4	6.5	248.4	686.4	118.2	7.0	324.0	686.4	118.2	7.0	324.0
	55	427	73.2	5.6	163	534	91.8	5.7	214	641	110.4	6.2	282	641	110.4	6.2	327
-5	35	385.8	66.6	4.7	123.6	482.4	82.8	4.8	161.4	579.0	99.6	5.2	210.6	579.0	99.6	5.2	210.6
	40	372.6	64.2	4.4	134.4	465.6	80.4	4.5	175.8	559.2	96.0	4.8	229.8	559.2	96.0	4.8	229.8
	45	360.0	61.8	4.1	148.8	450.0	77.4	4.2	195.0	540.0	93.0	4.5	254.4	540.0	93.0	4.5	254.4
	50	346.8	59.4	3.8	167.4	433.2	74.4	3.9	219.0	520.2	89.4	4.2	285.6	520.2	89.4	4.2	285.6
	55	319.8	55.2	3.3	189.0	399.6	69.0	3.4	247.2	479.4	82.8	3.7	322.8	479.4	82.8	3.7	322.8
-10	35	328.8	56.4	3.5	121.2	411.0	70.8	3.6	158.4	493.2	84.6	3.9	207.0	493.2	84.6	3.9	207.0
	40	313.2	54.0	3.2	132.6	391.2	67.2	3.3	173.4	469.8	81.0	3.5	226.2	469.8	81.0	3.5	226.2
	45	297.6	51.0	2.9	146.4	372.0	64.2	3.0	192.0	446.4	76.8	3.2	250.2	446.4	76.8	3.2	250.2
	50	282.0	48.6	2.6	163.8	352.2	60.6	2.7	214.2	423.0	72.6	2.9	279.6	423.0	72.6	2.9	279.6

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at ΔT=5°C (m³/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

(Pump not included)

**◆ 7 Modules**

ABTW	HOT	7 x RHME-40AH1				7 x RHME-50AH1				7 x RHME-60AH1				7 x RHME-70AH1			
		HCAP	HFR	CPD	IPT												
15	35	720.3	123.9	10.9	170.8	900.2	154.7	11.1	224.0	1080.1	185.5	12.2	291.9	1080.1	185.5	12.2	291.9
	40	716.8	123.2	10.8	184.1	896.7	154.0	11.1	232.4	1075.2	184.8	12.1	315.0	1075.2	184.8	12.1	315.0
	45	714.0	122.5	10.7	205.8	892.5	153.3	11.0	268.8	1071.0	184.1	12.0	351.4	1071.0	184.1	12.0	351.4
	50	711.2	122.5	10.6	235.2	889.0	152.6	10.9	308.0	1066.8	183.4	11.9	401.1	1066.8	183.4	11.9	401.1
	55	679.0	116.9	9.8	272.3	848.4	145.6	10.0	355.6	1018.5	175.0	10.9	464.1	1018.5	175.0	10.9	464.1
10	35	708.4	121.8	10.6	168.0	885.5	152.6	10.8	220.5	1062.6	182.7	11.8	287.0	1062.6	182.7	11.8	287.0
	40	702.1	120.4	10.4	182.0	877.1	151.2	10.6	238.0	1052.8	181.3	11.6	310.1	1052.8	181.3	11.6	310.1
	45	695.8	119.7	10.2	203.0	868.7	149.1	10.4	265.3	1042.3	179.2	11.4	345.8	1042.3	179.2	11.4	345.8
	50	688.1	118.3	10.0	230.3	861.0	148.4	10.3	301.0	1033.2	177.8	11.2	393.4	1033.2	177.8	11.2	393.4
	55	653.8	112.7	9.1	265.3	816.9	140.7	9.4	347.2	980.7	168.7	10.2	452.9	980.7	168.7	10.2	452.9
6	35	662.9	114.1	9.4	165.9	828.8	142.8	9.6	217.0	994.0	170.8	10.5	283.5	994.0	170.8	10.5	283.5
	40	653.8	112.7	9.1	179.9	816.9	140.7	9.3	235.2	980.0	168.7	10.2	306.6	980.0	168.7	10.2	306.6
	45	644.0	110.6	8.9	200.2	805.0	138.6	9.1	261.8	966.0	165.9	9.9	341.6	966.0	165.9	9.9	341.6
	50	634.2	109.2	8.7	226.8	793.1	136.5	8.9	296.8	952.0	163.8	9.7	387.1	952.0	163.8	9.7	387.1
	55	599.2	102.9	7.8	259.7	749.0	128.8	8.0	340.2	898.1	154.7	8.7	443.8	898.1	154.7	8.7	443.8
5	35	648.2	111.3	9.0	165.9	809.9	139.3	9.2	216.3	971.6	167.3	10.0	282.8	971.6	167.3	10.0	282.8
	40	638.4	109.9	8.8	179.2	797.3	137.2	8.9	234.5	956.9	164.5	9.8	305.9	956.9	164.5	9.8	305.9
	45	627.9	107.8	8.5	199.5	784.7	135.1	8.7	261.1	941.5	161.7	9.5	340.2	941.5	161.7	9.5	340.2
	50	617.4	106.4	8.3	226.1	772.1	133.0	8.4	295.4	926.8	159.6	9.2	385.7	926.8	159.6	9.2	385.7
	55	582.4	100.1	7.4	258.3	728.0	125.3	7.6	338.1	873.6	150.5	8.3	441.0	873.6	150.5	8.3	441.0
0	35	574.7	98.7	7.2	163.1	717.5	123.2	7.4	212.8	861.0	148.4	8.0	277.9	861.0	148.4	8.0	277.9
	40	560.7	96.6	6.9	177.1	700.7	120.4	7.1	231.7	841.4	144.9	7.7	301.7	841.4	144.9	7.7	301.7
	45	547.4	94.5	6.6	196.7	683.9	117.6	6.8	256.9	820.4	141.4	7.4	335.3	820.4	141.4	7.4	335.3
	50	534.1	91.7	6.3	221.2	667.1	114.8	6.5	289.8	800.8	137.9	7.0	378.0	800.8	137.9	7.0	378.0
	55	498	85.4	5.6	190	623	107.1	5.7	249	748	128.8	6.2	329	748	128.8	6.2	381
-5	35	450.1	77.7	4.7	144.2	562.8	96.6	4.8	188.3	675.5	116.2	5.2	245.7	675.5	116.2	5.2	245.7
	40	434.7	74.9	4.4	156.8	543.2	93.8	4.5	205.1	652.4	112.0	4.8	268.1	652.4	112.0	4.8	268.1
	45	420.0	72.1	4.1	173.6	525.0	90.3	4.2	227.5	630.0	108.5	4.5	296.8	630.0	108.5	4.5	296.8
	50	404.6	69.3	3.8	195.3	505.4	86.8	3.9	255.5	606.9	104.3	4.2	333.2	606.9	104.3	4.2	333.2
	55	373.1	64.4	3.3	220.5	466.2	80.5	3.4	288.4	559.3	96.6	3.7	376.6	559.3	96.6	3.7	376.6
-10	35	383.6	65.8	3.5	141.4	479.5	82.6	3.6	184.8	575.4	98.7	3.9	241.5	575.4	98.7	3.9	241.5
	40	365.4	63.0	3.2	154.7	456.4	78.4	3.3	202.3	548.1	94.5	3.5	263.9	548.1	94.5	3.5	263.9
	45	347.2	59.5	2.9	170.8	434.0	74.9	3.0	224.0	520.8	89.6	3.2	291.9	520.8	89.6	3.2	291.9
	50	329.0	56.7	2.6	191.1	410.9	70.7	2.7	249.9	493.5	84.7	2.9	326.2	493.5	84.7	2.9	326.2

4

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at  $\Delta T=5^{\circ}\text{C}$  (m<sup>3</sup>/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

Pump not included)

**◆ 8 Modules**

ABTW	HOT	8 x RHME-40AH1					8 x RHME-50AH1				8 x RHME-60AH1				8 x RHME-70AH1			
		HCAP	HFR	CPD	IPT		HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT	HCAP	HFR	CPD	IPT
15	35	823.2	141.6	10.9	195.2		1028.8	176.8	11.1	256.0	1234.4	212.0	12.2	333.6	1234.4	212.0	12.2	333.6
	40	819.2	140.8	10.8	210.4		1024.8	176.0	11.1	265.6	1228.8	211.2	12.1	360.0	1228.8	211.2	12.1	360.0
	45	816.0	140.0	10.7	235.2		1020.0	175.2	11.0	307.2	1224.0	210.4	12.0	401.6	1224.0	210.4	12.0	401.6
	50	812.8	140.0	10.6	268.8		1016.0	174.4	10.9	352.0	1219.2	209.6	11.9	458.4	1219.2	209.6	11.9	458.4
	55	776.0	133.6	9.8	311.2		969.6	166.4	10.0	406.4	1164.0	200.0	10.9	530.4	1164.0	200.0	10.9	530.4
10	35	809.6	139.2	10.6	192.0		1012.0	174.4	10.8	252.0	1214.4	208.8	11.8	328.0	1214.4	208.8	11.8	328.0
	40	802.4	137.6	10.4	208.0		1002.4	172.8	10.6	272.0	1203.2	207.2	11.6	354.4	1203.2	207.2	11.6	354.4
	45	795.2	136.8	10.2	232.0		992.8	170.4	10.4	303.2	1191.2	204.8	11.4	395.2	1191.2	204.8	11.4	395.2
	50	786.4	135.2	10.0	263.2		984.0	169.6	10.3	344.0	1180.8	203.2	11.2	449.6	1180.8	203.2	11.2	449.6
	55	747.2	128.8	9.1	303.2		933.6	160.8	9.4	396.8	1120.8	192.8	10.2	517.6	1120.8	192.8	10.2	517.6
6	35	757.6	130.4	9.4	189.6		947.2	163.2	9.6	248.0	1136.0	195.2	10.5	324.0	1136.0	195.2	10.5	324.0
	40	747.2	128.8	9.1	205.6		933.6	160.8	9.3	268.8	1120.0	192.8	10.2	350.4	1120.0	192.8	10.2	350.4
	45	736.0	126.4	8.9	228.8		920.0	158.4	9.1	299.2	1104.0	189.6	9.9	390.4	1104.0	189.6	9.9	390.4
	50	724.8	124.8	8.7	259.2		906.4	156.0	8.9	339.2	1088.0	187.2	9.7	442.4	1088.0	187.2	9.7	442.4
	55	684.8	117.6	7.8	296.8		856.0	147.2	8.0	388.8	1026.4	176.8	8.7	507.2	1026.4	176.8	8.7	507.2
5	35	740.8	127.2	9.0	189.6		925.6	159.2	9.2	247.2	1110.4	191.2	10.0	323.2	1110.4	191.2	10.0	323.2
	40	729.6	125.6	8.8	204.8		911.2	156.8	8.9	268.0	1093.6	188.0	9.8	349.6	1093.6	188.0	9.8	349.6
	45	717.6	123.2	8.5	228.0		896.8	154.4	8.7	298.4	1076.0	184.8	9.5	388.8	1076.0	184.8	9.5	388.8
	50	705.6	121.6	8.3	258.4		882.4	152.0	8.4	337.6	1059.2	182.4	9.2	440.8	1059.2	182.4	9.2	440.8
	55	665.6	114.4	7.4	295.2		832.0	143.2	7.6	386.4	998.4	172.0	8.3	504.0	998.4	172.0	8.3	504.0
0	35	656.8	112.8	7.2	186.4		820.0	140.8	7.4	243.2	984.0	169.6	8.0	317.6	984.0	169.6	8.0	317.6
	40	640.8	110.4	6.9	202.4		800.8	137.6	7.1	264.8	961.6	165.6	7.7	344.8	961.6	165.6	7.7	344.8
	45	625.6	108.0	6.6	224.8		781.6	134.4	6.8	293.6	937.6	161.6	7.4	383.2	937.6	161.6	7.4	383.2
	50	610.4	104.8	6.3	252.8		762.4	131.2	6.5	331.2	915.2	157.6	7.0	432.0	915.2	157.6	7.0	432.0
	55	570	97.6	5.6	218		712	122.4	5.7	285	854	147.2	6.2	376	854	147.2	6.2	436
-5	35	514.4	88.8	4.7	164.8		643.2	110.4	4.8	215.2	772.0	132.8	5.2	280.8	772.0	132.8	5.2	280.8
	40	496.8	85.6	4.4	179.2		620.8	107.2	4.5	234.4	745.6	128.0	4.8	306.4	745.6	128.0	4.8	306.4
	45	480.0	82.4	4.1	198.4		600.0	103.2	4.2	260.0	720.0	124.0	4.5	339.2	720.0	124.0	4.5	339.2
	50	462.4	79.2	3.8	223.2		577.6	99.2	3.9	292.0	693.6	119.2	4.2	380.8	693.6	119.2	4.2	380.8
	55	426.4	73.6	3.3	252.0		532.8	92.0	3.4	329.6	639.2	110.4	3.7	430.4	639.2	110.4	3.7	430.4
-10	35	438.4	75.2	3.5	161.6		548.0	94.4	3.6	211.2	657.6	112.8	3.9	276.0	657.6	112.8	3.9	276.0
	40	417.6	72.0	3.2	176.8		521.6	89.6	3.3	231.2	626.4	108.0	3.5	301.6	626.4	108.0	3.5	301.6
	45	396.8	68.0	2.9	195.2		496.0	85.6	3.0	256.0	595.2	102.4	3.2	333.6	595.2	102.4	3.2	333.6
	50	376.0	64.8	2.6	218.4		469.6	80.8	2.7	285.6	564.0	96.8	2.9	372.8	564.0	96.8	2.9	372.8

ABTW: Evaporator Air Inlet Temperature (°C)

HOT: Heated Water outlet Temperature (°C)

HCAP: Heating Capacity (kW)

HFR: Heated Water Flow Rate at ΔT=5°C (m³/h)

CPD: Water Cooler Pressure Drop (kPa)

IPT: Input power (kW)

1kW= 860 kcal/h

1kW=3412 Btu/h

1kPa=0.102 mAq

#### 4.3.2.2 Capacity tables at partial load - RHME-AH1

Model	Table
4 x RHME-40AH1	A
4 x RHME-50AH1	A
4 x RHME-60AH1	A
4 x RHME-70AH1	A
5 x RHME-40AH1	A

Model	Table
5 x RHME-50AH1	A
5 x RHME-60AH1	A
5 x RHME-70AH1	A
6 x RHME-40AH1	A
6 x RHME-50AH1	A

Model	Table
6 x RHME-60AH1	A
6 x RHME-70AH1	A
7 x RHME-40AH1	A
7 x RHME-50AH1	A
7 x RHME-60AH1	A

Model	Table
7 x RHME-70AH1	A
8 x RHME-40AH1	A
8 x RHME-50AH1	A
8 x RHME-60AH1	A
8 x RHME-70AH1	A

#### ◆ Table A

Model: 4 x RHME-(40-70)/AH1, 5 x RHME-(40-70)/AH1, 6 x RHME-(40-70)/AH1, 7 x RHME-(40-70)/AH1, 8 x RHME-(40-70)/AH1

Ambient Temperature (°C)	Performance	Compressor load 25-99%										Full load ↓
		25	30	40	50	60	70	75	80	90	100	
15	Capacity	25	30	40	50	60	70	75	80	90	100	108
	Input	48	50	56	62	68	74	78	81	88	95	103
	COP	54	60	71	80	88	94	97	99	103	106	108
10	Capacity	25	30	40	50	60	70	75	80	90	100	108
	Input	47	50	56	62	68	74	78	81	88	95	101
	COP	54	60	71	80	88	94	97	99	103	105	107
6	Capacity	25	30	40	50	60	70	75	80	90	100	100
	Input	48	51	57	63	70	77	81	84	92	100	100
	COP	52	59	70	79	86	91	93	95	98	100	100
5	Capacity	25	30	40	50	60	70	75	80	90	98	98
	Input	48	51	57	64	71	78	82	86	94	100	100
	COP	53	59	69	77	85	90	92	94	96	98	98
0	Capacity	25	30	40	50	60	70	75	80	85	85	85
	Input	49	53	60	68	76	85	89	93	98	98	98
	COP	50	56	66	73	79	83	85	86	87	87	87
-5	Capacity	25	30	40	50	60	65	65	65	65	65	65
	Input	49	53	62	71	81	87	87	87	87	87	87
	COP	51	56	65	71	74	75	75	75	75	75	75
-10	Capacity	25	30	40	50	54	54	54	54	54	54	54
	Input	52	57	68	81	85	85	85	85	85	85	85
	COP	47	52	59	62	63	63	63	63	63	63	63
-15	Capacity	25	30	40	43	43	43	43	43	43	43	43
	Input	58	65	80	84	84	84	84	84	84	84	84
	COP	43	46	50	51	51	51	51	51	51	51	51

## 4.4 Chiller Pressure drop calculation

Formula:  $CPD = \alpha * CFR^\beta$

CPD: Chiller Pressure Drop (kPa)

CFR: Chilled water flow rate ( $m^3/h$ )

RCME-AH1	$\alpha$	$\beta$
40 HP	0.0950	1.8008
50 HP	0.0607	1.8063
60 HP	0.0405	1.8141
70 HP	0.0405	1.8141

RHME-AH1	$\alpha$	$\beta$
40 HP	0.0607	1.8063
50 HP	0.0405	1.8141
60 HP	0.0308	1.8235
70 HP	0.0308	1.8235

In case of more than 1 module, the total pressure drop of the unit will be the average of the pressure drop of the modules

### Example

3x RCME-50AH1 + 1x RCME-60AH1

	CFR ( $m^3/h$ )	$\alpha$	$\beta$	CPD (kPa)
In case of 50 HP	21.5	0.0607	1.8063	$0.0607 * 21.5^{1.8063} = 15.5$
In case of 60 HP	25.8	0.0405	1.8141	$0.0405 * 25.8^{1.8141} = 14.7$
Total pressure drop:	$\frac{(3 \times 15.5) + (1 \times 14.7)}{4} = 15.3 \text{ kPa}$			

## 4.5 Ethylene Glycol Application

### ◆ Application in low ambient temperature

There are cases in which the unit and the piping may be exposed to freezing damage during shutdown periods, if the ambient temperature becomes too low in winter.

Pump operation is an effective measure to prevent freezing. This Chiller has a pump ON/OFF operation control to prevent freezing. This control becomes available by connecting the Pump Operation circuit. (See chapter "Customer wiring of control circuit").

Additionally, an antifreeze mixture of ethylene glycol may be used in cases in which water pumping may not be sufficient to prevent freezing.

The following table shows the percentage of ethylene glycol suggested for different temperature values.

The table also includes correction factors, since the performance in units with antifreeze mixture is slightly different compared to those with no glycol.

Example:

- Cooling Capacity with ethylene glycol =  $K_c \times$  Cooling Capacity without ethylene glycol
- Input Power, Flow Rate and Pressure Drop are calculated in the same way as Cooling Capacity

(Water Outlet Temperature:  $\geq +5^{\circ}\text{C}$ )

Minimum Ambient Temperature	$^{\circ}\text{C}$	-3	-7	-13	-22
Required Ethylene Glycol Percentage	wt%	10	20	30	40
Cooling Capacity Correction Factor (CCAP)	$K_c$	0.99	0.98	0.97	0.96
Input Power Correction Factor (IPT)	$K_i$	1.00	0.99	0.99	0.98
Flow Rate Correction Factor (CFR)	$K_f$	1.00	1.01	1.04	1.08
Pressure Drop Correction Factor (CPD)	$K_p$	1.04	1.11	1.18	1.29

### ◆ Low Water Temperature Application (Option)

The use of an antifreezing mixture of ethylene glycol is required when water temperature is lower than  $5^{\circ}\text{C}$ .

The low water temperature option is divided in several levels, depending on water outlet temperature. Therefore, please specify the level when ordering .

The freeze protection thermostat has been set in the factory.

The table shows the minimum percentage of ethylene glycol required for each level.

Low water temperature option

Category	Outlet Water Temp. ( $^{\circ}\text{C}$ )	Required Ethylene Glycol (wt%)	Ethylene Glycol Freezing Temp. ( $^{\circ}\text{C}$ )
Low 1	$0 \sim +5^{\circ}\text{C}$	20	-7
Low 2	$-5 \sim -1^{\circ}\text{C}$	30	-13
Low 3	Under development		

For the performance, each value can be given by using following table. (See below example)

Ethylene glycol (wt%)	Chilled Water Outlet Temp. (°C)	Flow Rate correction factor (Kf)	Pressure Drop correction factor (Kp)	Ambient Temperature (°C)											
				25		30		35		40		43		46	
				CAP (%)	IPT (%)	CAP (%)	IPT (%)	CAP (%)	IPT (%)	CAP (%)	IPT (%)	CAP (%)	IPT (%)	CAP (%)	IPT (%)
20	4	1.01	1.15	97	81	91	89	85	96	79	106	76	112	73	116
	3		1.16	94	81	88	89	83	96	77	105	74	111	70	115
	2		1.17	91	80	86	88	80	95	75	105	72	110	68	115
	1		1.18	89	80	84	88	78	95	73	104	70	110	66	114
	0		1.19	86	79	81	87	76	94	70	104	67	109	64	114
30	4	1.04	1.20	96	81	90	88	84	96	78	105	75	110	72	115
	3		1.22	93	80	88	88	82	95	76	104	73	110	70	114
	2		1.24	90	80	85	87	80	94	74	104	71	109	68	114
	1		1.26	88	79	83	87	77	94	72	103	69	109	66	113
	0		1.28	85	78	80	86	75	93	70	103	67	108	64	113
	-1		1.30	84	79	79	87	73	94	68	103	65	109	62	113
	-2		1.32	81	78	76	86	71	93	66	103	63	108	60	113
	-3		1.34	79	78	74	85	69	93	64	102	61	108	58	112
	-4		1.36	76	77	71	85	66	92	62	102	59	107	56	112
	-5		1.38	73	76	69	84	64	92	59	101	56	107	54	111
40	4	1.08	1.30	95	80	89	87	83	95	78	104	75	109	71	113
	3		1.32	92	79	87	87	81	94	75	103	73	109	69	113
	2		1.34	90	79	84	86	79	94	73	103	70	108	67	112
	1		1.36	87	78	82	86	76	93	71	102	68	108	65	112
	0		1.38	85	78	79	85	74	92	69	102	66	107	63	111
	-1		1.40	83	78	78	86	73	93	67	102	65	108	61	112
	-2		1.42	80	77	75	85	70	92	65	102	62	107	59	112
	-3		1.44	78	77	73	85	68	92	63	101	60	107	57	111
	-4		1.46	75	76	70	84	66	91	61	101	58	106	55	111
	-5		1.48	73	76	68	84	63	91	59	100	56	106	53	110
	-6		Under development												
	-7		Under development												
	-8		Under development												
	-9		Under development												
	-10		Under development												



### NOTE

- CAP: Cooling Capacity, IPT: Input
- The percentages are applied to the Capacity and Input at standard condition.
- Water flow rate and pressure drop can be calculated by the Correction Factor Kf and Kp

## 5 . Working range

### Index

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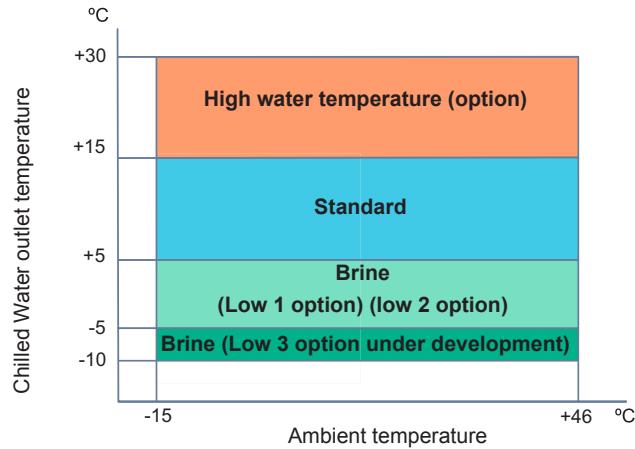
## 5.1 Air-Cooled Water Chiller units RCME-AH1 Working Range

Item		Description
Power Supply	Working Voltage	90%~110% of nominal electrical power supply voltage
	Voltage Imbalance	Up to 3% of each phase, measured at compressor terminals
	Starting Voltage	Always higher than 85% of the nominal voltage
Chilled water outlet temperature	Standard	+5 ~ +15°C
	Low (option) (2)	-5 ~ +5°C
	High (option)	+15 ~ +30°C
Ambient Temperature		-15 ~ +46°C
Maximum Permissible Water Pressure		1.0 MPa
Humidity		≤ 50% at 40°C (1)
Altitude		≤ 1000 m (1)

(1) Minimum working range requirements according to EN60204-1. Higher relative humidities are permitted at lower temperature (for example 90 % at 20°C). In case of different working range conditions, ask conformity to HITACHI Distributor.

(2) Low water temperature option requires Brine (antifreeze mixture of ethylene glycol type or propylene glycol type)

### Cooling operation



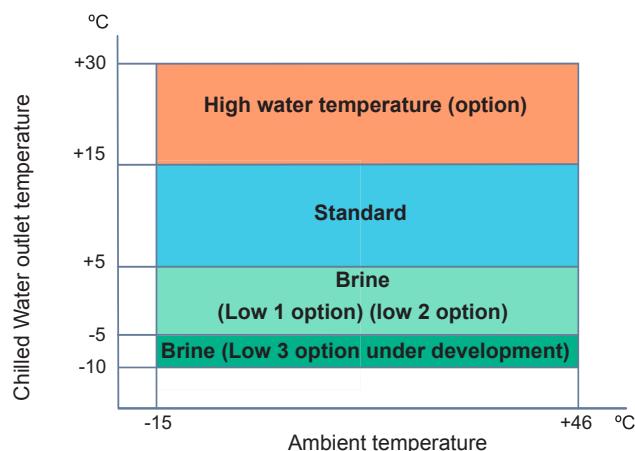
## 5.2 Air to water Heat Pump units RHME-AH1 Working Range

Item		Description
Power Supply	Working Voltage	90%~110% of nominal electrical power supply voltage
	Voltage Imbalance	Up to 3% of each phase, measured at compressor terminals
	Starting Voltage	Always higher than 85% of the nominal voltage
Chilled water outlet temperature	Standard	+5 ~ +15°C
	Low (option) (2)	-5 ~ +5°C
	High (option)	+15 ~ +30°C
Heated Water Outlet Temperature		+35 ~ +55°C
Ambient Temperature	Cooling	-15 ~ +46
	Heating	-9.5 (DB), -10 (WB) ~ +21 (DB), +15.5 (WB)
Maximum Permissible Water Pressure		1.0 MPa
Humidity		≤ 50% at 40°C (1)
Altitude		≤ 1000 m (1)

(1) Minimum working range requirements according to EN60204-1. Higher relative humidities are permitted at lower temperature (for example 90 % at 20°C). In case of different working range conditions, ask conformity to HITACHI Distributor.

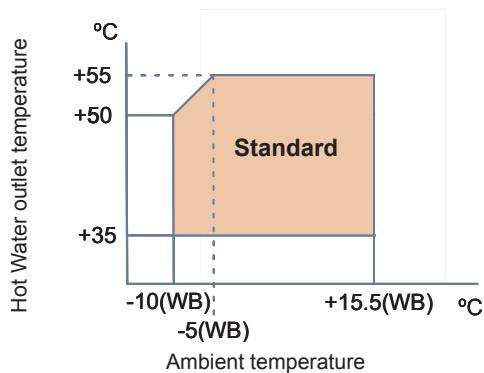
(2) Low water temperature option requires Brine (antifreeze mixture of ethylene glycol type or propylene glycol type)

### Cooling operation



5

### Heating operation





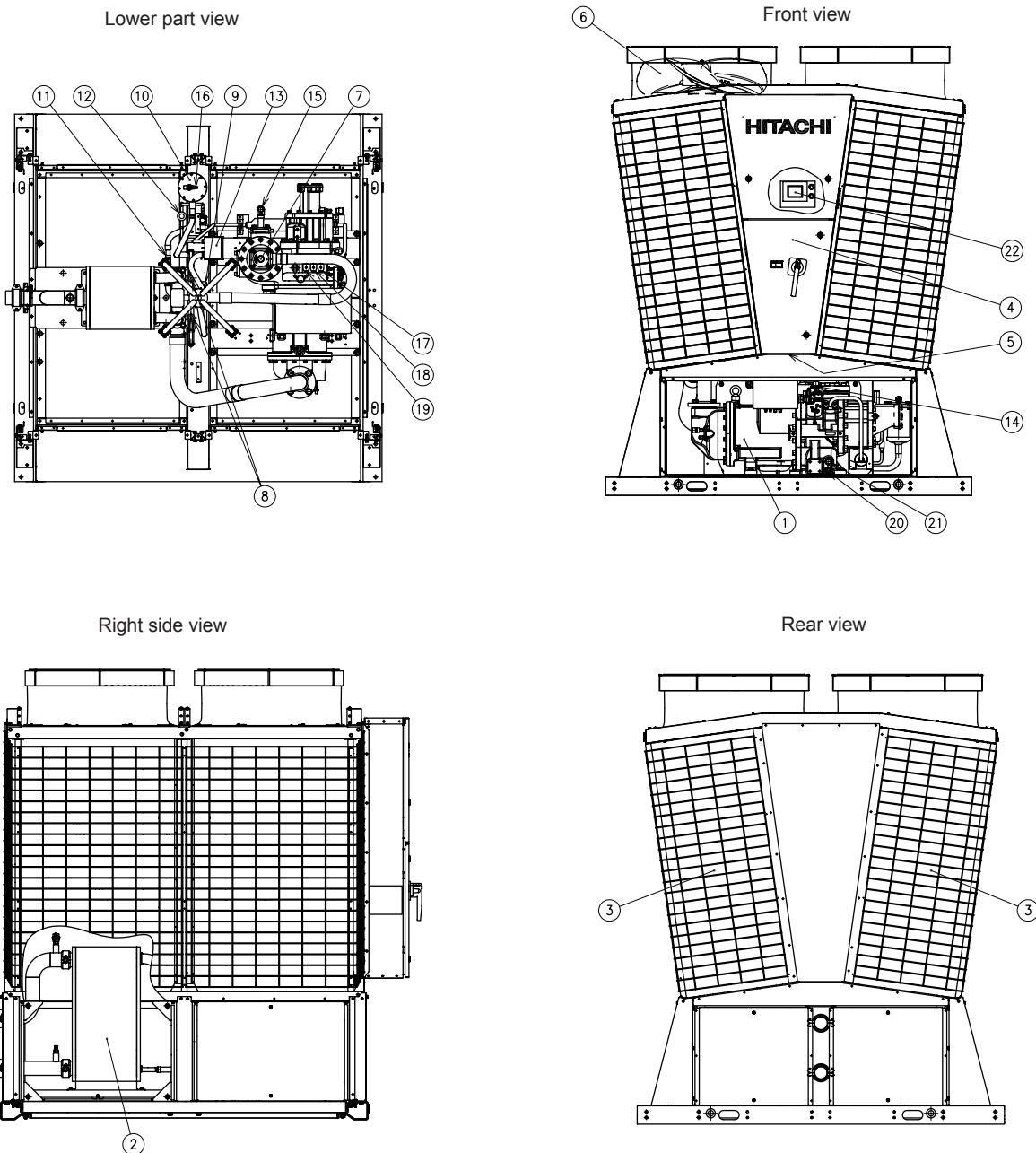
# 6 . Drawings

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## 6.1 Structure drawing

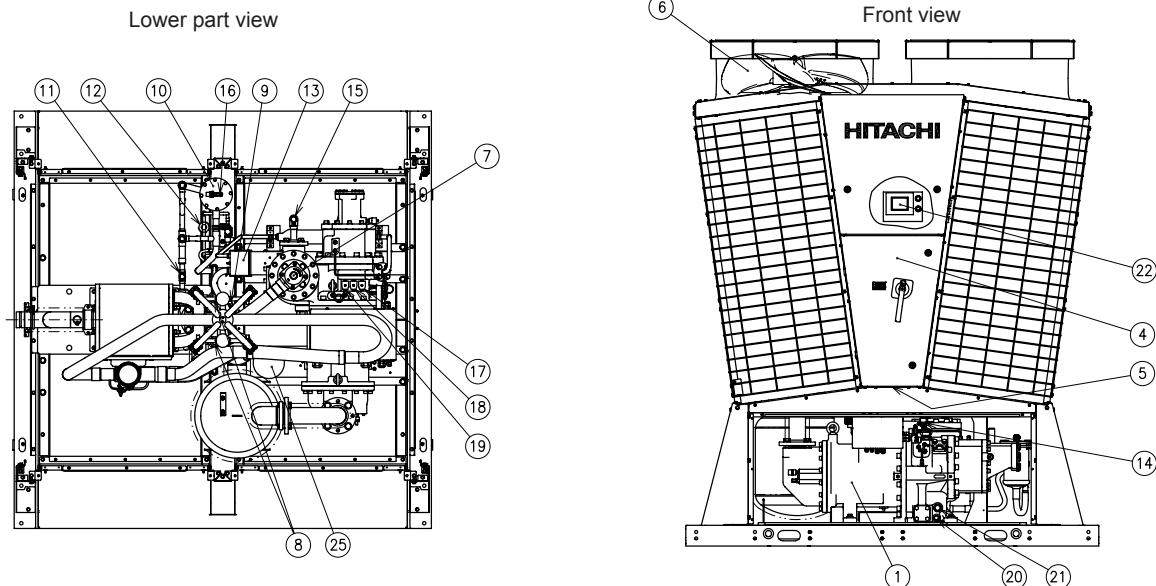
### 6.1.1 RCME-AH1



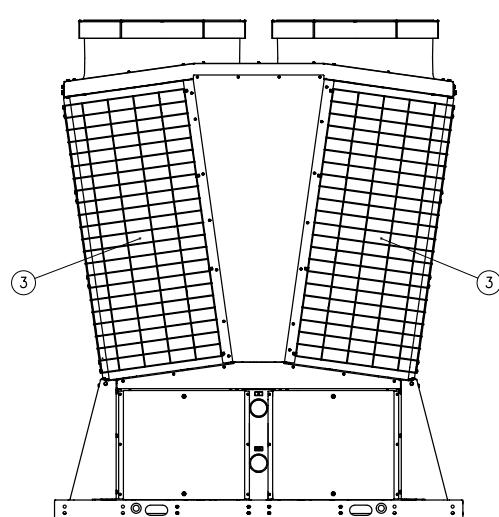
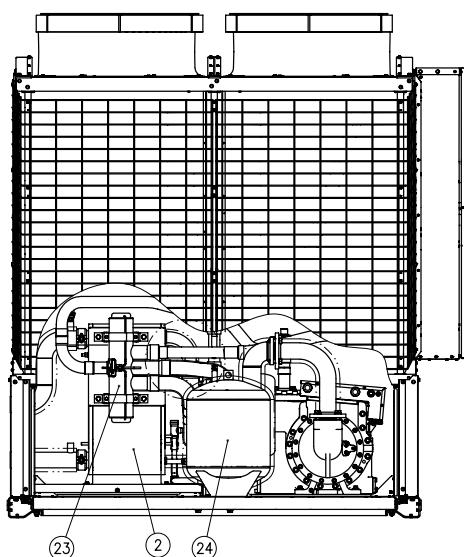
No.	Name
1	Compressor
2	Water side heat exchanger
3	Air side heat exchanger (x4)
4	Electrical box
5	Power wiring supply
6	Fan (x4)
7	Check valve
8	Electronic expansion valve (x2)
9	Liquid line stop valve
10	Filter drier
11	Liquid sight glass

No.	Name
12	Electronic expansion valve (70HP only)
13	Economizer (70HP only)
14	High pressure switch
15	Pressure relief valve
16	Service valve (x3)
17	Compressor solenoid valve A
18	Compressor solenoid valve B
19	Compressor solenoid valve C
20	Compressor oil heater
21	Compressor oil sight glass
22	Operation switch

### 6.1.2 RHME-AH1



6



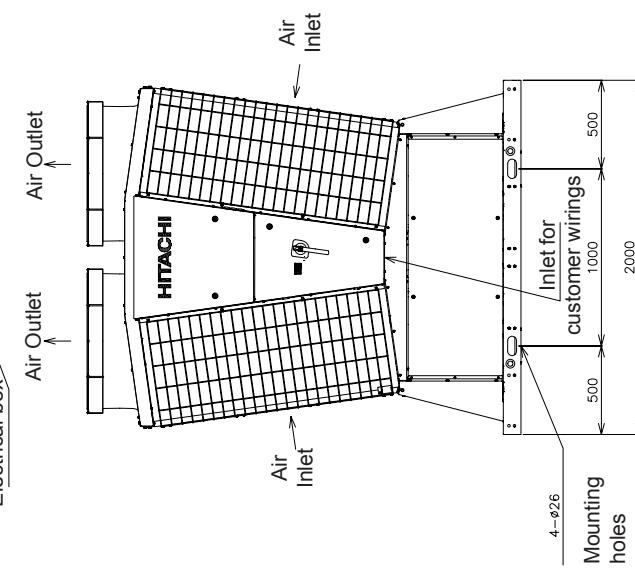
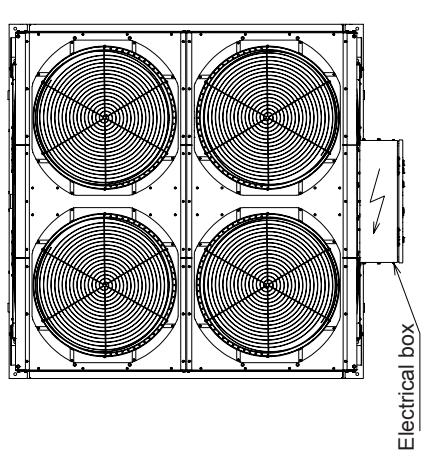
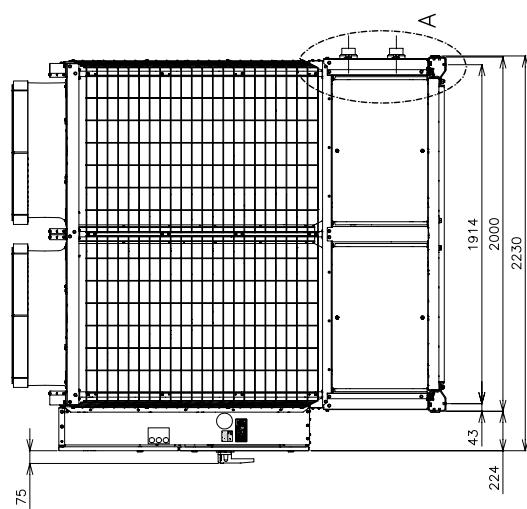
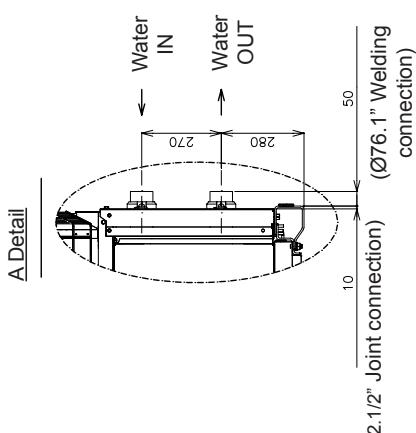
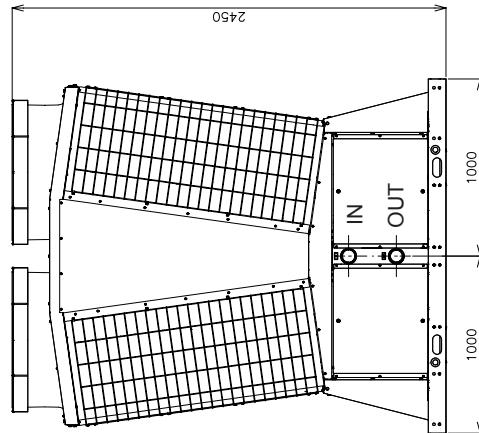
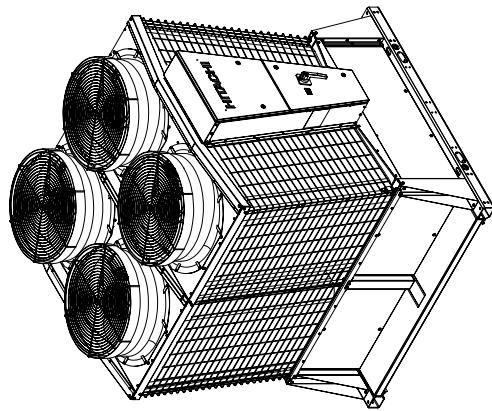
No.	Name
1	Compressor
2	Water side heat exchanger
3	Air side heat exchanger (x4)
4	Electrical box
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7	Check valve
8	Electronic expansion valve (x2)
9	Liquid line stop valve
10	Filter drier
11	Liquid sight glass
12	Electronic expansion valve (70HP only)
13	Economizer (70HP only)

No.	Name
14	High pressure switch
15	Pressure relief valve
16	Service valve (x3)
17	Compressor solenoid valve A
18	Compressor solenoid valve B
19	Compressor solenoid valve C
20	Compressor oil heater
21	Compressor oil sight glass
22	Operation switch
23	4-Way valve
24	Accumulator
25	Liquid Tank

XEKS1702

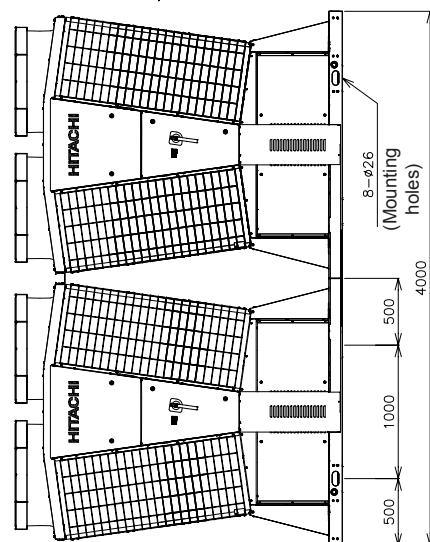
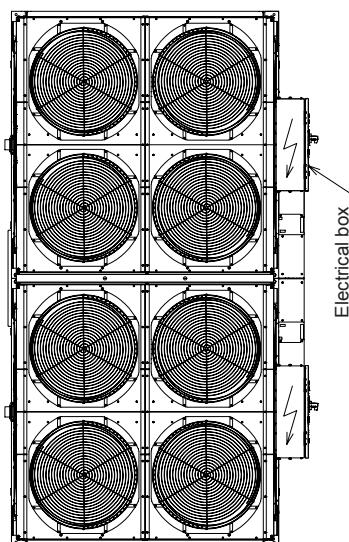
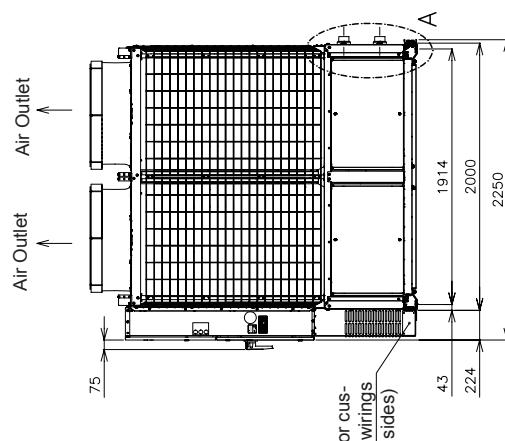
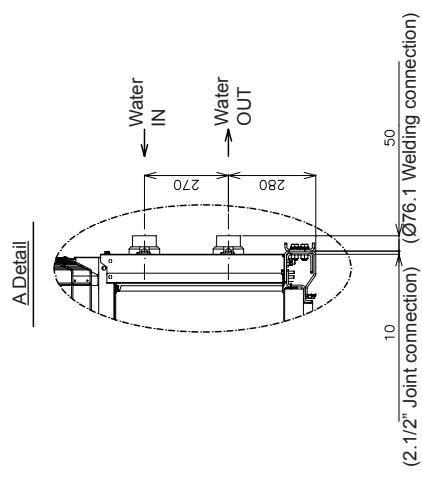
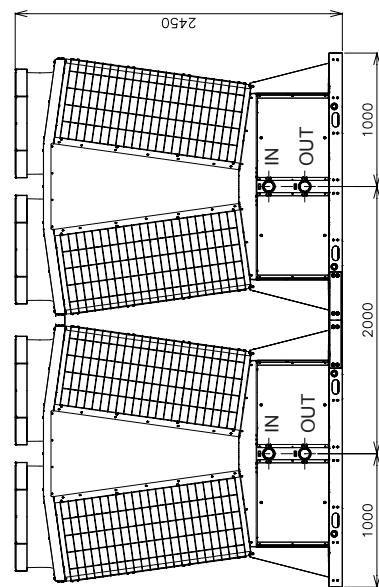
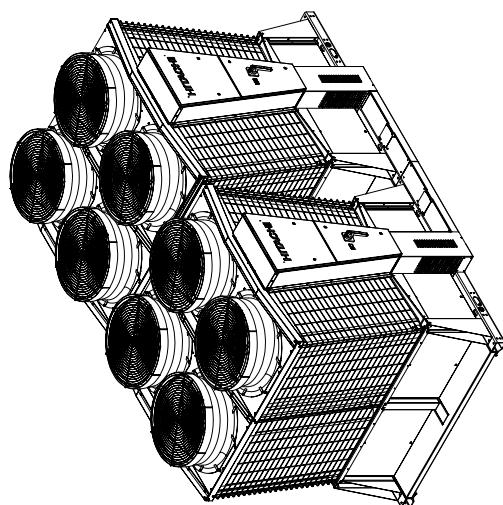
## 6.2 Dimensional Drawing

### 6.2.1 R(C/H)ME-AH1 1 module

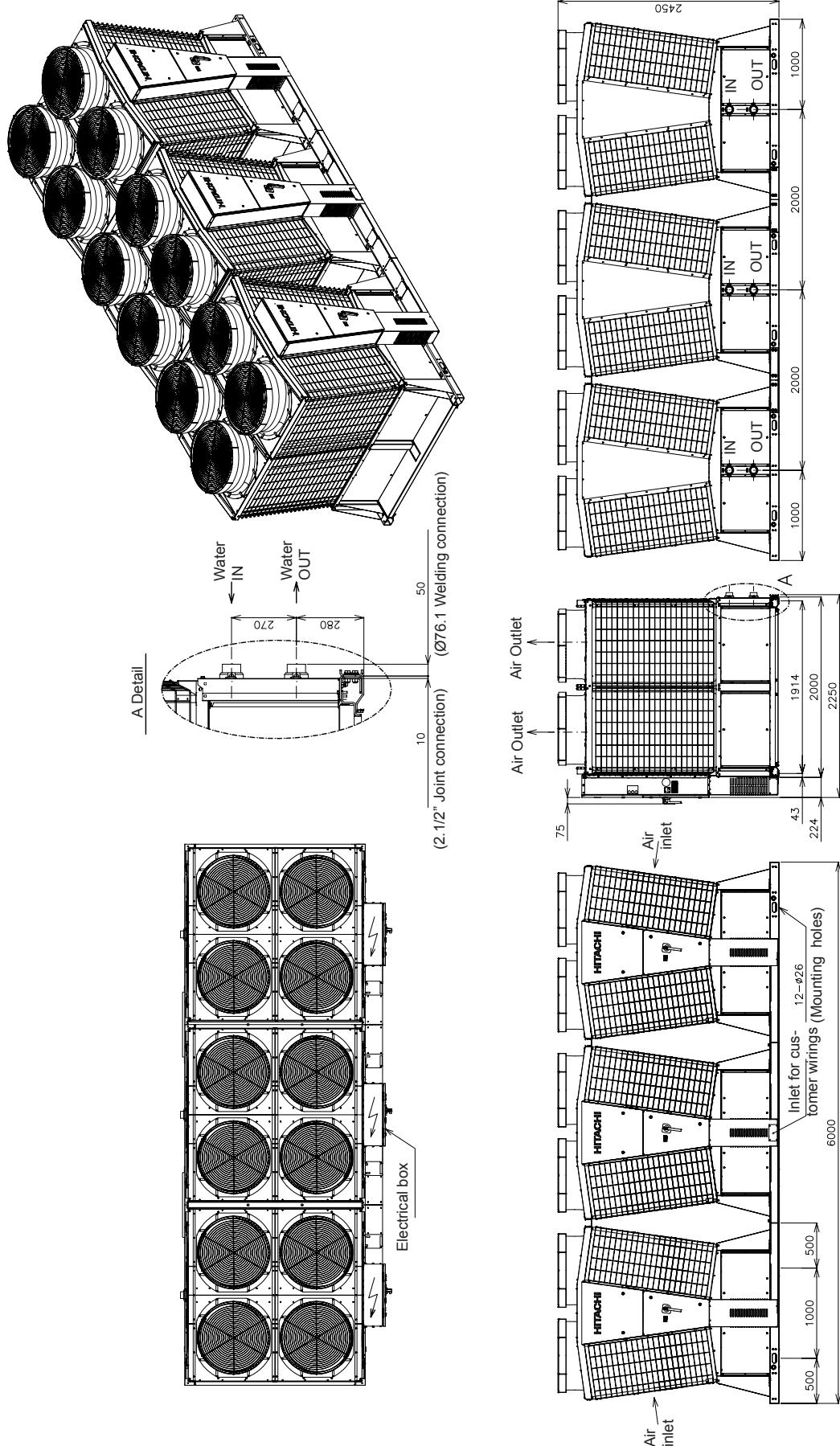


XEKS1614

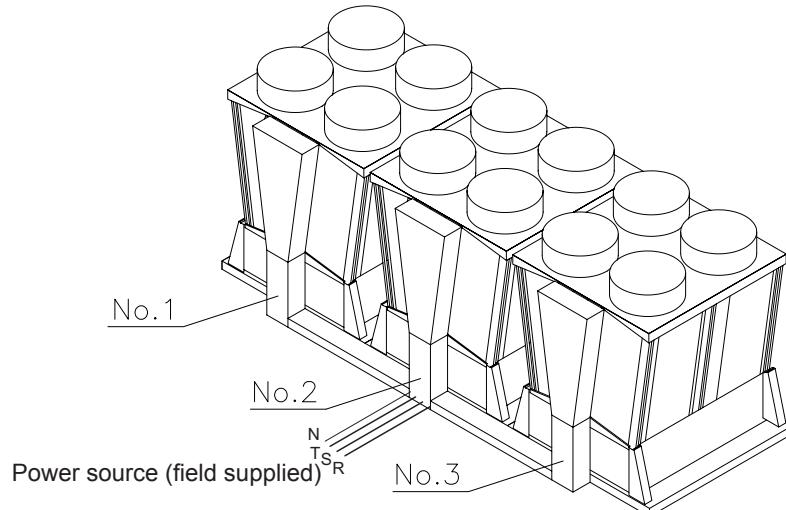
### 6.2.2 R(C/H)ME-AH1 2 module



### 6.2.3 R(C/H)ME-AH1 3 module



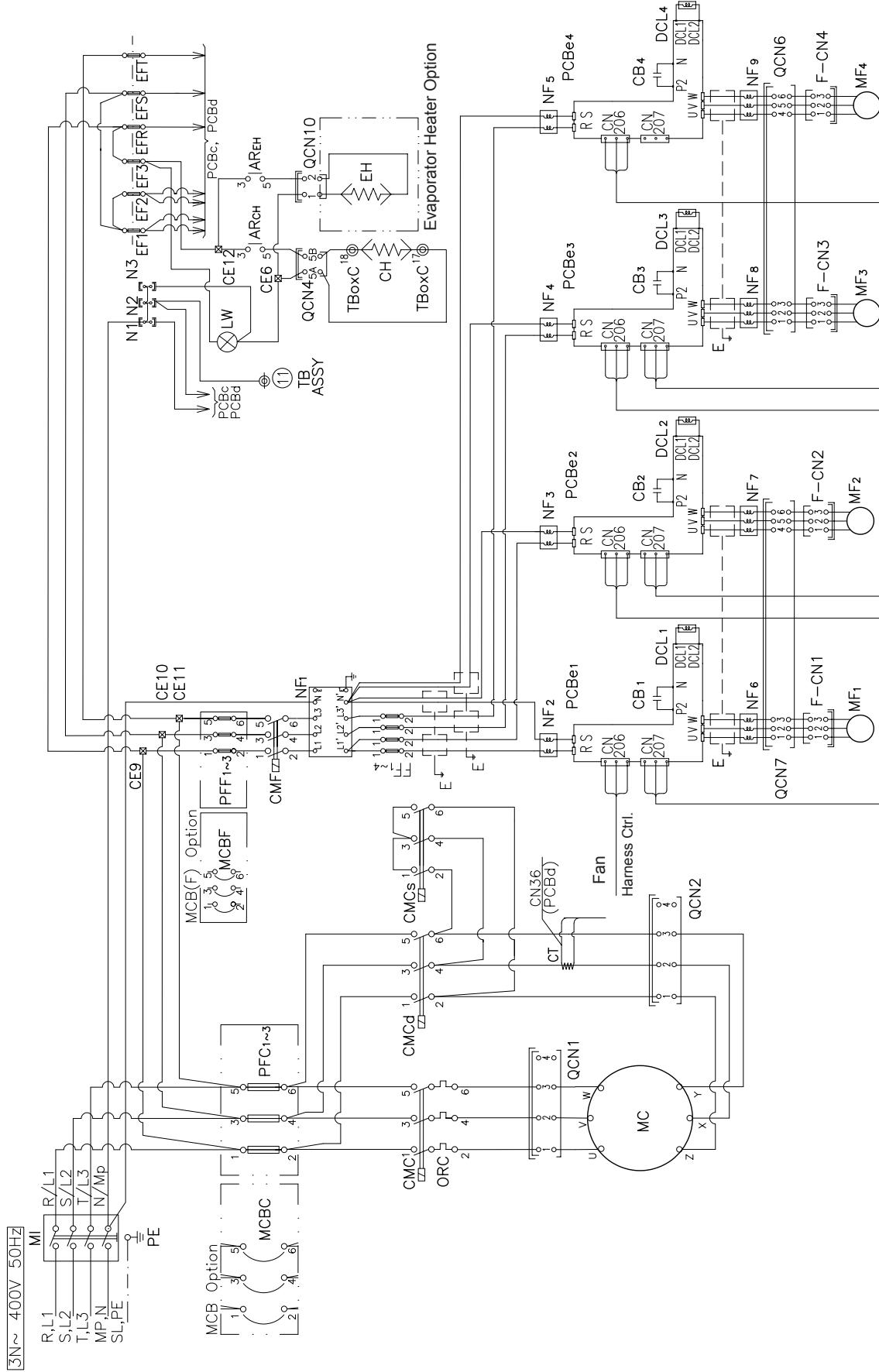
### 6.2.4 Modules location



		No. 1	No. 2	No. 3
2 - modules	R(C/H)ME-080/2AH1	R(C/H)ME-40AH1	R(C/H)ME-40AH1	
	R(C/H)ME-090/2AH1	R(C/H)ME-40AH1	R(C/H)ME-50AH1	
	R(C/H)ME-100/2AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	
	R(C/H)ME-110/2AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	
	R(C/H)ME-120/2AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	
	R(C/H)ME-130/2AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	
	R(C/H)ME-140/2AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	
3 - modules	R(C/H)ME-150/3AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1
	R(C/H)ME-160/3AH1	R(C/H)ME-50AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1
	R(C/H)ME-170/3AH1	R(C/H)ME-50AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	R(C/H)ME-180/3AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1
	R(C/H)ME-190/3AH1	R(C/H)ME-60AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1
	R(C/H)ME-200/3AH1	R(C/H)ME-60AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1
	R(C/H)ME-210/3AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1	R(C/H)ME-70AH1

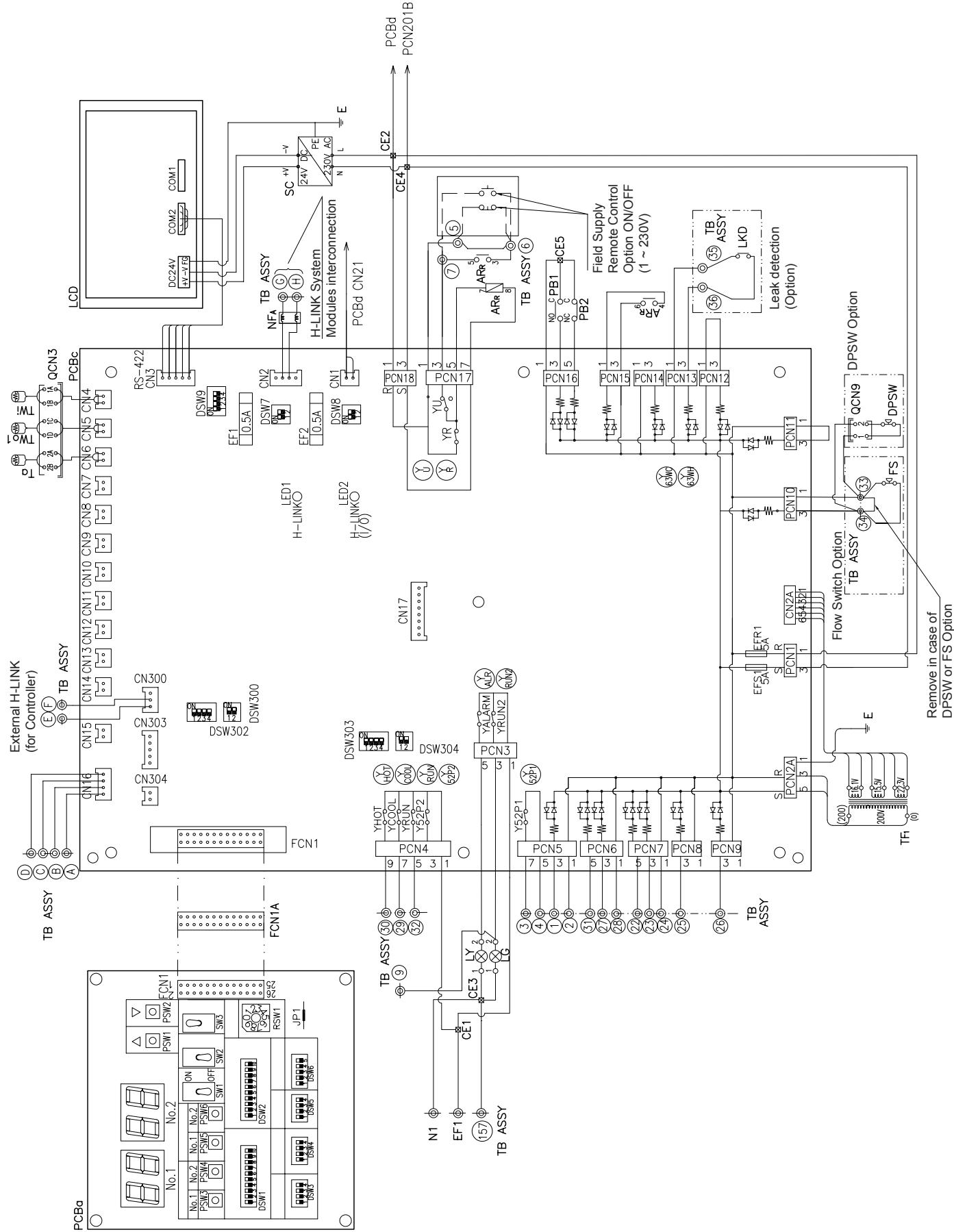
## 6.3 Wiring Diagram

### **6.3.1 Power circuit for R(C/H)ME-AH1**



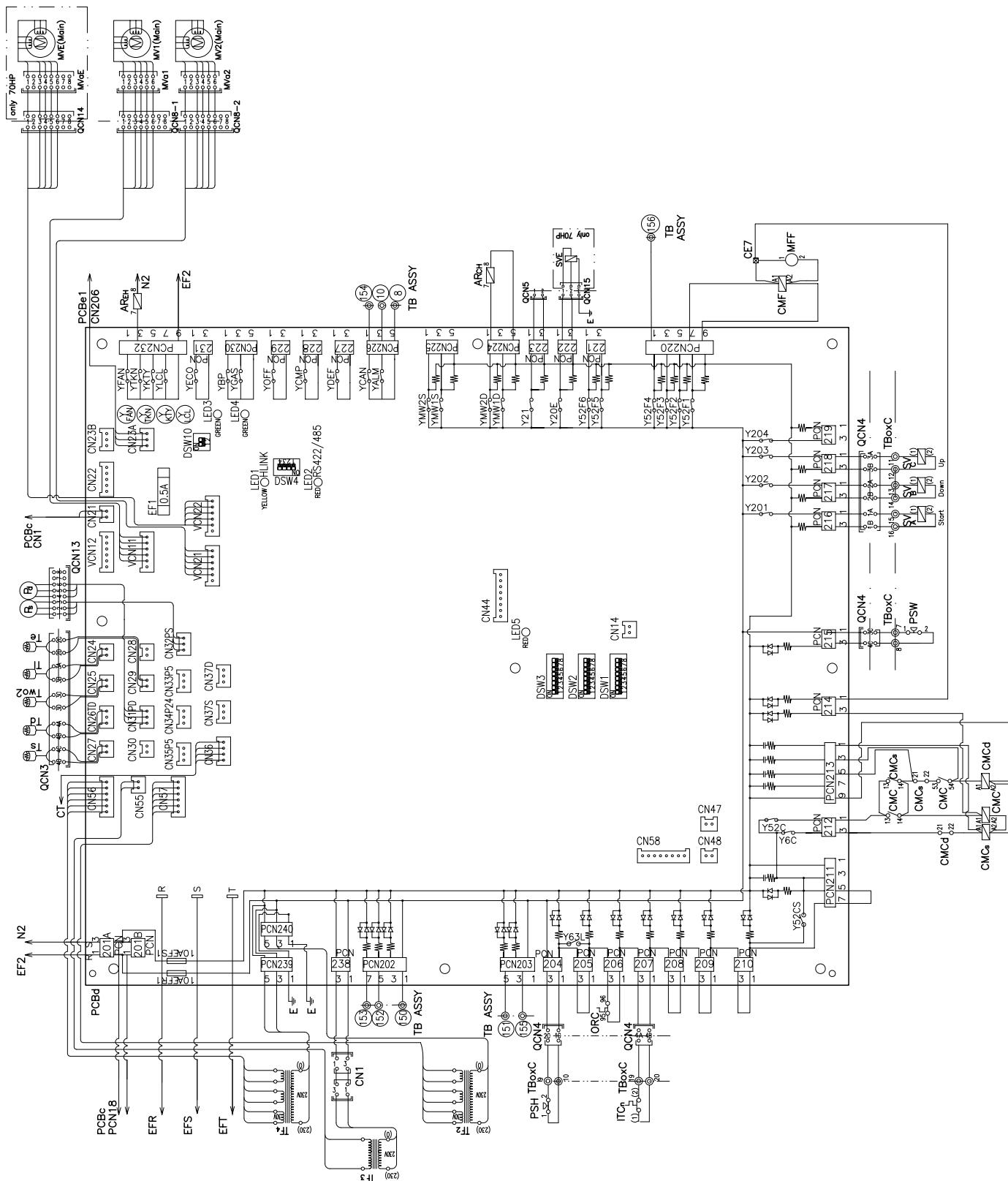
XEKS1636

### 6.3.2 Control circuit for R(C/H)ME-AH1



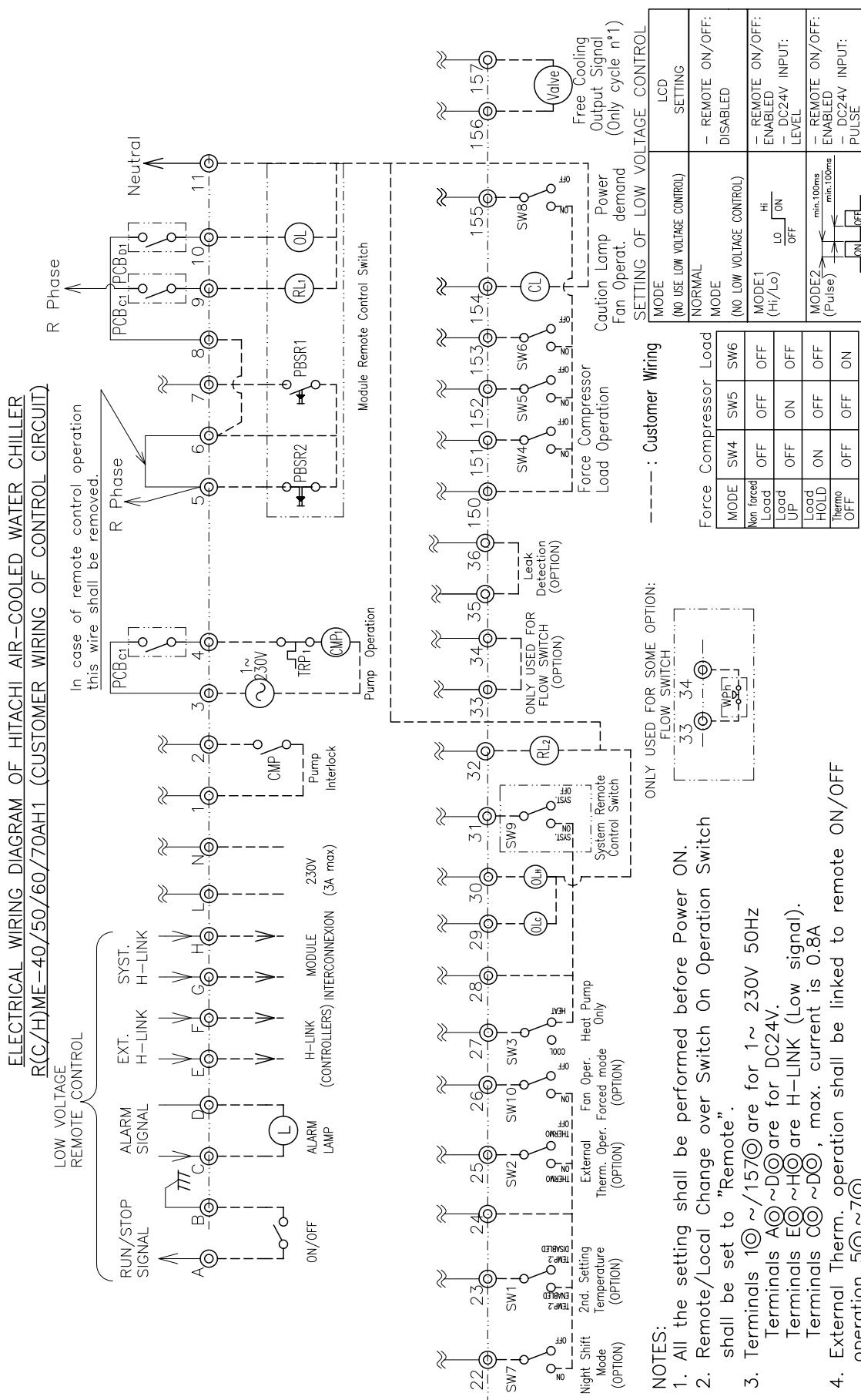
XEKS1637

### **6.3.3 I/O Circuit for R(C/H)ME-AH1**



XEKS1638

### 6.3.4 Customer wiring of control circuit for R(C/H)ME-AH1

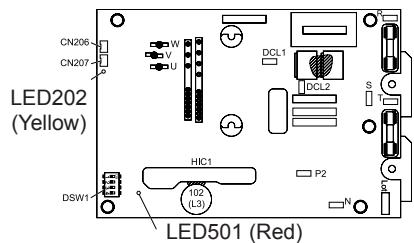


### 6.3.5 Parts list

Mark	Name
AR <sub>R,EH,CH</sub>	Auxiliary relays: Remote control, compressor and evaporator heaters
CB <sub>1~4</sub>	Fan capacitor
CE <sub>1~13</sub>	Connectors
CH	Crankcase heater on compressor
CL	Pilot lamp for caution signal (from fans)
CMC	Direct contactor motor compressor
CMC <sub>d,s</sub>	Delta/Star contactor motor compressor
CMF	Contactor motor fan
CMP <sub>1,2</sub>	Contactors for pumps (Optional)
CN <sub>1,2</sub>	Connector
CT	Current transformer (Sensor)
CT <sub>r,s,t</sub>	Current transformer (Optional)
DCL <sub>1~4</sub>	Fan reactor
DPSW	Differential water pressure switch (Optional)
E	Earth connection point
EF <sub>1~3,R,S,T</sub>	Electric fuse (6A)
EH	Electric heater on cooler (Optional)
EHP	Electric heater for pump circuit
F-CN <sub>1~4</sub>	Fan connectors
FF <sub>1~4</sub>	Fan fuses (DC or AC fans) 20A
FS	Flow switch (Optional)
H-LINK <sub>EXT.</sub>	PCB for controller
H-LINK <sub>SYS.</sub>	PCB for modules interconnection
ITC	Internal thermostat on compressor
LCD	Liquid cristal display
LG	Green lamp compressor operation indicator
LKD	Leak detection (Optional)
LW	White lamp power supply indicator
LY	Yellow lamp alarm indicator
MC	Motor compressor
MCBC	Magnetic circuit breaker for compressor (Optional)
MCF	Magnetic circuit breaker for fans (Optional)
MCBP <sub>1~2</sub>	Magnetic circuit breaker for pumps (Optional)
MF <sub>1~4</sub>	Motor fan (DC)
MFF	Motor fan inside electrical box
MI	Main interruptor (Switch)

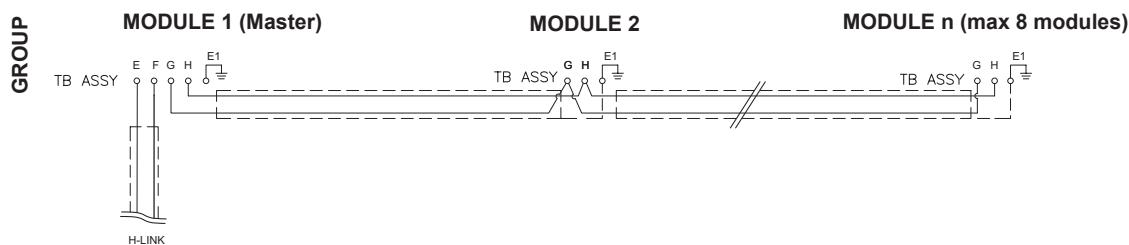
Mark	Name
MP <sub>1,2</sub>	Motor pumps (Optional)
MV <sub>a1,a2,aE</sub>	Exp. valve connector
MV <sub>1,2,E</sub>	Electronic exp.valve main and economizer
N <sub>1,2,3</sub>	Neutral terminals
NF <sub>1</sub>	Noise filter PCB
NF <sub>2~11,A</sub>	Ring cores noise filters
OL	Pilot lamp for remote indication (alarm)
ORC	Overcurrent relay compressor
PBSR1	Push button switch for starting (REMOTE)
PBSR2	Push button switch for stoppage (REMOTE)
PB <sub>1,2</sub>	Push button for local ON/OFF (White/Black)
PCB <sub>a,c,d</sub>	Printed circuit board (setting, main, cycle)
PCBe <sub>1~4</sub>	Fan module PCB
Pd / Ps	Discharge / Suction pressure sensor
PE	Unit connection point to installation earth line
PFC <sub>1~3</sub>	Protection fuse for compressor
PFF <sub>1~3</sub>	Protection fuse for fan
PM	Power meter (Optional)
PSH	High pressure switch
PSW	Pressure switch for economizer
QCN <sub>1~15</sub>	Quick connector
RL <sub>1~2</sub>	Pilot lamp for remote indication (unit operation)
SB <sub>1,2</sub>	Pump switches buttons (Optional)
SC	Source converter AC/DC
SVE	Solenoid valve for economizer
SW <sub>1~10</sub>	Switch
T <sub>a</sub>	Thermistors ambient
TB ASSY	Terminal board assy
TBoxC	Terminal board on compressor terminal box
T <sub>e</sub>	Thermistor before expansion valve
TF <sub>1~4</sub>	Transformer
T <sub>i</sub>	Liquid thermistor
TRP <sub>1</sub>	Thermal relay for pump
Ts, Td	Suction / Discharge thermistor
T <sub>wi</sub>	Thermistor water inlet
T <sub>wo1</sub>	Thermistors water outlet
T <sub>wo2</sub>	Water temperature in evaporator backside
WP <sub>h</sub>	Water pressure switch, water flow switch

### 6.3.6 Diagram of fan module PCB



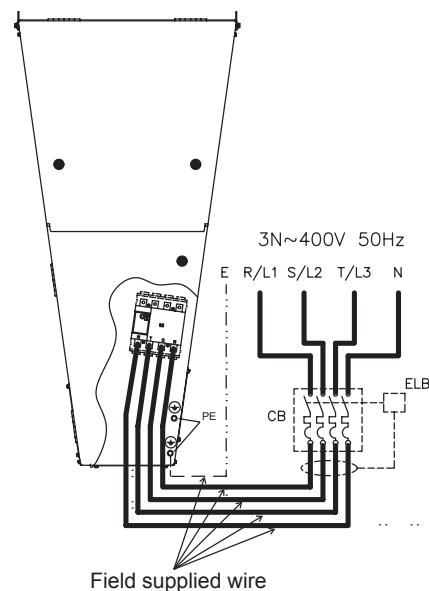
Part name	Content of functions
LED501 (Red)	Fan controller power indication. Normal condition: activated. Abnormal condition: not activated.
LED202 (Yellow)	Microcomputer status indication. Normal condition: activated. Abnormal condition: not activated.

### 6.3.7 Wiring diagram for H-LINK communication



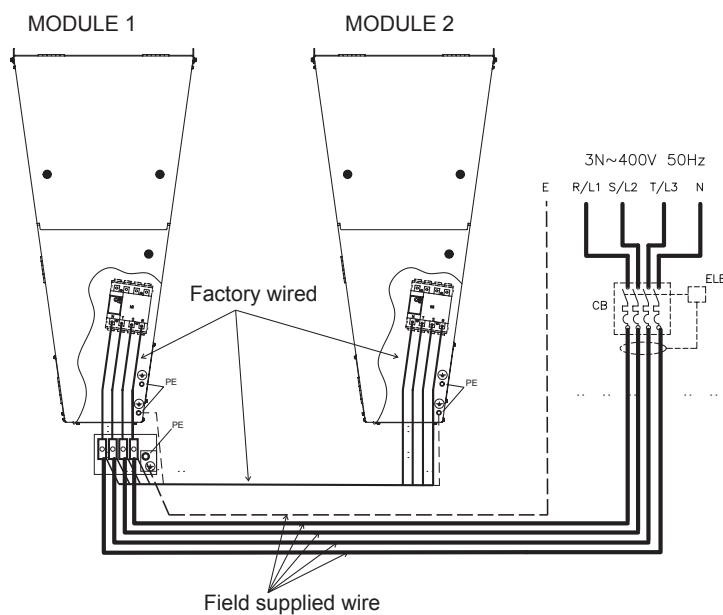
### 6.3.8 Wiring diagram for Power circuit

◆ Individual module



◆ Factory built modules

2 modules



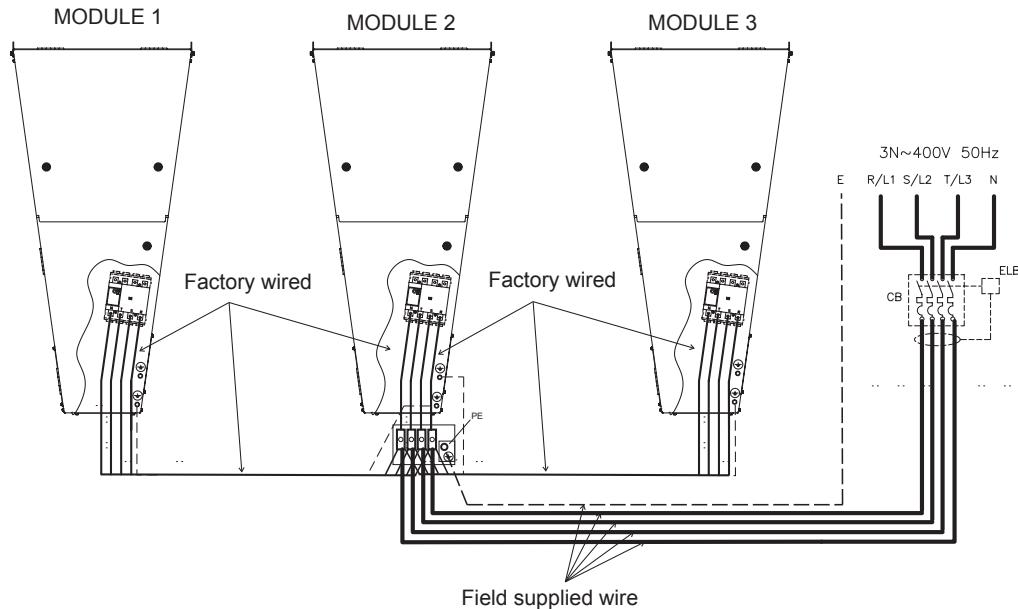
**CAUTION**

Power line connections thought Module 1 only.



**NOTE**

- Select the size of the field supplied cables according to the total combined requirements of the water chiller modules. Ensure that the field-supplied electrical components (mains power switches, circuit breakers, wires, connectors and wire terminals) have been properly selected according to the electrical data indicated. Make sure that they comply with national and regional electrical codes.
- H-LINK communication wire is factory wired.

**3 modules**
**CAUTION**

*Power line connections thought Module 2 only.*

**NOTE**

- Select the size of the field supplied cables according to the total combined requirements of the water chiller modules. Ensure that the field-supplied electrical components (mains power switches, circuit breakers, wires, connectors and wire terminals) have been properly selected according to the electrical data indicated. Make sure that they comply with national and regional electrical codes.
- H-LINK communication wire is factory wired.

## ◆ On-site module combinations

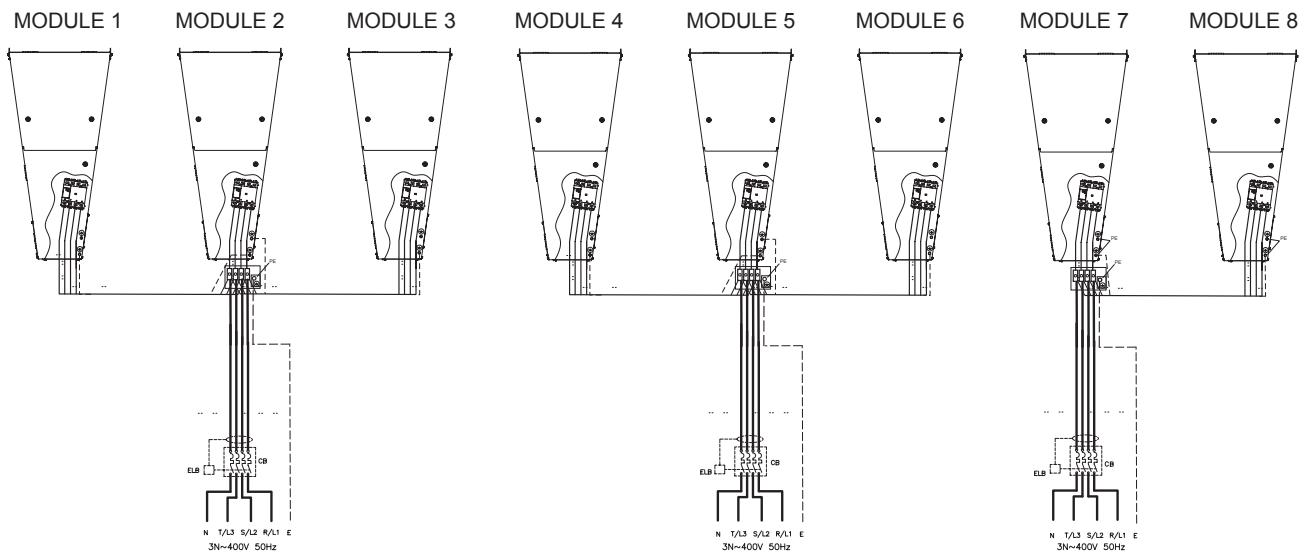
The power line for on-site combinations can be connected either:

- 1 Individually (recommended)

Each module is supplied with its own power line (follow “Individual module” diagram)

- 2 Between modules (interconnections)

To minimize power cable sizing it is advisable to feed up to a maximum of 3 modules from 1 power source cable as illustrated below (as an example for a combination with of 8 modules):



Hitachi provides a specific connection kit for this purpose as an option.

Power cable routing is available as an option.

Please refer to the diagrams in “Factory built modules” for proper connection examples and their restrictions.



### NOTE

- Select the size of the field supplied cables according to the total combined requirements of the water chiller modules. Ensure that the field-supplied electrical components (mains power switches, circuit breakers, wires, connectors and wire terminals) have been properly selected according to the electrical data indicated. Make sure that they comply with national and regional electrical codes.
- Follow the H-Link connection according to the contents of chapter “6.3.7 Wiring diagram for H-LINK communication”.

# 7. Optional Functions

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## 7.1 LCD optional functions setting



### NOTE

Detailed information in Service Manual SMxx0082

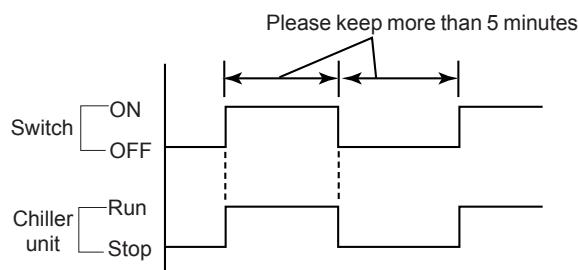
#### 7.1.1 DC24V Input

The procedure to control operation from the DC24V contact of the local central controller is through:

- Level input
- Pulse input (1 switch)
- Pulse input (2 switches)

Arrange the settings and additional wiring necessary for each of them. Available only in remote mode during independent operation of the chiller unit.

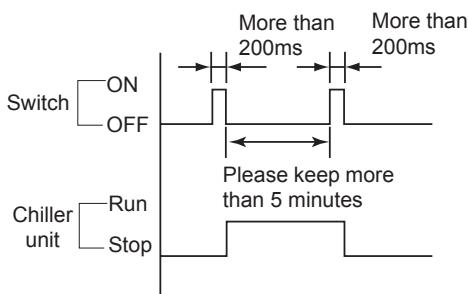
#### ◆ Level input - Time chart



### NOTE

Level input indicates a continuation of switch ON status when the system is in operation as shown in the diagram above.

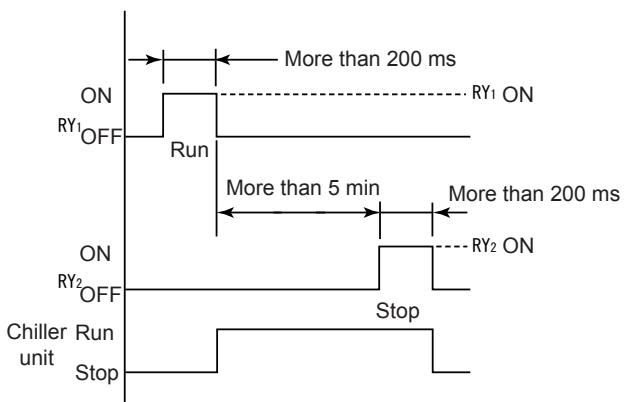
#### ◆ a)-Pulse input -Time chart



### NOTE

Pulse input indicates an ON input of the same switch when changing the status of the chiller unit, as shown in the diagram above.

#### ◆ b)-Pulse input - Time chart





### NOTE

- Please do not bundle the additional wiring together with other control circuits, and in particular with wiring for 200V or 400V.
- Please put the additional wiring separately inside a metallic pipe, or use a shielded wire.

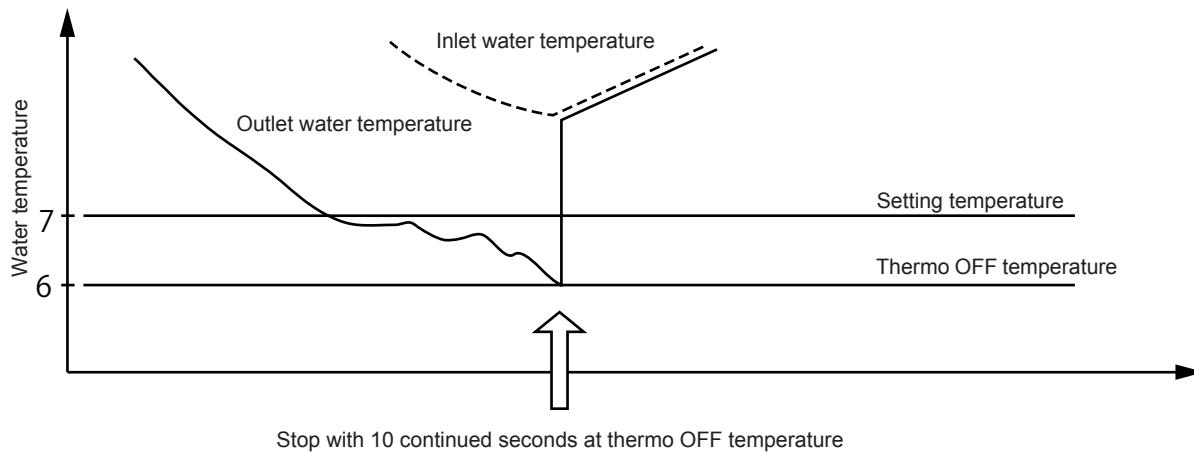
### 7.1.2 Remote alarm reset

The release of an alarm in case that the chiller unit has stopped due to an alarm is achieved by stop control (it is possible to stop both from the stop button of the main unit or from remote stop control). But it is possible to configure this alarm release to make it valid only from the stop button on the main unit (alarm cannot be released by remote stop control). This function is valid for places where there is a remote device for automatic stop order when an alarm is emitted.

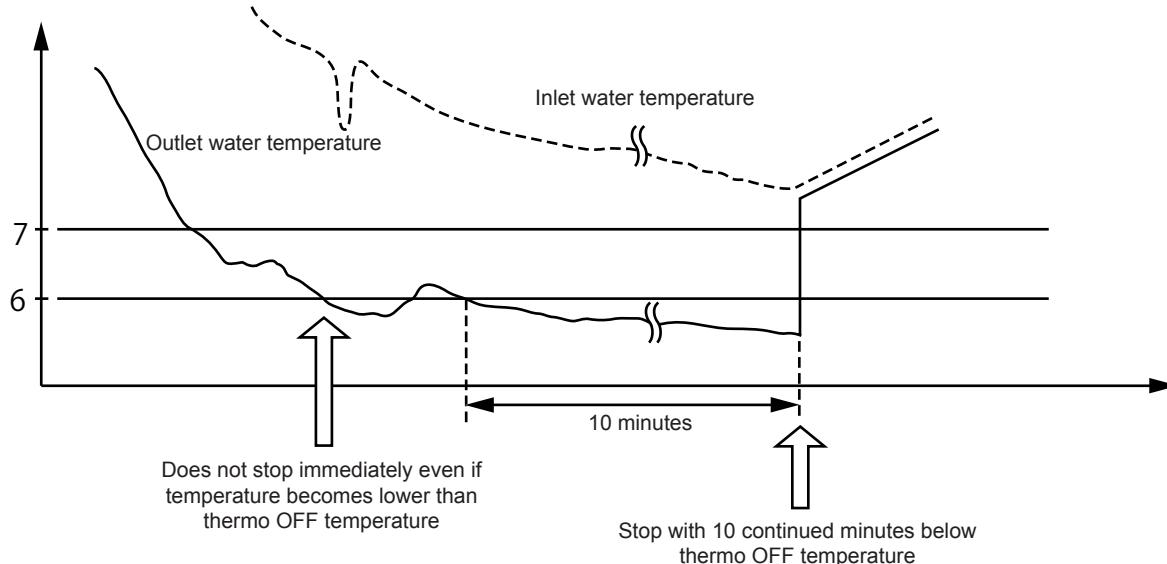
### 7.1.3 Thermo OFF Delay

This function prevents thermo OFF of the chiller unit due to sudden changes of temperature or flow.

Example of standard settings:



Example of thermo OFF judgement extension



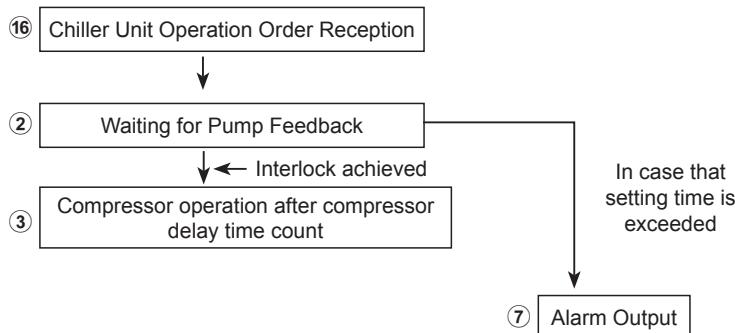
This function is used in cases in which the water flow is reduced temporarily, such as when opening and closing the valves installed in the water piping system, or when switching the number of cold (hot) water circulating pumps in operation. However, in case that water temperature reaches the limit of the working range, thermo-OFF occurs even within 10 minutes.

### 7.1.4 Water temperature control operation

It is possible to select which water temperature to use for capacity control and thermo OFF judgement, either "Inlet" or "Outlet". Please use the outlet water temperature (factory default setting) in normal conditions.

### 7.1.5 Pump feed back waiting time

Limitation setting for pump feedback waiting time.



The flow in the upper figure is followed upon start of operation of the chiller unit.

The state of ② is kept in case that there is no input of pump feedback signal between ② and ③, or when the difference between inlet and outlet temperature of cold water is too large. This function shifts to ⑦ "Alarm" in case that the state of ② continues for a certain amount of time.

Initial value for the standard specification:

- Unlimited
- Initial value for the specification with pump mounted: 5 minutes
- Setting range: 1~30 minutes

The display at this time is:

LCD: Pump interlock abnormality

Segment: 5P-5P

### 7.1.6 Periodic Fan Operation

The fan operates automatically, to prevent freezing of the fan due to snowfall when the unit is stopped in winter.

#### Starting conditions

- Outdoor temperature under 4 °C
  - Chiller unit in remote control settings
  - Compressor stopped
- The fan is operated when all of these are fulfilled (operation at minimum frequency)

### 7.1.7 Current limit setting

It is possible to operate below a maximum current limitation ratio previously set at the LCD screen. The selection to enable or release the setting value is performed with the order signal from the local control board.

Also, the overcurrent protection control is always enabled, even in a state where this function is disabled.

It is possible to adjust Current limit ratio. Taking in account the "Base current" the "Current limit value" is calculated (= Base current x current limit ratio)

### 7.1.8 Thermo OFF detection by IN Temp (Tw1 CO) (Tw2 CO)

Normally thermo OFF judgement is carried out from outlet water temperature, but when enabling this setting, the judgement of thermo OFF is carried out also from inlet water temperature. (Thermo OFF judgement by outlet water temperature is also enabled)(Water temperature control is carried out from outlet water temperature even in case that this function is enabled).

It is effective when there is the need to set thermo OFF with the return water temperature from the load.

## 7.2 PCB optional functions setting

### 7.2.1 Status recovery after power failure

PCBa Settings

Optional Function C:  DSW5	<input type="checkbox"/> Status recovery after power failure disabled	<input checked="" type="checkbox"/> Status recovery after power failure enabled
---	---	---



#### NOTE

- In case of small power supply failure (13msec – 2 sec) unit restarts automatically
- If power failure is longer than 2 sec, it is possible to choose to restart or not according to the setting of DSW5 pin1.
- The restart time of the modules may vary depending on delay time settings

### 7.2.2 Remote control by H-link

PCBa Settings

Optional Function C:  DSW5	<input type="checkbox"/> Standard	<input checked="" type="checkbox"/> Remote control by H-LINK (To apply with optional H-LINK control devices)
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### 7.2.3 Module control (Single/Multiple)

PCBa Settings

Optional Function D:  DSW6	<input type="checkbox"/>  1 2 3 Single Module Control (R(C/H)ME-(40/50/60)AH1)
	<input type="checkbox"/>  1 2 3 Multiple Module Control (R(C/H)ME-(080-240)/nAH1)





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Hitachi certifies that our products have met EU consumer safety, health and environmental requirements.



Hitachi Air Conditioning Products Europe, S.A.U. is certified with:  
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