



## **INVERTER VRF SYSTEM (S SERIES)**



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**TRUST AIR CONDITIONING EQUIPMENT CO.**  
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توجه:

شرکت تراست حق تغییر مشخصات دستگاه ها را در جهت بهبود و ارتقای کیفیت برای خود محفوظ می دارد.

2015-03

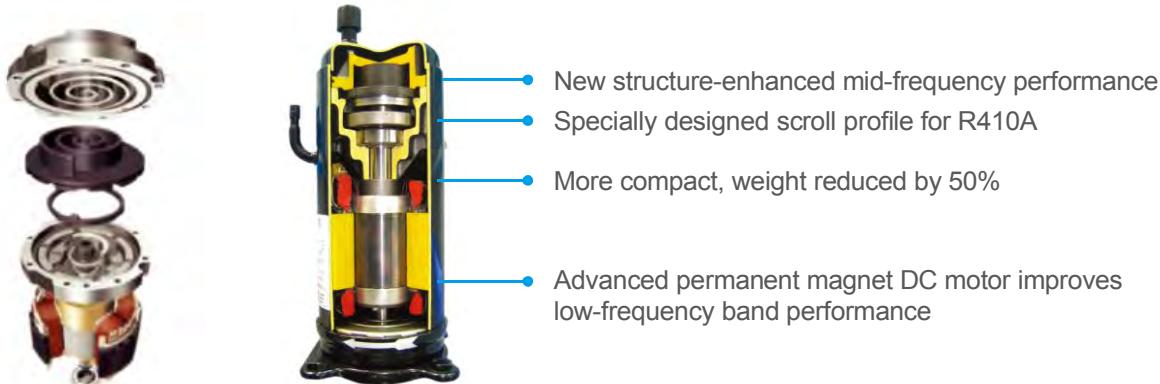
## 1. Features

### 1.1 High efficiency

V4+ S Series achieves the industry's top class energy efficiency of cooling and heating by utilizing all DC inverter compressors, all DC fan motors and high performance heat exchanger. All DC inverter compressors contribute to higher IPLV greatly. The highest IPLV is up to 5.8.

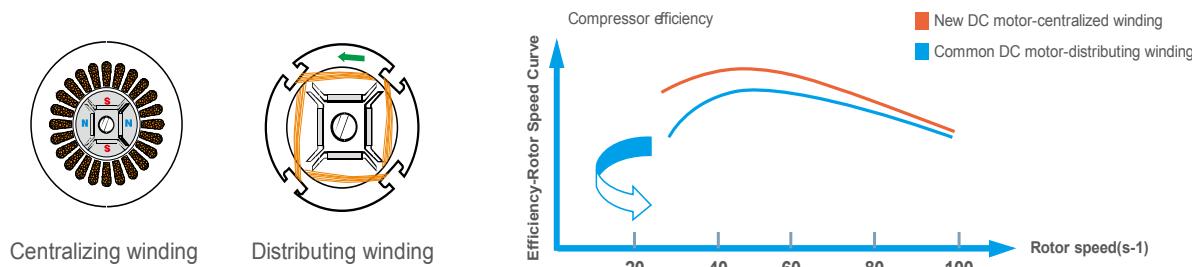
#### 1.1.1 High efficiency DC inverter compressor

8HP&10HP units adopt one DC inverter compressor only. 12, 14, 16, 18\*HP adopt two DC inverter compressors (18HP model can be customized). With all DC inverter compressors, V4+ S Series offers a wide operation range from 20Hz to 200Hz.



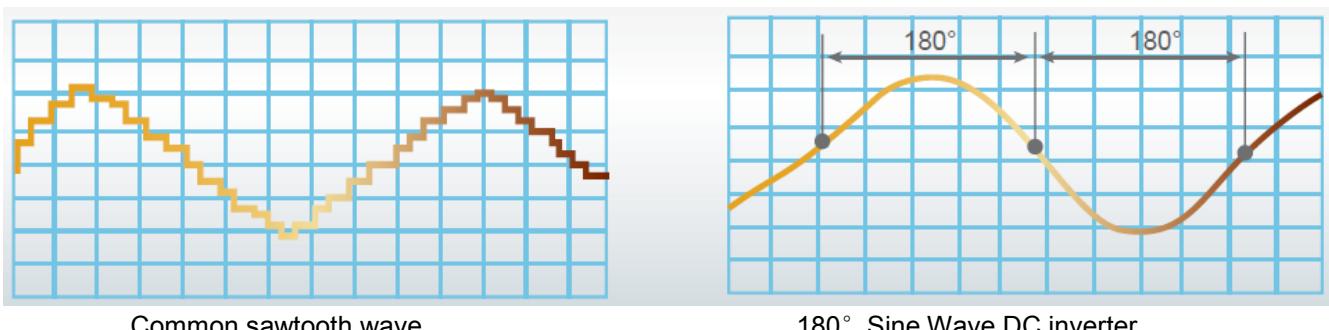
Powerful magnets provide high torque and efficiency and achieve 70% reduction in volume.

The A/C load ratio of building is 30%-75%, the area use ratio is 55%, most of the A/C runs in the mid load, so the mid load operation ratio determines the whole year AC running charge.



#### Smooth sine wave DC inverter

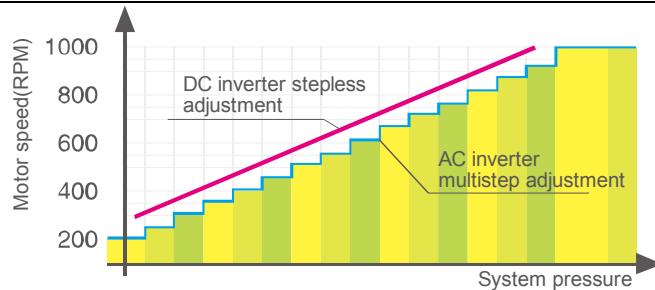
Adopting the 180° sine wave inverter to smooth motor rotation greatly improves operating efficiency compared with traditional sawtooth wave.



#### 1.1.2 High efficiency DC fan motor, saving power 50%

According to the running load and system pressure, the system controls the speed of DC fan to achieve the minimum energy consumption and best performance. All DC fan motors save much power consumption.

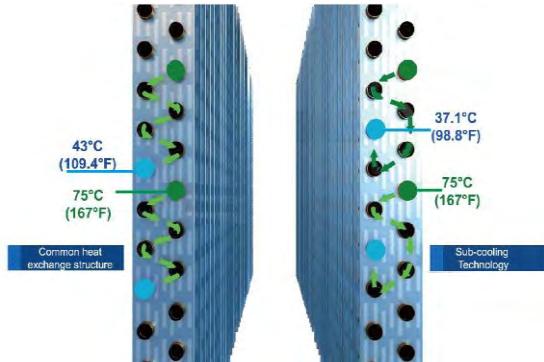
- Used across entire range of models (from 8 to 72 HP)
- Efficiency improved by up to 45% especially at low speed



The fluctuation range of motor rotor speed is within  $\pm 5$  rpm and the motor can rapidly match the output of DC inverter compressor. The efficiency is enhanced under part load.

### 1.1.3 Newly designed sub-cooling heat exchanger

12°C sub-cooling degree makes the cooling capacity increased efficiently. Innovative designed outdoor high efficiency heat exchanger can reach up to 12°C sub-cooling degree one time, reduces the system resistance and improves reliability.



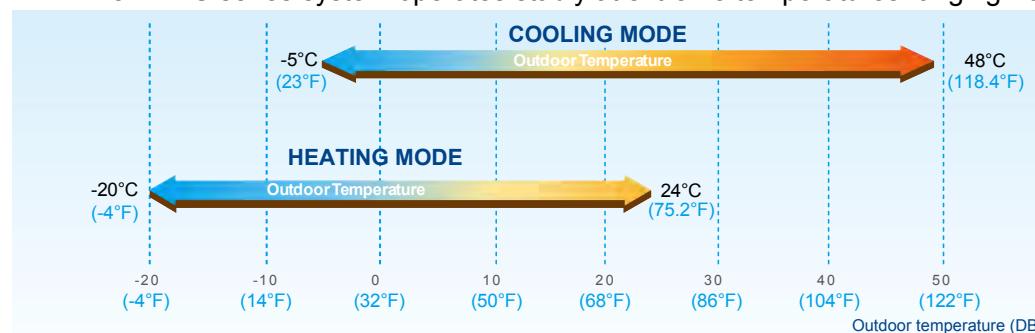
## 1.2 More flexible design

### 1.2.1 Wide capacity range

The outdoor units capacity range from 8HP to 72HP in 2HP increment. Maximum 64 indoor units with capacity up to 130% of total outdoor units can be connected in one refrigeration system. Indoor units consist of 13 types with more than 100 models, capacity range from 1.8kW to 56kW.

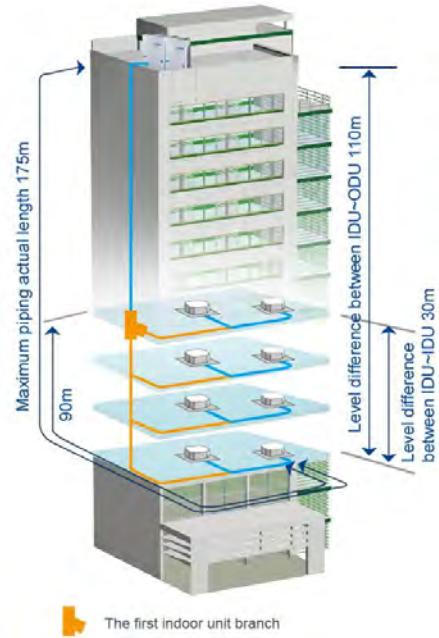
### 1.2.2 Wide operation range

The V4+ S series system operates stably at extreme temperatures ranging from -20°C(-4°F) to 48°C(118.4°F)



### 1.2.3 Flexible piping design

Piping length	Permitted value
Total pipe length	3280ft(1000m)
Max. actual pipe length	574ft(175m)
Max. equivalent pipe length	656ft(200m)
Equivalent length of pipe from the first branch to the farthest indoor unit	(131/295*) ft /(40/90*)m
Level difference between outdoor unit and indoor unit	Outdoor unit is down: 361ft(110m) Outdoor unit is up: 230ft(70m)
Level difference between indoor units	98ft(30m)



\*The farthest equivalent pipe length should be equal to or shorter than 40m, but it can be up to 90m if meet the required conditions following part 4 installation sections.

### 1.2.4 External static pressure enhanced up to 60Pa and air volume

## increases by 10%

The high static pressure propeller fan and the optimized fan guard can adapt to various installation environments.

Trust now offers up to 60Pa\* (6.12 mm H<sub>2</sub>O) external static pressure for customized applications (60 Pa is available for the 12HP model, 40Pa is available for other models). A standard 0-20Pa function is equipped by default.

### 1.3 High reliability

#### 1.3.1 Cycle duty operation

In one combination, any of the outdoor unit can run as the master unit and master unit can cycle in a period, to realize the equal lifespan among the outdoor units. As a result extend the system lifespan significantly.



Compressor cycle duty in one module



Cycle duty between modules

#### 1.3.2 Back-up operation

In a multiple system, if one module is failed, other modules can be backup instead of the failed one for continuing operation.

#### 1.3.3 Precise oil control technology

5 stage oil control technology ensures every outdoor unit & compressor's oil always keep in the safe level, completely solve the compressor oil lack problem.

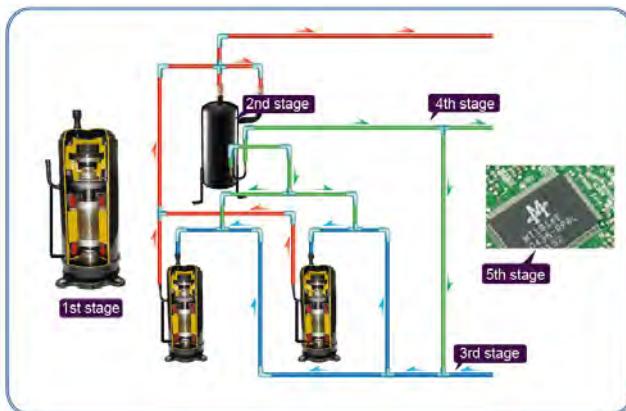
1st stage: compressor internal oil separate

2nd stage: high efficiency oil separator (separation efficiency up to 99%)

3rd stage: oil balance technology between compressors

4th stage: oil balance technology between modules

5th stage: intelligent system oil return program



## 1.4 Enhanced comfort

### 1.4.1 Night silent operation mode

Trust's Night Silent Mode feature which is easily set on the PCB board allows the unit to be set to varies time options during Non Peak and Peak operation time optimizing the units noise output.

Super silent operation mode can reduce sound level further, minimum 45dB (A).

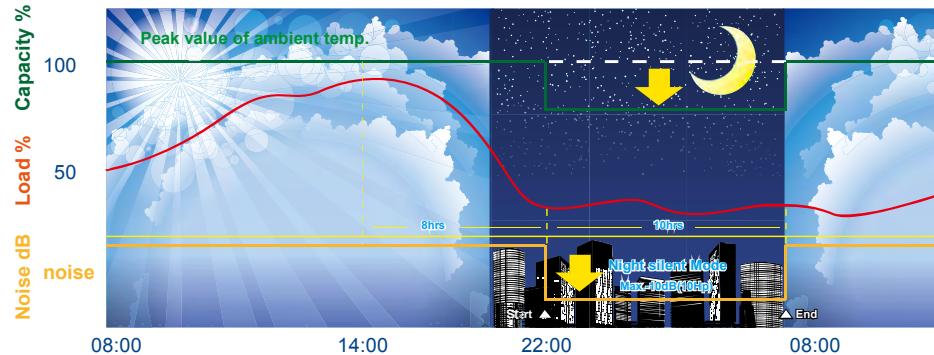
Night silent operation will be activated X hours after the peak temperature during daytime, and it will go back to normal operation after Y hours.

Mode 1→X: 6 hours, Y: 10 hours

Mode 3→X: 6 hours, Y: 12 hours

Mode 2→X: 8 hours, Y: 10 hours

Mode 4→X: 8 hours, Y: 8 hours



Notes:

This function can be activated by setting at site. Temperature (load) curve shown in the graph is just an example.

### 1.4.2 Five priority mode lock function

Heating priority mode (default), cooling priority mode, VIP priority or vote priority, only responds to heating mode, only responds to cooling mode

### 1.4.3 Intelligent defrosting technology

Intelligent defrosting program to judge the defrosting time according to the system real requirement, reduce the heating loss by unnecessary defrosting and make the indoor side more comfortable. Every time defrosting last only 4 minutes due to the use of specialized defrosting valve.

### 1.4.4 Quick warm-up & cool-down design and less temperature fluctuation

By utilizing the benefits of the DC inverter compressor, the system can reach full load quickly and shorten the warm-up and cool-down times to provide an immediate and comfortable air solution.

Less temperature fluctuation will create a better living environment.

## 1.5 Convenient for installation and service

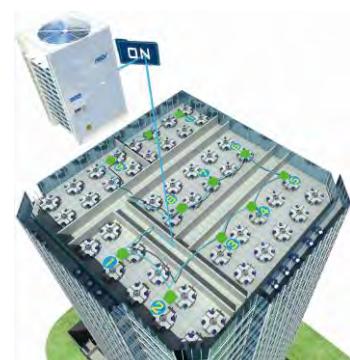
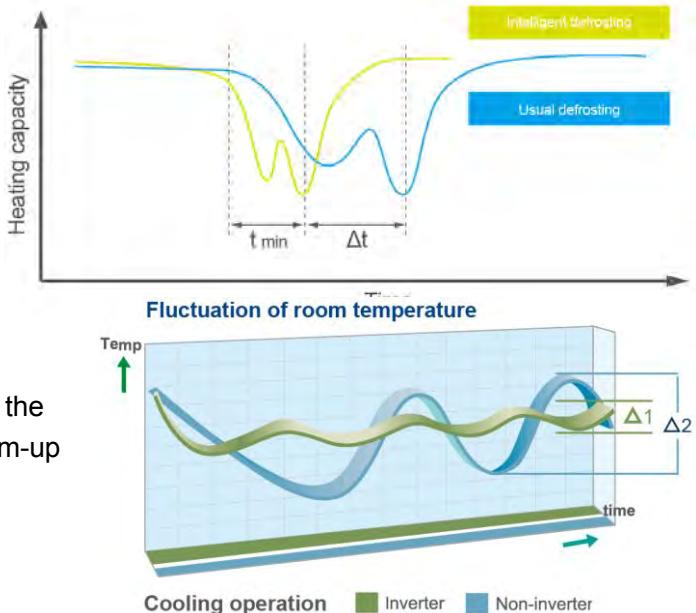
### 1.5.1 Auto addressing

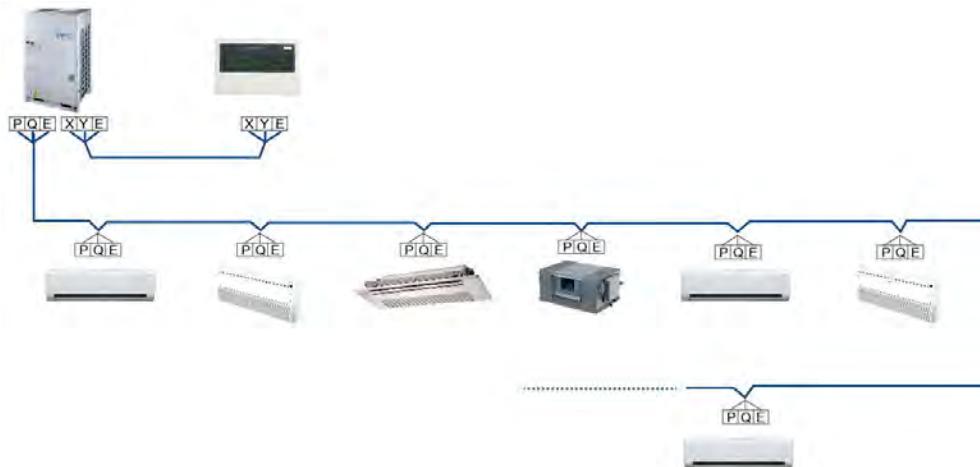
Outdoor unit can distribute address for each indoor unit automatically.

Wireless and wired controllers can enquire and modify each indoor unit's address.

### 1.5.2 Super Wiring

Centralized controller (CCM03) can connect from indoor side or outdoor side (XYE terminals) at will. With one group of wires, we can realize the network communication and system communication. Such simple wiring is more convenient for installation work at site.





### 1.5.3 Convenient for maintenance



Convenient electronic control check window. Can directly observe the operation status from the LED display, and directly press the FORCE COOLING / CHECK button.



The high/low pressure valves adopt the Stop Valves, which have screwed thread nipple joint, can be connected to the meter connector directly in air tight test. And also make it more efficient and easy for installation.



Self-diagnosis function and four-digit Digital display help service engineer to find out the fault fast and easily.

## 2. Model Lineup

Outdoor units (Combination Unit):

8, 10 HP



12, 14, 16 HP



18 HP



20-36HP



38-54HP



56-72HP



\*18HP should be customized.

### 3. Outdoor Unit Combinations

Combination with 18HP model:

Model	No of Outdoor Units	No of Compressors	Outdoor Unit Combination						Max. No of Connectable Indoor Units	Capacity	
			8HP	10HP	12HP	14HP	16HP	18HP		Cooling (kW)	Heating (kW)
8HP	1	1	1						13	25.2	27
10HP	1	1		1					16	28	31.5
12HP	1	2			1				20	33.5	37.5
14HP	1	2				1			23	40	45
16HP	1	2					1		26	45	50
18HP	1	2						1	29	50	56
20HP	2	2		2					33	56	63
22HP	2	3		1	1				36	61.5	69
24HP	2	3		1		1			39	68	76.5
26HP	2	3		1			1		43	73	81.5
28HP	2	3		1				1	46	78	87.5
30HP	2	4				1	1		50	85	95
32HP	2	4				1		1	53	90	101
34HP	2	4					1	1	56	95	106
36HP	2	4						2	59	100	112
38HP	3	4		2				1	63	106	119
40HP	3	5		1		1	1		64	113	126.5
42HP	3	5				3			64	120	135
44HP	3	5		1			1	1	64	123	137.5
46HP	3	5		1				2	64	128	143.5
48HP	3	6				1	1	1	64	135	151
50HP	3	6				1		2	64	140	157
52HP	3	6					1	2	64	145	162
54HP	3	6						3	64	150	168
56HP	4	6		2				2	64	156	175
58HP	4	7		1		1	1	1	64	163	182.5
60HP	4	7		1		1		2	64	168	188.5
62HP	4	7		1			1	2	64	173	193.5
64HP	4	7		1				3	64	178	199.5
66HP	4	8				1	1	2	64	185	207
68HP	4	8				1		3	64	190	213
70HP	4	8					1	3	64	195	218
72HP	4	8						4	64	200	224

#### 4. Indoor Units Lineup

Capacity (×100W)	Cassette type			
	One-way cassette	Two-way cassette	Compact four-way cassette	Four-way cassette
18	•			
22	•	•	•	
28	•	•	•	•
36	•	•	•	•
45	•	•	•	•
56	•	•		•
71		•		•
80				•
90				•
100				•
112				•
140				•

Capacity (×100W)	Duct type					
	Low static pressure duct	Medium static pressure duct	High static pressure duct			
18	•					
22	•	•				
28	•	•				
36	•	•				
45	•	•				
56	•	•				
71	•	•	•			
80		•	•			
90		•	•			
100						
112		•	•			
140		•		•		
160				•		
200					•	
250					•	
280					•	
400						•
450						•
560						•

**Indoor units lineup**

Capacity (×100W)	Floor-standing/Ceiling & Floor/Console			
	Cased floor-standing	Uncased floor-standing	Ceiling & floor	console
				
22	•	•		•
28	•	•		•
36	•	•	•	•
45	•	•	•	•
56	•	•	•	
71	•	•	•	
80	•	•	•	
90			•	
112			•	
140			•	
160			•	

Capacity (×100W)	Wall mounted/Fresh air processing unit			
	Wall mounted (S type panel)	Wall mounted (C type panel)	Wall mounted (R type panel)	Fresh air processing unit
				
22	•	•		
28	•	•		
36	•	•		
45	•	•		
56	•	•		
71			•	
80			•	
90			•	
125				•
140				•
200				•
250				•
280				•

Due to continuous improvement, specifications are subject to change without prior notice.

# Selection Procedure

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## 1. Introduction

### 1.1 Model Selection Procedure

Select the model and calculate the capacity for each refrigerant system according to the procedure shown below.

- Calculation of the indoor air-conditioning load, Calculate the maximum air-conditioning load for each room or zone.

Selection of an air conditioning system

- Select the ideal air conditioning system for air conditioning of each room or zone

Design of the control system

- Design a suitable control system for the selected air conditioning system

Preliminary selection of indoor and outdoor units

- Make preliminary selections that are within the allowable range for the system

Check of the piping length and elevation difference

- Check that the length of refrigerant piping and the level difference are within the allowable ranges

Calculation of the corrected outdoor unit capacity

- Capacity correction coefficient for model, outdoor temperature conditions, piping length and level difference.

Calculation of the actual capacity for each indoor unit

- Calculate the corrected indoor/outdoor capacity ratio, based on the corrected outdoor unit capacity and the total corrected capacity of all indoor units in the same system.

Recheck of the actual capacity for each indoor unit

- If the capacity is inadequate, reexamine the unit combinations.

### 1.2 Indoor Unit Selection

Enter INDOOR UNIT CAPACITY TABLES at given indoor and outdoor temperature. Select the unit that the capacity is the nearest to and greater than given load.

#### Note:

Individual indoor unit capacity is subject to change by the combination. Actual capacity has to be calculated according to the combination by using outdoor unit capacity table.

#### 1.2.1 Calculation of Actual Capacity of Indoor Unit

Because the capacity of a multi air-conditioner changes according to the temperature conditions, piping length, level difference and other factors, select the correct model after taking the various correction values into account. When selecting the model, calculate the corrected capacities of the outdoor unit and each indoor unit. Use the corrected outdoor unit capacity and the total corrected capacity of all the indoor units to calculate the actual final capacity of each indoor unit.

#### Find the indoor unit capacity correction coefficient for the following items

- Capacity correction for the indoor unit temperature conditions

From the graph of capacity characteristics, use the indoor temperature to find the capacity correction coefficient.

- Capacity distribution ratio based on the indoor unit piping length and level difference.

First, in the same way as for the outdoor unit, use the piping length and level difference for each indoor unit to find the correction coefficient from the graph of capacity change characteristics

**Capacity distribution ratio for each indoor unit = Correction coefficient for that indoor unit / Correction coefficient for the outdoor unit**

### 1.3 Outdoor Unit Selection

Allowable combinations are indicated in INDOOR UNIT COMBINATION TOTAL CAPACITY INDEX TABLE.

In general, outdoor unit can be selected as follows though the location of the unit, zoning and usage of the rooms may be considered.

The indoor and outdoor unit combination is determined by that the sum of indoor unit capacity index is nearest to and smaller than the capacity index at 100% combination ratio of each outdoor unit. Up to 8~16 indoor units can be connected to one outdoor unit. It is recommended to choose a larger capacity outdoor unit if the installation space is large enough.

If the combination ratio is greater than 100%, the indoor unit selection shall be reviewed by using actual capacity of each indoor unit.

**INDOOR UNIT COMBINATION TOTAL CAPACITY INDEX TABLE**

Outdoor Unit	Indoor Unit Combination Ratio (kW)								
	130%	120%	110%	100%	90%	80%	70%	60%	50%
8HP	32.76	30.24	27.72	25.2	22.68	20.16	17.64	15.12	12.6
10HP	36.4	33.6	30.8	28	25.2	22.4	19.6	16.8	14
12HP	43.55	40.2	36.85	33.5	30.15	26.8	23.45	20.1	16.75
14HP	52	48	44	40	36	32	28	24	20
16HP	58.5	54	49.5	45	40.5	36	31.5	27	22.5
18HP	65	60	55	50	45	40	35	30	25
20HP	72.8	67.2	61.6	56	50.4	44.8	39.2	33.6	28
22HP	79.95	73.8	67.65	61.5	55.35	49.2	43.05	36.9	30.75
24HP	88.4	81.6	74.8	68	61.2	54.4	47.6	40.8	34
26HP	94.9	87.6	80.3	73	65.7	58.4	51.1	43.8	36.5
28HP	101.4	93.6	85.8	78	70.2	62.4	54.6	47.6	39
30HP	110.5	102	93.5	85	76.5	68	59.5	51	42.5
32HP	117	108	99	90	81	72	63	54	45
34HP	123.5	114	104.5	95	85.5	76	66.5	57	47.5
36HP	130	120	110	100	90	80	70	60	50
38HP	137.8	127.2	116.6	106	95.4	84.8	74.2	63.6	53
40HP	146.9	135.6	124.3	113	101.7	90.4	79.1	67.8	56.5
42HP	156	141.6	129.8	118	106.2	94.4	82.6	70.8	59
44HP	159.9	147.6	135.3	123	110.7	98.4	86.1	73.8	61.5
46HP	166.4	153.6	140.8	128	115.2	102.4	89.6	76.8	64
48HP	175.5	162	148.5	135	121.5	108	94.5	81	67.5
50HP	182	168	154	140	126	112	98	84	70
52HP	188.5	174	159.5	145	130.5	116	101.5	87	72.5
54HP	195	180	165	150	135	120	105	90	75
56HP	202.8	187.2	171.6	156	140.4	124.8	109.2	93.6	78
58HP	211.9	195.6	179.3	163	146.7	130.4	114.1	97.8	81.5
60HP	218.4	201.6	184.8	168	151.2	134.4	117.6	100.8	84
62HP	224.9	207.6	190.3	173	155.7	138.4	121.1	103.8	86.5
64HP	231.4	213.6	195.8	178	160.2	142.4	124.6	106.8	89
66HP	240.5	222	203.5	185	166.5	148	129.5	111	92.5
68HP	247	228	209	190	171	152	133	114	95
70HP	253.5	234	214.5	195	175.5	156	136.5	117	97.5
72HP	260	240	220	200	180	160	140	120	100

**INDOOR UNIT CAPACITY INDEX**

Unit Size	Model 18	Model 22	Model 28	Model 36	Model 45	Model 56	Model 71	Model 80	Model 90	Model 100
Capacity Index (kW)	1.8	2.2	2.8	3.6	4.5	5.6	7.1	8.0	9.0	10.0
Unit Size	Model 112	Model 125	Model 140	Model 160	Model 200	Model 250	Model 280	Model 400	Model 450	Model 560
Capacity Index (kW)	11.2	12.5	14.0	16.0	20.0	25.0	28.0	40.0	45.0	56.0

**1.4 Actual Performance Data**

Use OUTDOOR UNIT CAPACITY TABLES.

Find the corresponding correct table according to the outdoor unit model and combination ratio.

Enter the table at given indoor and outdoor temperature and find the outdoor unit capacity and power input. The individual indoor unit capacity (power input) can be calculated as follows.

$$IUC = OUC \times INX/TNX$$

Where,

IUC: Each indoor unit capacity

OUC: Outdoors unit capacity

INX: Each indoor unit capacity index

TNX: Total capacity index

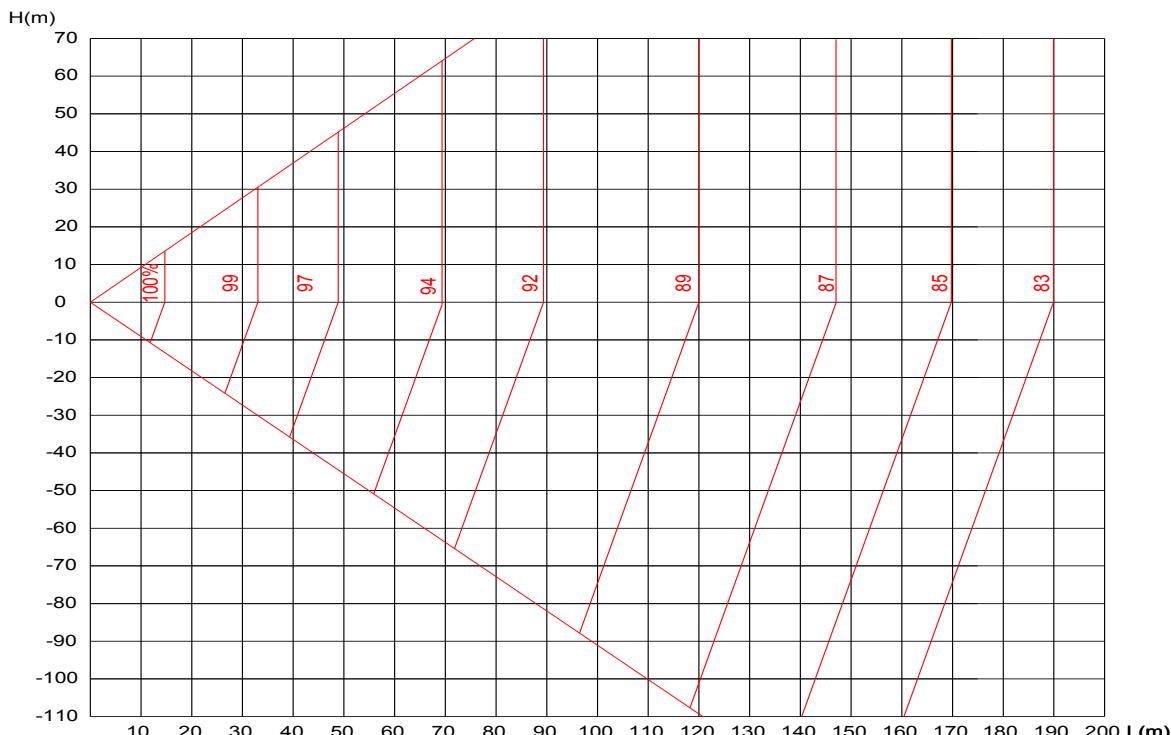
Then, correct the indoor unit capacity according to the piping length.

If the corrected capacity is smaller than the load, the capacity of indoor unit has to be increased and repeat the same selection procedure.

## 1.5 Variation in capacity in accordance with the length of refrigerant pipe

### 1.5.1 Cooling capacity modification

Modification coefficient of the length and level difference of refrigerant pipe:

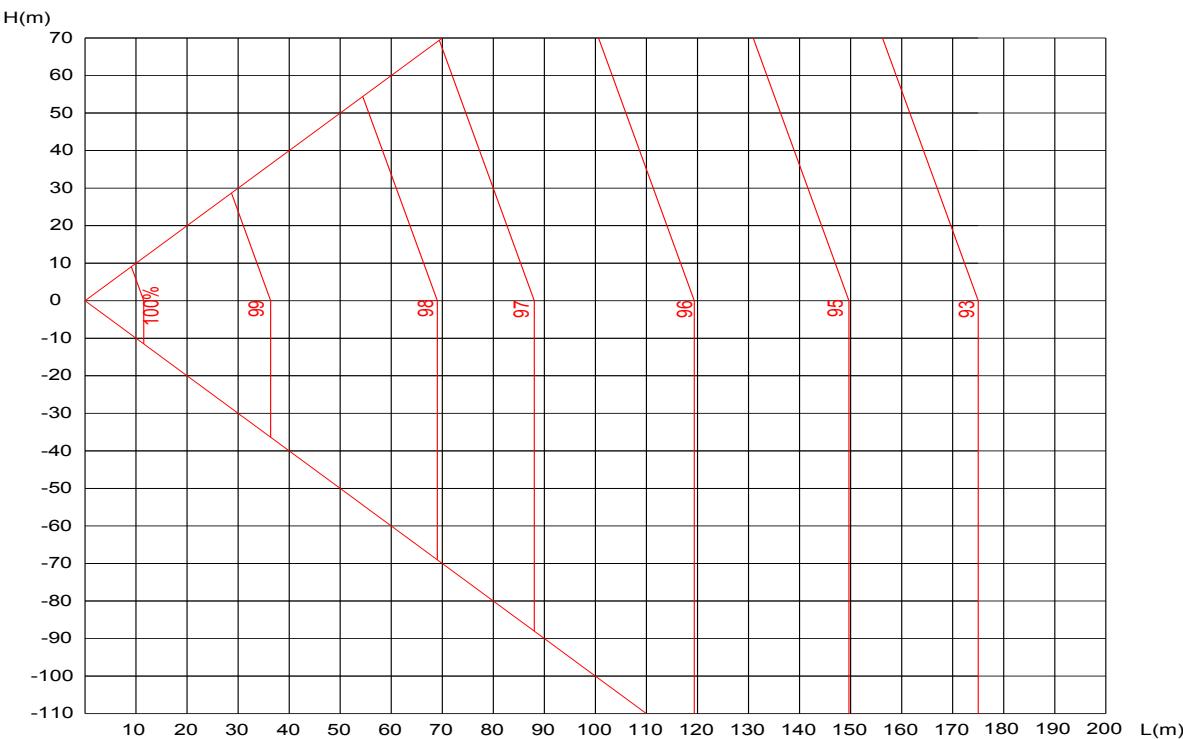


L: Refrigerant pipe equivalent length

H: Level difference between outdoor and indoor unit. Positive data means outdoor unit is top. Negative data means outdoor unit is down.

### 1.5.2 Heating capacity modification

Modification coefficient of the length and level difference of refrigerant pipe:



L: Refrigerant pipe equivalent length

H: Level difference between outdoor and indoor unit. Positive data means outdoor unit is up. Negative data means outdoor unit is down.

## 2. Unit Selection (Based on cooling load)

### 2.1 Given condition

2.1.1 Design condition (Cooling: Indoor 20°C (WB), Outdoor 35°C (DB))

2.1.2 Cooling load

Location	Room A	Room B	Room C	Room D	Room E	Room F
Load (kW)	2.1	2.8	3.5	4.6	5.8	7.2

2.1.3 Power supply unit: Outdoor 380~415V-3Ph-50Hz, Indoor 220~240V-1Ph-50Hz.

2.1.4 Pipe length: 50m

2.1.5 Height difference: 30m

### 2.2 Indoor unit selection

Select the suitable capacity for condition of 'Indoor 20°C (WB), Outdoor 35°C (DB)' using indoor unit capacity table. The selected result is as follows. (Assuming the indoor unit type is duct)

Location	Room A	Room B	Room C	Room D	Room E	Room F
Load (kW)	2.1	2.8	3.5	4.6	5.8	7.2
Unit size	22	28	36	45	56	71
Capacity (kW)	2.3	2.9	3.7	4.8	6.0	7.5

### 2.3 Outdoor unit selection

#### 2.3.1 Assume the indoor unit and outdoor unit combination as follows

2.3.1.1 Calculate the total nominal capacity of indoor units in the combination according to the above table:

$$2.2 \times 1 + 2.8 \times 1 + 3.6 \times 1 + 4.5 \times 1 + 5.6 \times 1 + 7.1 \times 1 = 25.8 \text{ kW}$$

2.3.1.2 Select outdoor unit: MDV-280(10)W/DRN1(B) which has nominal cooling capacity: 28kW.

Calculate the proportion between ① and ②:  $258/280 = 92\%$

2.3.2 Result : Because the proportion is within 50~130%, it is a "Right" selection.

#### 2.3.3 Real function data with indoor unit combination

- For the 92% combination, calculate the cooling capacity of outdoor unit (MDV-280(10)W/DRN1(B)).

26.8KW ←90% (Indoor temperature : **WB 20°C**, Outdoor temperature: **DB 35°C**)

28.3KW ←100% (Indoor temperature : **WB 20°C**, Outdoor temperature: **DB 35°C**)

Then calculated the outdoor capacity in 92% combination index:

Therefore:  $26.8 + \{(28.3 - 26.8) / 10\} \times 2 = 27.1$ ;

- Outdoor unit (MDV-280(10)W/DRN1(C)) cooling temperature: DB 35°C
- Capacity modification coefficient with pipe length (50m) and height difference (30m): 0.968
- Each indoor unit cooling capacity

MDV-D22T2:  $27.1 \times 22/258 \times 0.968 = 2.22$ (kW)

MDV-D28T2:  $27.1 \times 28/258 \times 0.968 = 2.85$  (kW)

MDV-D36T2:  $27.1 \times 36/258 \times 0.968 = 3.66$  (kW)

MDV-D45T2:  $27.1 \times 45/258 \times 0.968 = 4.58$  (kW)

MDV-D56T2:  $27.1 \times 56/258 \times 0.968 = 5.69$  (kW)

MDV-D71T2:  $27.1 \times 71/258 \times 0.968 = 7.22$  (kW)

Location	Room A	Room B	Room C	Room D	Room E	Room F
Load (kW)	2.1	2.8	3.5	4.6	5.8	7.2
Unit size	22	28	36	45	56	71
Capacity (kW)	2.22	2.85	3.66	4.58	5.69	7.22

#### 2.4 Conclusion

Generally, we think this result is acceptable, so we have accomplished the calculation. But if you think this result is not acceptable, you can repeat the above process.

**Remark:** In this sample, we don't consider other capacity modification indexes and assume them are 1.0.

For more details about the effect factor such as outside ambient/inside ambient DB/WD , please refer to the performance table of indoor and outdoor units.

# Specification & Performance

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## 1. Specifications

Model (CC01-TMVV4S)			252HT1I4.29/O4ATW3T	280HT1I3.97/O4ATW3T	335HT1I3.81/O4ATW3T
Power supply		V-Ph-Hz	380~415V 3Ph ~ 50Hz	380~415V 3Ph ~ 50Hz	380~415V 3Ph ~ 50Hz
Cooling (*1)	Capacity	W	25200	28000	33500
	Input	W	5875	7053	8793
	EER	W/W	4.29	3.97	3.81
Heating (*2)	Capacity	W	27000	31500	37500
	Input	W	6150	7554	8993
	COP	W/W	4.39	4.17	4.17
DC inverter compressor	Model		E655DHD-65D2YG	E655DHD-65D2YG	E655DHD-65D2YG+E405DHD-36D2YG
	Quantities		1	1	1+1
	Brand		Hitachi	Hitachi	Hitachi
	Capacity	W	31590	31590	31590+11800
	Input	W	10340	10340	10340+3665
	Power supply	V-Ph-Hz	380-415V~3Ph, 50Hz	380-415V~3Ph, 50Hz	380-415V~3Ph, 50Hz
	Operating frequency	Hz	40~200	40~200	40~200/60~180
	Crankcase	W	27.6×2	27.6×2	27.6×2×2
	Refrigerant oil	ml	FVC68D / 500	FVC68D / 500	FVC68D / 500+ FVC68D / 500
Outdoor fan motor	Model		WZDK750-38G-4	WZDK750-38G-4	WZDK450-38G
	Type		DC motor	DC motor	DC motor
	Brand		Panasonic&Nidec	Panasonic&Nidec	Panasonic&Nidec
	Quantities		1	1	2
	Insulation class		E	E	E
	Safe class		IPX4	IPX4	IPX4
	Input	W	534	534	272×2
	Output	W	454	454	232×2
	Rated current	A	4.4	4.4	2.3×2
	Speed	r/min	850	850	930
Outdoor fan	Material		Plastic	Plastic	Plastic
	Type		Axial	Axial	Axial
	Fan Quantities		1	1	2
	Dimension(Diameter×H)	mm	700×202	700×202	560×189
	Vane Quantities		3	3	3+4
Outdoor coil	Number of rows		2	2	2
	Tube pitch(a)×row pitch(b)	mm	22×19	22×19	22×19
	Fin spacing	mm	1.6	1.6	1.6
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside diameter	mm	Φ7.94	Φ7.94	Φ7.94
	Tube type		Inner-grooved	Inner-grooved	Inner-grooved
	Coil length×height	mm	1985×1232	1985×1232	2270×1232
	Number of circuits		22	22	22
Outdoor air flow		m <sup>3</sup> /h	11242	11242	13000
External static pressure		Pa	0~20 (default) 20~40 (optional)	0~20 (default) 20~40(optional)	0~20 (default) 20~60 (optional)
Outdoor sound level(*3)		dB(A)	57	57	59
Outdoor unit	Dimension(W×H×D)	mm	960×1615×765	960×1615×765	1250×1615×765
	Packing(W×H×D)	mm	1025×1790×830	1025×1790×830	1305×1790×820

	Net/Gross weight	kg	212/220	212/220	288/300
Charged refrigerant type and volume	kg	R410A 10kg	R410A 10kg	R410A 12kg	
Throttle type		EXV	EXV	EXV	
Excessive operating pressure	MPa	4.4/2.6	4.4/2.6	4.4/2.6	
Refrigerant piping	Liquid side/ Gas side	mm	Φ12.7/Φ25.4	Φ12.7/Φ25.4	Φ15.9/Φ31.8
	Oil balance pipe	mm	Φ6.4	Φ6.4	Φ6.4
	Total pipe length	m	1000	1000	1000
	The farthest pipe length(actual)	m	175	175	175
	The farthest pipe length (equivalent)	m	200	200	200
	The farthest equivalent pipe length from the first distributor (*4)	m	40(90)	40(90)	40(90)
	Max. vertical pipe length (When outdoor units is above)	m	70	70	70
	Max. vertical pipe length (When outdoor units is below)	m	110	110	110
	Max. level difference between indoor units	m	30	30	30
Ambient temperature range - Cooling	°C	-5°C – 48°C	-5°C – 48°C	-5°C – 48°C	
Ambient temperature range - Heating	°C	-20°C – 24°C	-20°C – 24°C	-20°C – 24°C	

**Notes:**

1. The cooling conditions: indoor temperature: 27°CDB (80.6°F), 19°CWB (60°F), outdoor temperature: 35°CDB (95°F), equivalent pipe length: 5m, drop length: 0m.
2. The heating conditions: indoor temperature: 20°CDB (68°F), 15°CWB (59°F) outdoor temperature: 7°CDB (44.6°F) equivalent pipe length: 5m drop length: 0m.
3. Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
4. The farthest equivalent pipe length should be equal to or shorter than 40m, but it can be up to 90m if meet the required conditions following part 4 installation sections.
5. The above data may be changed without notice for future improvement on quality and performance.

## R410A All DC Inverter V4 Plus S Series 50Hz

Mode (CC01-TMVV4S)			400HT1I3.54/O4ATW3T	450HT1I3.4/O4ATW3T	500HT1I3.38/O4ATW3T
Power supply		V-Ph-Hz	380~415V 3Ph ~ 50Hz	380~415V 3Ph ~ 50Hz	380~415V 3Ph ~ 50Hz
Cooling(*1)	Capacity	W	40000	45000	50000
	Input	W	11299	13235	14793
	EER	W/W	3.54	3.4	3.38
Heating(*2)	Capacity	W	45000	50000	56000
	Input	W	11194	12788	14396
	COP	W/W	4.02	3.91	3.89
DC inverter compressor	Model		E655DHD-65D2YG+ E405DHD-36D2YG	E655DHD-65D2YG+ E405DHD-36D2YG	E655DHD-65D2YG
	Quantities		1+1	1+1	2
	Type		DC inverter	DC inverter	DC inverter
	Brand		Hitachi	Hitachi	Hitachi
	Capacity	W	31590+11800	31590+11800	31590+31590
	Input	W	10340+3665	10340+3665	10340+10340
	Power supply	V-Ph-Hz	380-415V~3Ph, 50Hz	380-415V~3Ph, 50Hz	380-415V~3Ph, 50Hz
	Operating frequency	Hz	40~200/60~180	40~200/60~180	40~200
	Crankcase	W	27.6×2	27.6×2	27.6×2
	Refrigerant oil	ml	FVC68D / 500+ FVC68D / 500	FVC68D / 500+ FVC68D / 500	FVC68D / 500+ FVC68D / 500
Outdoor fan motor	Model		WZDK450-38G	WZDK450-38G	WZDK560-38G(A)
	Type		DC motor	DC motor	DC motor
	Brand		Panasonic&Nidec	Panasonic&Nidec	Panasonic
	Quantities		2	2	2
	Insulation class		E	E	E
	Safe class		IPX4	IPX4	IPX4
	Input	W	450×2	450×2	465×2
	Output	W	383×2	383×2	560×2
	Rated current	A	3.5×2	3.5×2	3.6×2
	Speed	r/min	1100×2	1100×2	800×2
Outdoor fan	Material		Plastic	Plastic	Plastic
	Type		Axial	Axial	Axial
	Fan Quantities		2	2	2
	Dimension(Diameter×H )	mm	560×189	560×189	560×189
	Vane Quantities		3+4	3+4	3+4
Outdoor coil	Number of rows		2	2	2
	Tube pitch(a) ×row pitch(b)	mm	22×19	22×19	22×19
	Fin spacing	mm	1.6	1.6	1.6
	Fin type		Hydrophilic aluminum	Hydrophilic aluminum	Hydrophilic aluminum
	Tube outside diameter	mm	Φ7.94	Φ7.94	Φ7.94
	Tube type		Inner-grooved	Inner-grooved	Inner-grooved
	Coil length × height	mm	2270×1232	2270×1232	2867×1232
	Number of circuits		22	22	22
Outdoor air flow		m <sup>3</sup> /h	15620	15620	15620
External static pressure		Pa	0~20 (default) 20~40 (optional)	0~20 (default) 20~40 (optional)	0~20 (default) 20~40 (optional)
Outdoor sound level(*3)		dB(A)	61	62	62
Outdoor unit	Dimension(W×H×D)	mm	1250×1615×765	1250×1615×765	1250×1615×765
	Packing(W×H×D)	mm	1305×1790×820	1305×1790×820	1305×1790×820
	Net/Gross weight	Kg	288/308	288/308	310/330

**R410A All DC Inverter V4 Plus S Series 50Hz**

Charged refrigerant type		kg	R410A 15kg	R410A 15kg	R410A 16kg
Throttle type			EXV	EXV	EXV
Excessive operating pressure		MPa	4.4/2.6	4.4/2.6	4.4/2.6
Refrigerant piping	Liquid side/ Gas side	mm	Φ15.9/Φ31.8	Φ15.9/Φ31.8	Φ19.1/Φ31.8
	Oil balance pipe	mm	Φ6.4	Φ6.4	Φ6.4
	Total pipe length	m	1000	1000	1000
	The farthest pipe length(actual)	m	175	175	175
	The farthest pipe length (equivalent)	m	200	200	200
	The farthest equivalent pipe length from the 1st distributor tube(*4)	m	40(90)	40(90)	40(90)
	Max. vertical pipe length (When outdoor units is above)	m	70	70	70
	Max. vertical pipe length (When outdoor units is below)	m	110	110	110
	Max. level difference between indoor units	m	30	30	30
Ambient temp. range - Cooling		°C	-5°C – 48°C	-5°C – 48°C	-5°C – 48°C
Ambient temp. range - Heating		°C	-20°C – 24°C	-20°C – 24°C	-20°C – 24°C

**Notes:**

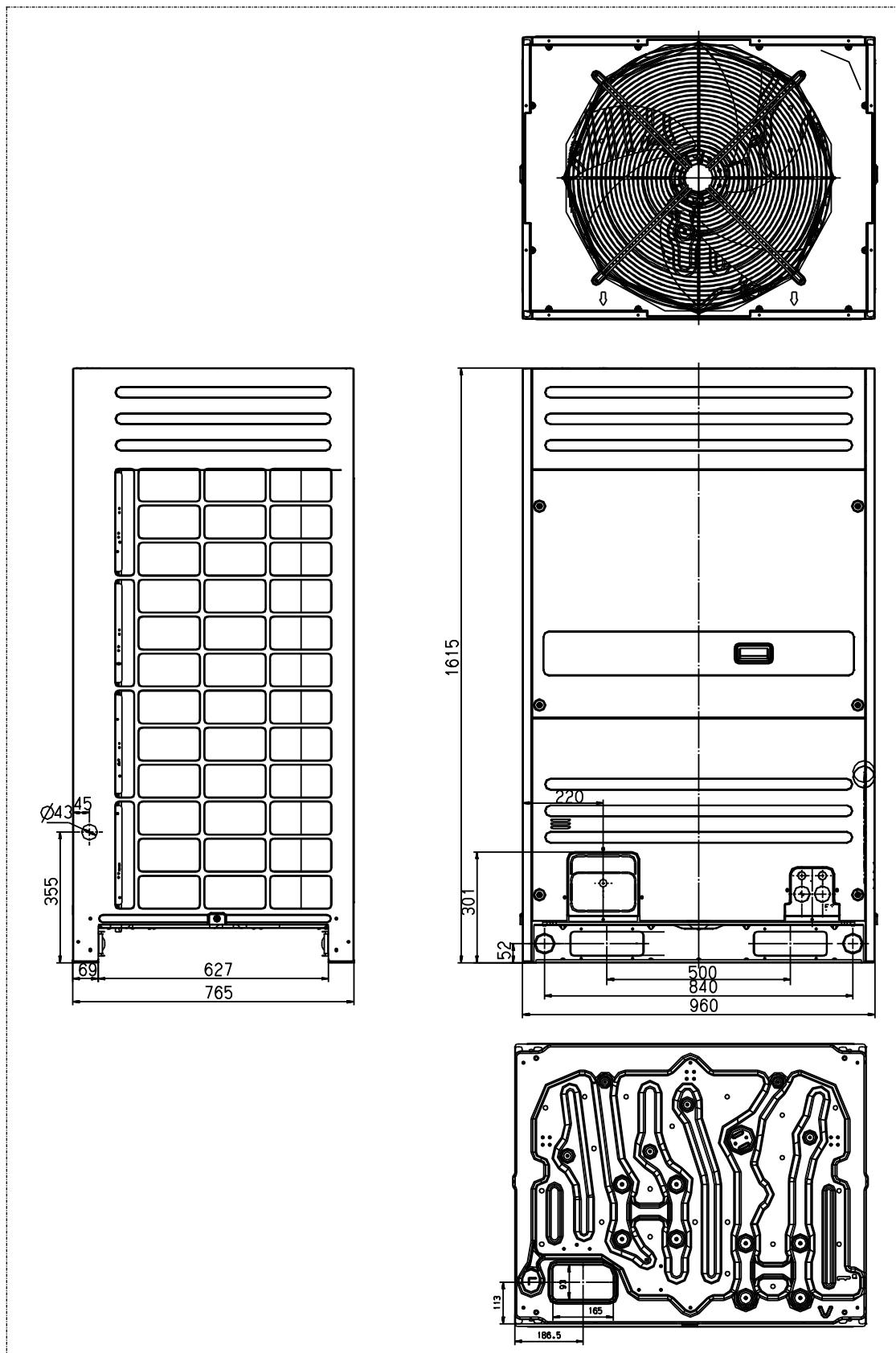
1. The cooling conditions: indoor temperature: 27°CDB(80.6°F), 19°CWB(60°F), outdoor temperature: 35°CDB(95°F), equivalent pipe length: 5m, drop length: 0m.
2. The heating conditions: indoor temperature: 20°CDB(68°F), 15°CWB(59°F), outdoor temperature: 7°CDB(44.6°F), equivalent pipe length: 5m, drop length: 0m.
3. Sound level: Anechoic chamber conversion value, measured at a point 1 m in front of the unit at a height of 1.5 m. During actual operation, these values are normally somewhat higher as a result of ambient conditions.
4. The farthest equivalent pipe length should be equal to or shorter than 40m, but it can be up to 90m if meet the required conditions following part 4 installation sections.
5. The above data may be changed without notice for future improvement on quality and performance.

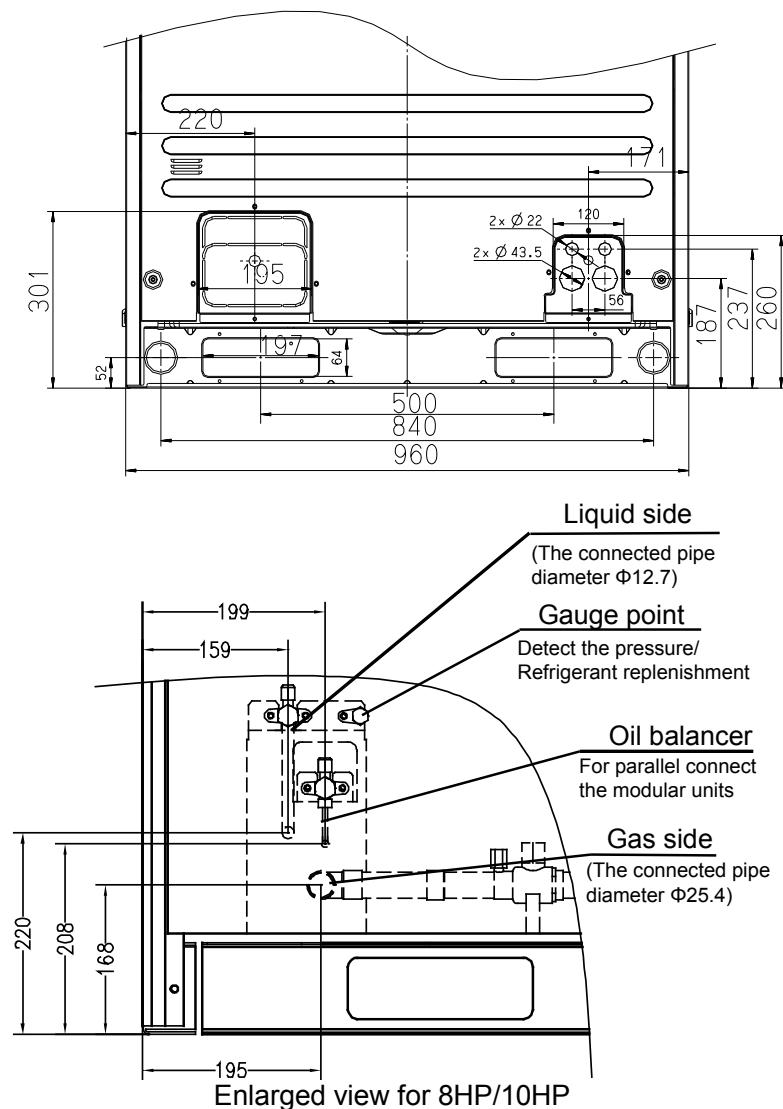
R410A All DC Inverter V4 Plus S Series 50Hz

## 2. Dimensions

### 2.1 Units Dimension

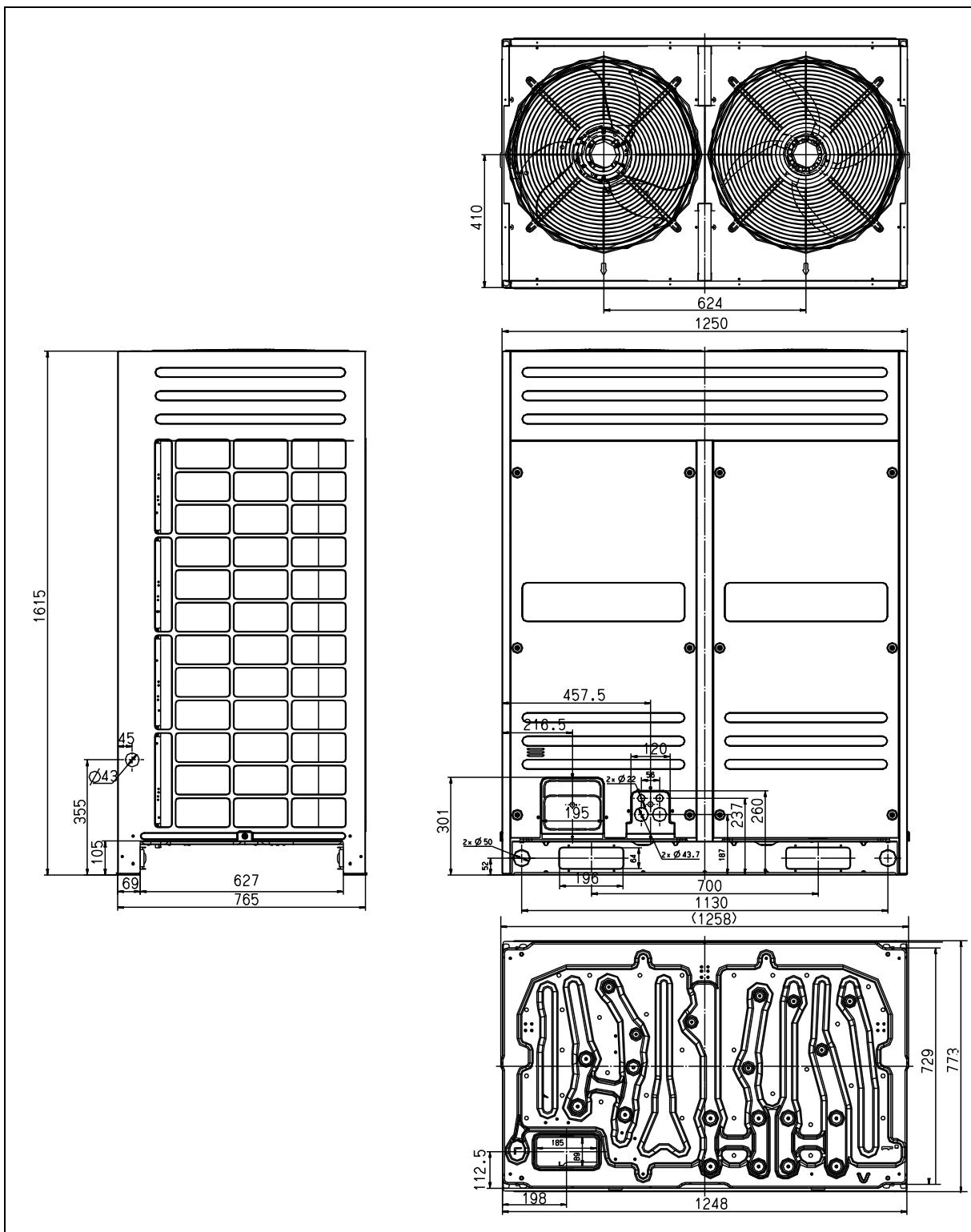
#### 8HP/10HP Dimensions (Combinable):



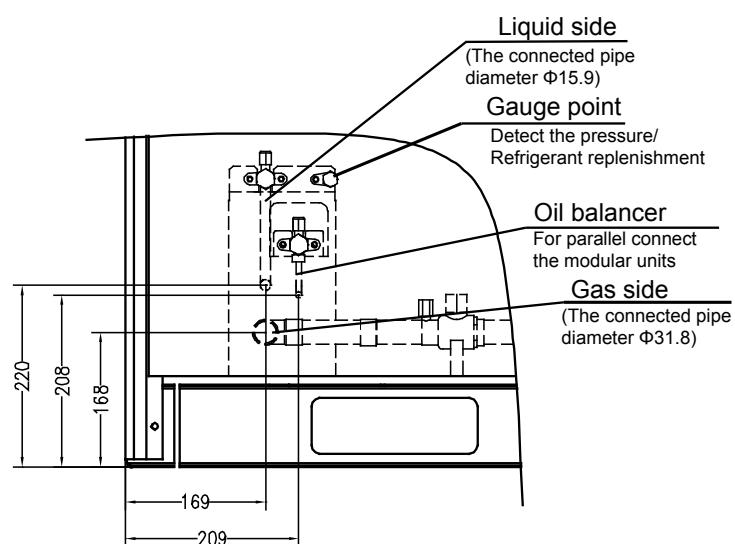
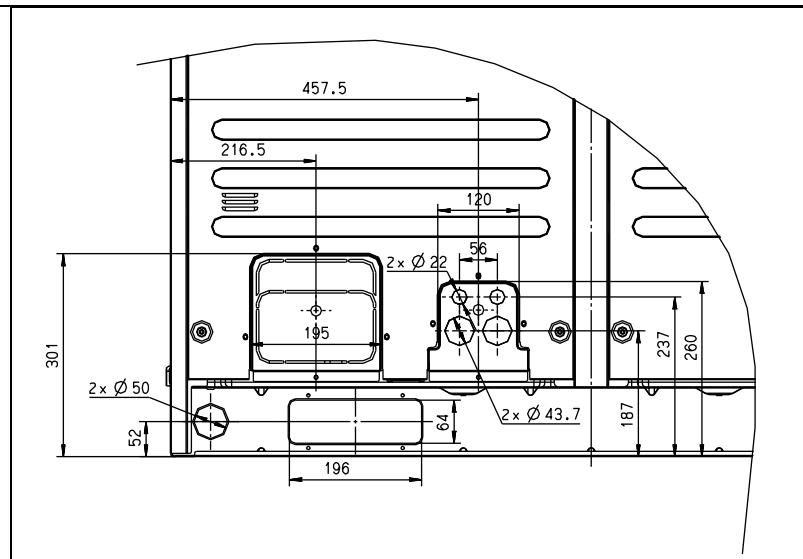


R410A All DC Inverter V4 Plus S Series 50Hz

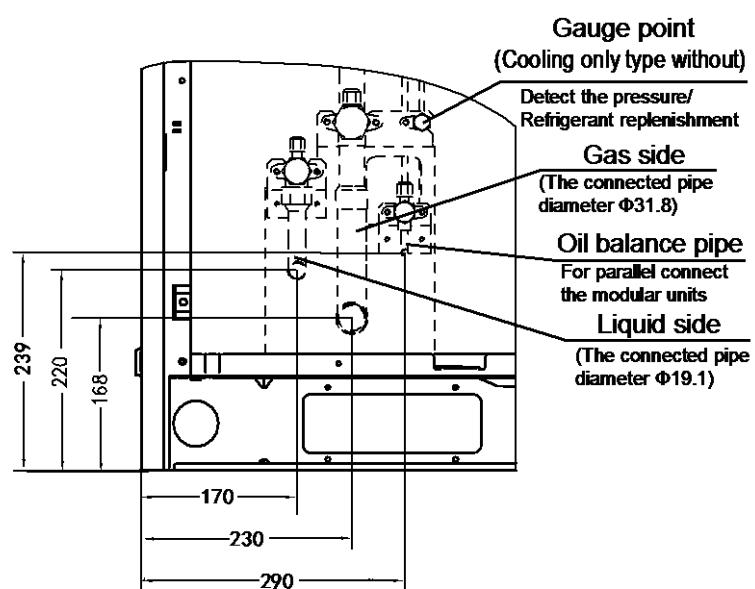
## 12HP/14HP/16HP/18HP (Combinable) Dimensions:



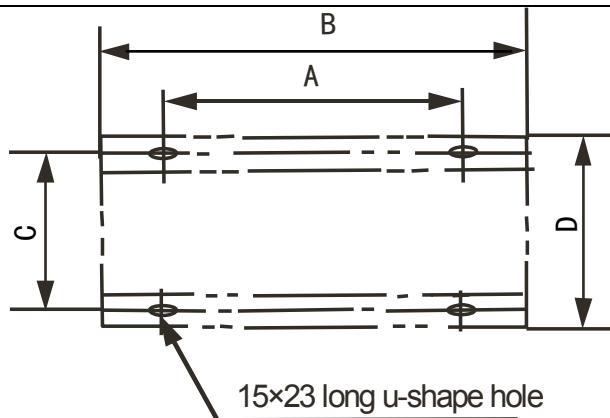
**2.2 Position of foot screw bolt (Unit: mm)**



Enlarged view for 12HP/14/16HP



Enlarged view for 18HP



	For 8,10HP	For 12,14,16,18HP
A	830	1120
B	960	1250
C	736	736
D	765	765

### 2.3 Valve explanation

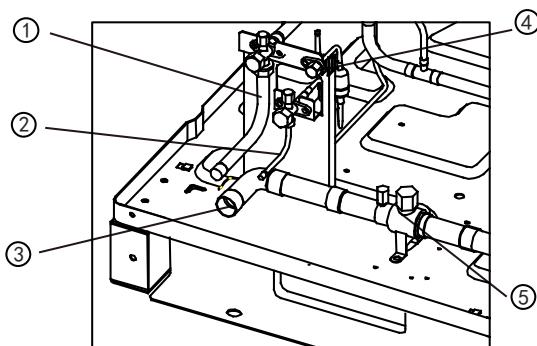
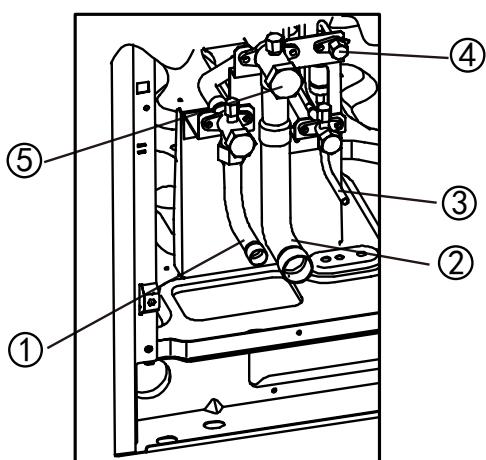


Fig.4-16

8~16HP

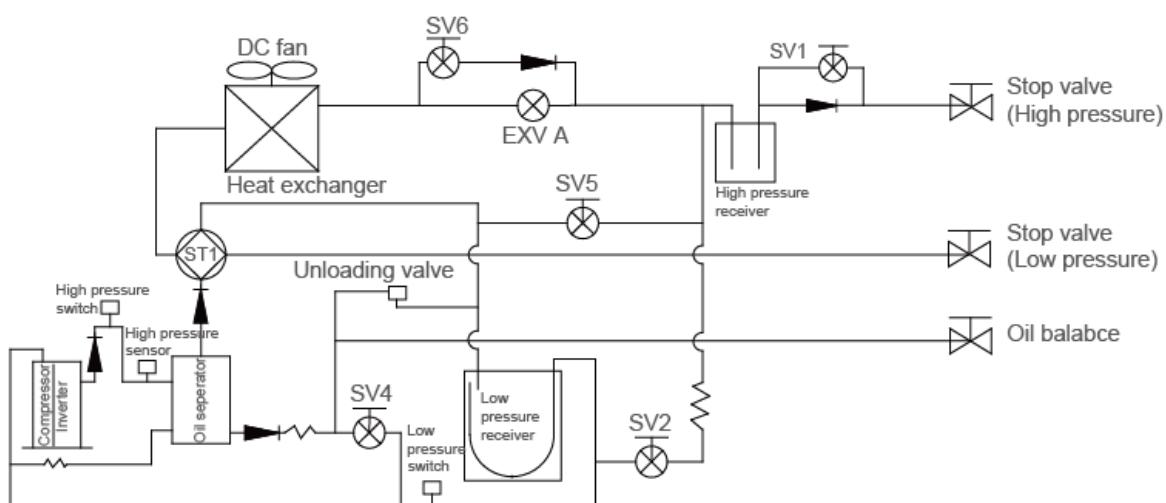
- ① Connect the liquid pipe (accessory, field installation)
- ② Oil balance pipe (only for combination)
- ③ Connect the gas pipe
- ④ Gauge point (cooling only type without)
- ⑤ Low pressure float valve



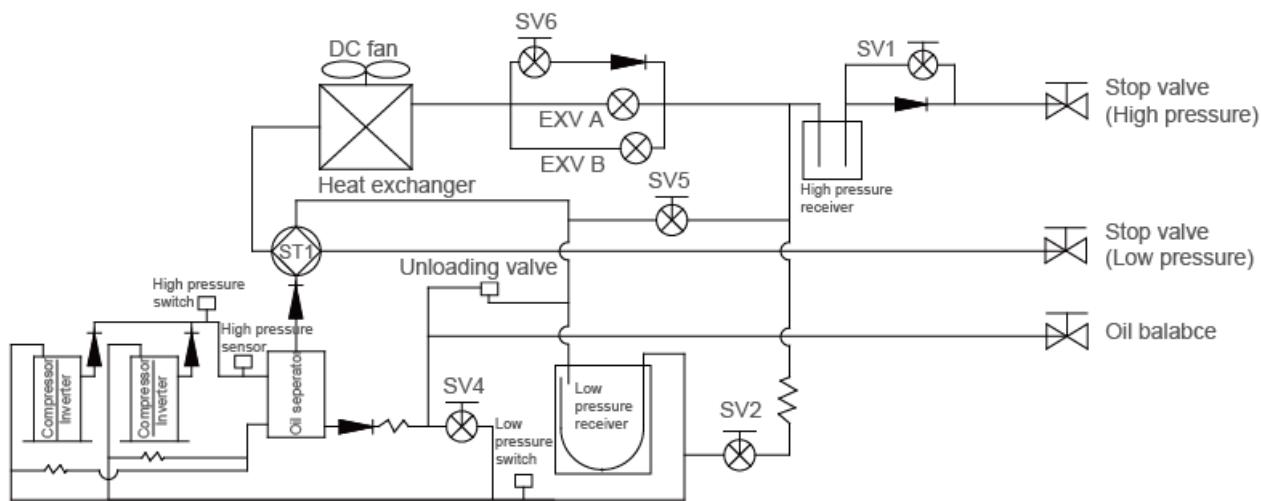
18HP

- ① Connect the liquid pipe (accessory, field installation)
- ② Connect the gas pipe
- ③ Oil balance pipe (only for combination)
- ④ Gauge point (cooling only type without)
- ⑤ Stop valve

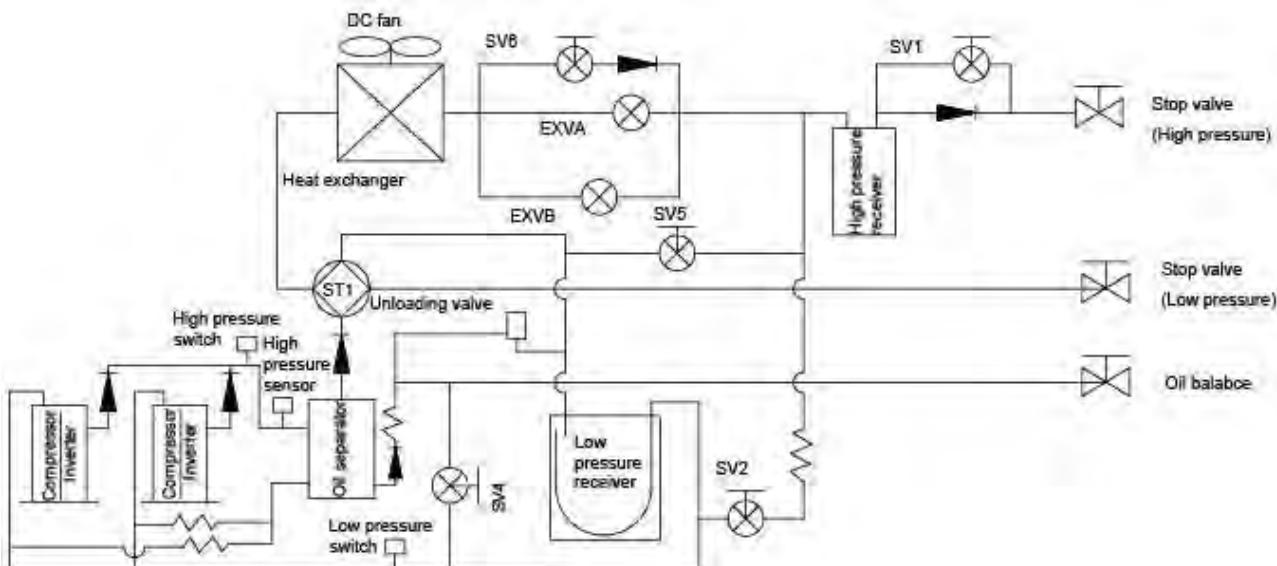
### 3. Piping Diagrams



8~10HP



12~16HP



18HP

**Remark:**

## R410A All DC Inverter V4 Plus S Series 50Hz

---

1.8~10 HP models only have one inverter compressor.

2.12~18HP have two DC inverter compressors.

**Key Components:**

**Oil Separator:** used to separate oil from high pressure & temperature gas refrigerant, which is pumped out from compressor. The separation efficiency is up to 99%, it makes the oil return back to each compressor very soon.

**Low pressure receiver:** It is used to store the liquid refrigerant and oil, it can protect the compressor from liquid hammer.

**Four-way valve control (ST1):** Closed in cooling mode and open in heating mode

**EXV control:**

1) Max. Open degree is 480 pulses.

2) Generally, when system is plug in the EXV closes 700pulse first, then opens to 350 pulse and stand by. When then the unit started, it opens to the right pulse.

3) When the running outdoor unit receives OFF signal, the EXV of slave unit will stop, while master unit is running and slave unit stopped at the same time. If all outdoor units stopped, the EXV will close first, and then open to the pulse of stand-by.

4) 8HP~10HP models have one EXV; 12~18HP models have double EXVs.

**SV2:** spray a little liquid refrigerant to cooling compressor. Open when any compressor discharge temperature is higher than 100°C.

**SV4:** oil returning valve. Opens after the DC inverter compressor has been run for 5 minutes and then closes 15 minutes later. (For the system has only one outdoor unit).

Every 20 minutes, SV4 of each outdoor unit opens for 3 minutes. (For the system has more than one outdoor unit)

**SV5:** for defrosting. In defrosting mode, the opening of SV5 can cut the refrigerant flowing circle, so the defrosting process will takes less time. In cooling mode, it is always off.

**SV6:** for by-pass. Closed when the unit stands by and system is running at heating mode. Open when the discharge temperature is over-high in cooling mode, and close when the unit is standby or system is in heating mode.

**High pressure sensor:** to supervisor the discharge pressure of the compressor and to control the DC fan speed.

**For example:**

Cooling mode launch sequence (The unit has accomplish commissioning):

Plug in and unit start-----SV4, SV5 open 60s later SV5 closed 60s later SV4 closed 40s later Inverter compressor start at 40 Hz 50s later Inverter compressor start at 30hz 20s later Fix scroll compressor start (This step is omitted for 8HP&10HP models) 40s later Inverter compressor running frequency will adjust according the capacity requirement.

#### 4. Electric Characteristics

Model	Outdoor Unit				Power Supply			Compressor		OFM	
	Hz	Voltage	Min.	Max.	MCA	TOCA	MFA	MSC	RLA	kW	FLA
TMVV4S252HT1I4.29/O4ATW3T	50	380~415	342	440	18.4	20.8	25	-	17.4	0.42	4.4
TMVV4S280HT1I3.97/O4ATW3T	50	380~415	342	440	20.6	22.1	25	-	17.4	0.42	4.4
TMVV4S335HT1I3.81/O4ATW3T	50	380~415	342	440	27.3	30.8	35	-	17.4+10.5	0.42	4.4
TMVV4S400HT1I3.54/O4ATW3T	50	380~415	342	440	27.9	31.8	35	-	17.4+10.5	0.36×2	3.4×2
TMVV4S450HT1I3.4/O4ATW3T	50	380~415	342	440	33.4	32.8	35	-	17.4+10.5	0.36×2	3.4×2
TMVV4S500HT1I3.38/O4ATW3T	50	380~415	342	440	40.1	40.5	45	-	17.4×2	0.36×2	3.4×2

The current value of combination unit is the total value of each basic model (refer to Units Combination Table in Part1)

For example: 46HP=16HP+16HP+14HP

Power current: MCA=33.4+33.4+27.9=94.7

$$\text{TOCA}=32.8+32.8+31.8=97.4$$

$$\text{MFA}=35+35+25=105$$

Compressor: RLA=(17.4+10.5)+(17.4+10.5)+(17.4+10.5)=83.7

OFM: FLA=3.4×2+3.4×2+3.4×2=20.4

##### Remark:

MCA: Min. Current Amps. (A)

TOCA: Total Over-current Amps. (A)

MFA: Max. Fuse Amps. (A)

MSC: Max. Starting Amps. (A)

RLA: Rated Locked Amps. (A)

OFM: Outdoor Fan Motor.

FLA: Full Load Amps. (A)

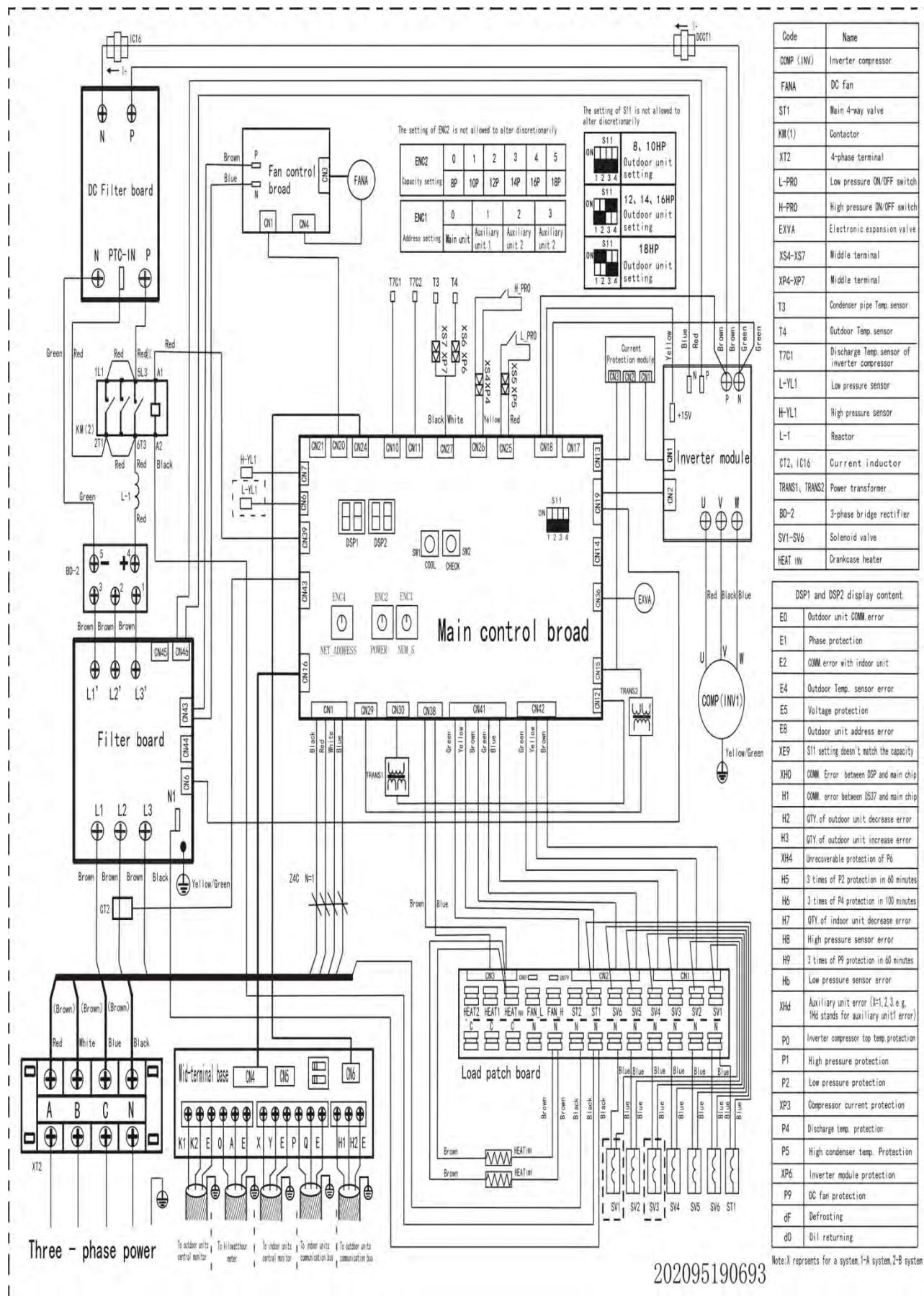
KW: Rated Motor Output (kW)

##### Notes:

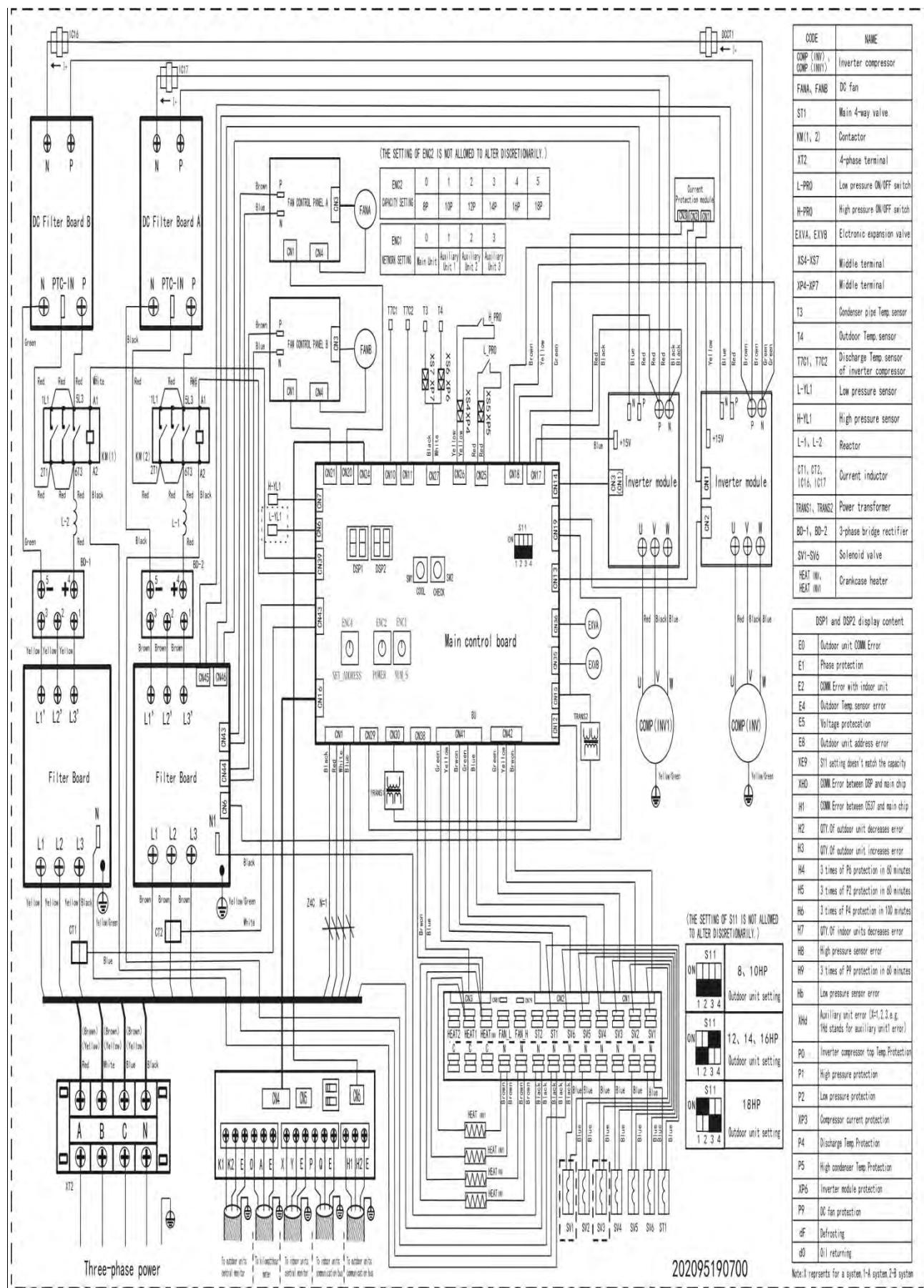
1. RLA is based on the following conditions, Indoor temp. 27°C DB/19°C WB, Outdoor temp. 35°C DB
2. TOCA means the total value of each OC set.
3. MSC means the Max. current during the starting of compressor.
4. Voltage range. Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits.
5. Maximum allowable voltage variation between phases is 2%.
6. Selection wire size based on the larger value of MCA or TOCA.
7. MFA is used to select the circuit breaker and the ground fault circuit interrupter (earth circuit breaker).

## 5. Wiring Diagrams and Field Wiring

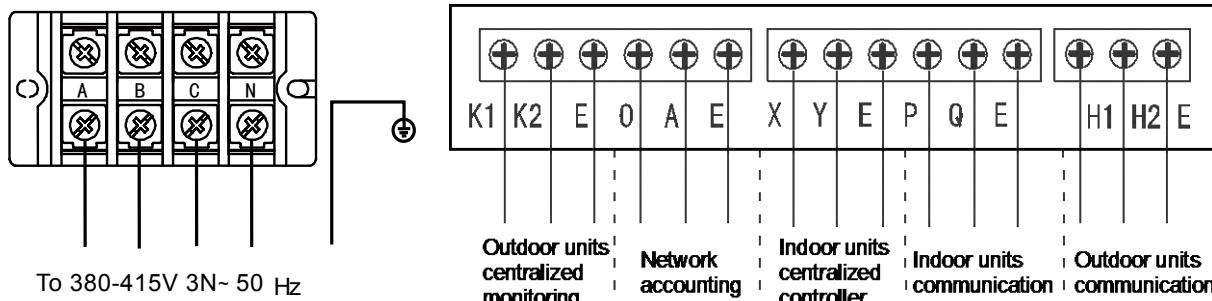
### 5.1 Wiring Diagram For 8~10HP



## Wiring Diagram For 12~18HP

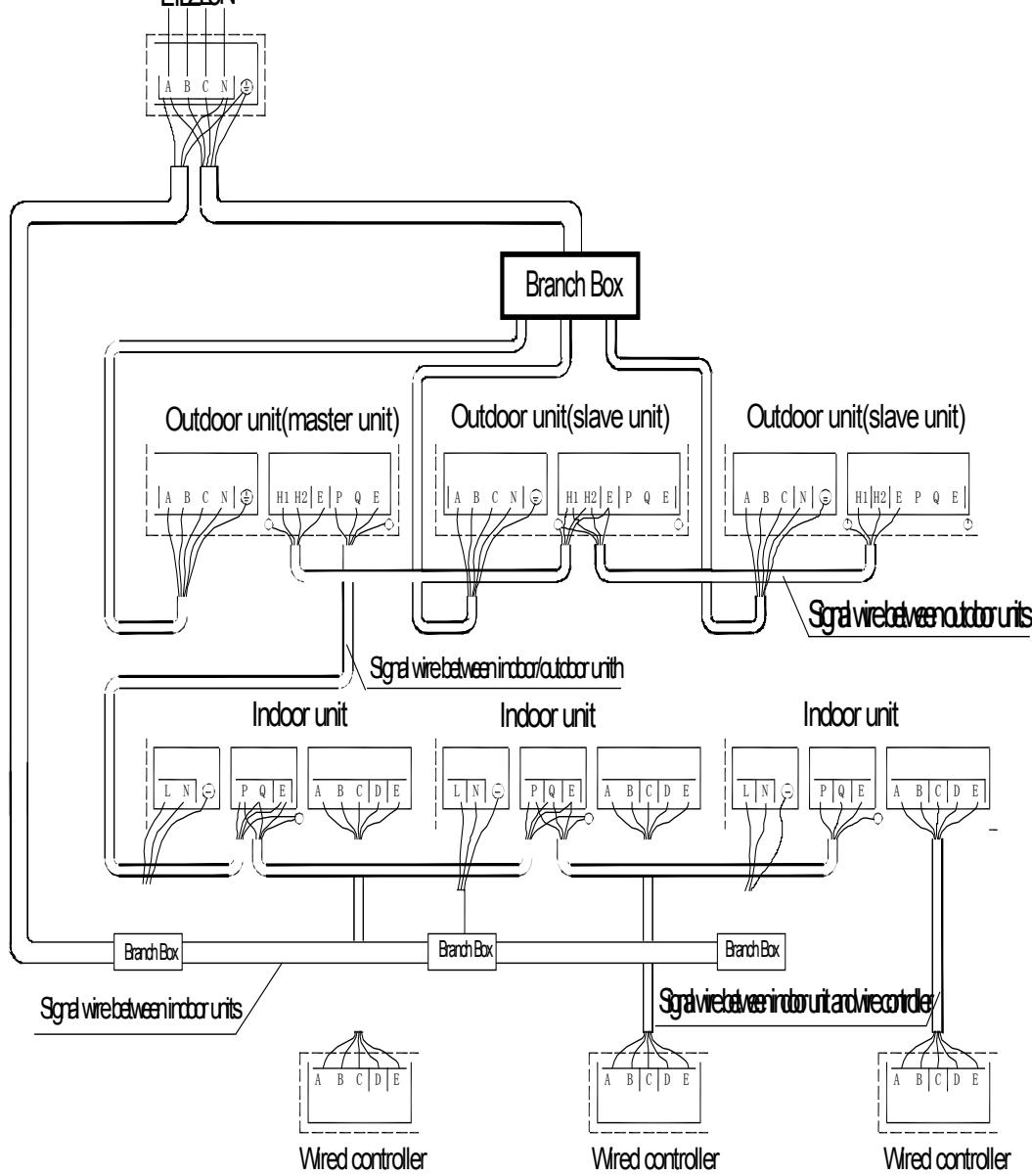


## 5.2 Field Wiring

**Terminal of Outdoor unit**

**Wiring between Indoor and Outdoor unit**

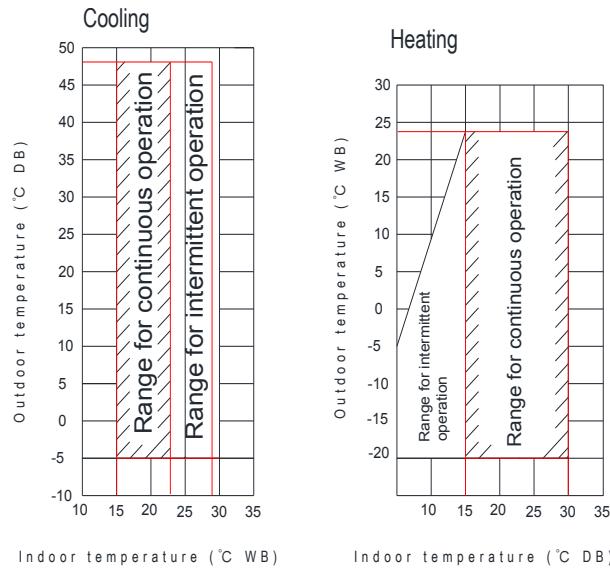
Power(380-415V 3N~ 50Hz/60Hz)

L123N


**Note:**

1. The signal connecting line between outdoor units, indoor and outdoor units and indoor units has polarity. When connecting, be careful to prevent error connection.
2. Signal line shall adopt three-core shielded wire with an area above  $0.75 \text{ mm}^2$ .
3. Do not bind signal line and copper pipe together with belting.
4. Make sure that the shield metal layer should be grounded well indoor control box in order to prevent interference.
5. It's forbidden to connect 200V or above high-volt live wire to the communication terminal.

## 6. Operation Limits



### Notes:

1. If the system is running in cooling mode, when the ambient temperature is lower than -5°C or higher than 48°C, the units will stop running for protection control.
2. These figures base on the operation conditions between indoor units and outdoor units:

Equivalent pipe length is 5m, and height difference is 0m.

### Precaution:

The indoor relative humidity should be lower than 80%. If the air conditioner works in an environment with a relative humidity higher than mentioned above, the surface of the air conditioner may condensate. In this case, it is recommended to set the air speed of the indoor unit to high.

## 7. Capacity Tables

### 7.1 Cooling capacity tables

8HP cooling mode

**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)													
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
130%	-5	22.1	2.40	26.4	2.93	30.6	3.14	31.8	3.27	33.3	3.36	34.1	3.66	35.0	3.68
	-2	22.1	2.40	26.4	2.99	30.6	3.14	31.8	3.29	33.3	3.36	34.1	3.70	35.0	3.72
	0	22.1	2.44	26.4	3.04	30.6	3.26	31.8	3.47	33.3	3.56	34.1	3.75	35.0	3.77
	2	22.1	2.49	26.4	3.05	30.6	3.37	31.8	3.66	33.3	3.60	34.1	3.78	35.0	3.82
	4	22.1	2.54	26.4	3.11	30.6	3.49	31.8	3.68	33.3	3.65	34.1	3.77	35.0	3.90
	6	22.1	2.59	26.4	3.17	30.6	3.61	31.8	3.71	32.9	3.76	33.7	3.77	34.6	3.92
	8	22.1	2.65	26.4	3.24	30.6	3.79	31.8	3.89	32.5	3.88	33.3	3.90	34.1	3.96
	10	22.1	2.71	26.4	3.31	30.6	3.94	31.8	4.02	32.1	4.04	32.9	4.06	33.7	4.08
	12	22.1	2.76	26.4	3.37	30.6	4.01	31.3	4.03	31.8	4.06	32.5	4.07	33.3	4.10
	14	22.1	2.81	26.4	3.44	30.5	4.05	31.0	4.06	31.3	4.08	32.1	4.09	32.9	4.19
	16	22.1	2.86	26.4	3.51	30.1	4.06	30.5	4.08	30.9	4.10	31.7	4.12	32.5	4.26
	18	22.1	2.91	26.4	3.58	29.7	4.20	30.1	4.22	30.5	4.24	31.3	4.28	32.1	4.32
	20	22.1	2.98	26.4	3.81	29.2	4.40	29.7	4.43	30.1	4.45	30.9	4.49	31.7	4.54
	21	22.1	3.06	26.4	3.94	29.1	4.51	29.5	4.53	29.9	4.55	30.7	4.60	31.5	4.64
	23	22.1	3.28	26.4	4.23	28.7	4.71	29.1	4.73	29.4	4.76	30.2	4.81	31.0	4.85
	25	22.1	3.50	26.4	4.53	28.3	4.92	28.6	4.94	29.1	4.97	29.9	5.02	30.7	5.07
	27	22.1	3.74	26.4	4.85	27.9	5.12	28.3	5.15	28.6	5.18	29.4	5.23	30.2	5.29
	29	22.1	3.99	26.4	5.18	27.4	5.33	27.8	5.36	28.3	5.39	29.1	5.45	29.9	5.50
	31	22.1	4.26	26.3	5.48	27.0	5.54	27.4	5.57	27.8	5.60	28.6	5.66	29.4	5.73
	33	22.1	4.54	25.8	5.69	26.6	5.75	27.0	5.78	27.4	5.81	28.3	5.88	29.0	5.94
	35	22.1	4.84	25.4	5.89	26.2	5.96	26.6	5.99	27.0	6.03	27.8	6.10	28.6	6.16
	37	22.1	5.15	25.0	6.11	25.8	6.18	26.2	6.21	26.6	6.25	27.4	6.32	28.2	6.39
	39	22.1	5.48	24.6	6.17	25.4	6.38	25.8	6.42	26.2	6.46	27.0	6.53	27.8	6.61
	41	22.1	5.77	24.3	6.23	25.1	6.44	25.6	6.48	25.9	6.52	26.7	6.55	26.7	6.67
	43	22.1	5.91	24.1	6.26	25.0	6.46	25.4	6.51	25.7	6.53	26.2	6.56	26.4	6.69
	45	22.1	6.21	24.0	6.32	24.7	6.52	25.2	6.55	25.3	6.56	25.5	6.58	25.9	6.81
	48	22.1	6.43	23.9	6.52	24.3	6.58	24.8	6.61	25.0	6.63	24.9	6.69	25.3	6.83
120%	-5	20.4	2.32	24.3	2.81	28.3	3.32	30.2	3.62	31.7	3.78	32.4	3.90	33.1	4.00
	-2	20.4	2.34	24.3	2.84	28.3	3.36	30.2	3.64	31.7	3.82	32.4	3.93	33.1	4.01
	0	20.4	2.36	24.3	2.86	28.3	3.39	30.2	3.65	31.7	3.86	32.4	3.95	33.1	4.02
	2	20.4	2.37	24.3	2.89	28.3	3.42	30.2	3.69	31.7	3.87	32.4	3.98	33.1	4.03
	4	20.4	2.39	24.3	2.92	28.3	3.47	30.2	3.72	31.7	3.92	32.4	3.99	33.1	4.04
	6	20.4	2.42	24.3	2.95	28.3	3.51	30.2	3.76	31.7	3.96	32.4	4.02	33.1	4.05
	8	20.4	2.44	24.3	2.98	28.3	3.55	30.2	3.81	31.7	4.00	32.4	4.04	33.1	4.07
	10	20.4	2.47	24.3	3.02	28.3	3.59	30.2	3.88	31.7	4.01	32.4	4.05	33.1	4.09
	12	20.4	2.52	24.3	3.07	28.3	3.66	30.2	3.95	31.2	4.02	31.9	4.03	32.7	4.12
	14	20.4	2.57	24.3	3.14	28.3	3.73	30.2	4.03	30.8	4.05	31.6	4.09	32.3	4.17
	16	20.4	2.61	24.3	3.20	28.3	3.80	30.1	4.10	30.4	4.11	31.1	4.16	31.9	4.23
	18	20.4	2.66	24.3	3.26	28.3	3.93	29.6	4.20	30.0	4.21	30.7	4.25	31.5	4.29
	20	20.4	2.72	24.3	3.39	28.3	4.23	29.2	4.40	29.6	4.42	30.3	4.46	31.1	4.50
	21	20.4	2.74	24.3	3.51	28.3	4.38	29.0	4.51	29.3	4.52	30.2	4.56	30.9	4.61
	23	20.4	2.93	24.3	3.76	28.3	4.69	28.6	4.70	29.0	4.73	29.7	4.77	30.4	4.81
	25	20.4	3.13	24.3	4.02	27.8	4.89	28.2	4.91	28.5	4.93	29.3	4.98	30.1	5.03
	27	20.4	3.34	24.3	4.30	27.4	5.09	27.8	5.12	28.2	5.15	28.9	5.19	29.6	5.24
	29	20.4	3.56	24.3	4.59	27.0	5.30	27.4	5.33	27.7	5.35	28.4	5.41	29.2	5.46
	31	20.4	3.80	24.3	4.90	26.5	5.51	27.0	5.53	27.4	5.57	28.1	5.62	28.8	5.68
	33	20.4	4.05	24.3	5.23	26.2	5.72	26.5	5.75	26.9	5.77	27.6	5.84	28.3	5.89
	35	20.4	4.31	24.3	5.57	25.7	5.92	26.1	5.95	26.5	5.99	27.3	6.05	28.0	6.11
	37	20.4	4.58	24.3	5.94	25.4	6.14	25.7	6.17	26.1	6.20	26.8	6.26	27.5	6.33
	39	20.4	4.88	24.2	6.27	24.9	6.34	25.3	6.38	25.7	6.41	26.5	6.48	27.2	6.55
	41	20.4	5.01	24.0	6.32	24.7	6.39	25.1	6.43	25.5	6.46	26.3	6.50	26.4	6.60
	43	20.4	5.09	23.9	6.36	24.5	6.43	24.9	6.45	25.3	6.48	25.8	6.52	26.0	6.73
	45	20.4	5.15	23.8	6.42	24.3	6.49	24.6	6.51	25.0	6.53	25.3	6.54	25.7	6.88
	48	20.4	5.19	23.6	6.49	24.0	6.54	24.2	6.56	24.8	6.58	24.9	6.56	25.4	6.96
110%	-5	18.7	2.03	22.3	2.52	25.9	3.01	27.7	3.23	29.5	3.48	31.8	3.61	32.5	3.72
	-2	18.7	2.06	22.3	2.55	25.9	3.03	27.7	3.26	29.5	3.50	31.8	3.64	32.5	3.74
	0	18.7	2.09	22.3	2.57	25.9	3.06	27.7	3.28	29.5	3.54	31.8	3.68	32.5	3.79
	2	18.7	2.13	22.3	2.59	25.9	3.11	27.7	3.32	29.5	3.58	31.8	3.73	32.5	3.83
	4	18.7	2.17	22.3	2.62	25.9	3.13	27.7	3.36	29.5	3.63	31.8	3.79	32.5	3.87
	6	18.7	2.19	22.3	2.65	25.9	3.17	27.7	3.41	29.5	3.67	31.8	3.83	32.5	3.93
	8	18.7	2.21	22.3	2.69	25.9	3.20	27.7	3.45	29.5	3.72	31.8	3.85	32.5	3.97
	10	18.7	2.24	22.3	2.73	25.9	3.25	27.7	3.51	29.5	3.78	31.8	3.88	32.5	4.00
	12	18.7	2.29	22.3	2.79	25.9	3.31	27.7	3.58	29.5	3.85	31.4	3.94	32.0	4.06
	14	18.7	2.33	22.3	2.84	25.9	3.37	27.7	3.64	29.5	3.92	31.0	3.97	31.7	4.08
	16	18.7	2.37	22.3	2.89	25.9	3.44	27.7	3.71	29.5	4.00	30.6	4.01	31.2	4.13
	18	18.7	2.42	22.3	2.95	25.9	3.51	27.7	3.82	29.5	4.19	30.2	4.22	30.9	4.26
	20	18.7	2.46	22.3	3.01	25.9	3.71	27.7	4.10	29.1	4.39	29.8	4.43	30.4	4.47
	21	18.7	2.49	22.3	3.10	25.9	3.85	27.7	4.25						

**8HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-5	17.0	1.84	20.3	2.22	23.6	2.64	25.2	2.83	26.8	3.07	30.1	3.50	31.9	3.65		
	-2	17.0	1.87	20.3	2.25	23.6	2.67	25.2	2.88	26.8	3.11	30.1	3.54	31.9	3.68		
	0	17.0	1.89	20.3	2.27	23.6	2.70	25.2	2.92	26.8	3.14	30.1	3.60	31.9	3.72		
	2	17.0	1.92	20.3	2.30	23.6	2.73	25.2	2.96	26.8	3.18	30.1	3.65	31.9	3.78		
	4	17.0	1.94	20.3	2.33	23.6	2.77	25.2	3.00	26.8	3.22	30.1	3.69	31.9	3.82		
	6	17.0	1.97	20.3	2.37	23.6	2.81	25.2	3.06	26.8	3.27	30.1	3.74	31.9	3.88		
	8	17.0	2.00	20.3	2.41	23.6	2.86	25.2	3.09	26.8	3.32	30.1	3.80	31.9	3.94		
	10	17.0	2.03	20.3	2.45	23.6	2.91	25.2	3.14	26.8	3.38	30.1	3.86	31.9	4.00		
	12	17.0	2.06	20.3	2.50	23.6	2.96	25.2	3.20	26.8	3.44	30.1	3.94	31.4	4.03		
	14	17.0	2.10	20.3	2.55	23.6	3.02	25.2	3.26	26.8	3.51	30.1	4.01	31.0	4.08		
	16	17.0	2.14	20.3	2.60	23.6	3.08	25.2	3.33	26.8	3.58	30.0	4.06	30.6	4.13		
	18	17.0	2.18	20.3	2.64	23.6	3.14	25.2	3.39	26.8	3.65	29.6	4.20	30.2	4.23		
	20	17.0	2.22	20.3	2.70	23.6	3.23	25.2	3.56	26.8	3.91	29.2	4.39	29.8	4.43		
	21	17.0	2.24	20.3	2.72	23.6	3.35	25.2	3.69	26.8	4.05	29.0	4.50	29.6	4.54		
	23	17.0	2.30	20.3	2.91	23.6	3.59	25.2	3.95	26.8	4.34	28.6	4.70	29.2	4.74		
	25	17.0	2.45	20.3	3.10	23.6	3.84	25.2	4.24	26.8	4.65	28.2	4.91	28.8	4.95		
	27	17.0	2.61	20.3	3.31	23.6	4.10	25.2	4.53	26.8	4.97	27.7	5.11	28.4	5.16		
	29	17.0	2.78	20.3	3.53	23.6	4.38	25.2	4.84	26.7	5.28	27.4	5.33	28.0	5.37		
	31	17.0	2.96	20.3	3.77	23.6	4.67	25.2	5.16	26.4	5.49	26.9	5.53	27.5	5.58		
	33	17.0	3.14	20.3	4.01	23.6	4.98	25.2	5.51	25.9	5.69	26.6	5.74	27.2	5.80		
	35	17.0	3.34	20.3	4.27	23.6	5.31	25.2	5.88	25.5	5.90	26.1	5.95	26.7	6.00		
	37	17.0	3.55	20.3	4.54	23.6	5.66	24.7	6.08	25.1	6.11	25.7	6.17	26.3	6.22		
	39	17.0	3.78	20.3	4.83	23.6	6.03	24.4	6.29	24.7	6.32	25.3	6.37	25.9	6.44		
	41	17.0	3.95	20.3	5.01	23.6	6.25	24.0	6.33	24.5	6.42	24.9	6.52	25.5	6.57		
	43	17.0	4.13	20.3	5.18	23.6	6.36	23.6	6.40	24.3	6.48	25.0	6.57	25.1	6.64		
	45	17.0	4.36	20.3	5.42	23.6	6.47	23.1	6.49	24.2	6.59	24.8	6.67	24.6	6.73		
	48	17.0	4.56	20.3	5.61	23.6	6.48	22.2	6.57	24.1	6.71	23.3	6.74	24.0	6.79		
90%	-5	15.3	1.63	18.3	1.96	21.2	2.31	22.7	2.52	24.1	2.68	27.1	3.08	30.1	3.53		
	-2	15.3	1.65	18.3	1.98	21.2	2.34	22.7	2.55	24.1	2.71	27.1	3.11	30.1	3.56		
	0	15.3	1.67	18.3	2.00	21.2	2.37	22.7	2.59	24.1	2.75	27.1	3.15	30.1	3.59		
	2	15.3	1.70	18.3	2.03	21.2	2.40	22.7	2.63	24.1	2.79	27.1	3.21	30.1	3.64		
	4	15.3	1.72	18.3	2.06	21.2	2.44	22.7	2.66	24.1	2.83	27.1	3.26	30.1	3.70		
	6	15.3	1.75	18.3	2.10	21.2	2.48	22.7	2.71	24.1	2.88	27.1	3.31	30.1	3.76		
	8	15.3	1.78	18.3	2.14	21.2	2.54	22.7	2.75	24.1	2.93	27.1	3.37	30.1	3.79		
	10	15.3	1.81	18.3	2.19	21.2	2.58	22.7	2.79	24.1	2.99	27.1	3.42	30.1	3.86		
	12	15.3	1.84	18.3	2.22	21.2	2.63	22.7	2.83	24.1	3.05	27.1	3.48	30.1	3.93		
	14	15.3	1.88	18.3	2.26	21.2	2.68	22.7	2.89	24.1	3.10	27.1	3.55	30.1	4.00		
	16	15.3	1.91	18.3	2.30	21.2	2.73	22.7	2.95	24.1	3.17	27.1	3.62	30.0	4.07		
	18	15.3	1.94	18.3	2.35	21.2	2.78	22.7	3.00	24.1	3.23	27.1	3.69	29.6	4.20		
	20	15.3	1.98	18.3	2.41	21.2	2.83	22.7	3.06	24.1	3.35	27.1	3.97	29.2	4.39		
	21	15.3	2.00	18.3	2.42	21.2	2.88	22.7	3.17	24.1	3.47	27.1	4.11	29.0	4.50		
	23	15.3	2.03	18.3	2.52	21.2	3.09	22.7	3.40	24.1	3.72	27.1	4.41	28.5	4.70		
	25	15.3	2.15	18.3	2.69	21.2	3.30	22.7	3.63	24.1	3.97	27.1	4.72	28.2	4.91		
	27	15.3	2.28	18.3	2.87	21.2	3.52	22.7	3.88	24.1	4.25	27.1	5.05	27.7	5.11		
	29	15.3	2.43	18.3	3.06	21.2	3.76	22.7	4.14	24.1	4.54	26.8	5.28	27.4	5.32		
	31	15.3	2.58	18.3	3.25	21.2	4.01	22.7	4.42	24.1	4.85	26.4	5.49	26.9	5.53		
	33	15.3	2.74	18.3	3.46	21.2	4.28	22.7	4.71	24.1	5.17	26.0	5.70	26.5	5.74		
	35	15.3	2.91	18.3	3.68	21.2	4.55	22.7	5.02	24.1	5.51	25.6	5.91	26.1	5.95		
	37	15.3	3.09	18.3	3.91	21.2	4.85	22.7	5.34	24.1	5.87	25.1	6.11	25.7	6.16		
	39	15.3	3.28	18.3	4.16	21.2	5.15	22.7	5.69	24.1	6.25	24.8	6.33	25.3	6.37		
	41	15.3	3.39	18.3	4.35	21.2	5.34	22.7	5.84	24.1	6.29	24.6	6.49	25.1	6.52		
	43	15.3	3.55	18.3	4.54	21.2	5.53	22.7	5.99	24.1	6.43	24.5	6.57	24.9	6.63		
	45	15.3	3.78	18.3	4.77	21.2	5.76	22.7	6.19	24.1	6.61	24.3	6.64	24.5	6.71		
	48	15.3	3.99	18.3	4.99	21.2	5.97	22.7	6.27	24.1	6.66	24.1	6.73	23.9	6.80		
80%	-5	13.6	1.44	16.2	1.70	18.8	2.01	20.2	2.14	21.5	2.30	24.1	2.66	26.7	3.04		
	-2	13.6	1.46	16.2	1.72	18.8	2.03	20.2	2.17	21.5	2.33	24.1	2.69	26.7	3.07		
	0	13.6	1.48	16.2	1.74	18.8	2.05	20.2	2.20	21.5	2.37	24.1	2.73	26.7	3.11		
	2	13.6	1.51	16.2	1.77	18.8	2.08	20.2	2.24	21.5	2.41	24.1	2.78	26.7	3.17		
	4	13.6	1.54	16.2	1.80	18.8	2.12	20.2	2.29	21.5	2.45	24.1	2.83	26.7	3.21		
	6	13.6	1.56	16.2	1.84	18.8	2.16	20.2	2.34	21.5	2.50	24.1	2.88	26.7	3.27		
	8	13.6	1.59	16.2	1.88	18.8	2.21	20.2	2.38	21.5	2.55	24.1	2.92	26.7	3.33		
	10	13.6	1.61	16.2	1.92	18.8	2.26	20.2	2.44	21.5	2.61	24.1	2.99	26.7	3.37		
	12	13.6	1.63	16.2	1.96	18.8	2.30	20.2	2.49	21.5	2.67	24.1	3.04	26.7	3.43		
	14	13.6	1.66	16.2	2.00	18.8	2.34	20.2	2.53	21.5	2.72	24.1	3.10	26.7	3.49		
	16	13.6	1.69	16.2</td													

## 8HP cooling mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
70%	-5	11.9	1.28	14.2	1.50	16.5	1.71	17.6	1.83	18.8	1.95	21.1	2.23	23.4	2.57		
	-2	11.9	1.29	14.2	1.51	16.5	1.72	17.6	1.86	18.8	1.99	21.1	2.27	23.4	2.60		
	0	11.9	1.30	14.2	1.53	16.5	1.75	17.6	1.90	18.8	2.02	21.1	2.31	23.4	2.64		
	2	11.9	1.31	14.2	1.54	16.5	1.78	17.6	1.93	18.8	2.06	21.1	2.36	23.4	2.68		
	4	11.9	1.33	14.2	1.58	16.5	1.82	17.6	1.97	18.8	2.10	21.1	2.40	23.4	2.74		
	6	11.9	1.35	14.2	1.61	16.5	1.86	17.6	2.03	18.8	2.15	21.1	2.44	23.4	2.79		
	8	11.9	1.37	14.2	1.65	16.5	1.91	17.6	2.06	18.8	2.20	21.1	2.51	23.4	2.85		
	10	11.9	1.40	14.2	1.68	16.5	1.96	17.6	2.11	18.8	2.26	21.1	2.57	23.4	2.88		
	12	11.9	1.43	14.2	1.70	16.5	2.00	17.6	2.15	18.8	2.30	21.1	2.61	23.4	2.94		
	14	11.9	1.46	14.2	1.73	16.5	2.03	17.6	2.18	18.8	2.34	21.1	2.66	23.4	2.99		
	16	11.9	1.48	14.2	1.77	16.5	2.07	17.6	2.23	18.8	2.38	21.1	2.71	23.4	3.05		
	18	11.9	1.50	14.2	1.80	16.5	2.11	17.6	2.26	18.8	2.42	21.1	2.76	23.4	3.11		
	20	11.9	1.53	14.2	1.83	16.5	2.15	17.6	2.30	18.8	2.47	21.1	2.82	23.4	3.20		
	21	11.9	1.54	14.2	1.84	16.5	2.16	17.6	2.33	18.8	2.49	21.1	2.86	23.4	3.31		
	23	11.9	1.57	14.2	1.88	16.5	2.21	17.6	2.41	18.8	2.62	21.1	3.06	23.4	3.55		
	25	11.9	1.60	14.2	1.96	16.5	2.35	17.6	2.57	18.8	2.79	21.1	3.28	23.4	3.79		
	27	11.9	1.69	14.2	2.08	16.5	2.51	17.6	2.74	18.8	2.99	21.1	3.50	23.4	4.05		
	29	11.9	1.80	14.2	2.21	16.5	2.67	17.6	2.92	18.8	3.18	21.1	3.73	23.4	4.33		
	31	11.9	1.90	14.2	2.34	16.5	2.84	17.6	3.10	18.8	3.38	21.1	3.97	23.4	4.62		
	33	11.9	2.02	14.2	2.49	16.5	3.02	17.6	3.30	18.8	3.60	21.1	4.24	23.4	4.93		
	35	11.9	2.14	14.2	2.64	16.5	3.21	17.6	3.52	18.8	3.83	21.1	4.51	23.4	5.25		
	37	11.9	2.26	14.2	2.80	16.5	3.41	17.6	3.73	18.8	4.08	21.1	4.81	23.4	5.59		
	39	11.9	2.39	14.2	2.97	16.5	3.62	17.6	3.97	18.8	4.33	21.1	5.11	23.4	5.95		
	41	11.9	2.50	14.2	3.07	16.5	3.72	17.6	4.10	18.8	4.46	21.1	5.32	23.4	6.22		
	43	11.9	2.70	14.2	3.29	16.5	3.88	17.6	4.32	18.8	4.59	21.1	5.51	23.4	6.41		
	45	11.9	2.76	14.2	3.36	16.5	3.96	17.6	4.39	18.8	4.82	21.1	5.81	23.4	6.66		
	48	11.9	2.83	14.2	3.39	16.5	4.00	17.6	4.46	18.8	4.96	21.1	6.07	23.4	6.81		
60%	-5	10.2	1.09	12.2	1.27	14.1	1.48	15.1	1.58	16.1	1.70	18.1	1.91	20.1	2.19		
	-2	10.2	1.10	12.2	1.29	14.1	1.51	15.1	1.60	16.1	1.72	18.1	1.94	20.1	2.21		
	0	10.2	1.12	12.2	1.31	14.1	1.53	15.1	1.62	16.1	1.75	18.1	1.97	20.1	2.24		
	2	10.2	1.14	12.2	1.34	14.1	1.55	15.1	1.65	16.1	1.77	18.1	2.01	20.1	2.26		
	4	10.2	1.17	12.2	1.36	14.1	1.59	15.1	1.67	16.1	1.80	18.1	2.04	20.1	2.30		
	6	10.2	1.18	12.2	1.39	14.1	1.62	15.1	1.71	16.1	1.83	18.1	2.08	20.1	2.35		
	8	10.2	1.20	12.2	1.41	14.1	1.65	15.1	1.74	16.1	1.87	18.1	2.12	20.1	2.39		
	10	10.2	1.23	12.2	1.44	14.1	1.67	15.1	1.79	16.1	1.91	18.1	2.16	20.1	2.42		
	12	10.2	1.25	12.2	1.46	14.1	1.70	15.1	1.82	16.1	1.94	18.1	2.20	20.1	2.46		
	14	10.2	1.27	12.2	1.49	14.1	1.73	15.1	1.85	16.1	1.98	18.1	2.24	20.1	2.51		
	16	10.2	1.28	12.2	1.51	14.1	1.76	15.1	1.88	16.1	2.01	18.1	2.28	20.1	2.56		
	18	10.2	1.31	12.2	1.54	14.1	1.79	15.1	1.92	16.1	2.05	18.1	2.32	20.1	2.60		
	20	10.2	1.32	12.2	1.57	14.1	1.82	15.1	1.96	16.1	2.09	18.1	2.37	20.1	2.66		
	21	10.2	1.34	12.2	1.58	14.1	1.84	15.1	1.97	16.1	2.11	18.1	2.39	20.1	2.68		
	23	10.2	1.35	12.2	1.61	14.1	1.87	15.1	2.01	16.1	2.15	18.1	2.49	20.1	2.86		
	25	10.2	1.38	12.2	1.63	14.1	1.94	15.1	2.11	16.1	2.28	18.1	2.65	20.1	3.05		
	27	10.2	1.43	12.2	1.73	14.1	2.07	15.1	2.25	16.1	2.43	18.1	2.83	20.1	3.25		
	29	10.2	1.51	12.2	1.84	14.1	2.20	15.1	2.39	16.1	2.59	18.1	3.02	20.1	3.48		
	31	10.2	1.61	12.2	1.95	14.1	2.34	15.1	2.54	16.1	2.75	18.1	3.21	20.1	3.70		
	33	10.2	1.69	12.2	2.07	14.1	2.48	15.1	2.70	16.1	2.93	18.1	3.41	20.1	3.94		
	35	10.2	1.80	12.2	2.19	14.1	2.63	15.1	2.87	16.1	3.11	18.1	3.63	20.1	4.20		
	37	10.2	1.90	12.2	2.32	14.1	2.79	15.1	3.04	16.1	3.30	18.1	3.86	20.1	4.46		
	39	10.2	2.00	12.2	2.45	14.1	2.95	15.1	3.22	16.1	3.51	18.1	4.10	20.1	4.75		
	41	10.2	2.07	12.2	2.56	14.1	3.06	15.1	3.35	16.1	3.64	18.1	4.29	20.1	4.97		
	43	10.2	2.13	12.2	2.67	14.1	3.17	15.1	3.45	16.1	3.76	18.1	4.48	20.1	5.18		
	45	10.2	2.23	12.2	2.80	14.1	3.30	15.1	3.58	16.1	3.95	18.1	4.68	20.1	5.47		
	48	10.2	2.32	12.2	2.93	14.1	3.41	15.1	3.67	16.1	4.10	18.1	4.85	20.1	5.72		
50%	-5	8.5	0.95	10.2	1.10	11.8	1.26	12.6	1.32	13.4	1.40	15.0	1.59	16.7	1.71		
	-2	8.5	0.96	10.2	1.12	11.8	1.28	12.6	1.34	13.4	1.42	15.0	1.61	16.7	1.73		
	0	8.5	0.97	10.2	1.14	11.8	1.30	12.6	1.36	13.4	1.44	15.0	1.63	16.7	1.76		
	2	8.5	0.99	10.2	1.15	11.8	1.32	12.6	1.38	13.4	1.46	15.0	1.64	16.7	1.80		
	4	8.5	1.00	10.2	1.17	11.8	1.34	12.6	1.40	13.4	1.49	15.0	1.68	16.7	1.84		

**10HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
130%	-5	24.6	2.88	29.3	3.52	34.0	3.77	35.3	3.93	37.0	4.04	37.9	4.39	38.9	4.42		
	-2	24.6	2.88	29.3	3.59	34.0	3.77	35.3	3.95	37.0	4.04	37.9	4.45	38.9	4.46		
	0	24.6	2.93	29.3	3.65	34.0	3.91	35.3	4.17	37.0	4.27	37.9	4.50	38.9	4.52		
	2	24.6	2.98	29.3	3.66	34.0	4.04	35.3	4.40	37.0	4.32	37.9	4.53	38.9	4.59		
	4	24.6	3.05	29.3	3.73	34.0	4.18	35.3	4.42	37.0	4.38	37.9	4.53	38.9	4.68		
	6	24.6	3.11	29.3	3.80	34.0	4.34	35.3	4.46	36.6	4.51	37.4	4.53	38.4	4.71		
	8	24.6	3.19	29.3	3.89	34.0	4.56	35.3	4.67	36.1	4.66	37.0	3.90	37.9	4.76		
	10	24.6	3.25	29.3	3.97	34.0	4.72	35.3	4.83	35.7	4.04	36.6	4.06	37.5	4.89		
	12	24.6	3.31	29.3	4.05	34.0	4.82	34.8	4.03	35.3	4.06	36.1	4.07	37.0	4.92		
	14	24.6	3.38	29.3	4.13	33.9	4.05	34.4	4.06	34.8	4.08	35.7	4.09	36.6	5.04		
	16	24.6	3.43	29.3	4.21	33.5	4.06	33.9	4.08	34.3	4.10	35.2	4.12	36.1	5.12		
	18	24.6	3.50	29.3	4.30	33.0	5.04	33.4	5.07	33.9	5.10	34.8	5.14	35.7	5.19		
	20	24.6	3.57	29.3	4.57	32.5	5.29	33.0	5.31	33.4	5.34	34.3	5.39	35.2	5.45		
	21	24.6	3.67	29.3	4.73	32.3	5.41	32.8	5.44	33.2	5.47	34.1	5.52	35.0	5.57		
	23	24.6	3.94	29.3	5.08	31.9	5.66	32.3	5.68	32.7	5.71	33.6	5.77	34.5	5.83		
	25	24.6	4.20	29.3	5.44	31.4	5.90	31.8	5.93	32.3	5.97	33.2	6.03	34.1	6.08		
	27	24.6	4.49	29.3	5.82	31.0	6.15	31.4	6.19	31.8	6.22	32.7	6.28	33.6	6.35		
	29	24.6	4.79	29.3	6.22	30.5	6.40	30.9	6.44	31.4	6.47	32.3	6.54	33.2	6.61		
	31	24.6	5.11	29.2	6.58	30.0	6.65	30.5	6.69	30.9	6.72	31.8	6.80	32.7	6.87		
	33	24.6	5.45	28.7	6.83	29.6	6.90	30.0	6.94	30.5	6.98	31.4	7.05	32.2	7.13		
	35	24.6	5.81	28.2	7.07	29.1	7.16	29.6	7.20	30.0	7.23	30.9	7.32	31.8	7.40		
	37	24.6	6.18	27.8	7.33	28.7	7.41	29.1	7.45	29.6	7.50	30.4	7.59	31.3	7.67		
	39	24.6	6.58	27.3	7.41	28.2	7.66	28.7	7.71	29.1	7.76	30.0	7.84	30.9	7.94		
	41	24.6	6.92	27.0	7.48	27.9	7.73	28.4	7.78	28.8	7.83	29.7	7.86	29.7	8.01		
	43	24.6	7.10	26.8	7.51	27.8	7.76	28.3	7.82	28.5	7.84	29.2	7.87	29.4	8.03		
	45	24.6	7.45	26.7	7.59	27.5	7.83	28.0	7.87	28.1	7.88	28.4	7.90	28.8	8.18		
	48	24.6	7.72	26.6	7.83	27.0	7.90	27.5	7.94	27.7	7.97	27.6	8.04	28.1	8.21		
120%	-5	22.7	2.78	27.0	3.37	31.4	3.99	33.6	4.35	35.2	4.53	36.0	4.68	36.8	4.80		
	-2	22.7	2.81	27.0	3.41	31.4	4.03	33.6	4.37	35.2	4.59	36.0	4.72	36.8	4.82		
	0	22.7	2.84	27.0	3.43	31.4	4.07	33.6	4.39	35.2	4.63	36.0	4.75	36.8	4.83		
	2	22.7	2.84	27.0	3.47	31.4	4.10	33.6	4.43	35.2	4.65	36.0	4.78	36.8	4.84		
	4	22.7	2.87	27.0	3.51	31.4	4.16	33.6	4.47	35.2	4.71	36.0	4.79	36.8	4.85		
	6	22.7	2.90	27.0	3.54	31.4	4.21	33.6	4.52	35.2	4.76	36.0	4.83	36.8	4.87		
	8	22.7	2.93	27.0	3.57	31.4	4.27	33.6	4.57	35.2	4.81	36.0	4.85	36.8	4.89		
	10	22.7	2.97	27.0	3.62	31.4	4.31	33.6	4.66	35.2	4.81	36.0	4.86	36.8	4.91		
	12	22.7	3.02	27.0	3.69	31.4	4.39	33.6	4.74	34.7	4.83	35.5	4.83	36.3	4.94		
	14	22.7	3.08	27.0	3.76	31.4	4.48	33.6	4.84	34.2	4.86	35.1	4.91	35.9	5.00		
	16	22.7	3.14	27.0	3.84	31.4	4.56	33.4	4.10	33.8	4.93	34.6	4.99	35.4	5.08		
	18	22.7	3.19	27.0	3.92	31.4	4.71	32.9	5.04	33.3	5.06	34.1	5.10	35.0	5.15		
	20	22.7	3.26	27.0	4.07	31.4	5.08	32.5	5.29	32.9	5.30	33.7	5.35	34.5	5.40		
	21	22.7	3.29	27.0	4.21	31.4	5.26	32.2	5.41	32.6	5.43	33.5	5.48	34.3	5.53		
	23	22.7	3.52	27.0	4.51	31.4	5.63	31.8	5.65	32.2	5.67	33.0	5.73	33.8	5.78		
	25	22.7	3.75	27.0	4.83	30.9	5.87	31.3	5.89	31.7	5.92	32.6	5.98	33.4	6.04		
	27	22.7	4.01	27.0	5.16	30.5	6.11	30.9	6.15	31.3	6.18	32.1	6.24	32.9	6.29		
	29	22.7	4.28	27.0	5.51	30.0	6.36	30.4	6.40	30.8	6.43	31.6	6.49	32.5	6.55		
	31	22.7	4.56	27.0	5.88	29.5	6.62	30.0	6.64	30.4	6.68	31.2	6.75	32.0	6.82		
	33	22.7	4.86	27.0	6.27	29.1	6.86	29.5	6.90	29.9	6.93	30.7	7.01	31.5	7.07		
	35	22.7	5.17	27.0	6.69	28.6	7.11	29.0	7.15	29.5	7.19	30.3	7.26	31.1	7.34		
	37	22.7	5.50	27.0	7.13	28.2	7.37	28.6	7.40	29.0	7.44	29.8	7.52	30.6	7.60		
	39	22.7	5.86	26.9	7.53	27.7	7.61	28.1	7.66	28.5	7.70	29.4	7.79	30.2	7.86		
	41	22.7	6.02	26.7	7.58	27.5	7.67	27.9	7.72	28.3	7.75	29.2	7.81	29.3	7.92		
	43	22.7	6.11	26.5	7.64	27.3	7.71	27.7	7.74	28.1	7.78	28.7	7.83	28.9	8.08		
	45	22.7	6.18	26.4	7.71	27.0	7.79	27.4	7.82	27.8	7.84	28.1	7.85	28.6	8.25		
	48	22.7	6.23	26.2	7.79	26.7	7.86	26.9	7.88	27.5	7.90	27.7	7.88	28.2	8.36		
110%	-5	20.8	2.43	24.8	3.03	28.8	3.61	30.8	3.88	32.8	4.17	35.3	4.33	36.1	4.47		
	-2	20.8	2.48	24.8	3.07	28.8	3.64	30.8	3.92	32.8	4.20	35.3	4.38	36.1	4.49		
	0	20.8	2.50	24.8	3.08	28.8	3.67	30.8	3.94	32.8	4.25	35.3	4.42	36.1	4.54		
	2	20.8	2.56	24.8	3.11	28.8	3.73	30.8	3.98	32.8	4.30	35.3	4.48	36.1	4.60		
	4	20.8	2.61	24.8	3.15	28.8	3.76	30.8	4.03	32.8	4.36	35.3	4.54	36.1	4.64		

**R410A All DC Inverter V4 Plus S Series 50Hz**
**10HP cooling mode**
**CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)**

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-5	18.9	2.21	22.5	2.67	26.2	3.17	28.0	3.40	29.8	3.69	33.5	4.20	35.4	4.39		
	-2	18.9	2.24	22.5	2.70	26.2	3.21	28.0	3.46	29.8	3.74	33.5	4.25	35.4	4.42		
	0	18.9	2.26	22.5	2.73	26.2	3.24	28.0	3.51	29.8	3.77	33.5	4.32	35.4	4.46		
	2	18.9	2.31	22.5	2.77	26.2	3.28	28.0	3.55	29.8	3.82	33.5	4.39	35.4	4.54		
	4	18.9	2.33	22.5	2.79	26.2	3.33	28.0	3.60	29.8	3.87	33.5	4.43	35.4	4.58		
	6	18.9	2.36	22.5	2.85	26.2	3.37	28.0	3.67	29.8	3.92	33.5	4.49	35.4	4.65		
	8	18.9	2.41	22.5	2.89	26.2	3.43	28.0	3.71	29.8	3.98	33.5	4.56	35.4	4.73		
	10	18.9	2.43	22.5	2.95	26.2	3.49	28.0	3.77	29.8	4.06	33.5	4.64	35.4	4.80		
	12	18.9	2.47	22.5	3.00	26.2	3.55	28.0	3.84	29.8	4.14	33.5	4.72	34.9	4.84		
	14	18.9	2.52	22.5	3.06	26.2	3.62	28.0	3.92	29.8	4.21	33.5	4.82	34.5	4.90		
	16	18.9	2.57	22.5	3.12	26.2	3.70	28.0	3.99	29.8	4.30	33.3	4.88	34.0	4.95		
	18	18.9	2.61	22.5	3.17	26.2	3.76	28.0	4.07	29.8	4.38	32.9	5.04	33.6	5.08		
	20	18.9	2.66	22.5	3.24	26.2	3.88	28.0	4.28	29.8	4.70	32.4	5.28	33.1	5.32		
	21	18.9	2.69	22.5	3.27	26.2	4.02	28.0	4.43	29.8	4.86	32.2	5.40	32.9	5.45		
	23	18.9	2.76	22.5	3.49	26.2	4.31	28.0	4.74	29.8	5.21	31.8	5.65	32.4	5.69		
	25	18.9	2.94	22.5	3.73	26.2	4.61	28.0	5.09	29.8	5.58	31.3	5.89	32.0	5.94		
	27	18.9	3.14	22.5	3.97	26.2	4.92	28.0	5.44	29.8	5.97	30.8	6.14	31.5	6.20		
	29	18.9	3.34	22.5	4.24	26.2	5.26	28.0	5.81	29.7	6.34	30.4	6.40	31.1	6.44		
	31	18.9	3.55	22.5	4.52	26.2	5.61	28.0	6.20	29.3	6.59	29.9	6.64	30.6	6.70		
	33	18.9	3.77	22.5	4.82	26.2	5.98	28.0	6.62	28.8	6.83	29.5	6.89	30.2	6.96		
	35	18.9	4.01	22.5	5.12	26.2	6.38	28.0	7.05	28.3	7.08	29.0	7.15	29.7	7.21		
	37	18.9	4.27	22.5	5.46	26.2	6.80	27.5	7.30	27.9	7.34	28.6	7.40	29.2	7.46		
	39	18.9	4.53	22.5	5.80	26.2	7.23	27.1	7.55	27.4	7.59	28.1	7.65	28.8	7.73		
	41	18.9	4.75	22.5	6.01	26.2	7.50	26.7	7.60	27.2	7.70	27.6	7.83	28.4	7.89		
	43	18.9	4.96	22.5	6.22	26.2	7.64	26.3	7.69	27.0	7.78	27.8	7.88	27.9	7.97		
	45	18.9	5.24	22.5	6.50	26.2	7.77	25.7	7.79	26.9	7.92	27.5	8.00	27.3	8.08		
	48	18.9	5.47	22.5	6.73	26.2	7.78	24.6	7.88	26.8	8.06	25.9	8.09	26.7	8.16		
90%	-5	17.0	1.96	20.3	2.35	23.6	2.77	25.2	3.03	26.8	3.22	30.1	3.70	33.4	4.24		
	-2	17.0	1.98	20.3	2.37	23.6	2.81	25.2	3.07	26.8	3.26	30.1	3.74	33.4	4.28		
	0	17.0	2.01	20.3	2.40	23.6	2.85	25.2	3.10	26.8	3.30	30.1	3.78	33.4	4.31		
	2	17.0	2.04	20.3	2.43	23.6	2.88	25.2	3.15	26.8	3.35	30.1	3.86	33.4	4.37		
	4	17.0	2.07	20.3	2.47	23.6	2.93	25.2	3.19	26.8	3.39	30.1	3.92	33.4	4.44		
	6	17.0	2.10	20.3	2.52	23.6	2.98	25.2	3.25	26.8	3.45	30.1	3.98	33.4	4.51		
	8	17.0	2.14	20.3	2.57	23.6	3.04	25.2	3.30	26.8	3.51	30.1	4.05	33.4	4.56		
	10	17.0	2.18	20.3	2.62	23.6	3.10	25.2	3.35	26.8	3.59	30.1	4.10	33.4	4.63		
	12	17.0	2.21	20.3	2.67	23.6	3.16	25.2	3.40	26.8	3.66	30.1	4.18	33.4	4.71		
	14	17.0	2.25	20.3	2.72	23.6	3.21	25.2	3.47	26.8	3.73	30.1	4.26	33.4	4.80		
	16	17.0	2.29	20.3	2.77	23.6	3.28	25.2	3.54	26.8	3.80	30.1	4.34	33.3	4.89		
	18	17.0	2.33	20.3	2.82	23.6	3.34	25.2	3.60	26.8	3.88	30.1	4.43	32.9	5.04		
	20	17.0	2.38	20.3	2.89	23.6	3.40	25.2	3.68	26.8	4.02	30.1	4.76	32.4	5.28		
	21	17.0	2.40	20.3	2.91	23.6	3.46	25.2	3.80	26.8	4.16	30.1	4.93	32.2	5.40		
	23	17.0	2.44	20.3	3.02	23.6	3.71	25.2	4.08	26.8	4.47	30.1	5.29	31.7	5.65		
	25	17.0	2.58	20.3	3.23	23.6	3.96	25.2	4.36	26.8	4.77	30.1	5.67	31.3	5.89		
	27	17.0	2.74	20.3	3.44	23.6	4.23	25.2	4.66	26.8	5.10	30.1	6.06	30.8	6.14		
	29	17.0	2.92	20.3	3.67	23.6	4.51	25.2	4.97	26.8	5.46	29.8	6.34	30.4	6.39		
	31	17.0	3.10	20.3	3.91	23.6	4.81	25.2	5.30	26.8	5.82	29.3	6.59	29.9	6.64		
	33	17.0	3.29	20.3	4.15	23.6	5.13	25.2	5.65	26.8	6.21	28.9	6.84	29.5	6.89		
	35	17.0	3.50	20.3	4.42	23.6	5.47	25.2	6.03	26.8	6.62	28.4	7.09	29.0	7.15		
	37	17.0	3.71	20.3	4.70	23.6	5.82	25.2	6.42	26.8	7.05	27.9	7.34	28.6	7.39		
	39	17.0	3.94	20.3	5.00	23.6	6.19	25.2	6.83	26.8	7.51	27.5	7.59	28.1	7.65		
	41	17.0	4.07	20.3	5.23	23.6	6.41	25.2	7.01	26.8	7.55	27.3	7.79	27.9	7.83		
	43	17.0	4.27	20.3	5.45	23.6	6.64	25.2	7.20	26.8	7.72	27.2	7.89	27.7	7.95		
	45	17.0	4.54	20.3	5.72	23.6	6.91	25.2	7.44	26.8	7.93	27.0	7.97	27.2	8.06		
	48	17.0	4.79	20.3	5.99	23.6	7.17	25.2	7.53	26.8	8.00	26.8	8.08	26.5	8.17		
80%	-5	15.1	1.73	18.0	2.04	20.9	2.42	22.4	2.57	23.9	2.77	26.8	3.20	29.7	3.65		
	-2	15.1	1.75	18.0	2.07	20.9	2.44	22.4	2.61	23.9	2.79	26.8	3.23	29.7	3.69		
	0	15.1	1.78	18.0	2.09	20.9	2.47	22.4	2.64	23.9	2.84	26.8	3.27	29.7	3.74		
	2	15.1	1.82	18.0	2.12	20.9	2.50	22.4	2.69	23.9	2.89	26.8	3.34	29.7	3.81		
	4	15.1	1.85	18.0	2.16	20.9	2.55	22.4	2.75	23.9	2.94	26.8	3.40	29.7	3.86		
	6	15.1	1.88	18.0	2.21	20.9	2.59	22.4	2.81	23.9	3.00	26.8	3.45	29.7	3.92		
	8	15.1	1.91	18.0	2.26	20.9	2.65	22.4	2.86	23.9	3.07	26.8	3.50	29.7	4.00		
	10	15.1	1.93	18.0	2.31	20.9	2.72	22.4	2.93	23.9	3.14	26.8	3.58	29.7	4.04		
	12	15.1	1.96	18.0	2.35	20.9	2.77	22.4	2.98	23.9	3.20	26.8	3.65	29.7	4.12		
	14	15.1	2.00	18.0	2.40	20.9	2.81	22.4	3.03	23.9	3.26	26.8	3.72	29.7	4.19		
	16	15.1	2.02	18.0	2.4												

**10HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
70%	-5	13.2	1.54	15.8	1.81	18.3	2.05	19.6	2.19	20.9	2.34	23.4	2.68	26.0	3.08		
	-2	13.2	1.55	15.8	1.81	18.3	2.06	19.6	2.24	20.9	2.38	23.4	2.72	26.0	3.12		
	0	13.2	1.56	15.8	1.84	18.3	2.10	19.6	2.28	20.9	2.43	23.4	2.78	26.0	3.17		
	2	13.2	1.57	15.8	1.85	18.3	2.14	19.6	2.32	20.9	2.47	23.4	2.84	26.0	3.22		
	4	13.2	1.59	15.8	1.90	18.3	2.18	19.6	2.36	20.9	2.52	23.4	2.88	26.0	3.29		
	6	13.2	1.62	15.8	1.93	18.3	2.24	19.6	2.44	20.9	2.58	23.4	2.93	26.0	3.36		
	8	13.2	1.65	15.8	1.98	18.3	2.29	19.6	2.48	20.9	2.64	23.4	3.02	26.0	3.42		
	10	13.2	1.68	15.8	2.02	18.3	2.35	19.6	2.53	20.9	2.71	23.4	3.08	26.0	3.46		
	12	13.2	1.72	15.8	2.04	18.3	2.40	19.6	2.58	20.9	2.76	23.4	3.14	26.0	3.53		
	14	13.2	1.75	15.8	2.08	18.3	2.43	19.6	2.61	20.9	2.80	23.4	3.19	26.0	3.59		
	16	13.2	1.78	15.8	2.12	18.3	2.48	19.6	2.67	20.9	2.86	23.4	3.25	26.0	3.66		
	18	13.2	1.81	15.8	2.16	18.3	2.53	19.6	2.72	20.9	2.91	23.4	3.32	26.0	3.74		
	20	13.2	1.83	15.8	2.20	18.3	2.58	19.6	2.77	20.9	2.97	23.4	3.38	26.0	3.84		
	21	13.2	1.85	15.8	2.21	18.3	2.60	19.6	2.79	20.9	2.99	23.4	3.43	26.0	3.97		
	23	13.2	1.88	15.8	2.25	18.3	2.65	19.6	2.89	20.9	3.15	23.4	3.68	26.0	4.26		
	25	13.2	1.92	15.8	2.35	18.3	2.82	19.6	3.09	20.9	3.36	23.4	3.94	26.0	4.55		
	27	13.2	2.03	15.8	2.50	18.3	3.01	19.6	3.29	20.9	3.58	23.4	4.20	26.0	4.87		
	29	13.2	2.16	15.8	2.65	18.3	3.20	19.6	3.51	20.9	3.81	23.4	4.48	26.0	5.20		
	31	13.2	2.28	15.8	2.81	18.3	3.41	19.6	3.73	20.9	4.06	23.4	4.77	26.0	5.54		
	33	13.2	2.42	15.8	2.99	18.3	3.63	19.6	3.96	20.9	4.33	23.4	5.09	26.0	5.91		
	35	13.2	2.57	15.8	3.18	18.3	3.85	19.6	4.22	20.9	4.60	23.4	5.42	26.0	6.30		
	37	13.2	2.71	15.8	3.37	18.3	4.10	19.6	4.48	20.9	4.90	23.4	5.77	26.0	6.71		
	39	13.2	2.87	15.8	3.56	18.3	4.34	19.6	4.76	20.9	5.20	23.4	6.13	26.0	7.15		
	41	13.2	3.00	15.8	3.69	18.3	4.47	19.6	4.92	20.9	5.36	23.4	6.38	26.0	7.46		
	43	13.2	3.24	15.8	3.94	18.3	4.65	19.6	5.18	20.9	5.52	23.4	6.62	26.0	7.70		
	45	13.2	3.31	15.8	4.03	18.3	4.75	19.6	5.27	20.9	5.79	23.4	6.98	26.0	7.99		
	48	13.2	3.40	15.8	4.07	18.3	4.80	19.6	5.35	20.9	5.95	23.4	7.29	26.0	8.18		
60%	-5	11.3	1.31	13.5	1.52	15.7	1.78	16.8	1.89	17.9	2.04	20.1	2.29	22.3	2.63		
	-2	11.3	1.32	13.5	1.55	15.7	1.81	16.8	1.92	17.9	2.06	20.1	2.33	22.3	2.65		
	0	11.3	1.34	13.5	1.57	15.7	1.83	16.8	1.94	17.9	2.10	20.1	2.36	22.3	2.68		
	2	11.3	1.37	13.5	1.60	15.7	1.87	16.8	1.98	17.9	2.13	20.1	2.41	22.3	2.72		
	4	11.3	1.40	13.5	1.63	15.7	1.90	16.8	2.01	17.9	2.16	20.1	2.45	22.3	2.76		
	6	11.3	1.42	13.5	1.67	15.7	1.94	16.8	2.05	17.9	2.20	20.1	2.50	22.3	2.82		
	8	11.3	1.44	13.5	1.69	15.7	1.98	16.8	2.09	17.9	2.25	20.1	2.55	22.3	2.87		
	10	11.3	1.47	13.5	1.73	15.7	2.01	16.8	2.15	17.9	2.29	20.1	2.59	22.3	2.91		
	12	11.3	1.50	13.5	1.76	15.7	2.04	16.8	2.19	17.9	2.33	20.1	2.64	22.3	2.96		
	14	11.3	1.52	13.5	1.79	15.7	2.07	16.8	2.22	17.9	2.38	20.1	2.69	22.3	3.01		
	16	11.3	1.54	13.5	1.82	15.7	2.11	16.8	2.26	17.9	2.41	20.1	2.74	22.3	3.07		
	18	11.3	1.57	13.5	1.84	15.7	2.15	16.8	2.30	17.9	2.46	20.1	2.78	22.3	3.13		
	20	11.3	1.59	13.5	1.88	15.7	2.19	16.8	2.35	17.9	2.51	20.1	2.84	22.3	3.19		
	21	11.3	1.61	13.5	1.89	15.7	2.20	16.8	2.37	17.9	2.53	20.1	2.87	22.3	3.22		
	23	11.3	1.63	13.5	1.93	15.7	2.24	16.8	2.41	17.9	2.58	20.1	2.98	22.3	3.43		
	25	11.3	1.65	13.5	1.96	15.7	2.33	16.8	2.53	17.9	2.74	20.1	3.18	22.3	3.66		
	27	11.3	1.72	13.5	2.08	15.7	2.48	16.8	2.70	17.9	2.92	20.1	3.39	22.3	3.91		
	29	11.3	1.82	13.5	2.20	15.7	2.64	16.8	2.87	17.9	3.11	20.1	3.62	22.3	4.17		
	31	11.3	1.93	13.5	2.34	15.7	2.80	16.8	3.05	17.9	3.31	20.1	3.85	22.3	4.44		
	33	11.3	2.03	13.5	2.48	15.7	2.97	16.8	3.24	17.9	3.52	20.1	4.10	22.3	4.73		
	35	11.3	2.16	13.5	2.63	15.7	3.16	16.8	3.44	17.9	3.73	20.1	4.36	22.3	5.04		
	37	11.3	2.28	13.5	2.78	15.7	3.35	16.8	3.65	17.9	3.96	20.1	4.64	22.3	5.36		
	39	11.3	2.40	13.5	2.95	15.7	3.55	16.8	3.87	17.9	4.21	20.1	4.92	22.3	5.70		
	41	11.3	2.48	13.5	3.07	15.7	3.67	16.8	4.02	17.9	4.37	20.1	5.16	22.3	5.96		
	43	11.3	2.56	13.5	3.20	15.7	3.80	16.8	4.14	17.9	4.52	20.1	5.37	22.3	6.22		
	45	11.3	2.68	13.5	3.37	15.7	3.96	16.8	4.30	17.9	4.74	20.1	5.61	22.3	6.56		
	48	11.3	2.78	13.5	3.51	15.7	4.09	16.8	4.41	17.9	4.92	20.1	5.82	22.3	6.87		
50%	-5	9.5	1.14	11.3	1.32	13.1	1.52	14.0	1.59	14.9	1.68	16.7	1.91	18.6	2.05		
	-2	9.5	1.15	11.3	1.35	13.1	1.53	14.0	1.61	14.9	1.71	16.7	1.93	18.6	2.08		
	0	9.5	1.17	11.3	1.37	13.1	1.56	14.0	1.63	14.9	1.72	16.7	1.96	18.6	2.12		
	2	9.5	1.19	11.3	1.39	13.1	1.59	14.0	1.66	14.9	1.75	16.7	1.97	18.6	2.16		
	4	9.5	1.20	11.3	1.41	13.1	1.60	14.0	1.68	14.9	1.79	16.7	2.02	18.6	2.21		

## 12HP cooling mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
130%	-5	29.4	3.59	35.1	4.39	40.7	4.70	42.2	4.89	44.3	5.03	45.3	5.47	46.5	5.51		
	-2	29.4	3.59	35.1	4.47	40.7	4.70	42.2	4.92	44.3	5.03	45.3	5.54	46.5	5.56		
	0	29.4	3.66	35.1	4.55	40.7	4.88	42.2	5.19	44.3	5.33	45.3	5.61	46.5	5.64		
	2	29.4	3.72	35.1	4.56	40.7	5.04	42.2	5.49	44.3	5.39	45.3	5.65	46.5	5.72		
	4	29.4	3.80	35.1	4.65	40.7	5.22	42.2	5.51	44.3	5.46	45.3	5.65	46.5	5.83		
	6	29.4	3.88	35.1	4.74	40.7	5.41	42.2	5.55	43.8	5.63	44.8	5.65	46.0	5.87		
	8	29.4	3.97	35.1	4.85	40.7	5.68	42.2	5.83	43.2	5.81	44.3	3.90	45.4	5.93		
	10	29.4	4.05	35.1	4.95	40.7	5.89	42.2	6.02	42.7	4.04	43.8	4.06	44.9	6.10		
	12	29.4	4.12	35.1	5.05	40.7	6.01	41.6	4.03	42.2	4.06	43.2	4.07	44.3	6.14		
	14	29.4	4.21	35.1	5.14	40.6	4.05	41.2	4.06	41.6	4.08	42.7	4.09	43.8	6.28		
	16	29.4	4.28	35.1	5.25	40.1	4.06	40.6	4.08	41.0	4.10	42.1	4.12	43.2	6.38		
	18	29.4	4.36	35.1	5.36	39.5	6.28	40.0	6.32	40.6	6.35	41.6	6.41	42.7	6.47		
	20	29.4	4.46	35.1	5.70	38.9	6.59	39.5	6.62	40.0	6.66	41.0	6.72	42.1	6.79		
	21	29.4	4.57	35.1	5.90	38.6	6.74	39.2	6.78	39.7	6.81	40.8	6.89	41.9	6.94		
	23	29.4	4.91	35.1	6.33	38.2	7.05	38.6	7.09	39.1	7.12	40.2	7.19	41.3	7.27		
	25	29.4	5.24	35.1	6.78	37.6	7.36	38.0	7.40	38.6	7.44	39.7	7.51	40.8	7.58		
	27	29.4	5.59	35.1	7.25	37.1	7.67	37.6	7.71	38.0	7.75	39.1	7.83	40.2	7.92		
	29	29.4	5.97	35.1	7.75	36.5	7.98	37.0	8.02	37.6	8.07	38.6	8.15	39.7	8.24		
	31	29.4	6.38	34.9	8.20	35.9	8.30	36.5	8.34	37.0	8.38	38.0	8.47	39.1	8.57		
	33	29.4	6.79	34.3	8.51	35.4	8.60	35.9	8.65	36.5	8.70	37.6	8.79	38.5	8.89		
	35	29.4	7.24	33.7	8.82	34.8	8.92	35.4	8.97	35.9	9.02	37.0	9.13	38.0	9.22		
	37	29.4	7.70	33.3	9.14	34.3	9.24	34.8	9.29	35.4	9.35	36.4	9.46	37.4	9.56		
	39	29.4	8.20	32.7	9.23	33.7	9.55	34.3	9.61	34.8	9.67	35.9	9.78	37.0	9.90		
	41	29.4	8.63	32.3	9.32	33.4	9.64	34.0	9.70	34.5	9.76	35.5	9.80	35.6	9.99		
	43	29.4	8.85	32.1	9.37	33.2	9.67	33.8	9.75	34.1	9.77	34.9	9.81	35.1	10.01		
	45	29.4	9.29	31.9	9.46	32.9	9.76	33.5	9.81	33.6	9.82	33.9	9.85	34.4	10.20		
	48	29.4	9.62	31.8	9.76	32.3	9.85	32.9	9.90	33.2	9.93	33.0	10.02	33.6	10.23		
120%	-5	27.2	3.47	32.3	4.20	37.6	4.97	40.2	5.42	42.1	5.65	43.1	5.83	44.0	5.99		
	-2	27.2	3.51	32.3	4.25	37.6	5.02	40.2	5.45	42.1	5.72	43.1	5.88	44.0	6.01		
	0	27.2	3.54	32.3	4.28	37.6	5.08	40.2	5.47	42.1	5.77	43.1	5.92	44.0	6.02		
	2	27.2	3.55	32.3	4.32	37.6	5.12	40.2	5.52	42.1	5.79	43.1	5.96	44.0	6.03		
	4	27.2	3.58	32.3	4.38	37.6	5.19	40.2	5.57	42.1	5.87	43.1	5.97	44.0	6.05		
	6	27.2	3.62	32.3	4.41	37.6	5.25	40.2	5.63	42.1	5.93	43.1	6.02	44.0	6.07		
	8	27.2	3.65	32.3	4.46	37.6	5.32	40.2	5.70	42.1	5.99	43.1	6.04	44.0	6.10		
	10	27.2	3.70	32.3	4.51	37.6	5.37	40.2	5.81	42.1	6.00	43.1	6.06	44.0	6.13		
	12	27.2	3.77	32.3	4.60	37.6	5.47	40.2	5.91	41.5	6.02	42.5	6.03	43.4	6.16		
	14	27.2	3.84	32.3	4.69	37.6	5.58	40.2	6.03	40.9	6.06	42.0	6.12	43.0	6.24		
	16	27.2	3.91	32.3	4.79	37.6	5.69	40.0	4.10	40.4	6.15	41.4	6.22	42.4	6.33		
	18	27.2	3.98	32.3	4.88	37.6	5.88	39.4	6.28	39.8	6.30	40.8	6.36	41.9	6.42		
	20	27.2	4.06	32.3	5.07	37.6	6.33	38.9	6.59	39.4	6.61	40.3	6.67	41.3	6.73		
	21	27.2	4.10	32.3	5.25	37.6	6.55	38.5	6.74	39.0	6.77	40.1	6.83	41.0	6.90		
	23	27.2	4.38	32.3	5.63	37.6	7.02	38.0	7.04	38.5	7.08	39.5	7.15	40.4	7.21		
	25	27.2	4.68	32.3	6.02	37.0	7.32	37.4	7.35	37.9	7.38	39.0	7.45	40.0	7.53		
	27	27.2	5.00	32.3	6.44	36.5	7.62	37.0	7.67	37.4	7.70	38.4	7.77	39.4	7.84		
	29	27.2	5.33	32.3	6.87	35.9	7.93	36.4	7.98	36.9	8.01	37.8	8.09	38.9	8.16		
	31	27.2	5.69	32.3	7.34	35.3	8.25	35.9	8.28	36.4	8.33	37.3	8.41	38.3	8.50		
	33	27.2	6.06	32.3	7.82	34.8	8.56	35.3	8.60	35.8	8.64	36.7	8.73	37.7	8.82		
	35	27.2	6.45	32.3	8.34	34.2	8.86	34.7	8.91	35.3	8.96	36.3	9.05	37.2	9.15		
	37	27.2	6.86	32.3	8.89	33.7	9.18	34.2	9.23	34.7	9.28	35.7	9.37	36.6	9.48		
	39	27.2	7.30	32.2	9.39	33.1	9.49	33.6	9.55	34.1	9.60	35.2	9.71	36.1	9.80		
	41	27.2	7.50	31.9	9.45	32.9	9.56	33.4	9.62	33.8	9.67	34.9	9.73	35.1	9.87		
	43	27.2	7.61	31.8	9.52	32.6	9.62	33.1	9.65	33.6	9.70	34.3	9.76	34.5	10.07		
	45	27.2	7.70	31.6	9.61	32.3	9.71	32.8	9.75	33.3	9.78	33.6	9.79	34.2	10.29		
	48	27.2	7.76	31.3	9.71	31.9	9.79	32.2	9.82	32.9	9.85	33.1	9.83	33.8	10.42		
110%	-5	24.9	3.03	29.7	3.77	34.5	4.50	36.9	4.83	39.2	5.20	42.2	5.40	43.2	5.57		
	-2	24.9	3.09	29.7	3.82	34.5	4.54	36.9	4.88	39.2	5.24	42.2	5.46	43.2	5.60		
	0	24.9	3.12	29.7	3.84	34.5	4.58	36.9	4.91	39.2	5.30	42.2	5.51	43.2	5.67		
	2	24.9	3.19	29.7	3.88	34.5	4.65	36.9	4.97	39.2	5.36	42.2	5.59	43.2	5.74		
	4	24.9	3.25	29.7	3.93	34.5	4.69	36.9	5.03	39.2	5.44	42.2	5.67	43.2	5.79		
	6	24.9	3.28	29.7	3.97	34.5	4.74	36.9	5.11	39.2	5.50	42.2	5.73	43.2	5.88		
	8	24.9	3.31	29.7	4.03	34.5	4.79	36.9	5.16	39.2	5.56	42.2	5.76	43.2	5.94		
	10	24.9	3.35	29.7	4.09	34.5	4.86	36.9	5.25	39.2	5.65	42.2	5.80	43.2	5.99		
	12	24.9	3.43	29.7	4.17	34.5	4.95	36.9	5.36	39.2	5.76	41.8	5.89	42.6	6.07		
	14	24.9	3.48	29.7	4.24	34.5	5.05	36.9	5.45	39.2	5.87	41.2	5.94	42.1	6.11		
	16	24.9	3.54	29.													

**12HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
100%	-5	22.6	2.76	26.9	3.32	31.3	3.96	33.5	4.24	35.7	4.60	40.1	5.24	42.4	5.47		
	-2	22.6	2.79	26.9	3.37	31.3	4.00	33.5	4.32	35.7	4.66	40.1	5.30	42.4	5.50		
	0	22.6	2.82	26.9	3.40	31.3	4.04	33.5	4.37	35.7	4.70	40.1	5.39	42.4	5.57		
	2	22.6	2.88	26.9	3.45	31.3	4.09	33.5	4.43	35.7	4.76	40.1	5.47	42.4	5.65		
	4	22.6	2.90	26.9	3.48	31.3	4.15	33.5	4.49	35.7	4.82	40.1	5.52	42.4	5.72		
	6	22.6	2.94	26.9	3.55	31.3	4.20	33.5	4.57	35.7	4.89	40.1	5.60	42.4	5.80		
	8	22.6	3.00	26.9	3.61	31.3	4.28	33.5	4.63	35.7	4.97	40.1	5.69	42.4	5.90		
	10	22.6	3.03	26.9	3.67	31.3	4.35	33.5	4.70	35.7	5.06	40.1	5.78	42.4	5.98		
	12	22.6	3.08	26.9	3.74	31.3	4.43	33.5	4.79	35.7	5.16	40.1	5.89	41.8	6.03		
	14	22.6	3.14	26.9	3.82	31.3	4.52	33.5	4.88	35.7	5.25	40.1	6.01	41.3	6.10		
	16	22.6	3.20	26.9	3.89	31.3	4.61	33.5	4.98	35.7	5.36	39.8	6.08	40.7	6.17		
	18	22.6	3.26	26.9	3.96	31.3	4.69	33.5	5.07	35.7	5.46	39.4	6.28	40.2	6.33		
	20	22.6	3.32	26.9	4.04	31.3	4.84	33.5	5.33	35.7	5.85	38.8	6.58	39.6	6.64		
	21	22.6	3.35	26.9	4.08	31.3	5.01	33.5	5.52	35.7	6.06	38.5	6.73	39.4	6.79		
	23	22.6	3.44	26.9	4.35	31.3	5.37	33.5	5.91	35.7	6.49	38.0	7.04	38.8	7.10		
	25	22.6	3.66	26.9	4.65	31.3	5.75	33.5	6.34	35.7	6.96	37.4	7.35	38.3	7.41		
	27	22.6	3.91	26.9	4.95	31.3	6.14	33.5	6.78	35.7	7.44	36.9	7.66	37.7	7.73		
	29	22.6	4.16	26.9	5.29	31.3	6.55	33.5	7.24	35.5	7.90	36.4	7.98	37.2	8.03		
	31	22.6	4.43	26.9	5.64	31.3	6.99	33.5	7.73	35.1	8.21	35.8	8.28	36.6	8.35		
	33	22.6	4.70	26.9	6.01	31.3	7.45	33.5	8.25	34.5	8.52	35.3	8.59	36.1	8.67		
	35	22.6	5.00	26.9	6.39	31.3	7.95	33.5	8.79	33.9	8.83	34.7	8.91	35.5	8.98		
	37	22.6	5.32	26.9	6.80	31.3	8.47	32.9	9.10	33.4	9.15	34.2	9.23	34.9	9.30		
	39	22.6	5.65	26.9	7.23	31.3	9.02	32.4	9.41	32.8	9.46	33.6	9.54	34.5	9.63		
	41	22.6	5.92	26.9	7.49	31.3	9.35	31.9	9.48	32.5	9.60	33.0	9.76	34.0	9.83		
	43	22.6	6.18	26.9	7.76	31.3	9.52	31.4	9.59	32.3	9.69	33.2	9.83	33.4	9.94		
	45	22.6	6.53	26.9	8.11	31.3	9.68	30.7	9.72	32.1	9.87	33.0	9.98	32.7	10.07		
	48	22.6	6.82	26.9	8.39	31.3	9.70	29.5	9.83	32.1	10.05	30.9	10.08	32.0	10.17		
90%	-5	20.3	2.44	24.3	2.93	28.2	3.46	30.2	3.77	32.1	4.01	36.0	4.61	40.0	5.28		
	-2	20.3	2.46	24.3	2.96	28.2	3.50	30.2	3.82	32.1	4.06	36.0	4.66	40.0	5.33		
	0	20.3	2.50	24.3	3.00	28.2	3.55	30.2	3.87	32.1	4.11	36.0	4.71	40.0	5.38		
	2	20.3	2.54	24.3	3.04	28.2	3.59	30.2	3.93	32.1	4.18	36.0	4.81	40.0	5.45		
	4	20.3	2.58	24.3	3.08	28.2	3.65	30.2	3.98	32.1	4.23	36.0	4.88	40.0	5.53		
	6	20.3	2.61	24.3	3.14	28.2	3.72	30.2	4.06	32.1	4.30	36.0	4.96	40.0	5.63		
	8	20.3	2.66	24.3	3.20	28.2	3.79	30.2	4.11	32.1	4.38	36.0	5.05	40.0	5.68		
	10	20.3	2.71	24.3	3.27	28.2	3.86	30.2	4.17	32.1	4.48	36.0	5.12	40.0	5.77		
	12	20.3	2.76	24.3	3.33	28.2	3.93	30.2	4.24	32.1	4.56	36.0	5.21	40.0	5.88		
	14	20.3	2.81	24.3	3.39	28.2	4.01	30.2	4.33	32.1	4.65	36.0	5.31	40.0	5.98		
	16	20.3	2.86	24.3	3.45	28.2	4.09	30.2	4.41	32.1	4.74	36.0	5.42	39.8	6.09		
	18	20.3	2.90	24.3	3.52	28.2	4.16	30.2	4.49	32.1	4.83	36.0	5.52	39.4	6.28		
	20	20.3	2.96	24.3	3.60	28.2	4.24	30.2	4.59	32.1	5.01	36.0	5.94	38.8	6.58		
	21	20.3	2.99	24.3	3.63	28.2	4.31	30.2	4.74	32.1	5.19	36.0	6.15	38.5	6.73		
	23	20.3	3.05	24.3	3.77	28.2	4.62	30.2	5.08	32.1	5.57	36.0	6.60	37.9	7.04		
	25	20.3	3.21	24.3	4.03	28.2	4.94	30.2	5.44	32.1	5.95	36.0	7.06	37.4	7.35		
	27	20.3	3.41	24.3	4.29	28.2	5.27	30.2	5.81	32.1	6.36	36.0	7.56	36.8	7.65		
	29	20.3	3.64	24.3	4.57	28.2	5.63	30.2	6.20	32.1	6.80	35.7	7.90	36.4	7.96		
	31	20.3	3.86	24.3	4.87	28.2	6.00	30.2	6.61	32.1	7.25	35.1	8.21	35.8	8.28		
	33	20.3	4.10	24.3	5.18	28.2	6.40	30.2	7.05	32.1	7.74	34.6	8.53	35.3	8.59		
	35	20.3	4.36	24.3	5.51	28.2	6.81	30.2	7.51	32.1	8.25	34.0	8.84	34.7	8.91		
	37	20.3	4.62	24.3	5.85	28.2	7.25	30.2	8.00	32.1	8.79	33.4	9.15	34.2	9.22		
	39	20.3	4.91	24.3	6.23	28.2	7.71	30.2	8.52	32.1	9.36	32.9	9.47	33.6	9.54		
	41	20.3	5.07	24.3	6.52	28.2	8.00	30.2	8.75	32.1	9.42	32.7	9.71	33.4	9.76		
	43	20.3	5.32	24.3	6.80	28.2	8.28	30.2	8.97	32.1	9.62	32.5	9.84	33.1	9.92		
	45	20.3	5.66	24.3	7.13	28.2	8.62	30.2	9.27	32.1	9.89	32.3	9.94	32.6	10.05		
	48	20.3	5.97	24.3	7.46	28.2	8.94	30.2	9.39	32.1	9.97	32.1	10.08	31.7	10.18		
80%	-5	18.1	2.15	21.5	2.54	25.0	3.01	26.8	3.20	28.6	3.45	32.1	3.99	35.5	4.55		
	-2	18.1	2.18	21.5	2.58	25.0	3.04	26.8	3.25	28.6	3.48	32.1	4.02	35.5	4.59		
	0	18.1	2.22	21.5	2.61	25.0	3.08	26.8	3.29	28.6	3.54	32.1	4.08	35.5	4.66		
	2	18.1	2.27	21.5	2.65	25.0	3.12	26.8	3.35	28.6	3.61	32.1	4.16	35.5	4.75		
	4	18.1	2.30	21.5	2.69	25.0	3.18	26.8	3.43	28.6	3.67	32.1	4.24				

R410A All DC Inverter V4 Plus S Series 50Hz

### 12HP cooling mode

**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-5	15.8	1.92	18.9	2.25	21.9	2.55	23.5	2.74	25.0	2.92	28.0	3.34	31.1	3.84		
	-2	15.8	1.94	18.9	2.26	21.9	2.57	23.5	2.79	25.0	2.97	28.0	3.39	31.1	3.89		
	0	15.8	1.95	18.9	2.29	21.9	2.62	23.5	2.84	25.0	3.03	28.0	3.46	31.1	3.95		
	2	15.8	1.96	18.9	2.30	21.9	2.66	23.5	2.89	25.0	3.08	28.0	3.54	31.1	4.01		
	4	15.8	1.98	18.9	2.36	21.9	2.72	23.5	2.95	25.0	3.15	28.0	3.59	31.1	4.10		
	6	15.8	2.02	18.9	2.40	21.9	2.79	23.5	3.04	25.0	3.22	28.0	3.66	31.1	4.18		
	8	15.8	2.05	18.9	2.47	21.9	2.85	23.5	3.09	25.0	3.29	28.0	3.76	31.1	4.26		
	10	15.8	2.09	18.9	2.51	21.9	2.93	23.5	3.15	25.0	3.38	28.0	3.84	31.1	4.31		
	12	15.8	2.15	18.9	2.55	21.9	2.99	23.5	3.21	25.0	3.44	28.0	3.91	31.1	4.40		
	14	15.8	2.18	18.9	2.60	21.9	3.03	23.5	3.26	25.0	3.50	28.0	3.98	31.1	4.48		
	16	15.8	2.22	18.9	2.64	21.9	3.09	23.5	3.33	25.0	3.57	28.0	4.05	31.1	4.56		
	18	15.8	2.25	18.9	2.69	21.9	3.15	23.5	3.39	25.0	3.63	28.0	4.14	31.1	4.66		
	20	15.8	2.29	18.9	2.74	21.9	3.21	23.5	3.45	25.0	3.70	28.0	4.22	31.1	4.79		
	21	15.8	2.31	18.9	2.76	21.9	3.24	23.5	3.48	25.0	3.73	28.0	4.28	31.1	4.95		
	23	15.8	2.35	18.9	2.81	21.9	3.31	23.5	3.60	25.0	3.92	28.0	4.59	31.1	5.31		
	25	15.8	2.39	18.9	2.93	21.9	3.52	23.5	3.85	25.0	4.18	28.0	4.91	31.1	5.68		
	27	15.8	2.54	18.9	3.12	21.9	3.76	23.5	4.10	25.0	4.47	28.0	5.24	31.1	6.07		
	29	15.8	2.69	18.9	3.31	21.9	3.99	23.5	4.37	25.0	4.75	28.0	5.58	31.1	6.48		
	31	15.8	2.84	18.9	3.51	21.9	4.25	23.5	4.65	25.0	5.06	28.0	5.95	31.1	6.91		
	33	15.8	3.02	18.9	3.73	21.9	4.53	23.5	4.94	25.0	5.39	28.0	6.34	31.1	7.37		
	35	15.8	3.20	18.9	3.96	21.9	4.80	23.5	5.26	25.0	5.74	28.0	6.76	31.1	7.86		
	37	15.8	3.38	18.9	4.20	21.9	5.11	23.5	5.58	25.0	6.10	28.0	7.19	31.1	8.37		
	39	15.8	3.58	18.9	4.44	21.9	5.42	23.5	5.94	25.0	6.48	28.0	7.64	31.1	8.91		
	41	15.8	3.74	18.9	4.60	21.9	5.57	23.5	6.13	25.0	6.68	28.0	7.96	31.1	9.31		
	43	15.8	4.04	18.9	4.92	21.9	5.80	23.5	6.46	25.0	6.88	28.0	8.25	31.1	9.60		
	45	15.8	4.13	18.9	5.02	21.9	5.93	23.5	6.57	25.0	7.22	28.0	8.70	31.1	9.96		
	48	15.8	4.24	18.9	5.07	21.9	5.99	23.5	6.68	25.0	7.42	28.0	9.09	31.1	10.20		
60%	-5	13.5	1.64	16.2	1.90	18.8	2.21	20.1	2.36	21.4	2.55	24.0	2.86	26.7	3.28		
	-2	13.5	1.65	16.2	1.93	18.8	2.25	20.1	2.39	21.4	2.57	24.0	2.90	26.7	3.30		
	0	13.5	1.67	16.2	1.95	18.8	2.28	20.1	2.42	21.4	2.62	24.0	2.95	26.7	3.35		
	2	13.5	1.70	16.2	2.00	18.8	2.33	20.1	2.47	21.4	2.65	24.0	3.01	26.7	3.39		
	4	13.5	1.75	16.2	2.04	18.8	2.37	20.1	2.50	21.4	2.69	24.0	3.05	26.7	3.44		
	6	13.5	1.77	16.2	2.08	18.8	2.42	20.1	2.56	21.4	2.75	24.0	3.12	26.7	3.52		
	8	13.5	1.80	16.2	2.11	18.8	2.46	20.1	2.60	21.4	2.80	24.0	3.17	26.7	3.57		
	10	13.5	1.84	16.2	2.16	18.8	2.50	20.1	2.68	21.4	2.86	24.0	3.23	26.7	3.63		
	12	13.5	1.87	16.2	2.19	18.8	2.55	20.1	2.73	21.4	2.90	24.0	3.29	26.7	3.68		
	14	13.5	1.90	16.2	2.23	18.8	2.58	20.1	2.77	21.4	2.96	24.0	3.35	26.7	3.76		
	16	13.5	1.92	16.2	2.26	18.8	2.63	20.1	2.82	21.4	3.01	24.0	3.41	26.7	3.83		
	18	13.5	1.96	16.2	2.30	18.8	2.68	20.1	2.87	21.4	3.07	24.0	3.47	26.7	3.90		
	20	13.5	1.98	16.2	2.35	18.8	2.73	20.1	2.93	21.4	3.13	24.0	3.54	26.7	3.98		
	21	13.5	2.00	16.2	2.36	18.8	2.75	20.1	2.95	21.4	3.15	24.0	3.58	26.7	4.02		
	23	13.5	2.03	16.2	2.41	18.8	2.80	20.1	3.01	21.4	3.21	24.0	3.72	26.7	4.28		
	25	13.5	2.06	16.2	2.44	18.8	2.90	20.1	3.15	21.4	3.41	24.0	3.97	26.7	4.56		
	27	13.5	2.14	16.2	2.59	18.8	3.09	20.1	3.36	21.4	3.64	24.0	4.23	26.7	4.87		
	29	13.5	2.26	16.2	2.75	18.8	3.29	20.1	3.58	21.4	3.87	24.0	4.51	26.7	5.20		
	31	13.5	2.41	16.2	2.91	18.8	3.50	20.1	3.80	21.4	4.12	24.0	4.80	26.7	5.53		
	33	13.5	2.54	16.2	3.09	18.8	3.71	20.1	4.04	21.4	4.38	24.0	5.11	26.7	5.90		
	35	13.5	2.69	16.2	3.28	18.8	3.93	20.1	4.29	21.4	4.66	24.0	5.44	26.7	6.28		
	37	13.5	2.84	16.2	3.47	18.8	4.17	20.1	4.55	21.4	4.94	24.0	5.78	26.7	6.68		
	39	13.5	3.00	16.2	3.67	18.8	4.42	20.1	4.82	21.4	5.25	24.0	6.14	26.7	7.11		
	41	13.5	3.09	16.2	3.83	18.8	4.58	20.1	5.02	21.4	5.44	24.0	6.43	26.7	7.43		
	43	13.5	3.19	16.2	3.99	18.8	4.74	20.1	5.17	21.4	5.63	24.0	6.70	26.7	7.75		
	45	13.5	3.34	16.2	4.20	18.8	4.93	20.1	5.36	21.4	5.91	24.0	7.00	26.7	8.18		
	48	13.5	3.47	16.2	4.38	18.8	5.10	20.1	5.50	21.4	6.14	24.0	7.26	26.7	8.57		
50%	-5	11.3	1.42	13.5	1.65	15.7	1.89	16.8	1.98	17.8	2.09	20.0	2.38	22.3	2.56		
	-2	11.3	1.43	13.5	1.68	15.7	1.91	16.8	2.01	17.8	2.13	20.0	2.41	22.3	2.59		
	0	11.3	1.46	13.5	1.71	15.7	1.95	16.8	2.03	17.8	2.15	20.0	2.45	22.3	2.64		
	2	11.3	1.48	13.5	1.73	15.7	1.98	16.8	2.06	17.8	2.19	20.0	2.46	22.3	2.69		
	4	11.3	1.49	13.5	1.76	15.7	2.00	16.8	2.09	17.8	2.23	20.0	2.52	22.3	2.76		
	6	11.3	1.52	13.5	1.78	15.7	2.03	16.8	2.14	17.8	2.27	20.0	2.56	22.3	2.84		
	8	11.3	1.56	13.5	1.82	15.7	2.06	16.8	2.18	17.8	2.30	20.0	2.60	22.3	2.93		
	10	11.3	1.59	13.5	1.84	15.7	2.10	16.8	2.22	17.8	2.37	20.0	2.67	22.3	2.97		
	12	11.3	1.60	13.5	1.86	15.7	2.13	16.8	2.26	17.8	2.42	20.0	2.71	22.3	3.02		
	14	11.3	1.62	13.5	1.88	15.7	2.16	16.8	2.31	17.8	2.45	20.0	2.76	22.3	3.08		
	16	11.3	1.65	13													

**14HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
130%	-5	35.1	4.62	41.9	5.64	48.6	6.04	50.4	6.29	52.9	6.47	54.1	7.03	55.5	7.08		
	-2	35.1	4.62	41.9	5.75	48.6	6.04	50.4	6.33	52.9	6.47	54.1	7.12	55.5	7.15		
	0	35.1	4.70	41.9	5.85	48.6	6.26	50.4	6.67	52.9	6.84	54.1	7.21	55.5	7.24		
	2	35.1	4.78	41.9	5.86	48.6	6.48	50.4	7.05	52.9	6.92	54.1	7.26	55.5	7.35		
	4	35.1	4.89	41.9	5.97	48.6	6.70	50.4	7.08	52.9	7.01	54.1	7.26	55.5	7.49		
	6	35.1	4.98	41.9	6.09	48.6	6.95	50.4	7.14	52.3	7.23	53.5	7.26	54.9	7.55		
	8	35.1	5.10	41.9	6.23	48.6	7.30	50.4	7.49	51.6	7.47	52.9	3.90	54.2	7.62		
	10	35.1	5.21	41.9	6.37	48.6	7.57	50.4	7.74	51.0	4.04	52.3	4.06	53.6	7.84		
	12	35.1	5.30	41.9	6.49	48.6	7.72	49.7	4.03	50.4	4.06	51.6	4.07	52.9	7.89		
	14	35.1	5.41	41.9	6.61	48.4	4.05	49.1	4.06	49.7	4.08	51.0	4.09	52.3	8.07		
	16	35.1	5.50	41.9	6.75	47.9	4.06	48.4	4.08	49.0	4.10	50.3	4.12	51.6	8.19		
	18	35.1	5.60	41.9	6.88	47.1	8.07	47.7	8.12	48.4	8.16	49.7	8.24	51.0	8.32		
	20	35.1	5.73	41.9	7.33	46.4	8.47	47.1	8.51	47.7	8.56	49.0	8.63	50.3	8.73		
	21	35.1	5.88	41.9	7.58	46.1	8.67	46.9	8.71	47.4	8.76	48.7	8.85	50.0	8.92		
	23	35.1	6.30	41.9	8.13	45.6	9.06	46.1	9.11	46.7	9.15	48.0	9.24	49.3	9.34		
	25	35.1	6.73	41.9	8.71	44.9	9.46	45.4	9.50	46.1	9.56	47.4	9.66	48.7	9.75		
	27	35.1	7.19	41.9	9.32	44.3	9.85	44.9	9.91	45.4	9.96	46.7	10.07	48.0	10.17		
	29	35.1	7.68	41.9	9.96	43.6	10.25	44.1	10.31	44.9	10.37	46.1	10.48	47.4	10.58		
	31	35.1	8.19	41.7	10.54	42.9	10.66	43.6	10.72	44.1	10.77	45.4	10.89	46.7	11.01		
	33	35.1	8.73	41.0	10.93	42.3	11.06	42.9	11.12	43.6	11.18	44.9	11.30	46.0	11.42		
	35	35.1	9.30	40.3	11.33	41.6	11.47	42.3	11.53	42.9	11.59	44.1	11.73	45.4	11.85		
	37	35.1	9.90	39.7	11.74	41.0	11.88	41.6	11.94	42.3	12.02	43.4	12.15	44.7	12.29		
	39	35.1	10.54	39.0	11.86	40.3	12.27	41.0	12.35	41.6	12.43	42.9	12.56	44.1	12.72		
	41	35.1	11.09	38.6	11.98	39.9	12.39	40.6	12.47	41.1	12.54	42.4	12.59	42.4	12.83		
	43	35.1	11.37	38.3	12.04	39.6	12.42	40.4	12.52	40.7	12.56	41.7	12.61	41.9	12.86		
	45	35.1	11.94	38.1	12.15	39.2	12.54	39.9	12.60	40.1	12.62	40.5	12.66	41.1	13.10		
	48	35.1	12.36	38.0	12.54	38.6	12.66	39.3	12.72	39.6	12.76	39.5	12.87	40.2	13.14		
120%	-5	32.4	4.46	38.6	5.40	44.9	6.39	48.0	6.97	50.3	7.26	51.4	7.50	52.6	7.70		
	-2	32.4	4.51	38.6	5.46	44.9	6.45	48.0	7.01	50.3	7.35	51.4	7.56	52.6	7.72		
	0	32.4	4.55	38.6	5.50	44.9	6.53	48.0	7.03	50.3	7.41	51.4	7.60	52.6	7.74		
	2	32.4	4.56	38.6	5.55	44.9	6.57	48.0	7.09	50.3	7.44	51.4	7.66	52.6	7.75		
	4	32.4	4.60	38.6	5.62	44.9	6.66	48.0	7.16	50.3	7.54	51.4	7.68	52.6	7.77		
	6	32.4	4.65	38.6	5.67	44.9	6.74	48.0	7.24	50.3	7.62	51.4	7.74	52.6	7.80		
	8	32.4	4.70	38.6	5.73	44.9	6.84	48.0	7.33	50.3	7.70	51.4	7.76	52.6	7.84		
	10	32.4	4.75	38.6	5.80	44.9	6.90	48.0	7.46	50.3	7.71	51.4	7.79	52.6	7.87		
	12	32.4	4.84	38.6	5.91	44.9	7.03	48.0	7.60	49.6	7.74	50.7	7.74	51.9	7.92		
	14	32.4	4.93	38.6	6.03	44.9	7.17	48.0	7.75	48.9	7.79	50.1	7.86	51.3	8.02		
	16	32.4	5.02	38.6	6.15	44.9	7.31	47.7	4.10	48.3	7.90	49.4	7.99	50.6	8.14		
	18	32.4	5.12	38.6	6.27	44.9	7.55	47.0	8.07	47.6	8.10	48.7	8.18	50.0	8.25		
	20	32.4	5.22	38.6	6.52	44.9	8.13	46.4	8.47	47.0	8.50	48.1	8.57	49.3	8.65		
	21	32.4	5.27	38.6	6.75	44.9	8.42	46.0	8.66	46.6	8.70	47.9	8.77	49.0	8.86		
	23	32.4	5.63	38.6	7.23	44.9	9.01	45.4	9.05	46.0	9.09	47.1	9.18	48.3	9.26		
	25	32.4	6.02	38.6	7.74	44.1	9.41	44.7	9.44	45.3	9.49	46.6	9.58	47.7	9.67		
	27	32.4	6.43	38.6	8.27	43.6	9.79	44.1	9.85	44.7	9.90	45.9	9.99	47.0	10.08		
	29	32.4	6.85	38.6	8.83	42.9	10.19	43.4	10.25	44.0	10.29	45.1	10.40	46.4	10.49		
	31	32.4	7.31	38.6	9.43	42.1	10.60	42.9	10.64	43.4	10.70	44.6	10.81	45.7	10.92		
	33	32.4	7.78	38.6	10.05	41.6	10.99	42.1	11.06	42.7	11.10	43.9	11.22	45.0	11.33		
	35	32.4	8.28	38.6	10.72	40.9	11.39	41.4	11.45	42.1	11.51	43.3	11.63	44.4	11.76		
	37	32.4	8.82	38.6	11.42	40.3	11.80	40.9	11.86	41.4	11.92	42.6	12.05	43.7	12.18		
	39	32.4	9.38	38.4	12.06	39.6	12.20	40.1	12.27	40.7	12.33	42.0	12.47	43.1	12.59		
	41	32.4	9.64	38.1	12.15	39.3	12.28	39.8	12.36	40.4	12.42	41.7	12.51	41.9	12.69		
	43	32.4	9.78	37.9	12.23	39.0	12.36	39.5	12.41	40.1	12.47	41.0	12.54	41.3	12.94		
	45	32.4	9.90	37.7	12.35	38.6	12.47	39.1	12.52	39.7	12.56	40.1	12.58	40.8	13.22		
	48	32.4	9.97	37.4	12.48	38.1	12.59	38.5	12.62	39.3	12.66	39.5	12.63	40.3	13.39		
110%	-5	29.7	3.90	35.4	4.85	41.1	5.79	44.0	6.21	46.9	6.68	50.4	6.94	51.6	7.16		
	-2	29.7	3.97	35.4	4.91	41.1	5.84	44.0	6.27	46.9	6.74	50.4	7.01	51.6	7.19		
	0	29.7	4.01	35.4	4.94	41.1	5.88	44.0	6.31	46.9	6.81	50.4	7.08	51.6	7.28		
	2	29.7	4.10	35.4	4.99	41.1	5.97	44.0	6.38	46.9	6.88	50.4	7.18	51.6	7.37		
	4																

**14HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-5	27.0	3.55	32.1	4.27	37.4	5.08	40.0	5.45	42.6	5.91	47.9	6.73	50.6	7.03		
	-2	27.0	3.59	32.1	4.33	37.4	5.14	40.0	5.55	42.6	5.99	47.9	6.81	50.6	7.07		
	0	27.0	3.63	32.1	4.37	37.4	5.20	40.0	5.62	42.6	6.04	47.9	6.93	50.6	7.15		
	2	27.0	3.70	32.1	4.43	37.4	5.25	40.0	5.69	42.6	6.11	47.9	7.03	50.6	7.27		
	4	27.0	3.73	32.1	4.47	37.4	5.33	40.0	5.77	42.6	6.19	47.9	7.10	50.6	7.34		
	6	27.0	3.78	32.1	4.56	37.4	5.40	40.0	5.88	42.6	6.28	47.9	7.20	50.6	7.46		
	8	27.0	3.85	32.1	4.63	37.4	5.50	40.0	5.94	42.6	6.38	47.9	7.31	50.6	7.58		
	10	27.0	3.90	32.1	4.72	37.4	5.59	40.0	6.04	42.6	6.50	47.9	7.43	50.6	7.69		
	12	27.0	3.96	32.1	4.81	37.4	5.69	40.0	6.15	42.6	6.62	47.9	7.57	49.9	7.75		
	14	27.0	4.03	32.1	4.90	37.4	5.80	40.0	6.27	42.6	6.75	47.9	7.72	49.3	7.84		
	16	27.0	4.11	32.1	4.99	37.4	5.92	40.0	6.40	42.6	6.88	47.6	7.81	48.6	7.93		
	18	27.0	4.19	32.1	5.09	37.4	6.03	40.0	6.52	42.6	7.02	47.0	8.07	48.0	8.13		
	20	27.0	4.26	32.1	5.19	37.4	6.21	40.0	6.85	42.6	7.52	46.3	8.45	47.3	8.53		
	21	27.0	4.31	32.1	5.24	37.4	6.44	40.0	7.10	42.6	7.78	46.0	8.65	47.0	8.73		
	23	27.0	4.42	32.1	5.59	37.4	6.90	40.0	7.60	42.6	8.34	45.4	9.04	46.3	9.12		
	25	27.0	4.70	32.1	5.97	37.4	7.39	40.0	8.15	42.6	8.94	44.7	9.44	45.7	9.52		
	27	27.0	5.02	32.1	6.36	37.4	7.89	40.0	8.71	42.6	9.56	44.0	9.84	45.0	9.93		
	29	27.0	5.34	32.1	6.79	37.4	8.42	40.0	9.30	42.4	10.16	43.4	10.25	44.4	10.32		
	31	27.0	5.69	32.1	7.25	37.4	8.98	40.0	9.93	41.9	10.55	42.7	10.64	43.7	10.74		
	33	27.0	6.04	32.1	7.72	37.4	9.58	40.0	10.60	41.1	10.95	42.1	11.04	43.1	11.15		
	35	27.0	6.43	32.1	8.21	37.4	10.22	40.0	11.30	40.4	11.34	41.4	11.45	42.4	11.54		
	37	27.0	6.84	32.1	8.74	37.4	10.89	39.3	11.69	39.9	11.76	40.9	11.86	41.7	11.95		
	39	27.0	7.26	32.1	9.29	37.4	11.59	38.7	12.09	39.1	12.15	40.1	12.26	41.1	12.38		
	41	27.0	7.60	32.1	9.63	37.4	12.01	38.1	12.18	38.8	12.34	39.4	12.55	40.5	12.63		
	43	27.0	7.94	32.1	9.97	37.4	12.23	37.5	12.32	38.6	12.46	39.7	12.63	39.8	12.78		
	45	27.0	8.39	32.1	10.42	37.4	12.44	36.7	12.49	38.4	12.68	39.3	12.82	39.0	12.95		
	48	27.0	8.76	32.1	10.78	37.4	12.46	35.2	12.63	38.3	12.91	36.9	12.96	38.2	13.07		
90%	-5	24.3	3.14	29.0	3.77	33.7	4.44	36.0	4.85	38.3	5.16	43.0	5.93	47.7	6.79		
	-2	24.3	3.17	29.0	3.80	33.7	4.50	36.0	4.91	38.3	5.22	43.0	5.99	47.7	6.85		
	0	24.3	3.21	29.0	3.85	33.7	4.57	36.0	4.97	38.3	5.28	43.0	6.05	47.7	6.91		
	2	24.3	3.26	29.0	3.90	33.7	4.61	36.0	5.05	38.3	5.37	43.0	6.18	47.7	7.01		
	4	24.3	3.31	29.0	3.96	33.7	4.69	36.0	5.12	38.3	5.44	43.0	6.28	47.7	7.11		
	6	24.3	3.36	29.0	4.04	33.7	4.78	36.0	5.21	38.3	5.53	43.0	6.37	47.7	7.23		
	8	24.3	3.42	29.0	4.11	33.7	4.88	36.0	5.28	38.3	5.63	43.0	6.49	47.7	7.30		
	10	24.3	3.49	29.0	4.20	33.7	4.96	36.0	5.36	38.3	5.76	43.0	6.57	47.7	7.42		
	12	24.3	3.55	29.0	4.28	33.7	5.06	36.0	5.45	38.3	5.86	43.0	6.70	47.7	7.55		
	14	24.3	3.61	29.0	4.35	33.7	5.15	36.0	5.56	38.3	5.97	43.0	6.82	47.7	7.69		
	16	24.3	3.67	29.0	4.43	33.7	5.25	36.0	5.66	38.3	6.09	43.0	6.96	47.6	7.83		
	18	24.3	3.73	29.0	4.52	33.7	5.34	36.0	5.77	38.3	6.21	43.0	7.10	47.0	8.07		
	20	24.3	3.81	29.0	4.63	33.7	5.45	36.0	5.89	38.3	6.44	43.0	7.63	46.3	8.45		
	21	24.3	3.84	29.0	4.66	33.7	5.54	36.0	6.09	38.3	6.67	43.0	7.90	46.0	8.65		
	23	24.3	3.91	29.0	4.84	33.7	5.94	36.0	6.53	38.3	7.16	43.0	8.48	45.3	9.04		
	25	24.3	4.13	29.0	5.18	33.7	6.35	36.0	6.99	38.3	7.64	43.0	9.08	44.7	9.44		
	27	24.3	4.39	29.0	5.51	33.7	6.78	36.0	7.46	38.3	8.18	43.0	9.71	44.0	9.84		
	29	24.3	4.67	29.0	5.88	33.7	7.23	36.0	7.96	38.3	8.74	42.6	10.16	43.4	10.23		
	31	24.3	4.96	29.0	6.26	33.7	7.70	36.0	8.50	38.3	9.32	41.9	10.55	42.7	10.64		
	33	24.3	5.27	29.0	6.65	33.7	8.22	36.0	9.06	38.3	9.94	41.3	10.96	42.1	11.04		
	35	24.3	5.60	29.0	7.08	33.7	8.76	36.0	9.65	38.3	10.60	40.6	11.36	41.4	11.45		
	37	24.3	5.94	29.0	7.52	33.7	9.32	36.0	10.28	38.3	11.30	39.9	11.76	40.9	11.85		
	39	24.3	6.30	29.0	8.01	33.7	9.91	36.0	10.95	38.3	12.03	39.3	12.17	40.1	12.26		
	41	24.3	6.52	29.0	8.37	33.7	10.27	36.0	11.24	38.3	12.10	39.0	12.48	39.9	12.55		
	43	24.3	6.83	29.0	8.73	33.7	10.64	36.0	11.53	38.3	12.36	38.8	12.64	39.5	12.74		
	45	24.3	7.27	29.0	9.17	33.7	11.07	36.0	11.91	38.3	12.70	38.6	12.77	38.9	12.91		
	48	24.3	7.67	29.0	9.59	33.7	11.49	36.0	12.07	38.3	12.81	38.3	12.95	37.9	13.09		
80%	-5	21.6	2.76	25.7	3.27	29.9	3.87	32.0	4.11	34.1	4.43	38.3	5.12	42.4	5.85		
	-2	21.6	2.81	25.7	3.31	29.9	3.90	32.0	4.18	34.1	4.47	38.3	5.17	42.4	5.90		
	0	21.6	2.85	25.7	3.35	29.9	3.95	32.0	4.23	34.1	4.55	38.3	5.25	42.4	5.99		
	2	21.6	2.91	25.7	3.40	29.9	4.01	32.0	4.31	34.1	4.64	38.3	5.35	42.4	6.10		
	4	21.6	2.96	25.7	3.46	29.9	4.08	32.0	4.41	34.1	4.72	38.3	5.45	42.4	6.18		
	6	21.6	3.01	25.7	3.54	29.9	4.15	32.0	4.51	34.1	4.81	38.3	5.53	42.4	6.29		
	8	21.6	3.07	25.7	3.62	29.9	4.24	32.0	4.58	34.1	4.91	38.3	5.61	42.4	6.41		
	10	21.6	3.09	25.7	3.70	29.9	4.36	32.0	4.69	34.1	5.03	38.3	5.74	42.4	6.47		
	12	21.6	3.14	25.7	3.76	29.9	4.43	32.0	4.78	34.1	5.13	38.3	5.85	42.4	6.59		
	14	21.6	3.20	25.7	3.84	29.9	4.51	32.0	4.86	34.1	5.22	38.3	5.95	42.4	6.72		
	16	21.6	3.24	25.7	3.90</td												

**14HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-5	18.9	2.47	22.6	2.89	26.1	3.28	28.0	3.52	29.9	3.75	33.4	4.29	37.1	4.94		
	-2	18.9	2.49	22.6	2.91	26.1	3.30	28.0	3.58	29.9	3.82	33.4	4.36	37.1	5.00		
	0	18.9	2.50	22.6	2.95	26.1	3.37	28.0	3.65	29.9	3.89	33.4	4.45	37.1	5.07		
	2	18.9	2.52	22.6	2.96	26.1	3.42	28.0	3.72	29.9	3.96	33.4	4.54	37.1	5.15		
	4	18.9	2.55	22.6	3.04	26.1	3.50	28.0	3.79	29.9	4.04	33.4	4.62	37.1	5.27		
	6	18.9	2.59	22.6	3.09	26.1	3.58	28.0	3.91	29.9	4.14	33.4	4.70	37.1	5.38		
	8	18.9	2.64	22.6	3.18	26.1	3.66	28.0	3.97	29.9	4.23	33.4	4.83	37.1	5.48		
	10	18.9	2.69	22.6	3.23	26.1	3.76	28.0	4.05	29.9	4.34	33.4	4.93	37.1	5.54		
	12	18.9	2.76	22.6	3.27	26.1	3.84	28.0	4.13	29.9	4.42	33.4	5.03	37.1	5.65		
	14	18.9	2.80	22.6	3.33	26.1	3.90	28.0	4.19	29.9	4.49	33.4	5.12	37.1	5.76		
	16	18.9	2.85	22.6	3.40	26.1	3.97	28.0	4.28	29.9	4.58	33.4	5.21	37.1	5.86		
	18	18.9	2.89	22.6	3.46	26.1	4.05	28.0	4.35	29.9	4.66	33.4	5.31	37.1	5.98		
	20	18.9	2.94	22.6	3.52	26.1	4.13	28.0	4.43	29.9	4.75	33.4	5.42	37.1	6.15		
	21	18.9	2.97	22.6	3.55	26.1	4.16	28.0	4.48	29.9	4.80	33.4	5.50	37.1	6.37		
	23	18.9	3.01	22.6	3.61	26.1	4.25	28.0	4.63	29.9	5.04	33.4	5.89	37.1	6.82		
	25	18.9	3.08	22.6	3.76	26.1	4.52	28.0	4.95	29.9	5.38	33.4	6.30	37.1	7.29		
	27	18.9	3.26	22.6	4.00	26.1	4.83	28.0	5.27	29.9	5.74	33.4	6.73	37.1	7.80		
	29	18.9	3.46	22.6	4.25	26.1	5.13	28.0	5.62	29.9	6.11	33.4	7.17	37.1	8.33		
	31	18.9	3.65	22.6	4.51	26.1	5.47	28.0	5.97	29.9	6.50	33.4	7.64	37.1	8.88		
	33	18.9	3.88	22.6	4.80	26.1	5.82	28.0	6.35	29.9	6.93	33.4	8.15	37.1	9.47		
	35	18.9	4.11	22.6	5.09	26.1	6.17	28.0	6.76	29.9	7.37	33.4	8.68	37.1	10.10		
	37	18.9	4.34	22.6	5.39	26.1	6.56	28.0	7.17	29.9	7.84	33.4	9.24	37.1	10.75		
	39	18.9	4.60	22.6	5.71	26.1	6.96	28.0	7.63	29.9	8.33	33.4	9.82	37.1	11.45		
	41	18.9	4.80	22.6	5.91	26.1	7.16	28.0	7.88	29.9	8.58	33.4	10.23	37.1	11.96		
	43	18.9	5.19	22.6	6.32	26.1	7.46	28.0	8.31	29.9	8.84	33.4	10.60	37.1	12.33		
	45	18.9	5.31	22.6	6.45	26.1	7.61	28.0	8.44	29.9	9.28	33.4	11.17	37.1	12.80		
	48	18.9	5.44	22.6	6.51	26.1	7.69	28.0	8.58	29.9	9.53	33.4	11.68	37.1	13.11		
60%	-5	16.1	2.11	19.3	2.44	22.4	2.85	24.0	3.03	25.6	3.27	28.7	3.68	31.9	4.22		
	-2	16.1	2.12	19.3	2.48	22.4	2.90	24.0	3.08	25.6	3.31	28.7	3.73	31.9	4.24		
	0	16.1	2.15	19.3	2.51	22.4	2.94	24.0	3.11	25.6	3.36	28.7	3.79	31.9	4.30		
	2	16.1	2.19	19.3	2.57	22.4	2.99	24.0	3.17	25.6	3.41	28.7	3.86	31.9	4.35		
	4	16.1	2.25	19.3	2.62	22.4	3.05	24.0	3.21	25.6	3.46	28.7	3.92	31.9	4.42		
	6	16.1	2.27	19.3	2.67	22.4	3.11	24.0	3.28	25.6	3.53	28.7	4.00	31.9	4.52		
	8	16.1	2.31	19.3	2.71	22.4	3.16	24.0	3.35	25.6	3.60	28.7	4.08	31.9	4.59		
	10	16.1	2.36	19.3	2.77	22.4	3.21	24.0	3.44	25.6	3.67	28.7	4.16	31.9	4.66		
	12	16.1	2.41	19.3	2.82	22.4	3.27	24.0	3.50	25.6	3.73	28.7	4.23	31.9	4.74		
	14	16.1	2.44	19.3	2.86	22.4	3.32	24.0	3.56	25.6	3.81	28.7	4.31	31.9	4.83		
	16	16.1	2.47	19.3	2.91	22.4	3.38	24.0	3.62	25.6	3.87	28.7	4.39	31.9	4.92		
	18	16.1	2.51	19.3	2.95	22.4	3.44	24.0	3.68	25.6	3.94	28.7	4.46	31.9	5.01		
	20	16.1	2.54	19.3	3.01	22.4	3.50	24.0	3.76	25.6	4.02	28.7	4.55	31.9	5.12		
	21	16.1	2.57	19.3	3.03	22.4	3.53	24.0	3.79	25.6	4.05	28.7	4.60	31.9	5.16		
	23	16.1	2.60	19.3	3.09	22.4	3.59	24.0	3.87	25.6	4.13	28.7	4.78	31.9	5.50		
	25	16.1	2.65	19.3	3.14	22.4	3.73	24.0	4.05	25.6	4.39	28.7	5.10	31.9	5.86		
	27	16.1	2.76	19.3	3.33	22.4	3.97	24.0	4.32	25.6	4.67	28.7	5.44	31.9	6.26		
	29	16.1	2.91	19.3	3.53	22.4	4.23	24.0	4.60	25.6	4.98	28.7	5.80	31.9	6.68		
	31	16.1	3.09	19.3	3.75	22.4	4.49	24.0	4.89	25.6	5.30	28.7	6.17	31.9	7.11		
	33	16.1	3.26	19.3	3.97	22.4	4.77	24.0	5.19	25.6	5.63	28.7	6.56	31.9	7.58		
	35	16.1	3.46	19.3	4.22	22.4	5.05	24.0	5.51	25.6	5.98	28.7	6.99	31.9	8.07		
	37	16.1	3.65	19.3	4.46	22.4	5.36	24.0	5.85	25.6	6.35	28.7	7.43	31.9	8.59		
	39	16.1	3.85	19.3	4.72	22.4	5.68	24.0	6.20	25.6	6.75	28.7	7.89	31.9	9.14		
	41	16.1	3.98	19.3	4.92	22.4	5.89	24.0	6.44	25.6	6.99	28.7	8.26	31.9	9.55		
	43	16.1	4.10	19.3	5.13	22.4	6.09	24.0	6.64	25.6	7.24	28.7	8.61	31.9	9.96		
	45	16.1	4.29	19.3	5.39	22.4	6.34	24.0	6.89	25.6	7.60	28.7	8.99	31.9	10.51		
	48	16.1	4.45	19.3	5.63	22.4	6.56	24.0	7.06	25.6	7.89	28.7	9.32	31.9	11.01		
50%	-5	13.5	1.83	16.1	2.11	18.7	2.43	20.0	2.54	21.3	2.68	23.9	3.05	26.6	3.29		
	-2	13.5	1.84	16.1	2.16	18.7	2.46	20.0	2.58	21.3	2.73	23.9	3.09	26.6	3.33		
	0	13.5	1.87	16.1	2.19	18.7	2.50	20.0	2.61	21.3	2.76	23.9	3.14	26.6	3.39		
	2	13.5	1.90	16.1	2.22	18.7	2.54	20.0	2.65	21.3	2.81	23.9	3.16	26.6	3.46		
	4	13.5	1.92	16.1	2.26	18.7	2.57	20.0	2.68	21.3	2.87	23.9	3.24	26.6	3.54		
	6	13.5	1.95	16.1	2.29	18.7	2.61	20.0	2.75	21.3	2.92	23.9	3.29	26.6	3.65		
	8	13.5	2.00	16.1	2.33	18.7	2.65	20.0	2.81	21.3	2.96	23.9	3.34	26.6	3.77		
	10	13.5	2.04	16.1	2.36	18.7	2.70	20.0	2.85	21.3	3.05	23.9	3.43	26.6	3.82		
	12	13.5	2.06	16.1	2.39	18.7	2.74	20.0	2.91	21.3	3.11	23.9	3.49	26.6	3.88		
	14	13.5	2.09	16.1	2.42	18.7	2.77	20.0	2.97	21.3	3.15	23.9	3.55	26.6	3.96		
	16	13.5	2.12</td														

## 16HP cooling mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
130%	-5	39.5	5.41	47.1	6.60	54.6	7.08	56.7	7.37	59.5	7.58	60.9	8.24	62.4	8.29		
	-2	39.5	5.41	47.1	6.73	54.6	7.08	56.7	7.41	59.5	7.58	60.9	8.34	62.4	8.37		
	0	39.5	5.50	47.1	6.85	54.6	7.34	56.7	7.82	59.5	8.02	60.9	8.44	62.4	8.48		
	2	39.5	5.60	47.1	6.86	54.6	7.59	56.7	8.26	59.5	8.11	60.9	8.51	62.4	8.61		
	4	39.5	5.73	47.1	7.00	54.6	7.85	56.7	8.29	59.5	8.21	60.9	8.50	62.4	8.77		
	6	39.5	5.84	47.1	7.14	54.6	8.14	56.7	8.36	58.8	8.47	60.2	8.50	61.8	8.84		
	8	39.5	5.98	47.1	7.30	54.6	8.55	56.7	8.77	58.1	8.74	59.5	3.90	61.0	8.92		
	10	39.5	6.10	47.1	7.46	54.6	8.87	56.7	9.06	57.4	4.04	58.8	4.06	60.3	9.18		
	12	39.5	6.21	47.1	7.60	54.6	9.04	55.9	4.03	56.7	4.06	58.0	4.07	59.5	9.24		
	14	39.5	6.33	47.1	7.74	54.5	4.05	55.3	4.06	55.9	4.08	57.4	4.09	58.8	9.45		
	16	39.5	6.44	47.1	7.90	53.8	4.06	54.5	4.08	55.1	4.10	56.6	4.12	58.0	9.60		
	18	39.5	6.56	47.1	8.06	53.0	9.45	53.7	9.51	54.5	9.56	55.9	9.65	57.4	9.74		
	20	39.5	6.71	47.1	8.58	52.2	9.92	53.0	9.97	53.7	10.03	55.1	10.11	56.6	10.22		
	21	39.5	6.89	47.1	8.88	51.9	10.15	52.7	10.20	53.4	10.26	54.8	10.36	56.2	10.45		
	23	39.5	7.39	47.1	9.53	51.3	10.61	51.9	10.67	52.6	10.72	54.0	10.83	55.4	10.94		
	25	39.5	7.88	47.1	10.20	50.5	11.08	51.1	11.13	51.9	11.20	53.4	11.31	54.8	11.42		
	27	39.5	8.42	47.1	10.92	49.8	11.54	50.5	11.61	51.1	11.67	52.6	11.79	54.0	11.92		
	29	39.5	8.99	47.1	11.67	49.0	12.00	49.7	12.08	50.5	12.15	51.9	12.27	53.4	12.40		
	31	39.5	9.60	46.9	12.34	48.2	12.49	49.0	12.56	49.7	12.61	51.1	12.75	52.6	12.90		
	33	39.5	10.22	46.1	12.81	47.6	12.95	48.2	13.02	49.0	13.09	50.5	13.24	51.7	13.38		
	35	39.5	10.90	45.3	13.27	46.8	13.43	47.6	13.50	48.2	13.58	49.7	13.74	51.1	13.88		
	37	39.5	11.60	44.7	13.75	46.1	13.91	46.8	13.99	47.6	14.07	48.9	14.24	50.3	14.40		
	39	39.5	12.34	43.9	13.90	45.3	14.38	46.1	14.47	46.8	14.56	48.2	14.72	49.7	14.89		
	41	39.5	12.99	43.4	14.03	44.8	14.51	45.6	14.60	46.3	14.69	47.7	14.75	47.8	15.03		
	43	39.5	13.32	43.1	14.10	44.6	14.55	45.4	14.67	45.8	14.71	46.9	14.77	47.2	15.06		
	45	39.5	13.98	42.8	14.23	44.1	14.69	44.9	14.76	45.1	14.78	45.6	14.83	46.3	15.35		
	48	39.5	14.48	42.7	14.69	43.4	14.83	44.2	14.90	44.6	14.95	44.4	15.08	45.2	15.40		
120%	-5	36.5	5.23	43.4	6.33	50.5	7.48	54.0	8.16	56.6	8.51	57.9	8.78	59.1	9.01		
	-2	36.5	5.28	43.4	6.40	50.5	7.56	54.0	8.21	56.6	8.61	57.9	8.85	59.1	9.04		
	0	36.5	5.33	43.4	6.44	50.5	7.65	54.0	8.23	56.6	8.69	57.9	8.91	59.1	9.06		
	2	36.5	5.34	43.4	6.51	50.5	7.70	54.0	8.31	56.6	8.72	57.9	8.97	59.1	9.08		
	4	36.5	5.39	43.4	6.59	50.5	7.81	54.0	8.38	56.6	8.84	57.9	8.99	59.1	9.11		
	6	36.5	5.45	43.4	6.64	50.5	7.90	54.0	8.48	56.6	8.93	57.9	9.06	59.1	9.13		
	8	36.5	5.50	43.4	6.71	50.5	8.01	54.0	8.58	56.6	9.02	57.9	9.09	59.1	9.18		
	10	36.5	5.57	43.4	6.80	50.5	8.08	54.0	8.74	56.6	9.03	57.9	9.12	59.1	9.22		
	12	36.5	5.67	43.4	6.92	50.5	8.24	54.0	8.90	55.8	9.06	57.1	9.07	58.3	9.28		
	14	36.5	5.78	43.4	7.06	50.5	8.40	54.0	9.08	55.0	9.12	56.4	9.21	57.7	9.39		
	16	36.5	5.89	43.4	7.21	50.5	8.56	53.7	4.10	54.3	9.26	55.6	9.36	56.9	9.53		
	18	36.5	5.99	43.4	7.35	50.5	8.85	52.9	9.45	53.5	9.49	54.8	9.58	56.2	9.67		
	20	36.5	6.12	43.4	7.63	50.5	9.53	52.2	9.92	52.9	9.95	54.2	10.04	55.4	10.13		
	21	36.5	6.17	43.4	7.90	50.5	9.86	51.7	10.15	52.4	10.19	53.8	10.27	55.1	10.38		
	23	36.5	6.60	43.4	8.47	50.5	10.56	51.1	10.60	51.7	10.65	53.0	10.76	54.3	10.84		
	25	36.5	7.05	43.4	9.06	49.7	11.02	50.3	11.06	50.9	11.11	52.4	11.22	53.7	11.33		
	27	36.5	7.53	43.4	9.69	49.0	11.47	49.7	11.54	50.3	11.59	51.6	11.70	52.9	11.81		
	29	36.5	8.03	43.4	10.35	48.2	11.93	48.9	12.00	49.5	12.06	50.8	12.18	52.2	12.29		
	31	36.5	8.56	43.4	11.04	47.4	12.41	48.2	12.47	48.9	12.54	50.1	12.66	51.4	12.79		
	33	36.5	9.11	43.4	11.77	46.8	12.88	47.4	12.95	48.1	13.00	49.3	13.15	50.6	13.27		
	35	36.5	9.70	43.4	12.56	46.0	13.34	46.6	13.41	47.4	13.48	48.7	13.63	50.0	13.77		
	37	36.5	10.33	43.4	13.38	45.3	13.82	46.0	13.90	46.6	13.97	47.9	14.11	49.2	14.27		
	39	36.5	10.99	43.2	14.13	44.5	14.29	45.2	14.38	45.8	14.45	47.2	14.61	48.5	14.75		
	41	36.5	11.29	42.9	14.23	44.2	14.39	44.8	14.48	45.5	14.55	46.9	14.65	47.1	14.86		
	43	36.5	11.46	42.7	14.33	43.8	14.48	44.5	14.53	45.1	14.60	46.1	14.69	46.4	15.16		
	45	36.5	11.59	42.4	14.46	43.4	14.61	44.0	14.67	44.7	14.71	45.2	14.73	45.9	15.49		
	48	36.5	11.68	42.1	14.62	42.8	14.74	43.3	14.78	44.2	14.83	44.5	14.79	45.3	15.68		
110%	-5	33.4	4.56	39.9	5.68	46.3	6.78	49.5	7.28	52.7	7.83	56.7	8.13	58.0	8.38		
	-2	33.4	4.65	39.9	5.75	46.3	6.84	49.5	7.35	52.7	7.89	56.7	8.21	58.0	8.43		
	0	33.4	4.70	39.9	5.79	46.3	6.89	49.5	7.40	52.7	7.98	56.7	8.29	58.0	8.53		
	2	33.4	4.80	39.9	5.84	46.3	7.00	49.5	7.48	52.7	8.06	56.7	8.41	58.0	8.63		

## 16HP cooling mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
100%	-5	30.4	4.16	36.2	5.00	42.1	5.96	45.0	6.38	47.9	6.92	53.8	7.89	56.9	8.23		
	-2	30.4	4.21	36.2	5.07	42.1	6.02	45.0	6.50	47.9	7.01	53.8	7.98	56.9	8.29		
	0	30.4	4.25	36.2	5.12	42.1	6.09	45.0	6.58	47.9	7.08	53.8	8.11	56.9	8.38		
	2	30.4	4.33	36.2	5.19	42.1	6.15	45.0	6.66	47.9	7.16	53.8	8.23	56.9	8.51		
	4	30.4	4.36	36.2	5.24	42.1	6.25	45.0	6.76	47.9	7.25	53.8	8.31	56.9	8.60		
	6	30.4	4.43	36.2	5.35	42.1	6.33	45.0	6.88	47.9	7.36	53.8	8.43	56.9	8.74		
	8	30.4	4.51	36.2	5.43	42.1	6.44	45.0	6.96	47.9	7.48	53.8	8.56	56.9	8.88		
	10	30.4	4.57	36.2	5.53	42.1	6.55	45.0	7.08	47.9	7.62	53.8	8.70	56.9	9.01		
	12	30.4	4.64	36.2	5.64	42.1	6.67	45.0	7.21	47.9	7.76	53.8	8.86	56.1	9.08		
	14	30.4	4.73	36.2	5.74	42.1	6.80	45.0	7.35	47.9	7.90	53.8	9.04	55.4	9.19		
	16	30.4	4.82	36.2	5.85	42.1	6.94	45.0	7.49	47.9	8.06	53.5	9.15	54.6	9.29		
	18	30.4	4.90	36.2	5.96	42.1	7.06	45.0	7.63	47.9	8.22	52.9	9.45	54.0	9.53		
	20	30.4	4.99	36.2	6.08	42.1	7.28	45.0	8.03	47.9	8.81	52.1	9.90	53.2	9.99		
	21	30.4	5.05	36.2	6.14	42.1	7.55	45.0	8.31	47.9	9.11	51.8	10.13	52.9	10.22		
	23	30.4	5.17	36.2	6.55	42.1	8.08	45.0	8.90	47.9	9.77	51.1	10.59	52.1	10.68		
	25	30.4	5.51	36.2	6.99	42.1	8.65	45.0	9.54	47.9	10.47	50.3	11.06	51.4	11.15		
	27	30.4	5.89	36.2	7.46	42.1	9.24	45.0	10.20	47.9	11.20	49.5	11.52	50.6	11.63		
	29	30.4	6.26	36.2	7.96	42.1	9.86	45.0	10.90	47.7	11.90	48.9	12.00	50.0	12.09		
	31	30.4	6.67	36.2	8.49	42.1	10.52	45.0	11.63	47.1	12.36	48.1	12.47	49.2	12.57		
	33	30.4	7.08	36.2	9.04	42.1	11.22	45.0	12.41	46.3	12.82	47.4	12.93	48.5	13.06		
	35	30.4	7.53	36.2	9.61	42.1	11.97	45.0	13.24	45.5	13.29	46.6	13.41	47.7	13.52		
	37	30.4	8.01	36.2	10.24	42.1	12.75	44.2	13.70	44.8	13.77	46.0	13.89	46.9	14.00		
	39	30.4	8.51	36.2	10.88	42.1	13.57	43.6	14.16	44.0	14.23	45.2	14.36	46.3	14.50		
	41	30.4	8.90	36.2	11.28	42.1	14.07	42.9	14.26	43.7	14.45	44.4	14.70	45.6	14.80		
	43	30.4	9.30	36.2	11.67	42.1	14.33	42.2	14.43	43.4	14.59	44.6	14.79	44.8	14.96		
	45	30.4	9.83	36.2	12.20	42.1	14.58	41.3	14.63	43.2	14.86	44.3	15.02	43.9	15.16		
	48	30.4	10.26	36.2	12.63	42.1	14.60	39.6	14.79	43.1	15.12	41.6	15.18	42.9	15.30		
90%	-5	27.3	3.68	32.6	4.41	37.9	5.20	40.5	5.68	43.1	6.04	48.4	6.94	53.7	7.95		
	-2	27.3	3.71	32.6	4.46	37.9	5.27	40.5	5.76	43.1	6.11	48.4	7.01	53.7	8.03		
	0	27.3	3.77	32.6	4.51	37.9	5.35	40.5	5.82	43.1	6.19	48.4	7.09	53.7	8.09		
	2	27.3	3.82	32.6	4.57	37.9	5.41	40.5	5.91	43.1	6.29	48.4	7.24	53.7	8.21		
	4	27.3	3.88	32.6	4.64	37.9	5.50	40.5	5.99	43.1	6.37	48.4	7.35	53.7	8.33		
	6	27.3	3.93	32.6	4.73	37.9	5.60	40.5	6.11	43.1	6.48	48.4	7.46	53.7	8.47		
	8	27.3	4.01	32.6	4.82	37.9	5.71	40.5	6.19	43.1	6.59	48.4	7.60	53.7	8.55		
	10	27.3	4.08	32.6	4.92	37.9	5.81	40.5	6.28	43.1	6.74	48.4	7.70	53.7	8.69		
	12	27.3	4.16	32.6	5.01	37.9	5.92	40.5	6.38	43.1	6.87	48.4	7.85	53.7	8.85		
	14	27.3	4.23	32.6	5.10	37.9	6.03	40.5	6.51	43.1	6.99	48.4	7.99	53.7	9.01		
	16	27.3	4.30	32.6	5.19	37.9	6.15	40.5	6.64	43.1	7.13	48.4	8.15	53.5	9.17		
	18	27.3	4.37	32.6	5.30	37.9	6.26	40.5	6.76	43.1	7.28	48.4	8.31	52.9	9.45		
	20	27.3	4.46	32.6	5.42	37.9	6.39	40.5	6.90	43.1	7.54	48.4	8.94	52.1	9.90		
	21	27.3	4.49	32.6	5.46	37.9	6.49	40.5	7.13	43.1	7.81	48.4	9.26	51.8	10.13		
	23	27.3	4.58	32.6	5.67	37.9	6.96	40.5	7.65	43.1	8.38	48.4	9.93	50.9	10.59		
	25	27.3	4.83	32.6	6.06	37.9	7.44	40.5	8.19	43.1	8.95	48.4	10.63	50.3	11.06		
	27	27.3	5.14	32.6	6.46	37.9	7.94	40.5	8.74	43.1	9.58	48.4	11.38	49.5	11.52		
	29	27.3	5.48	32.6	6.88	37.9	8.47	40.5	9.33	43.1	10.24	47.9	11.90	48.9	11.99		
	31	27.3	5.81	32.6	7.33	37.9	9.02	40.5	9.95	43.1	10.92	47.1	12.36	48.1	12.47		
	33	27.3	6.17	32.6	7.79	37.9	9.63	40.5	10.61	43.1	11.65	46.4	12.84	47.4	12.93		
	35	27.3	6.56	32.6	8.29	37.9	10.26	40.5	11.31	43.1	12.41	45.6	13.31	46.6	13.41		
	37	27.3	6.96	32.6	8.81	37.9	10.92	40.5	12.04	43.1	13.23	44.8	13.77	46.0	13.88		
	39	27.3	7.38	32.6	9.38	37.9	11.61	40.5	12.82	43.1	14.09	44.2	14.25	45.2	14.36		
	41	27.3	7.64	32.6	9.81	37.9	12.04	40.5	13.16	43.1	14.18	43.9	14.61	44.9	14.70		
	43	27.3	8.01	32.6	10.23	37.9	12.46	40.5	13.50	43.1	14.48	43.7	14.80	44.5	14.92		
	45	27.3	8.51	32.6	10.74	37.9	12.97	40.5	13.96	43.1	14.88	43.4	14.96	43.8	15.12		
	48	27.3	8.99	32.6	11.24	37.9	13.46	40.5	14.13	43.1	15.01	43.1	15.17	42.6	15.33		
80%	-5	24.3	3.24	28.9	3.83	33.6	4.53	36.0	4.82	38.4	5.19	43.1	6.00	47.7	6.85		
	-2	24.3	3.29	28.9	3.88	33.6	4.57	36.0	4.90	38.4	5.24	43.1	6.06	47.7	6.92		
	0	24.3	3.34	28.9	3.92	33.6	4.63	36.0	4.95	38.4	5.33	43.1	6.14	47.7	7.01		
	2	24.3	3.41	28.9	3.98	33.6	4.70	36.0	5.05	38.4	5.43	43.1	6.27	47.7	7.14		
	4	24.3	3.47	28.9													

**R410A All DC Inverter V4 Plus S Series 50Hz**
**16HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
70%	-5	21.2	2.89	25.4	3.39	29.4	3.84	31.5	4.12	33.6	4.40	37.6	5.03	41.8	5.78		
	-2	21.2	2.91	25.4	3.41	29.4	3.86	31.5	4.20	33.6	4.47	37.6	5.11	41.8	5.86		
	0	21.2	2.93	25.4	3.45	29.4	3.94	31.5	4.28	33.6	4.55	37.6	5.21	41.8	5.94		
	2	21.2	2.95	25.4	3.47	29.4	4.01	31.5	4.36	33.6	4.63	37.6	5.32	41.8	6.03		
	4	21.2	2.99	25.4	3.56	29.4	4.10	31.5	4.44	33.6	4.74	37.6	5.41	41.8	6.18		
	6	21.2	3.03	25.4	3.62	29.4	4.20	31.5	4.58	33.6	4.85	37.6	5.50	41.8	6.30		
	8	21.2	3.09	25.4	3.72	29.4	4.29	31.5	4.65	33.6	4.95	37.6	5.66	41.8	6.42		
	10	21.2	3.15	25.4	3.78	29.4	4.41	31.5	4.74	33.6	5.08	37.6	5.78	41.8	6.49		
	12	21.2	3.23	25.4	3.83	29.4	4.50	31.5	4.83	33.6	5.17	37.6	5.89	41.8	6.62		
	14	21.2	3.28	25.4	3.91	29.4	4.57	31.5	4.91	33.6	5.26	37.6	5.99	41.8	6.74		
	16	21.2	3.34	25.4	3.98	29.4	4.66	31.5	5.01	33.6	5.37	37.6	6.10	41.8	6.87		
	18	21.2	3.39	25.4	4.05	29.4	4.74	31.5	5.10	33.6	5.46	37.6	6.22	41.8	7.01		
	20	21.2	3.44	25.4	4.12	29.4	4.83	31.5	5.19	33.6	5.57	37.6	6.35	41.8	7.21		
	21	21.2	3.48	25.4	4.16	29.4	4.87	31.5	5.24	33.6	5.62	37.6	6.44	41.8	7.46		
	23	21.2	3.53	25.4	4.23	29.4	4.98	31.5	5.42	33.6	5.90	37.6	6.90	41.8	7.99		
	25	21.2	3.60	25.4	4.41	29.4	5.30	31.5	5.80	33.6	6.30	37.6	7.38	41.8	8.54		
	27	21.2	3.82	25.4	4.69	29.4	5.65	31.5	6.17	33.6	6.72	37.6	7.88	41.8	9.13		
	29	21.2	4.05	25.4	4.98	29.4	6.01	31.5	6.58	33.6	7.15	37.6	8.40	41.8	9.76		
	31	21.2	4.28	25.4	5.28	29.4	6.40	31.5	6.99	33.6	7.62	37.6	8.95	41.8	10.40		
	33	21.2	4.55	25.4	5.62	29.4	6.81	31.5	7.44	33.6	8.12	37.6	9.54	41.8	11.09		
	35	21.2	4.82	25.4	5.96	29.4	7.22	31.5	7.92	33.6	8.63	37.6	10.17	41.8	11.83		
	37	21.2	5.08	25.4	6.31	29.4	7.69	31.5	8.40	33.6	9.19	37.6	10.83	41.8	12.59		
	39	21.2	5.39	25.4	6.69	29.4	8.15	31.5	8.94	33.6	9.76	37.6	11.51	41.8	13.41		
	41	21.2	5.62	25.4	6.93	29.4	8.39	31.5	9.23	33.6	10.05	37.6	11.98	41.8	14.01		
	43	21.2	6.08	25.4	7.40	29.4	8.74	31.5	9.73	33.6	10.35	37.6	12.42	41.8	14.44		
	45	21.2	6.22	25.4	7.56	29.4	8.92	31.5	9.89	33.6	10.87	37.6	13.09	41.8	15.00		
	48	21.2	6.38	25.4	7.63	29.4	9.01	31.5	10.05	33.6	11.16	37.6	13.68	41.8	15.35		
60%	-5	18.2	2.47	21.7	2.86	25.2	3.33	27.0	3.55	28.8	3.83	32.3	4.31	35.8	4.94		
	-2	18.2	2.48	21.7	2.91	25.2	3.39	27.0	3.60	28.8	3.87	32.3	4.37	35.8	4.97		
	0	18.2	2.52	21.7	2.94	25.2	3.44	27.0	3.65	28.8	3.94	32.3	4.44	35.8	5.04		
	2	18.2	2.56	21.7	3.01	25.2	3.50	27.0	3.72	28.8	3.99	32.3	4.53	35.8	5.10		
	4	18.2	2.63	21.7	3.07	25.2	3.57	27.0	3.76	28.8	4.05	32.3	4.60	35.8	5.17		
	6	18.2	2.66	21.7	3.12	25.2	3.64	27.0	3.85	28.8	4.13	32.3	4.69	35.8	5.29		
	8	18.2	2.71	21.7	3.18	25.2	3.71	27.0	3.92	28.8	4.22	32.3	4.78	35.8	5.38		
	10	18.2	2.76	21.7	3.25	25.2	3.76	27.0	4.03	28.8	4.30	32.3	4.87	35.8	5.46		
	12	18.2	2.82	21.7	3.30	25.2	3.83	27.0	4.10	28.8	4.37	32.3	4.96	35.8	5.55		
	14	18.2	2.85	21.7	3.35	25.2	3.89	27.0	4.17	28.8	4.46	32.3	5.05	35.8	5.65		
	16	18.2	2.89	21.7	3.41	25.2	3.96	27.0	4.24	28.8	4.53	32.3	5.14	35.8	5.76		
	18	18.2	2.94	21.7	3.46	25.2	4.03	27.0	4.32	28.8	4.62	32.3	5.23	35.8	5.87		
	20	18.2	2.98	21.7	3.53	25.2	4.10	27.0	4.40	28.8	4.71	32.3	5.33	35.8	5.99		
	21	18.2	3.01	21.7	3.55	25.2	4.14	27.0	4.44	28.8	4.74	32.3	5.39	35.8	6.05		
	23	18.2	3.05	21.7	3.62	25.2	4.21	27.0	4.53	28.8	4.83	32.3	5.60	35.8	6.44		
	25	18.2	3.10	21.7	3.67	25.2	4.37	27.0	4.74	28.8	5.14	32.3	5.97	35.8	6.87		
	27	18.2	3.23	21.7	3.91	25.2	4.65	27.0	5.06	28.8	5.48	32.3	6.37	35.8	7.33		
	29	18.2	3.41	21.7	4.14	25.2	4.96	27.0	5.39	28.8	5.83	32.3	6.79	35.8	7.83		
	31	18.2	3.62	21.7	4.39	25.2	5.26	27.0	5.72	28.8	6.21	32.3	7.22	35.8	8.33		
	33	18.2	3.82	21.7	4.65	25.2	5.58	27.0	6.08	28.8	6.60	32.3	7.69	35.8	8.88		
	35	18.2	4.05	21.7	4.94	25.2	5.92	27.0	6.46	28.8	7.01	32.3	8.19	35.8	9.45		
	37	18.2	4.28	21.7	5.23	25.2	6.28	27.0	6.85	28.8	7.44	32.3	8.70	35.8	10.06		
	39	18.2	4.51	21.7	5.53	25.2	6.65	27.0	7.26	28.8	7.90	32.3	9.24	35.8	10.70		
	41	18.2	4.66	21.7	5.77	25.2	6.89	27.0	7.55	28.8	8.19	32.3	9.67	35.8	11.19		
	43	18.2	4.80	21.7	6.01	25.2	7.14	27.0	7.78	28.8	8.48	32.3	10.08	35.8	11.67		
	45	18.2	5.03	21.7	6.32	25.2	7.43	27.0	8.07	28.8	8.90	32.3	10.54	35.8	12.31		
	48	18.2	5.22	21.7	6.59	25.2	7.68	27.0	8.28	28.8	9.24	32.3	10.92	35.8	12.90		
50%	-5	15.2	2.14	18.2	2.48	21.1	2.85	22.5	2.98	23.9	3.14	26.8	3.58	29.9	3.85		
	-2	15.2	2.16	18.2	2.53	21.1	2.88	22.5	3.02	23.9	3.20	26.8	3.62	29.9	3.90		
	0	15.2	2.19	18.2	2.57	21.1	2.93	22.5	3.06	23.9	3.24	26.8	3.68	29.9	3.97		
	2	15.2	2.22	18.2	2.60	21.1	2.98	22.5	3.11	23.9	3.29	26.8	3.70	29.9	4.05		
	4	15.2	2.25	18.2	2.65	21.1	3.01	22.5	3.14	23.9	3.36	26.					

**18HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)																	
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24					
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
130%	-5	43.9	6.05	52.3	7.38	60.7	7.91	63.0	8.23	66.1	8.47	67.7	9.21	69.4	9.27				
	-2	43.9	6.05	52.3	7.52	60.7	7.91	63.0	8.28	66.1	8.47	67.7	9.32	69.4	9.36				
	0	43.9	6.15	52.3	7.65	60.7	8.20	63.0	8.74	66.1	8.96	67.7	9.44	69.4	9.48				
	2	43.9	6.26	52.3	7.67	60.7	8.48	63.0	9.23	66.1	9.06	67.7	9.51	69.4	9.62				
	4	43.9	6.40	52.3	7.82	60.7	8.78	63.0	9.27	66.1	9.18	67.7	9.50	69.4	9.81				
	6	43.9	6.52	52.3	7.98	60.7	9.10	63.0	9.34	65.3	9.47	66.8	9.50	68.6	9.88				
	8	43.9	6.68	52.3	8.16	60.7	9.56	63.0	9.80	64.5	9.77	66.1	9.90	67.7	9.98				
	10	43.9	6.82	52.3	8.33	60.7	9.91	63.0	10.13	63.7	4.04	65.4	4.06	67.0	10.26				
	12	43.9	6.94	52.3	8.49	60.7	10.11	62.1	4.03	63.0	4.06	64.5	4.07	66.1	10.33				
	14	43.9	7.08	52.3	8.65	60.5	4.05	61.4	4.06	62.1	4.08	63.7	4.09	65.4	10.56				
	16	43.9	7.20	52.3	8.83	59.8	4.06	60.5	4.08	61.2	4.10	62.9	4.12	64.5	10.73				
	18	43.9	7.34	52.3	9.01	58.9	10.57	59.6	10.63	60.5	10.69	62.1	10.79	63.7	10.89				
	20	43.9	7.50	52.3	9.59	58.0	11.09	58.9	11.14	59.6	11.21	61.2	11.30	62.9	11.42				
	21	43.9	7.70	52.3	9.93	57.7	11.35	58.6	11.40	59.3	11.46	60.9	11.58	62.5	11.68				
	23	43.9	8.25	52.3	10.65	57.0	11.86	57.7	11.92	58.4	11.98	60.0	12.10	61.6	12.22				
	25	43.9	8.81	52.3	11.40	56.1	12.38	56.8	12.44	57.7	12.52	59.3	12.64	60.9	12.76				
	27	43.9	9.41	52.3	12.20	55.4	12.90	56.1	12.98	56.8	13.04	58.4	13.18	60.0	13.32				
	29	43.9	10.05	52.3	13.04	54.5	13.42	55.2	13.50	56.1	13.58	57.7	13.72	59.3	13.86				
	31	43.9	10.73	52.1	13.80	53.6	13.96	54.5	14.04	55.2	14.10	56.8	14.26	58.4	14.42				
	33	43.9	11.42	51.2	14.32	52.9	14.47	53.6	14.55	54.5	14.63	56.1	14.79	57.5	14.95				
	35	43.9	12.18	50.4	14.83	52.0	15.01	52.9	15.09	53.6	15.17	55.2	15.35	56.8	15.51				
	37	43.9	12.96	49.6	15.37	51.2	15.55	52.0	15.63	52.9	15.73	54.3	15.91	55.9	16.09				
	39	43.9	13.80	48.7	15.53	50.4	16.07	51.2	16.17	52.0	16.27	53.6	16.45	55.2	16.65				
	41	43.9	14.52	48.2	15.68	49.8	16.22	50.7	16.32	51.4	16.42	53.0	16.48	53.1	16.80				
	43	43.9	14.89	47.9	15.76	49.6	16.27	50.5	16.40	50.9	16.44	52.1	16.51	52.4	16.84				
	45	43.9	15.63	47.6	15.91	49.0	16.42	49.9	16.50	50.2	16.52	50.7	16.57	51.4	17.15				
	48	43.9	16.19	47.4	16.42	48.2	16.57	49.1	16.65	49.5	16.71	49.3	16.86	50.2	17.21				
120%	-5	40.5	5.84	48.2	7.07	56.1	8.37	60.0	9.12	62.9	9.51	64.3	9.81	65.7	10.08				
	-2	40.5	5.90	48.2	7.15	56.1	8.45	60.0	9.18	62.9	9.62	64.3	9.90	65.7	10.11				
	0	40.5	5.95	48.2	7.20	56.1	8.55	60.0	9.20	62.9	9.71	64.3	9.96	65.7	10.13				
	2	40.5	5.97	48.2	7.27	56.1	8.61	60.0	9.29	62.9	9.75	64.3	10.03	65.7	10.15				
	4	40.5	6.03	48.2	7.36	56.1	8.73	60.0	9.37	62.9	9.88	64.3	10.05	65.7	10.18				
	6	40.5	6.09	48.2	7.42	56.1	8.83	60.0	9.48	62.9	9.98	64.3	10.13	65.7	10.21				
	8	40.5	6.15	48.2	7.50	56.1	8.95	60.0	9.60	62.9	10.08	64.3	10.17	65.7	10.26				
	10	40.5	6.22	48.2	7.60	56.1	9.03	60.0	9.77	62.9	10.09	64.3	10.20	65.7	10.30				
	12	40.5	6.34	48.2	7.74	56.1	9.21	60.0	9.95	62.0	10.13	63.4	10.14	64.8	10.37				
	14	40.5	6.46	48.2	7.90	56.1	9.39	60.0	10.15	61.1	10.20	62.7	10.29	64.1	10.49				
	16	40.5	6.58	48.2	8.05	56.1	9.57	59.6	4.10	60.4	10.34	61.8	10.46	63.2	10.65				
	18	40.5	6.70	48.2	8.21	56.1	9.89	58.8	10.57	59.5	10.61	60.9	10.71	62.5	10.81				
	20	40.5	6.84	48.2	8.53	56.1	10.65	58.0	11.09	58.8	11.12	60.2	11.23	61.6	11.32				
	21	40.5	6.90	48.2	8.83	56.1	11.03	57.5	11.34	58.2	11.38	59.8	11.48	61.3	11.60				
	23	40.5	7.38	48.2	9.47	56.1	11.80	56.8	11.84	57.5	11.90	58.9	12.02	60.4	12.12				
	25	40.5	7.88	48.2	10.13	55.2	12.32	55.9	12.36	56.6	12.42	58.2	12.54	59.6	12.66				
	27	40.5	8.41	48.2	10.83	54.5	12.82	55.2	12.90	55.9	12.96	57.3	13.08	58.8	13.20				
	29	40.5	8.97	48.2	11.56	53.6	13.34	54.3	13.42	55.0	13.48	56.4	13.62	58.0	13.74				
	31	40.5	9.57	48.2	12.34	52.7	13.88	53.6	13.94	54.3	14.02	55.7	14.15	57.1	14.30				
	33	40.5	10.19	48.2	13.16	52.0	14.39	52.7	14.47	53.4	14.53	54.8	14.69	56.2	14.83				
	35	40.5	10.85	48.2	14.04	51.1	14.91	51.8	14.99	52.7	15.07	54.1	15.23	55.5	15.39				
	37	40.5	11.54	48.2	14.95	50.4	15.45	51.1	15.53	51.8	15.61	53.2	15.77	54.6	15.95				
	39	40.5	12.28	48.0	15.79	49.5	15.97	50.2	16.07	50.9	16.15	52.5	16.33	53.9	16.49				
	41	40.5	12.62	47.6	15.90	49.1	16.08	49.8	16.18	50.5	16.26	52.1	16.37	52.4	16.61				
	43	40.5	12.81	47.4	16.02	48.7	16.18	49.4	16.24	50.1	16.32	51.2	16.42	51.6	16.94				
	45	40.5	12.96	47.1	16.17	48.2	16.33	48.9	16.40	49.7	16.45	50.2	16.47	51.0	17.31				
	48	40.5	13.06	46.7	16.34	47.6	16.48	48.1	16.52	49.1	16.58	49.4	16.53	50.4	17.53				
110%	-5	37.1	5.10	44.3	6.35	51.4	7.58	55.0	8.13	58.6	8.75	63.0	9.09	64.5	9.37				
	-2	37.1	5.20	44.3	6.43	51.4	7.64	55.0	8.21	58.6	8.82	63.0	9.18	64.5	9.42				
	0	37.1	5.25	44.3	6.47	51.4	7.70	55.0	8.27	58.6	8.92	63.0	9.27	64.5	9.53				
	2	37.1	5.36	44.3	6.53	51.4	7.82	55.0	8.36	58.6	9.01	63.0	9.40	64.5	9.65				
	4	37.1	5.47	44.3	6.60	51.4	7.89	55.0	8.46	58.6	9.15	63.0	9.53	64.5	9.74				
	6	37.1	5.53																

## 18HP cooling mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)																	
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24					
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
100%	-5	33.8	4.65	40.2	5.59	46.8	6.66	50.0	7.13	53.2	7.74	59.8	8.82	63.2	9.20				
	-2	33.8	4.70	40.2	5.67	46.8	6.73	50.0	7.26	53.2	7.84	59.8	8.92	63.2	9.26				
	0	33.8	4.75	40.2	5.72	46.8	6.80	50.0	7.35	53.2	7.91	59.8	9.07	63.2	9.36				
	2	33.8	4.84	40.2	5.80	46.8	6.88	50.0	7.45	53.2	8.00	59.8	9.20	63.2	9.51				
	4	33.8	4.88	40.2	5.86	46.8	6.98	50.0	7.56	53.2	8.11	59.8	9.29	63.2	9.62				
	6	33.8	4.95	40.2	5.98	46.8	7.07	50.0	7.69	53.2	8.22	59.8	9.42	63.2	9.76				
	8	33.8	5.04	40.2	6.07	46.8	7.20	50.0	7.78	53.2	8.36	59.8	9.57	63.2	9.93				
	10	33.8	5.10	40.2	6.18	46.8	7.32	50.0	7.91	53.2	8.51	59.8	9.73	63.2	10.07				
	12	33.8	5.18	40.2	6.30	46.8	7.46	50.0	8.05	53.2	8.67	59.8	9.91	62.3	10.15				
	14	33.8	5.28	40.2	6.42	46.8	7.60	50.0	8.21	53.2	8.83	59.8	10.11	61.6	10.27				
	16	33.8	5.38	40.2	6.54	46.8	7.76	50.0	8.37	53.2	9.01	59.5	10.23	60.7	10.39				
	18	33.8	5.48	40.2	6.66	46.8	7.90	50.0	8.53	53.2	9.19	58.8	10.57	60.0	10.65				
	20	33.8	5.58	40.2	6.80	46.8	8.13	50.0	8.97	53.2	9.85	57.9	11.07	59.1	11.16				
	21	33.8	5.64	40.2	6.86	46.8	8.43	50.0	9.29	53.2	10.19	57.5	11.32	58.8	11.42				
	23	33.8	5.78	40.2	7.32	46.8	9.03	50.0	9.95	53.2	10.92	56.8	11.84	57.9	11.94				
	25	33.8	6.16	40.2	7.82	46.8	9.67	50.0	10.67	53.2	11.70	55.9	12.36	57.1	12.46				
	27	33.8	6.58	40.2	8.33	46.8	10.33	50.0	11.40	53.2	12.52	55.0	12.88	56.3	13.00				
	29	33.8	7.00	40.2	8.89	46.8	11.03	50.0	12.18	53.0	13.30	54.3	13.42	55.5	13.52				
	31	33.8	7.46	40.2	9.49	46.8	11.76	50.0	13.00	52.3	13.82	53.4	13.94	54.6	14.05				
	33	33.8	7.91	40.2	10.11	46.8	12.54	50.0	13.88	51.4	14.33	52.7	14.45	53.9	14.59				
	35	33.8	8.41	40.2	10.75	46.8	13.38	50.0	14.79	50.5	14.85	51.8	14.99	53.0	15.11				
	37	33.8	8.95	40.2	11.44	46.8	14.25	49.1	15.31	49.8	15.39	51.1	15.53	52.1	15.65				
	39	33.8	9.51	40.2	12.16	46.8	15.17	48.4	15.83	48.9	15.91	50.2	16.05	51.4	16.21				
	41	33.8	9.95	40.2	12.61	46.8	15.73	47.6	15.94	48.6	16.15	49.3	16.43	50.7	16.54				
	43	33.8	10.40	40.2	13.05	46.8	16.02	46.9	16.13	48.2	16.31	49.6	16.53	49.8	16.73				
	45	33.8	10.99	40.2	13.64	46.8	16.29	45.9	16.35	48.0	16.61	49.2	16.79	48.8	16.95				
	48	33.8	11.47	40.2	14.12	46.8	16.32	44.0	16.53	47.9	16.90	46.2	16.96	47.7	17.11				
90%	-5	30.4	4.11	36.3	4.93	42.1	5.81	45.0	6.34	47.9	6.75	53.7	7.76	59.6	8.89				
	-2	30.4	4.15	36.3	4.98	42.1	5.89	45.0	6.43	47.9	6.83	53.7	7.84	59.6	8.97				
	0	30.4	4.21	36.3	5.04	42.1	5.98	45.0	6.51	47.9	6.92	53.7	7.92	59.6	9.04				
	2	30.4	4.27	36.3	5.11	42.1	6.04	45.0	6.61	47.9	7.03	53.7	8.09	59.6	9.18				
	4	30.4	4.34	36.3	5.18	42.1	6.14	45.0	6.70	47.9	7.12	53.7	8.22	59.6	9.31				
	6	30.4	4.40	36.3	5.28	42.1	6.26	45.0	6.83	47.9	7.24	53.7	8.34	59.6	9.47				
	8	30.4	4.48	36.3	5.38	42.1	6.38	45.0	6.91	47.9	7.37	53.7	8.50	59.6	9.56				
	10	30.4	4.57	36.3	5.50	42.1	6.50	45.0	7.02	47.9	7.54	53.7	8.61	59.6	9.71				
	12	30.4	4.64	36.3	5.60	42.1	6.62	45.0	7.13	47.9	7.68	53.7	8.77	59.6	9.89				
	14	30.4	4.72	36.3	5.70	42.1	6.74	45.0	7.28	47.9	7.81	53.7	8.93	59.6	10.07				
	16	30.4	4.80	36.3	5.80	42.1	6.88	45.0	7.42	47.9	7.97	53.7	9.11	59.5	10.25				
	18	30.4	4.88	36.3	5.92	42.1	7.00	45.0	7.56	47.9	8.13	53.7	9.29	58.8	10.57				
	20	30.4	4.98	36.3	6.06	42.1	7.14	45.0	7.71	47.9	8.43	53.7	9.99	57.9	11.06				
	21	30.4	5.02	36.3	6.10	42.1	7.26	45.0	7.97	47.9	8.73	53.7	10.35	57.5	11.32				
	23	30.4	5.12	36.3	6.34	42.1	7.77	45.0	8.55	47.9	9.37	53.7	11.10	56.6	11.84				
	25	30.4	5.40	36.3	6.78	42.1	8.31	45.0	9.15	47.9	10.01	53.7	11.88	55.9	12.36				
	27	30.4	5.74	36.3	7.22	42.1	8.87	45.0	9.77	47.9	10.71	53.7	12.72	55.0	12.88				
	29	30.4	6.12	36.3	7.69	42.1	9.47	45.0	10.43	47.9	11.44	53.2	13.30	54.3	13.40				
	31	30.4	6.50	36.3	8.19	42.1	10.09	45.0	11.12	47.9	12.20	52.3	13.82	53.4	13.93				
	33	30.4	6.90	36.3	8.71	42.1	10.76	45.0	11.86	47.9	13.02	51.6	14.35	52.7	14.45				
	35	30.4	7.34	36.3	9.27	42.1	11.46	45.0	12.64	47.9	13.88	50.7	14.87	51.8	14.99				
	37	30.4	7.77	36.3	9.85	42.1	12.20	45.0	13.46	47.9	14.79	49.8	15.39	51.1	15.51				
	39	30.4	8.25	36.3	10.49	42.1	12.98	45.0	14.33	47.9	15.75	49.1	15.93	50.2	16.05				
	41	30.4	8.54	36.3	10.96	42.1	13.45	45.0	14.71	47.9	15.84	48.8	16.33	49.8	16.43				
	43	30.4	8.95	36.3	11.43	42.1	13.93	45.0	15.09	47.9	16.18	48.5	16.55	49.4	16.68				
	45	30.4	9.52	36.3	12.00	42.1	14.49	45.0	15.60	47.9	16.63	48.2	16.72	48.7	16.90				
	48	30.4	10.05	36.3	12.56	42.1	15.04	45.0	15.80	47.9	16.77	47.8	16.95	47.3	17.13				
80%	-5	27.0	3.62	32.1	4.28	37.3	5.07	40.0	5.39	42.7	5.80	47.9	6.71	53.0	7.65				
	-2	27.0	3.67	32.1	4.33	37.3	5.11	40.0	5.47	42.7	5.86	47.9	6.77	53.0	7.73				
	0	27.0	3.74	32.1	4.39	37.3	5.17	40.0	5.54	42.7	5.96	47.9	6.87	53.0	7.84				
	2	27.0	3.81	32.1	4.45	37.3	5.25	40.0	5.64	42.7	6.07	47.9	7.01	53.0	7.98				
	4	27.0	3.88	32.1	4.52	37.3	5.35	40.0	5.77	42.7	6.17	47.9	7.13	53.0	8.09				
	6	27.0	3.94	32.1	4.63	37.3	5.43	40.0	5.90	42.7	6.29	47.9	7.24	53.0</td					

**18HP cooling mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp. (°C DB)	Indoor temperature(°C DB/WD)															
		20.8/14		23.3/16		25.8/18		27/19		28.2/20		30.7/22		32/24			
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW		
70%	-5	23.6	3.23	28.2	3.79	32.7	4.29	35.0	4.60	37.3	4.91	41.8	5.62	46.4	6.46		
	-2	23.6	3.26	28.2	3.81	32.7	4.32	35.0	4.69	37.3	5.00	41.8	5.71	46.4	6.55		
	0	23.6	3.28	28.2	3.86	32.7	4.41	35.0	4.78	37.3	5.09	41.8	5.82	46.4	6.64		
	2	23.6	3.29	28.2	3.88	32.7	4.48	35.0	4.87	37.3	5.18	41.8	5.95	46.4	6.75		
	4	23.6	3.34	28.2	3.97	32.7	4.58	35.0	4.96	37.3	5.29	41.8	6.05	46.4	6.90		
	6	23.6	3.39	28.2	4.04	32.7	4.69	35.0	5.12	37.3	5.42	41.8	6.15	46.4	7.04		
	8	23.6	3.45	28.2	4.16	32.7	4.80	35.0	5.20	37.3	5.53	41.8	6.33	46.4	7.17		
	10	23.6	3.52	28.2	4.23	32.7	4.92	35.0	5.30	37.3	5.68	41.8	6.46	46.4	7.26		
	12	23.6	3.61	28.2	4.29	32.7	5.02	35.0	5.40	37.3	5.78	41.8	6.58	46.4	7.40		
	14	23.6	3.67	28.2	4.37	32.7	5.10	35.0	5.48	37.3	5.88	41.8	6.70	46.4	7.54		
	16	23.6	3.73	28.2	4.45	32.7	5.20	35.0	5.60	37.3	6.00	41.8	6.82	46.4	7.68		
	18	23.6	3.79	28.2	4.53	32.7	5.30	35.0	5.70	37.3	6.10	41.8	6.96	46.4	7.84		
	20	23.6	3.85	28.2	4.61	32.7	5.40	35.0	5.80	37.3	6.22	41.8	7.10	46.4	8.05		
	21	23.6	3.89	28.2	4.65	32.7	5.44	35.0	5.86	37.3	6.28	41.8	7.20	46.4	8.33		
	23	23.6	3.95	28.2	4.73	32.7	5.56	35.0	6.06	37.3	6.60	41.8	7.72	46.4	8.93		
	25	23.6	4.03	28.2	4.92	32.7	5.92	35.0	6.48	37.3	7.04	41.8	8.25	46.4	9.55		
	27	23.6	4.27	28.2	5.24	32.7	6.32	35.0	6.90	37.3	7.52	41.8	8.81	46.4	10.21		
	29	23.6	4.53	28.2	5.56	32.7	6.72	35.0	7.36	37.3	8.00	41.8	9.39	46.4	10.91		
	31	23.6	4.78	28.2	5.90	32.7	7.16	35.0	7.82	37.3	8.51	41.8	10.01	46.4	11.62		
	33	23.6	5.08	28.2	6.28	32.7	7.62	35.0	8.31	37.3	9.07	41.8	10.67	46.4	12.40		
	35	23.6	5.38	28.2	6.66	32.7	8.07	35.0	8.85	37.3	9.65	41.8	11.36	46.4	13.22		
	37	23.6	5.68	28.2	7.06	32.7	8.59	35.0	9.39	37.3	10.27	41.8	12.10	46.4	14.08		
	39	23.6	6.02	28.2	7.48	32.7	9.11	35.0	9.99	37.3	10.91	41.8	12.86	46.4	14.99		
	41	23.6	6.29	28.2	7.74	32.7	9.38	35.0	10.32	37.3	11.24	41.8	13.39	46.4	15.66		
	43	23.6	6.80	28.2	8.27	32.7	9.76	35.0	10.87	37.3	11.57	41.8	13.88	46.4	16.14		
	45	23.6	6.95	28.2	8.45	32.7	9.97	35.0	11.05	37.3	12.15	41.8	14.63	46.4	16.76		
	48	23.6	7.13	28.2	8.53	32.7	10.07	35.0	11.23	37.3	12.48	41.8	15.29	46.4	17.16		
60%	-5	20.2	2.76	24.1	3.20	28.0	3.73	30.0	3.97	32.0	4.29	35.9	4.81	39.8	5.52		
	-2	20.2	2.77	24.1	3.25	28.0	3.79	30.0	4.03	32.0	4.33	35.9	4.89	39.8	5.56		
	0	20.2	2.81	24.1	3.29	28.0	3.84	30.0	4.08	32.0	4.40	35.9	4.96	39.8	5.63		
	2	20.2	2.86	24.1	3.36	28.0	3.91	30.0	4.16	32.0	4.46	35.9	5.06	39.8	5.70		
	4	20.2	2.94	24.1	3.43	28.0	3.99	30.0	4.21	32.0	4.53	35.9	5.14	39.8	5.78		
	6	20.2	2.97	24.1	3.49	28.0	4.07	30.0	4.30	32.0	4.62	35.9	5.24	39.8	5.92		
	8	20.2	3.03	24.1	3.55	28.0	4.14	30.0	4.38	32.0	4.71	35.9	5.34	39.8	6.01		
	10	20.2	3.09	24.1	3.63	28.0	4.21	30.0	4.50	32.0	4.80	35.9	5.44	39.8	6.10		
	12	20.2	3.15	24.1	3.69	28.0	4.29	30.0	4.59	32.0	4.88	35.9	5.54	39.8	6.20		
	14	20.2	3.19	24.1	3.75	28.0	4.35	30.0	4.66	32.0	4.98	35.9	5.64	39.8	6.32		
	16	20.2	3.23	24.1	3.81	28.0	4.43	30.0	4.74	32.0	5.06	35.9	5.74	39.8	6.44		
	18	20.2	3.29	24.1	3.87	28.0	4.50	30.0	4.82	32.0	5.16	35.9	5.84	39.8	6.56		
	20	20.2	3.33	24.1	3.95	28.0	4.59	30.0	4.92	32.0	5.26	35.9	5.96	39.8	6.70		
	21	20.2	3.37	24.1	3.97	28.0	4.62	30.0	4.96	32.0	5.30	35.9	6.02	39.8	6.76		
	23	20.2	3.41	24.1	4.05	28.0	4.70	30.0	5.06	32.0	5.40	35.9	6.26	39.8	7.20		
	25	20.2	3.47	24.1	4.11	28.0	4.88	30.0	5.30	32.0	5.74	35.9	6.68	39.8	7.67		
	27	20.2	3.61	24.1	4.37	28.0	5.20	30.0	5.66	32.0	6.12	35.9	7.12	39.8	8.19		
	29	20.2	3.81	24.1	4.62	28.0	5.54	30.0	6.02	32.0	6.52	35.9	7.59	39.8	8.75		
	31	20.2	4.05	24.1	4.90	28.0	5.88	30.0	6.40	32.0	6.94	35.9	8.07	39.8	9.31		
	33	20.2	4.27	24.1	5.20	28.0	6.24	30.0	6.80	32.0	7.38	35.9	8.59	39.8	9.93		
	35	20.2	4.53	24.1	5.52	28.0	6.62	30.0	7.22	32.0	7.83	35.9	9.15	39.8	10.56		
	37	20.2	4.78	24.1	5.84	28.0	7.02	30.0	7.65	32.0	8.31	35.9	9.73	39.8	11.24		
	39	20.2	5.04	24.1	6.18	28.0	7.44	30.0	8.11	32.0	8.83	35.9	10.33	39.8	11.96		
	41	20.2	5.21	24.1	6.45	28.0	7.71	30.0	8.44	32.0	9.16	35.9	10.81	39.8	12.50		
	43	20.2	5.37	24.1	6.72	28.0	7.98	30.0	8.69	32.0	9.48	35.9	11.27	39.8	13.04		
	45	20.2	5.62	24.1	7.06	28.0	8.30	30.0	9.01	32.0	9.94	35.9	11.78	39.8	13.76		
	48	20.2	5.83	24.1	7.37	28.0	8.58	30.0	9.25	32.0	10.33	35.9	12.21	39.8	14.41		
50%	-5	16.9	2.39	20.2	2.77	23.4	3.18	25.0	3.33	26.6	3.51	29.8	4.00	33.2	4.31		
	-2	16.9	2.41	20.2	2.82	23.4	3.22	25.0	3.38	26.6	3.58	29.8	4.05	33.2	4.36		
	0	16.9	2.45	20.2	2.87	23.4	3.27	25.0	3.42	26.6	3.62	29.8	4.12	33.2	4.44		
	2	16.9	2.49	20.2	2.91	23.4	3.33	25.0	3.47	26.6	3.68	29.8	4.13	33.2	4.52		
	4	16.9	2.51	20.2	2.96	23.4	3.36	25.0	3.51	26.6	3						

## 7.2 Heating capacity tables

8HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
130%	-19.8	-20	17.5	4.34	17.4	4.65	17.3	4.96	17.3	5.11	17.2	5.26	17.2	5.57
	-18.8	-19	17.7	4.44	17.7	4.74	17.7	5.05	17.6	5.20	17.6	5.34	17.5	5.65
	-16.7	-17	18.4	4.65	18.3	4.94	18.3	5.23	18.3	5.37	18.3	5.52	18.2	5.81
	-13.7	-15	19.2	4.86	19.1	5.14	19.0	5.42	19.0	5.56	18.9	5.70	18.9	5.98
	-11.8	-13	20.0	5.08	20.0	5.35	19.9	5.61	19.8	5.75	19.8	5.89	19.7	6.15
	-9.8	-11	20.9	5.30	20.8	5.56	20.7	5.81	20.7	5.94	20.7	6.07	20.7	6.33
	-9.5	-10	21.4	5.42	21.3	5.66	21.3	5.91	21.3	6.04	21.2	6.16	21.2	6.41
	-8.5	-9.1	21.9	5.51	21.8	5.75	21.8	6.00	21.7	6.12	21.7	6.24	21.6	6.49
	-7	-7.6	22.6	5.67	22.6	5.91	22.5	6.14	22.5	6.26	22.5	6.37	22.4	6.61
	-5	-5.6	23.8	5.89	23.7	6.11	23.7	6.33	23.7	6.45	23.6	6.55	23.6	6.77
	-3	-3.7	24.9	6.08	24.9	6.29	24.9	6.50	24.8	6.61	24.8	6.72	24.7	6.92
	0	-0.7	26.9	6.37	26.9	6.57	26.8	6.76	26.8	6.84	26.7	6.96	26.7	7.16
	3	2.2	29.1	6.64	29.0	6.82	28.9	7.00	28.9	7.09	28.9	7.19	28.8	7.36
	5	4.1	30.5	6.80	30.4	6.98	30.4	7.15	30.3	7.24	30.3	7.32	30.3	7.49
	7	6	32.1	6.97	32.0	7.12	32.0	7.29	31.9	7.37	31.9	7.45	30.6	7.16
	9	7.9	33.7	7.11	33.6	7.27	33.6	7.42	33.5	7.50	32.8	7.34	30.6	6.72
	11	9.8	35.4	7.25	35.3	7.40	35.1	7.49	33.9	7.20	32.8	6.90	30.6	6.33
	13	11.8	37.3	7.39	37.2	7.53	35.1	7.02	33.9	6.74	32.8	6.48	30.6	5.94
	15	13.7	39.1	7.52	37.4	7.13	35.1	6.61	33.9	6.36	32.8	6.10	30.6	5.61
120%	-19.8	-20	17.4	4.76	17.3	5.04	17.2	5.33	17.2	5.46	17.2	5.61	17.1	5.89
	-18.8	-19	17.7	4.85	17.6	5.13	17.6	5.41	17.5	5.54	17.5	5.69	17.4	5.97
	-16.7	-17	18.3	5.04	18.3	5.31	18.1	5.57	18.2	5.71	18.2	5.85	18.1	6.11
	-13.7	-15	19.1	5.24	19.0	5.50	18.9	5.75	18.9	5.89	18.9	6.01	18.9	6.27
	-11.8	-13	19.9	5.44	19.9	5.69	19.8	5.93	19.8	6.06	19.7	6.18	19.7	6.43
	-9.8	-11	20.8	5.65	20.7	5.88	20.7	6.12	20.7	6.24	20.7	6.35	20.6	6.59
	-9.5	-10	21.3	5.75	21.3	5.98	21.2	6.21	21.2	6.33	21.2	6.44	21.1	6.67
	-8.5	-9.1	21.8	5.84	21.7	6.06	21.7	6.29	21.6	6.40	21.6	6.52	21.5	6.74
	-7	-7.6	22.5	5.99	22.5	6.21	22.5	6.42	22.5	6.53	22.4	6.64	22.4	6.85
	-5	-5.6	23.7	6.18	23.7	6.39	23.6	6.60	23.6	6.70	23.6	6.81	23.5	7.00
	-3	-3.7	24.9	6.37	24.9	6.57	24.8	6.76	24.8	6.85	24.7	6.96	24.7	7.15
	0	-0.7	26.8	6.64	26.8	6.82	26.7	7.00	26.7	7.09	26.7	7.18	26.7	7.36
	3	2.2	29.0	6.89	28.9	7.05	28.9	7.22	28.8	7.31	28.8	7.39	28.2	7.35
	5	4.1	30.4	7.04	30.3	7.20	30.3	7.36	30.3	7.44	30.3	7.52	28.2	6.90
	7	6	32.0	7.18	32.0	7.33	31.9	7.48	31.4	7.38	30.3	7.08	28.2	6.49
	9	7.9	33.6	7.32	33.5	7.47	32.4	7.22	31.4	6.93	30.3	6.65	28.2	6.11
	11	9.8	35.3	7.45	34.5	7.32	32.4	6.79	31.4	6.53	30.3	6.26	28.2	5.76
	13	11.8	36.6	7.38	34.5	6.87	32.4	6.37	31.4	6.13	30.3	5.89	28.2	5.42
	15	13.7	36.6	6.95	34.5	6.47	32.4	6.01	31.4	5.77	30.3	5.55	28.2	5.11
110%	-19.8	-20	17.3	5.18	17.2	5.43	17.1	5.69	17.1	5.82	17.1	5.95	17.1	6.21
	-18.8	-19	17.6	5.26	17.5	5.51	17.5	5.77	17.5	5.89	17.4	6.02	17.4	6.28
	-16.7	-17	18.3	5.43	18.2	5.68	18.4	5.93	18.1	6.05	18.1	6.17	18.0	6.41
	-13.7	-15	19.0	5.62	18.9	5.85	18.9	6.09	18.9	6.21	18.9	6.33	18.8	6.56
	-11.8	-13	19.8	5.81	19.8	6.03	19.7	6.25	19.7	6.37	19.6	6.48	19.6	6.71
	-9.8	-11	20.7	5.99	20.7	6.21	20.7	6.42	20.6	6.53	20.6	6.64	20.6	6.85
	-9.5	-10	21.3	6.09	21.2	6.29	21.1	6.51	21.1	6.61	21.1	6.72	21.0	6.93
	-8.5	-9.1	21.7	6.17	21.6	6.37	21.6	6.58	21.5	6.69	21.5	6.79	21.5	6.19
	-7	-7.6	22.5	6.31	22.5	6.50	22.4	6.70	22.4	6.80	22.4	6.90	22.3	7.10
	-5	-5.6	23.7	6.49	23.6	6.68	23.5	6.86	23.5	6.96	23.5	7.05	23.4	7.25
	-3	-3.7	24.8	6.65	24.8	6.83	24.7	7.01	24.7	7.10	24.6	7.19	24.6	7.37
	0	-0.7	26.7	6.90	26.7	7.07	26.7	7.24	26.7	7.32	26.7	7.40	25.9	7.26
	3	2.2	28.9	7.13	28.8	7.28	28.8	7.44	28.7	7.51	27.8	7.20	25.9	6.61
	5	4.1	30.3	7.27	30.3	7.42	29.7	7.35	28.7	7.05	27.8	6.77	25.9	6.21
	7	6	31.9	7.40	31.6	7.45	29.7	6.90	28.7	6.63	27.8	6.37	25.9	5.85
	9	7.9	33.5	7.52	31.6	7.00	29.7	6.49	28.7	6.24	27.8	5.99	25.9	5.51
	11	9.8	33.5	7.08	31.6	6.59	29.7	6.11	28.7	5.88	27.8	5.65	25.9	5.20
	13	11.8	33.5	6.64	31.6	6.18	29.7	5.74	28.7	5.53	27.8	5.31	25.9	4.90
	15	13.7	33.5	5.89	31.6	5.83	29.7	5.42	28.7	5.22	27.8	5.02	25.9	4.63

**8HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
100%	-19.8	-20	17.2	5.59	17.1	5.82	17.1	6.06	17.1	6.18	17.1	6.29	17.0	6.53
	-18.8	-19	17.5	5.66	17.5	5.89	17.4	6.13	17.4	6.25	17.3	6.37	17.3	6.60
	-16.7	-17	18.2	5.82	18.1	6.05	18.1	6.27	18.0	6.38	18.0	6.49	18.0	6.72
	-13.7	-15	18.9	5.99	18.9	6.21	18.8	6.42	18.8	6.53	18.8	6.64	18.7	6.85
	-11.8	-13	19.7	6.17	19.7	6.37	19.6	6.57	19.6	6.68	19.6	6.78	19.5	6.99
	-9.8	-11	20.7	6.33	20.6	6.53	20.6	6.73	20.6	6.83	20.5	6.92	20.5	7.12
	-9.5	-10	21.2	6.42	21.1	6.61	21.1	6.80	21.0	6.90	21.0	7.00	20.9	7.19
	-8.5	-9.1	21.6	6.49	21.5	6.69	21.5	6.87	21.5	6.96	21.4	7.06	21.4	7.24
	-7	-7.6	22.4	6.62	22.4	6.80	22.3	6.98	22.3	7.08	22.3	7.16	22.2	7.35
	-5	-5.6	23.6	6.79	23.5	6.96	23.5	7.13	23.4	7.21	23.4	7.30	23.3	7.48
	-3	-3.7	24.7	6.94	24.7	6.30	24.6	7.27	24.6	7.35	24.6	7.43	23.6	7.12
	0	-0.7	26.7	7.16	26.7	7.32	26.6	7.47	26.1	7.35	25.3	7.04	23.6	6.46
	3	2.2	28.8	7.37	28.7	7.51	27.0	6.95	26.1	6.68	25.3	6.41	23.6	5.89
	5	4.1	30.3	7.51	28.7	7.05	27.0	6.53	26.1	6.29	25.3	6.04	23.6	5.55
	7	6	30.4	7.12	28.7	6.63	27.0	6.15	26.1	5.92	25.3	5.69	23.6	5.23
	9	7.9	30.4	6.69	28.7	6.24	27.0	5.79	26.1	5.50	25.3	5.36	23.6	4.94
	11	9.8	30.4	6.30	28.7	5.88	27.0	5.46	26.1	5.26	25.3	5.06	23.6	4.66
	13	11.8	30.4	5.92	28.7	5.53	27.0	5.14	26.1	4.95	25.3	4.77	23.6	4.40
	15	13.7	30.4	5.58	28.7	5.22	27.0	4.86	26.1	4.68	25.3	4.50	23.6	4.17
90%	-19.8	-20	17.1	6.01	17.0	6.21	17.0	6.43	16.9	6.53	16.9	6.64	16.9	6.85
	-18.8	-19	17.4	6.07	17.4	6.29	17.3	6.49	17.3	6.60	17.3	6.70	17.2	6.91
	-16.7	-17	18.1	6.22	18.0	6.42	18.0	6.62	18.0	6.72	17.9	6.82	17.9	7.02
	-13.7	-15	18.8	6.37	18.7	6.57	18.7	6.76	18.7	6.85	18.7	6.95	18.7	7.14
	-11.8	-13	19.6	6.53	19.6	6.71	19.5	6.89	19.5	6.99	19.5	7.08	19.4	7.26
	-9.8	-11	20.5	6.68	20.5	6.85	20.4	7.03	20.4	7.12	20.4	7.21	20.4	7.39
	-9.5	-10	21.0	6.76	21.0	6.93	21.0	7.10	20.9	7.19	20.9	7.28	20.9	7.44
	-8.5	-9.1	21.5	6.83	21.5	7.00	21.4	7.16	21.4	7.24	21.4	7.33	21.1	7.40
	-7	-7.6	22.2	6.94	22.2	7.10	22.2	7.27	22.2	7.35	22.2	7.43	21.1	7.07
	-5	-5.6	23.4	7.09	23.4	7.24	23.4	7.40	23.3	7.48	22.7	7.24	21.1	6.64
	-3	-3.7	24.6	7.23	24.6	7.37	24.3	7.40	23.4	7.11	22.7	6.82	21.1	6.26
	0	-0.7	26.6	7.44	25.8	7.25	24.3	6.72	23.4	6.45	22.7	6.20	21.1	5.69
	3	2.2	27.4	7.08	25.8	6.60	24.3	6.12	23.4	5.89	22.7	5.65	21.1	5.21
	5	4.1	27.4	6.66	25.8	6.21	24.3	5.77	23.4	5.54	22.7	5.34	21.1	4.91
	7	6	27.4	6.26	25.8	5.85	24.3	5.43	23.4	5.23	22.7	5.03	21.1	4.64
	9	7.9	27.4	5.90	25.8	5.50	24.3	5.12	23.4	4.94	22.7	4.75	21.1	4.39
	11	9.8	27.4	5.56	25.8	5.19	24.3	4.84	23.4	4.66	22.7	4.49	21.1	4.15
	13	11.8	27.4	5.23	25.8	4.90	24.3	4.56	23.4	4.40	22.7	4.24	21.1	3.92
	15	13.7	27.4	4.94	25.8	4.62	24.3	4.32	23.4	4.17	22.7	4.02	21.1	3.72
80%	-19.8	-20	17.1	6.42	17.0	6.61	17.0	6.80	17.0	6.89	16.9	6.99	16.9	7.17
	-18.8	-19	17.3	6.48	17.3	6.67	17.2	6.85	17.2	6.95	17.2	7.04	17.1	7.23
	-16.7	-17	18.0	6.61	17.9	6.79	17.9	6.97	17.9	7.06	17.9	7.15	17.8	7.32
	-13.7	-15	18.8	6.75	18.7	6.92	18.7	7.09	18.7	7.17	18.6	7.26	18.6	7.44
	-11.8	-13	19.5	6.88	19.5	7.05	19.5	7.21	19.5	7.29	19.5	7.38	18.9	7.18
	-9.8	-11	20.5	7.02	20.5	7.18	20.4	7.34	20.4	7.41	20.2	7.40	18.9	6.78
	-9.5	-10	21.0	7.09	20.9	7.24	20.9	7.40	20.9	7.48	20.2	7.18	18.9	6.58
	-8.5	-9.1	21.4	7.16	19.9	7.31	21.3	7.45	20.9	7.28	20.2	6.99	18.9	6.41
	-7	-7.6	22.2	7.26	22.2	7.40	21.6	7.24	20.9	6.96	20.2	6.68	18.9	6.13
	-5	-5.6	23.4	7.39	23.0	7.35	21.6	6.80	20.9	6.54	20.2	6.28	18.9	5.77
	-3	-3.7	24.3	7.43	23.0	6.92	21.6	6.41	20.9	6.17	20.2	5.92	18.9	5.45
	0	-0.7	24.3	6.74	23.0	6.28	21.6	5.83	20.9	5.61	20.2	5.39	18.9	4.97
	3	2.2	24.3	6.14	23.0	5.73	21.6	5.33	20.9	5.13	20.2	4.94	18.9	4.55
	5	4.1	24.3	5.78	23.0	5.40	21.6	5.02	20.9	4.84	20.2	4.66	18.9	4.30
	7	6	24.3	5.45	23.0	5.10	21.6	4.74	20.9	4.58	20.2	4.41	18.9	4.07
	9	7.9	24.3	5.14	23.0	4.81	21.6	4.48	20.9	4.32	20.2	4.17	18.9	3.86
	11	9.8	24.3	4.86	23.0	4.54	21.6	4.24	20.9	4.09	20.2	3.95	18.9	3.66
	13	11.8	24.3	4.58	23.0	4.29	21.6	4.01	20.9	3.87	20.2	3.73	18.9	3.46
	15	13.7	24.3	4.33	23.0	4.07	21.6	3.80	20.9	3.67	20.2	3.54	18.9	3.29

## 8HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.	Indoor temperature (°C DB)												
		16		18		20		21		22		24		
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
70%	-19.8	-20	16.9	6.84	16.8	7.00	16.8	7.16	16.8	7.24	16.8	7.33	16.4	7.25
	-18.8	-19	17.2	6.89	17.2	7.05	17.1	7.21	17.1	7.29	17.1	7.38	16.4	7.10
	-16.7	-17	17.9	7.00	17.9	7.16	17.8	7.32	17.8	7.40	17.6	6.59	16.4	6.77
	-13.7	-15	18.6	7.12	18.6	7.28	18.6	7.43	18.2	7.32	17.6	7.02	16.4	6.44
	-11.8	-13	19.4	7.24	19.4	7.39	18.9	7.21	18.2	6.93	17.6	6.65	16.4	6.10
	-9.8	-11	20.4	7.36	20.1	7.36	18.9	6.81	18.2	6.55	17.6	6.29	16.4	5.77
	-9.5	-10	20.9	7.43	20.1	7.14	18.9	6.61	18.2	6.36	17.6	6.11	16.4	5.61
	-8.5	-9.1	21.3	7.47	20.1	6.95	18.9	6.44	18.2	6.19	17.6	5.95	16.4	5.47
	-7	-7.6	21.3	7.13	20.1	6.64	18.9	6.16	18.2	5.93	17.6	5.69	16.4	5.24
	-5	-5.6	21.3	6.70	20.1	6.25	18.9	5.80	18.2	5.57	17.6	6.59	16.4	4.94
	-3	-3.7	21.3	6.31	20.1	5.89	18.9	5.47	18.2	5.26	17.6	5.06	16.4	4.67
	0	-0.7	21.3	5.74	20.1	5.37	18.9	4.99	18.2	4.81	17.6	4.63	16.4	4.28
	3	2.2	21.3	5.25	20.1	4.91	18.9	4.58	18.2	4.41	17.6	4.25	16.4	3.93
	5	4.1	21.3	4.95	20.1	4.63	18.9	4.33	18.2	4.17	17.6	4.02	16.4	3.72
	7	6	21.3	4.68	20.1	4.38	18.9	4.09	18.2	3.95	17.6	3.81	16.4	3.53
	9	7.9	21.3	4.42	20.1	4.15	18.9	3.87	18.2	3.74	17.6	3.61	16.4	3.35
	11	9.8	21.3	4.18	20.1	3.92	18.9	3.67	18.2	3.55	17.6	3.43	16.4	3.18
	13	11.8	21.3	3.95	20.1	3.71	18.9	3.47	18.2	3.36	17.6	3.24	16.4	3.02
	15	13.7	21.3	3.75	20.1	3.52	18.9	3.30	18.2	3.19	17.6	3.08	16.4	2.88
60%	-19.8	-20	16.9	7.25	16.8	7.39	16.2	7.11	15.7	6.83	15.2	6.56	14.1	6.01
	-18.8	-19	17.1	7.30	17.1	7.44	16.2	6.96	15.7	6.68	15.2	6.41	14.1	5.89
	-16.7	-17	17.8	7.40	17.2	7.16	16.2	6.64	15.7	6.38	15.2	6.13	14.1	5.63
	-13.7	-15	18.3	7.32	17.2	6.80	16.2	6.31	15.7	6.07	15.2	5.83	14.1	5.36
	-11.8	-13	18.3	6.92	17.2	6.44	16.2	5.98	15.7	5.76	15.2	5.53	14.1	5.12
	-9.8	-11	18.3	6.54	17.2	6.09	16.2	5.66	15.7	5.45	15.2	5.24	14.1	4.83
	-9.5	-10	18.3	6.36	17.2	5.93	16.2	5.50	15.7	5.30	15.2	5.10	14.1	4.70
	-8.5	-9.1	18.3	6.19	17.2	5.77	16.2	5.37	15.7	5.17	15.2	4.97	14.1	4.58
	-7	-7.6	18.3	5.92	17.2	5.53	16.2	5.14	15.7	4.95	15.2	4.76	14.1	4.40
	-5	-5.6	18.3	5.57	17.2	5.21	16.2	4.85	15.7	4.67	15.2	4.50	14.1	4.16
	-3	-3.7	18.3	5.26	17.2	4.92	16.2	4.58	15.7	4.42	15.2	4.26	14.1	3.94
	0	-0.7	18.3	4.81	17.2	4.50	16.2	4.20	15.7	4.06	15.2	3.91	14.1	3.62
	3	2.2	18.3	4.41	17.2	4.14	16.2	3.87	15.7	3.73	15.2	3.60	14.1	3.34
	5	4.1	18.3	4.17	17.2	3.91	16.2	3.66	15.7	3.54	15.2	3.41	14.1	3.17
	7	6	18.3	3.95	17.2	3.71	16.2	3.47	15.7	3.35	15.2	3.24	14.1	3.01
	9	7.9	18.3	3.74	17.2	3.51	16.2	3.29	15.7	3.19	15.2	3.07	14.1	2.87
	11	9.8	18.3	3.55	17.2	3.34	16.2	3.13	15.7	3.03	15.2	2.92	14.1	2.73
	13	11.8	18.3	3.35	17.2	3.16	16.2	2.97	15.7	2.88	15.2	2.78	14.1	2.60
	15	13.7	18.3	3.19	17.2	3.00	16.2	2.83	15.7	2.74	15.2	2.65	14.1	2.48
50%	-19.8	-20	15.2	6.60	14.4	6.14	13.5	5.70	13.0	5.49	12.6	5.28	11.7	4.86
	-18.8	-19	15.2	6.45	14.4	6.01	13.5	5.59	13.0	5.38	12.6	5.17	11.7	4.77
	-16.7	-17	15.2	6.16	14.4	5.74	13.5	5.34	13.0	5.14	12.6	4.95	11.7	4.57
	-13.7	-15	15.2	5.86	14.4	5.47	13.5	5.09	13.0	4.90	12.6	4.72	11.7	4.36
	-11.8	-13	15.2	5.57	14.4	5.20	13.5	4.84	13.0	4.66	12.6	4.49	11.7	4.15
	-9.8	-11	15.2	5.27	14.4	4.93	13.5	4.59	13.0	4.42	12.6	4.26	11.7	3.95
	-9.5	-10	15.2	5.13	14.4	4.79	13.5	4.47	13.0	4.31	12.6	4.15	11.7	3.84
	-8.5	-9.1	15.2	5.00	14.4	4.68	13.5	4.36	13.0	4.21	12.6	4.06	11.7	3.75
	-7	-7.6	15.2	4.79	14.4	4.49	13.5	4.18	13.0	4.04	12.6	3.90	11.7	3.61
	-5	-5.6	15.2	4.52	14.4	4.24	13.5	3.96	13.0	3.83	12.6	3.69	11.7	3.42
	-3	-3.7	15.2	4.28	14.4	4.02	13.5	3.75	13.0	3.63	12.6	3.50	11.7	3.25
	0	-0.7	15.2	3.93	14.4	3.69	13.5	3.46	13.0	3.34	12.6	3.23	11.7	3.00
	3	2.2	15.2	3.62	14.4	3.40	13.5	3.19	13.0	3.08	12.6	2.98	11.7	2.78
	5	4.1	15.2	3.43	14.4	3.23	13.5	3.03	13.0	2.93	12.6	2.84	11.7	2.64
	7	6	15.2	3.26	14.4	3.07	13.5	2.88	13.0	2.79	12.6	2.70	11.7	2.52
	9	7.9	15.2	3.09	14.4	2.92	13.5	2.74	13.0	2.66	12.6	2.57	11.7	2.40
	11	9.8	15.2	2.94	14.4	2.77	13.5	2.61	13.0	2.53	12.6	2.45	11.7	2.29
	13	11.8	15.2	2.80	14.4	2.64	13.5	2.48	13.0	2.41	12.6	2.33	11.7	2.19
	15	13.7	15.2	2.66	14.4	2.52	13.5	2.37	13.0	2.30	12.6	2.23	11.7	2.09

**10HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.	Indoor temperature (°C DB)												
		16		18		20		21		22		24		
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
130%	-19.8	-20	20.4	5.34	20.3	5.71	20.2	6.09	20.2	6.28	20.1	6.47	20.1	6.85
	-18.8	-19	20.7	5.45	20.6	5.83	20.6	6.20	20.5	6.39	20.5	6.56	20.4	6.94
	-16.7	-17	21.5	5.71	21.4	6.06	21.3	6.43	21.3	6.60	21.3	6.78	21.2	7.13
	-13.7	-15	22.4	5.97	22.3	6.32	22.2	6.66	22.2	6.83	22.1	7.00	22.1	7.35
	-11.8	-13	23.3	6.24	23.3	6.57	23.2	6.90	23.1	7.06	23.1	7.23	23.0	7.55
	-9.8	-11	24.4	6.51	24.3	6.83	24.2	7.14	24.2	7.30	24.2	7.46	24.1	7.77
	-9.5	-10	25.0	6.65	24.9	6.96	24.8	7.26	24.8	7.42	24.7	7.56	24.7	7.87
	-8.5	-9.1	25.5	6.77	25.4	7.06	25.4	7.37	25.3	7.51	25.3	7.66	25.2	7.97
	-7	-7.6	26.4	6.97	26.4	7.26	26.3	7.54	26.3	7.69	26.2	7.83	26.1	8.12
	-5	-5.6	27.8	7.23	27.7	7.50	27.6	7.78	27.6	7.92	27.5	8.04	27.5	8.32
	-3	-3.7	29.1	7.47	29.0	7.73	29.0	7.99	28.9	8.12	28.9	8.25	28.8	8.51
	0	-0.7	31.4	7.83	31.4	8.07	31.3	8.31	31.3	8.40	31.2	8.55	31.2	8.79
	3	2.2	33.9	8.15	33.8	8.38	33.7	8.60	33.7	8.71	33.7	8.83	33.6	9.05
	5	4.1	35.6	8.36	35.5	8.57	35.5	8.78	35.4	8.89	35.4	9.00	35.3	9.20
	7	6	37.4	8.56	37.3	8.75	37.3	8.96	37.2	9.06	37.2	9.15	35.7	8.79
	9	7.9	39.3	8.73	39.2	8.93	39.2	9.11	39.1	9.21	38.3	9.02	35.7	8.26
	11	9.8	41.3	8.91	41.2	9.08	41.0	9.20	39.6	8.84	38.3	8.48	35.7	7.78
	13	11.8	43.5	9.07	43.4	9.25	41.0	8.62	39.6	8.28	38.3	7.96	35.7	7.30
	15	13.7	45.6	9.23	43.6	8.76	41.0	8.12	39.6	7.81	38.3	7.50	35.7	6.89
120%	-19.8	-20	20.3	5.85	20.2	6.19	20.1	6.54	20.1	6.71	20.1	6.89	20.0	7.24
	-18.8	-19	20.6	5.95	20.5	6.30	20.5	6.64	20.4	6.81	20.4	6.99	20.3	7.33
	-16.7	-17	21.4	6.19	21.3	6.52	21.2	6.85	21.2	7.01	21.2	7.18	21.1	7.50
	-13.7	-15	22.3	6.44	22.2	6.75	22.1	7.06	22.1	7.23	22.1	7.39	22.0	7.70
	-11.8	-13	23.2	6.68	23.2	6.99	23.1	7.29	23.1	7.45	23.0	7.59	23.0	7.90
	-9.8	-11	24.3	6.94	24.2	7.22	24.2	7.51	24.1	7.66	24.1	7.80	24.0	8.09
	-9.5	-10	24.9	7.06	24.8	7.35	24.7	7.62	24.7	7.77	24.7	7.91	24.6	8.19
	-8.5	-9.1	25.4	7.17	25.3	7.45	25.3	7.72	25.2	7.86	25.2	8.01	25.1	8.28
	-7	-7.6	26.3	7.36	26.3	7.62	26.2	7.89	26.2	8.03	26.1	8.15	26.1	8.42
	-5	-5.6	27.7	7.59	27.6	7.85	27.5	8.10	27.5	8.23	27.5	8.36	27.4	8.60
	-3	-3.7	29.0	7.82	29.0	8.06	28.9	8.30	28.9	8.42	28.8	8.55	28.8	8.78
	0	-0.7	31.3	8.15	31.3	8.38	31.2	8.59	31.2	8.71	31.1	8.82	31.1	9.05
	3	2.2	33.8	8.46	33.7	8.66	33.7	8.87	33.6	8.98	33.6	9.07	32.9	9.03
	5	4.1	35.5	8.64	35.4	8.84	35.4	9.04	35.3	9.13	35.3	9.23	32.9	8.48
	7	6	37.3	8.82	37.3	9.01	37.2	9.19	36.6	9.06	35.4	8.69	32.9	7.98
	9	7.9	39.2	9.00	39.1	9.17	37.8	8.87	36.6	8.52	35.4	8.17	32.9	7.50
	11	9.8	41.2	9.15	40.2	9.00	37.8	8.34	36.6	8.01	35.4	7.69	32.9	7.07
	13	11.8	42.7	9.06	40.2	8.44	37.8	7.82	36.6	7.52	35.4	7.23	32.9	6.65
	15	13.7	42.7	8.54	40.2	7.95	37.8	7.38	36.6	7.09	35.4	6.82	32.9	6.28
110%	-19.8	-20	20.2	6.36	20.1	6.67	20.0	6.99	20.0	7.15	20.0	7.31	19.9	7.63
	-18.8	-19	20.5	6.46	20.4	6.77	20.4	7.08	20.4	7.24	20.3	7.40	20.3	7.71
	-16.7	-17	21.3	6.67	21.2	6.98	21.5	7.28	21.1	7.43	21.1	7.58	21.0	7.88
	-13.7	-15	22.2	6.90	22.1	7.19	22.0	7.48	22.0	7.62	22.0	7.77	21.9	8.05
	-11.8	-13	23.1	7.13	23.1	7.41	23.0	7.68	23.0	7.82	22.9	7.96	22.9	8.24
	-9.8	-11	24.2	7.36	24.1	7.62	24.1	7.89	24.0	8.03	24.0	8.15	24.0	8.42
	-9.5	-10	24.8	7.48	24.7	7.73	24.6	8.00	24.6	8.12	24.6	8.25	24.5	8.51
	-8.5	-9.1	25.3	7.57	25.2	7.83	25.2	8.08	25.1	8.21	25.1	8.34	25.1	7.60
	-7	-7.6	26.2	7.75	26.2	7.99	26.1	8.23	26.1	8.36	26.1	8.48	26.0	8.72
	-5	-5.6	27.6	7.97	27.5	8.20	27.4	8.43	27.4	8.55	27.4	8.66	27.3	8.90
	-3	-3.7	28.9	8.17	28.9	8.39	28.8	8.61	28.8	8.72	28.7	8.83	28.7	9.06
	0	-0.7	31.2	8.48	31.2	8.68	31.1	8.89	31.1	8.99	31.1	9.09	30.2	8.92
	3	2.2	33.7	8.76	33.6	8.95	33.6	9.13	33.5	9.22	32.4	8.85	30.2	8.11
	5	4.1	35.4	8.93	35.4	9.11	34.7	9.03	33.5	8.66	32.4	8.32	30.2	7.63
	7	6	37.2	9.09	36.9	9.15	34.7	8.48	33.5	8.14	32.4	7.82	30.2	7.18
	9	7.9	39.1	9.24	36.9	8.60	34.7	7.98	33.5	7.66	32.4	7.36	30.2	6.77
	11	9.8	39.1	8.69	36.9	8.09	34.7	7.50	33.5	7.22	32.4	6.94	30.2	6.39
	13	11.8	39.1	8.15	36.9	7.59	34.7	7.05	33.5	6.79	32.4	6.52	30.2	6.01
	15	13.7	39.1	7.24	36.9	7.16	34.7	6.66	33.5	6.41	32.4	6.17	30.2	5.69

## 10HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
100%	-19.8	-20	20.1	6.87	20.0	7.15	20.0	7.45	19.9	7.59	19.9	7.73	19.8	8.02
	-18.8	-19	20.4	6.96	20.4	7.24	20.3	7.52	20.3	7.67	20.2	7.82	20.2	8.10
	-16.7	-17	21.2	7.15	21.1	7.43	21.1	7.70	21.0	7.84	21.0	7.98	21.0	8.25
	-13.7	-15	22.1	7.36	22.0	7.62	21.9	7.89	21.9	8.02	21.9	8.15	21.8	8.42
	-11.8	-13	23.0	7.57	23.0	7.82	22.9	8.07	22.9	8.20	22.9	8.33	22.8	8.58
	-9.8	-11	24.1	7.78	24.0	8.02	24.0	8.26	24.0	8.39	23.9	8.51	23.9	8.74
	-9.5	-10	24.7	7.89	24.6	8.12	24.6	8.36	24.5	8.48	24.5	8.59	24.4	8.83
	-8.5	-9.1	25.2	7.98	25.1	8.21	25.1	8.44	25.1	8.55	25.0	8.67	25.0	8.90
	-7	-7.6	26.1	8.13	26.1	8.36	26.0	8.57	26.0	8.69	26.0	8.80	25.9	9.03
	-5	-5.6	27.5	8.34	27.4	8.55	27.4	8.76	27.3	8.86	27.3	8.97	27.2	9.18
	-3	-3.7	28.8	8.53	28.8	7.74	28.7	8.93	28.7	9.03	28.7	9.12	27.5	8.74
	0	-0.7	31.1	8.80	31.1	8.99	31.0	9.17	30.5	9.03	29.5	8.65	27.5	7.94
	3	2.2	33.6	9.05	33.5	9.22	31.5	8.54	30.5	8.20	29.5	7.88	27.5	7.23
	5	4.1	35.3	9.22	33.5	8.66	31.5	8.02	30.5	7.72	29.5	7.42	27.5	6.82
	7	6	35.5	8.75	33.5	8.14	31.5	7.55	30.5	7.27	29.5	6.99	27.5	6.43
	9	7.9	35.5	8.22	33.5	7.66	31.5	7.11	30.5	6.76	29.5	6.58	27.5	6.06
	11	9.8	35.5	7.74	33.5	7.22	31.5	6.71	30.5	6.45	29.5	6.21	27.5	5.73
	13	11.8	35.5	7.27	33.5	6.79	31.5	6.32	30.5	6.08	29.5	5.86	27.5	5.41
	15	13.7	35.5	6.86	33.5	6.41	31.5	5.96	30.5	5.75	29.5	5.53	27.5	5.12
90%	-19.8	-20	20.0	7.38	19.9	7.63	19.9	7.90	19.8	8.02	19.8	8.16	19.8	8.42
	-18.8	-19	20.3	7.46	20.3	7.72	20.2	7.98	20.2	8.10	20.2	8.23	20.1	8.49
	-16.7	-17	21.1	7.64	21.0	7.89	21.0	8.13	21.0	8.26	20.9	8.38	20.9	8.62
	-13.7	-15	22.0	7.83	21.9	8.06	21.9	8.30	21.8	8.42	21.8	8.53	21.8	8.77
	-11.8	-13	22.9	8.02	22.9	8.24	22.8	8.47	22.8	8.58	22.8	8.69	22.7	8.92
	-9.8	-11	24.0	8.20	24.0	8.42	23.9	8.63	23.9	8.74	23.9	8.86	23.8	9.07
	-9.5	-10	24.6	8.30	24.5	8.52	24.5	8.72	24.4	8.83	24.4	8.94	24.4	9.14
	-8.5	-9.1	25.1	8.39	25.1	8.59	25.0	8.80	25.0	8.90	25.0	9.01	24.7	9.09
	-7	-7.6	26.0	8.53	26.0	8.72	25.9	8.93	25.9	9.03	25.9	9.12	24.7	8.68
	-5	-5.6	27.4	8.71	27.3	8.90	27.3	9.08	27.2	9.18	26.5	8.90	24.7	8.16
	-3	-3.7	28.7	8.88	28.7	9.06	28.4	9.09	27.4	8.73	26.5	8.38	24.7	7.69
	0	-0.7	31.0	9.13	30.1	8.91	28.4	8.25	27.4	7.93	26.5	7.61	24.7	6.99
	3	2.2	31.9	8.70	30.1	8.10	28.4	7.51	27.4	7.23	26.5	6.95	24.7	6.40
	5	4.1	31.9	8.18	30.1	7.62	28.4	7.08	27.4	6.81	26.5	6.55	24.7	6.03
	7	6	31.9	7.69	30.1	7.18	28.4	6.67	27.4	6.43	26.5	6.18	24.7	5.70
	9	7.9	31.9	7.25	30.1	6.76	28.4	6.29	27.4	6.06	26.5	5.84	24.7	5.39
	11	9.8	31.9	6.83	30.1	6.38	28.4	5.95	27.4	5.73	26.5	5.51	24.7	5.10
	13	11.8	31.9	6.43	30.1	6.01	28.4	5.60	27.4	5.41	26.5	5.21	24.7	4.82
	15	13.7	31.9	6.07	30.1	5.68	28.4	5.31	27.4	5.12	26.5	4.93	24.7	4.57
80%	-19.8	-20	19.9	7.89	19.8	8.11	19.8	8.35	19.8	8.47	19.7	8.58	19.7	8.81
	-18.8	-19	20.2	7.96	20.2	8.19	20.1	8.42	20.1	8.53	20.1	8.64	20.0	8.88
	-16.7	-17	21.0	8.12	20.9	8.34	20.9	8.56	20.9	8.67	20.9	8.78	20.8	9.00
	-13.7	-15	21.9	8.29	21.8	8.50	21.8	8.71	21.8	8.81	21.7	8.92	21.7	9.13
	-11.8	-13	22.8	8.46	22.8	8.66	22.7	8.86	22.7	8.96	22.7	9.06	22.0	8.82
	-9.8	-11	23.9	8.62	23.9	8.82	23.8	9.02	23.8	9.10	23.6	9.08	22.0	8.33
	-9.5	-10	24.5	8.71	24.4	8.90	24.4	9.08	24.4	9.18	23.6	8.82	22.0	8.08
	-8.5	-9.1	25.0	8.79	23.2	8.98	24.9	9.15	24.4	8.95	23.6	8.58	22.0	7.87
	-7	-7.6	25.9	8.92	25.9	9.09	25.2	8.90	24.4	8.54	23.6	8.20	22.0	7.52
	-5	-5.6	27.3	9.07	26.8	9.03	25.2	8.36	24.4	8.03	23.6	7.71	22.0	7.08
	-3	-3.7	28.4	9.12	26.8	8.50	25.2	7.87	24.4	7.57	23.6	7.27	22.0	6.69
	0	-0.7	28.4	8.28	26.8	7.71	25.2	7.16	24.4	6.90	23.6	6.62	22.0	6.10
	3	2.2	28.4	7.54	26.8	7.03	25.2	6.54	24.4	6.30	23.6	6.06	22.0	5.59
	5	4.1	28.4	7.10	26.8	6.63	25.2	6.17	24.4	5.94	23.6	5.73	22.0	5.29
	7	6	28.4	6.69	26.8	6.26	25.2	5.83	24.4	5.62	23.6	5.42	22.0	5.00
	9	7.9	28.4	6.32	26.8	5.91	25.2	5.50	24.4	5.31	23.6	5.12	22.0	4.74
	11	9.8	28.4	5.96	26.8	5.58	25.2	5.21	24.4	5.02	23.6	4.85	22.0	4.49
	13	11.8	28.4	5.62	26.8	5.27	25.2	4.92	24.4	4.75	23.6	4.58	22.0	4.25
	15	13.7	28.4	5.32	26.8	4.99	25.2	4.67	24.4	4.50	23.6	4.35	22.0	4.04

**10HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
70%	-19.8	-20	19.8	8.40	19.7	8.59	19.7	8.80	19.7	8.90	19.7	9.01	19.2	8.91
	-18.8	-19	20.1	8.47	20.1	8.66	20.0	8.86	20.0	8.96	20.0	9.06	19.2	8.72
	-16.7	-17	20.9	8.60	20.9	8.80	20.8	8.99	20.8	9.08	20.6	8.09	19.2	8.32
	-13.7	-15	21.8	8.75	21.7	8.94	21.7	9.12	21.3	8.99	20.6	8.62	19.2	7.91
	-11.8	-13	22.6	8.90	22.6	9.07	22.1	8.86	21.3	8.51	20.6	8.17	19.2	7.49
	-9.8	-11	23.7	9.04	23.4	9.03	22.1	8.37	21.3	8.04	20.6	7.72	19.2	7.09
	-9.5	-10	24.3	9.12	23.4	8.77	22.1	8.12	21.3	7.81	20.6	7.50	19.2	6.90
	-8.5	-9.1	24.8	9.17	23.4	8.53	22.1	7.91	21.3	7.60	20.6	7.31	19.2	6.72
	-7	-7.6	24.8	8.76	23.4	8.15	22.1	7.56	21.3	7.28	20.6	6.99	19.2	6.44
	-5	-5.6	24.8	8.23	23.4	7.67	22.1	7.12	21.3	6.85	20.6	8.09	19.2	6.07
	-3	-3.7	24.8	7.75	23.4	7.23	22.1	6.72	21.3	6.46	20.6	6.22	19.2	5.74
	0	-0.7	24.8	7.05	23.4	6.59	22.1	6.13	21.3	5.91	20.6	5.69	19.2	5.26
	3	2.2	24.8	6.45	23.4	6.03	22.1	5.62	21.3	5.41	20.6	5.22	19.2	4.83
	5	4.1	24.8	6.08	23.4	5.69	22.1	5.32	21.3	5.12	20.6	4.93	19.2	4.57
	7	6	24.8	5.75	23.4	5.39	22.1	5.02	21.3	4.85	20.6	4.68	19.2	4.34
	9	7.9	24.8	5.43	23.4	5.09	22.1	4.76	21.3	4.59	20.6	4.43	19.2	4.11
	11	9.8	24.8	5.14	23.4	4.82	22.1	4.51	21.3	4.36	20.6	4.21	19.2	3.90
	13	11.8	24.8	4.86	23.4	4.56	22.1	4.27	21.3	4.13	20.6	3.98	19.2	3.71
	15	13.7	24.8	4.60	23.4	4.33	22.1	4.05	21.3	3.92	20.6	3.79	19.2	3.53
60%	-19.8	-20	19.7	8.91	19.6	9.07	18.9	8.73	18.3	8.39	17.7	8.05	16.5	7.39
	-18.8	-19	20.0	8.97	20.0	9.13	18.9	8.54	18.3	8.21	17.7	7.88	16.5	7.23
	-16.7	-17	20.8	9.08	20.1	8.80	18.9	8.15	18.3	7.84	17.7	7.52	16.5	6.92
	-13.7	-15	21.3	8.99	20.1	8.36	18.9	7.75	18.3	7.46	17.7	7.16	16.5	6.58
	-11.8	-13	21.3	8.51	20.1	7.92	18.9	7.35	18.3	7.07	17.7	6.80	16.5	6.29
	-9.8	-11	21.3	8.03	20.1	7.48	18.9	6.95	18.3	6.69	17.7	6.44	16.5	5.93
	-9.5	-10	21.3	7.81	20.1	7.28	18.9	6.76	18.3	6.51	17.7	6.26	16.5	5.77
	-8.5	-9.1	21.3	7.60	20.1	7.09	18.9	6.59	18.3	6.35	17.7	6.10	16.5	5.63
	-7	-7.6	21.3	7.27	20.1	6.79	18.9	6.31	18.3	6.08	17.7	5.85	16.5	5.41
	-5	-5.6	21.3	6.85	20.1	6.40	18.9	5.95	18.3	5.74	17.7	5.52	16.5	5.11
	-3	-3.7	21.3	6.46	20.1	6.04	18.9	5.63	18.3	5.43	17.7	5.23	16.5	4.84
	0	-0.7	21.3	5.91	20.1	5.53	18.9	5.16	18.3	4.98	17.7	4.80	16.5	4.44
	3	2.2	21.3	5.42	20.1	5.08	18.9	4.75	18.3	4.58	17.7	4.42	16.5	4.10
	5	4.1	21.3	5.12	20.1	4.81	18.9	4.49	18.3	4.35	17.7	4.19	16.5	3.89
	7	6	21.3	4.85	20.1	4.55	18.9	4.26	18.3	4.12	17.7	3.98	16.5	3.70
	9	7.9	21.3	4.59	20.1	4.32	18.9	4.04	18.3	3.91	17.7	3.78	16.5	3.52
	11	9.8	21.3	4.36	20.1	4.10	18.9	3.85	18.3	3.72	17.7	3.59	16.5	3.35
	13	11.8	21.3	4.12	20.1	3.88	18.9	3.65	18.3	3.53	17.7	3.41	16.5	3.19
	15	13.7	21.3	3.92	20.1	3.69	18.9	3.47	18.3	3.36	17.7	3.26	16.5	3.04
50%	-19.8	-20	17.7	8.10	16.7	7.54	15.8	7.00	15.2	6.75	14.7	6.48	13.7	5.97
	-18.8	-19	17.7	7.93	16.7	7.39	15.8	6.87	15.2	6.60	14.7	6.35	13.7	5.86
	-16.7	-17	17.7	7.56	16.7	7.05	15.8	6.56	15.2	6.32	14.7	6.08	13.7	5.61
	-13.7	-15	17.7	7.20	16.7	6.72	15.8	6.25	15.2	6.02	14.7	5.80	13.7	5.36
	-11.8	-13	17.7	6.84	16.7	6.39	15.8	5.94	15.2	5.73	14.7	5.51	13.7	5.10
	-9.8	-11	17.7	6.47	16.7	6.05	15.8	5.64	15.2	5.43	14.7	5.24	13.7	4.85
	-9.5	-10	17.7	6.30	16.7	5.89	15.8	5.49	15.2	5.30	14.7	5.10	13.7	4.72
	-8.5	-9.1	17.7	6.14	16.7	5.75	15.8	5.36	15.2	5.17	14.7	4.98	13.7	4.61
	-7	-7.6	17.7	5.89	16.7	5.51	15.8	5.14	15.2	4.96	14.7	4.79	13.7	4.43
	-5	-5.6	17.7	5.55	16.7	5.21	15.8	4.87	15.2	4.70	14.7	4.53	13.7	4.20
	-3	-3.7	17.7	5.26	16.7	4.93	15.8	4.61	15.2	4.45	14.7	4.30	13.7	3.99
	0	-0.7	17.7	4.83	16.7	4.53	15.8	4.25	15.2	4.10	14.7	3.96	13.7	3.69
	3	2.2	17.7	4.44	16.7	4.18	15.8	3.91	15.2	3.79	14.7	3.66	13.7	3.41
	5	4.1	17.7	4.22	16.7	3.96	15.8	3.72	15.2	3.60	14.7	3.48	13.7	3.25
	7	6	17.7	4.00	16.7	3.77	15.8	3.54	15.2	3.42	14.7	3.32	13.7	3.10
	9	7.9	17.7	3.80	16.7	3.58	15.8	3.36	15.2	3.27	14.7	3.16	13.7	2.95
	11	9.8	17.7	3.61	16.7	3.40	15.8	3.21	15.2	3.11	14.7	3.01	13.7	2.82
	13	11.8	17.7	3.43	16.7	3.24	15.8	3.05	15.2	2.96	14.7	2.86	13.7	2.69
	15	13.7	17.7	3.27	16.7	3.09	15.8	2.91	15.2	2.83	14.7	2.74	13.7	2.57

R410A All DC Inverter V4 Plus S Series 50Hz

### 12HP heating mode

**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
130%	-19.8	-20	24.3	6.35	24.2	6.80	24.0	7.25	24.0	7.47	23.9	7.70	23.9	8.15
	-18.8	-19	24.6	6.49	24.5	6.94	24.5	7.38	24.4	7.60	24.4	7.81	24.3	8.26
	-16.7	-17	25.6	6.80	25.5	7.22	25.4	7.65	25.4	7.86	25.4	8.07	25.2	8.49
	-13.7	-15	26.7	7.11	26.5	7.52	26.4	7.93	26.4	8.13	26.3	8.34	26.3	8.75
	-11.8	-13	27.7	7.43	27.7	7.82	27.6	8.21	27.5	8.41	27.5	8.61	27.4	8.99
	-9.8	-11	29.0	7.76	28.9	8.13	28.8	8.50	28.8	8.69	28.8	8.88	28.7	9.25
	-9.5	-10	29.8	7.92	29.6	8.28	29.5	8.64	29.5	8.83	29.4	9.00	29.4	9.37
	-8.5	-9.1	30.4	8.06	30.2	8.41	30.2	8.77	30.1	8.95	30.1	9.12	30.0	9.48
	-7	-7.6	31.4	8.29	31.4	8.64	31.3	8.98	31.3	9.16	31.2	9.32	31.1	9.67
	-5	-5.6	33.1	8.61	33.0	8.93	32.9	9.26	32.9	9.43	32.7	9.58	32.7	9.90
	-3	-3.7	34.6	8.89	34.5	9.20	34.5	9.51	34.4	9.67	34.4	9.82	34.3	10.13
	0	-0.7	37.4	9.32	37.4	9.61	37.3	9.89	37.3	10.00	37.1	10.18	37.1	10.46
	3	2.2	40.4	9.71	40.2	9.97	40.1	10.24	40.1	10.37	40.1	10.51	40.0	10.77
	5	4.1	42.4	9.95	42.3	10.21	42.3	10.45	42.1	10.58	42.1	10.71	42.0	10.96
	7	6	44.5	10.19	44.4	10.42	44.4	10.66	44.3	10.78	44.3	10.90	42.5	10.46
	9	7.9	46.8	10.39	46.7	10.63	46.7	10.85	46.5	10.97	45.6	10.73	42.5	9.83
	11	9.8	49.2	10.60	49.0	10.81	48.8	10.96	47.1	10.52	45.6	10.09	42.5	9.26
	13	11.8	51.8	10.80	51.7	11.01	48.8	10.27	47.1	9.86	45.6	9.47	42.5	8.69
	15	13.7	54.3	10.99	51.9	10.43	48.8	9.67	47.1	9.30	45.6	8.92	42.5	8.20
120%	-19.8	-20	24.2	6.96	24.0	7.37	23.9	7.79	23.9	7.99	23.9	8.20	23.8	8.62
	-18.8	-19	24.5	7.09	24.4	7.50	24.4	7.91	24.3	8.11	24.3	8.32	24.2	8.72
	-16.7	-17	25.5	7.37	25.4	7.77	25.2	8.15	25.2	8.35	25.2	8.55	25.1	8.93
	-13.7	-15	26.6	7.66	26.4	8.04	26.3	8.41	26.3	8.61	26.3	8.79	26.2	9.17
	-11.8	-13	27.6	7.95	27.6	8.32	27.5	8.68	27.5	8.86	27.4	9.04	27.4	9.40
	-9.8	-11	28.9	8.26	28.8	8.60	28.8	8.95	28.7	9.12	28.7	9.29	28.6	9.64
	-9.5	-10	29.6	8.41	29.5	8.75	29.4	9.07	29.4	9.25	29.4	9.41	29.3	9.75
	-8.5	-9.1	30.2	8.54	30.1	8.86	30.1	9.19	30.0	9.36	30.0	9.53	29.9	9.86
	-7	-7.6	31.3	8.76	31.3	9.07	31.2	9.39	31.2	9.55	31.1	9.71	31.1	10.02
	-5	-5.6	33.0	9.04	32.9	9.34	32.7	9.65	32.7	9.80	32.7	9.95	32.6	10.24
	-3	-3.7	34.5	9.31	34.5	9.60	34.4	9.88	34.4	10.02	34.3	10.17	34.3	10.45
	0	-0.7	37.3	9.71	37.3	9.97	37.1	10.23	37.1	10.37	37.0	10.50	37.0	10.77
	3	2.2	40.2	10.07	40.1	10.31	40.1	10.56	40.0	10.69	40.0	10.80	39.2	10.75
	5	4.1	42.3	10.29	42.1	10.52	42.1	10.76	42.0	10.87	42.0	10.99	39.2	10.09
	7	6	44.4	10.50	44.4	10.72	44.3	10.94	43.6	10.79	42.1	10.35	39.2	9.50
	9	7.9	46.7	10.71	46.6	10.92	45.0	10.56	43.6	10.14	42.1	9.73	39.2	8.93
	11	9.8	49.0	10.90	47.9	10.71	45.0	9.93	43.6	9.54	42.1	9.16	39.2	8.42
	13	11.8	50.8	10.79	47.9	10.04	45.0	9.31	43.6	8.96	42.1	8.61	39.2	7.92
	15	13.7	50.8	10.16	47.9	9.46	45.0	8.78	43.6	8.44	42.1	8.12	39.2	7.47
110%	-19.8	-20	24.0	7.57	23.9	7.94	23.8	8.33	23.8	8.51	23.8	8.70	23.7	9.09
	-18.8	-19	24.4	7.69	24.3	8.06	24.3	8.43	24.3	8.62	24.2	8.81	24.2	9.18
	-16.7	-17	25.4	7.94	25.2	8.30	25.6	8.67	25.1	8.84	25.1	9.03	25.0	9.38
	-13.7	-15	26.4	8.21	26.3	8.56	26.2	8.90	26.2	9.07	26.2	9.25	26.1	9.59
	-11.8	-13	27.5	8.49	27.5	8.82	27.4	9.15	27.4	9.31	27.3	9.47	27.3	9.81
	-9.8	-11	28.8	8.76	28.7	9.07	28.7	9.39	28.6	9.55	28.6	9.71	28.6	10.02
	-9.5	-10	29.5	8.90	29.4	9.20	29.3	9.52	29.3	9.67	29.3	9.82	29.2	10.13
	-8.5	-9.1	30.1	9.02	30.0	9.32	30.0	9.62	29.9	9.78	29.9	9.93	29.9	9.05
	-7	-7.6	31.2	9.23	31.2	9.51	31.1	9.80	31.1	9.95	31.1	10.09	31.0	10.38
	-5	-5.6	32.9	9.48	32.7	9.76	32.6	10.03	32.6	10.17	32.6	10.31	32.5	10.60
	-3	-3.7	34.4	9.73	34.4	9.99	34.3	10.25	34.3	10.38	34.2	10.51	34.2	10.78
	0	-0.7	37.1	10.09	37.1	10.34	37.0	10.58	37.0	10.70	37.0	10.83	36.0	10.62
	3	2.2	40.1	10.43	40.0	10.65	40.0	10.87	39.9	10.98	38.6	10.54	36.0	9.66
	5	4.1	42.1	10.63	42.1	10.85	41.3	10.74	39.9	10.31	38.6	9.90	36.0	9.09
	7	6	44.3	10.83	43.9	10.90	41.3	10.09	39.9	9.69	38.6	9.31	36.0	8.55
	9	7.9	46.5	11.00	43.9	10.24	41.3	9.49	39.9	9.12	38.6	8.76	36.0	8.06
	11	9.8	46.5	10.35	43.9	9.64	41.3	8.93	39.9	8.60	38.6	8.26	36.0	7.60
	13	11.8	46.5	9.71	43.9	9.04	41.3	8.40	39.9	8.08	38.6	7.77	36.0	7.16
	15	13.7	46.5	8.62	43.9	8.53	41.3	7.93	39.9	7.63	38.6	7.35	36.0	6.77

**12HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-19.8	-20	23.9	8.18	23.8	8.51	23.8	8.86	23.7	9.04	23.7	9.20	23.6	9.55
	-18.8	-19	24.3	8.28	24.3	8.62	24.2	8.96	24.2	9.13	24.0	9.31	24.0	9.65
	-16.7	-17	25.2	8.51	25.1	8.84	25.1	9.17	25.0	9.33	25.0	9.49	25.0	9.82
	-13.7	-15	26.3	8.76	26.2	9.07	26.1	9.39	26.1	9.55	26.1	9.71	26.0	10.02
	-11.8	-13	27.4	9.02	27.4	9.31	27.3	9.61	27.3	9.76	27.3	9.92	27.1	10.22
	-9.8	-11	28.7	9.26	28.6	9.55	28.6	9.83	28.6	9.99	28.5	10.13	28.5	10.41
	-9.5	-10	29.4	9.39	29.3	9.67	29.3	9.95	29.2	10.09	29.2	10.23	29.0	10.51
	-8.5	-9.1	30.0	9.49	29.9	9.78	29.9	10.04	29.9	10.18	29.8	10.32	29.8	10.59
	-7	-7.6	31.1	9.68	31.1	9.95	31.0	10.21	31.0	10.35	31.0	10.48	30.8	10.74
	-5	-5.6	32.7	9.93	32.6	10.17	32.6	10.43	32.5	10.55	32.5	10.67	32.4	10.93
	-3	-3.7	34.3	10.15	34.3	9.22	34.2	10.63	34.2	10.74	34.2	10.86	32.7	10.41
	0	-0.7	37.0	10.48	37.0	10.70	36.9	10.92	36.3	10.74	35.1	10.30	32.7	9.45
	3	2.2	40.0	10.78	39.9	10.98	37.5	10.16	36.3	9.76	35.1	9.38	32.7	8.61
	5	4.1	42.0	10.98	39.9	10.31	37.5	9.55	36.3	9.19	35.1	8.83	32.7	8.12
	7	6	42.3	10.42	39.9	9.69	37.5	8.99	36.3	8.65	35.1	8.32	32.7	7.65
	9	7.9	42.3	9.79	39.9	9.12	37.5	8.47	36.3	8.05	35.1	7.84	32.7	7.22
	11	9.8	42.3	9.22	39.9	8.60	37.5	7.99	36.3	7.68	35.1	7.39	32.7	6.82
	13	11.8	42.3	8.65	39.9	8.08	37.5	7.52	36.3	7.24	35.1	6.97	32.7	6.44
	15	13.7	42.3	8.16	39.9	7.63	37.5	7.10	36.3	6.84	35.1	6.59	32.7	6.10
90%	-19.8	-20	23.8	8.78	23.6	9.09	23.6	9.40	23.5	9.55	23.5	9.72	23.5	10.02
	-18.8	-19	24.1	8.88	24.1	9.19	24.0	9.50	24.0	9.65	24.0	9.80	23.9	10.10
	-16.7	-17	25.1	9.10	25.0	9.39	25.0	9.68	25.0	9.83	24.8	9.97	24.8	10.27
	-13.7	-15	26.1	9.32	26.0	9.60	26.0	9.88	25.9	10.02	25.9	10.16	25.9	10.44
	-11.8	-13	27.2	9.54	27.2	9.81	27.1	10.08	27.1	10.22	27.1	10.35	27.0	10.62
	-9.8	-11	28.5	9.76	28.5	10.02	28.4	10.28	28.4	10.41	28.4	10.55	28.3	10.80
	-9.5	-10	29.2	9.88	29.1	10.14	29.1	10.38	29.0	10.51	29.0	10.64	29.0	10.88
	-8.5	-9.1	29.8	9.99	29.8	10.23	29.7	10.48	29.7	10.59	29.7	10.72	29.4	10.83
	-7	-7.6	30.9	10.15	30.9	10.38	30.8	10.63	30.8	10.74	30.8	10.86	29.4	10.34
	-5	-5.6	32.6	10.37	32.4	10.59	32.4	10.82	32.3	10.93	31.5	10.59	29.4	9.72
	-3	-3.7	34.1	10.57	34.1	10.78	33.8	10.83	32.6	10.39	31.5	9.97	29.4	9.16
	0	-0.7	37.0	10.87	35.9	10.60	33.8	9.82	32.6	9.44	31.5	9.06	29.4	8.33
	3	2.2	38.0	10.36	35.9	9.65	33.8	8.95	32.6	8.61	31.5	8.27	29.4	7.61
	5	4.1	38.0	9.74	35.9	9.07	33.8	8.43	32.6	8.11	31.5	7.80	29.4	7.18
	7	6	38.0	9.16	35.9	8.55	33.8	7.94	32.6	7.65	31.5	7.36	29.4	6.79
	9	7.9	38.0	8.63	35.9	8.05	33.8	7.49	32.6	7.22	31.5	6.95	29.4	6.41
	11	9.8	38.0	8.13	35.9	7.59	33.8	7.08	32.6	6.82	31.5	6.56	29.4	6.07
	13	11.8	38.0	7.65	35.9	7.16	33.8	6.67	32.6	6.44	31.5	6.20	29.4	5.73
	15	13.7	38.0	7.23	35.9	6.76	33.8	6.32	32.6	6.10	31.5	5.87	29.4	5.44
80%	-19.8	-20	23.7	9.39	23.6	9.66	23.6	9.94	23.6	10.08	23.5	10.22	23.5	10.49
	-18.8	-19	24.0	9.47	24.0	9.75	23.9	10.02	23.9	10.16	23.9	10.29	23.8	10.57
	-16.7	-17	25.0	9.67	24.9	9.93	24.9	10.20	24.9	10.32	24.9	10.45	24.8	10.71
	-13.7	-15	26.1	9.87	26.0	10.11	26.0	10.37	26.0	10.49	25.8	10.62	25.8	10.87
	-11.8	-13	27.1	10.07	27.1	10.31	27.0	10.55	27.0	10.66	27.0	10.79	26.2	10.50
	-9.8	-11	28.5	10.27	28.5	10.50	28.3	10.73	28.3	10.84	28.1	10.81	26.2	9.92
	-9.5	-10	29.2	10.37	29.0	10.59	29.0	10.81	29.0	10.93	28.1	10.50	26.2	9.62
	-8.5	-9.1	29.8	10.46	27.7	10.69	29.6	10.90	29.0	10.65	28.1	10.22	26.2	9.37
	-7	-7.6	30.8	10.62	30.8	10.83	30.0	10.59	29.0	10.17	28.1	9.76	26.2	8.96
	-5	-5.6	32.5	10.80	31.9	10.74	30.0	9.95	29.0	9.57	28.1	9.18	26.2	8.43
	-3	-3.7	33.8	10.86	31.9	10.11	30.0	9.37	29.0	9.02	28.1	8.65	26.2	7.96
	0	-0.7	33.8	9.86	31.9	9.18	30.0	8.53	29.0	8.21	28.1	7.88	26.2	7.26
	3	2.2	33.8	8.98	31.9	8.37	30.0	7.79	29.0	7.50	28.1	7.22	26.2	6.66
	5	4.1	33.8	8.46	31.9	7.89	30.0	7.35	29.0	7.08	28.1	6.82	26.2	6.29
	7	6	33.8	7.96	31.9	7.45	30.0	6.94	29.0	6.69	28.1	6.45	26.2	5.96
	9	7.9	33.8	7.52	31.9	7.03	30.0	6.55	29.0	6.32	28.1	6.10	26.2	5.64
	11	9.8	33.8	7.10	31.9	6.65	30.0	6.20	29.0	5.98	28.1	5.77	26.2	5.35
	13	11.8	33.8	6.69	31.9	6.27	30.0	5.86	29.0	5.65	28.1	5.45	26.2	5.06
	15	13.7	33.8	6.33	31.9	5.94	30.0	5.56	29.0	5.36	28.1	5.17	26.2	4.81

## 12HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22			
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI		
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW		
70%	-19.8	-20	23.5	10.00	23.4	10.23	23.4	10.48	23.4	10.59	23.4	10.72	22.8	10.60
	-18.8	-19	23.9	10.08	23.9	10.31	23.8	10.55	23.8	10.66	23.8	10.79	22.8	10.38
	-16.7	-17	24.8	10.24	24.8	10.48	24.7	10.70	24.7	10.81	24.5	9.63	22.8	9.90
	-13.7	-15	25.9	10.42	25.8	10.64	25.8	10.86	25.3	10.70	24.5	10.27	22.8	9.41
	-11.8	-13	27.0	10.59	27.0	10.80	26.3	10.55	25.3	10.14	24.5	9.73	22.8	8.92
	-9.8	-11	28.3	10.77	27.9	10.76	26.3	9.96	25.3	9.58	24.5	9.19	22.8	8.44
	-9.5	-10	29.0	10.86	27.9	10.44	26.3	9.67	25.3	9.30	24.5	8.93	22.8	8.21
	-8.5	-9.1	29.6	10.92	27.9	10.16	26.3	9.41	25.3	9.05	24.5	8.70	22.8	8.00
	-7	-7.6	29.6	10.43	27.9	9.70	26.3	9.00	25.3	8.67	24.5	8.33	22.8	7.66
	-5	-5.6	29.6	9.80	27.9	9.13	26.3	8.48	25.3	8.15	24.5	9.63	22.8	7.23
	-3	-3.7	29.6	9.23	27.9	8.61	26.3	8.00	25.3	7.70	24.5	7.40	22.8	6.83
	0	-0.7	29.6	8.40	27.9	7.85	26.3	7.30	25.3	7.03	24.5	6.77	22.8	6.26
	3	2.2	29.6	7.67	27.9	7.18	26.3	6.69	25.3	6.45	24.5	6.21	22.8	5.75
	5	4.1	29.6	7.24	27.9	6.77	26.3	6.33	25.3	6.10	24.5	5.87	22.8	5.44
	7	6	29.6	6.84	27.9	6.41	26.3	5.98	25.3	5.77	24.5	5.57	22.8	5.16
	9	7.9	29.6	6.47	27.9	6.06	26.3	5.66	25.3	5.47	24.5	5.28	22.8	4.89
	11	9.8	29.6	6.12	27.9	5.73	26.3	5.37	25.3	5.19	24.5	5.01	22.8	4.65
	13	11.8	29.6	5.78	27.9	5.43	26.3	5.08	25.3	4.92	24.5	4.74	22.8	4.41
	15	13.7	29.6	5.48	27.9	5.15	26.3	4.82	25.3	4.67	24.5	4.51	22.8	4.20
60%	-19.8	-20	23.5	10.60	23.3	10.80	22.5	10.39	21.8	9.98	21.1	9.59	19.6	8.79
	-18.8	-19	23.8	10.67	23.8	10.87	22.5	10.17	21.8	9.78	21.1	9.38	19.6	8.61
	-16.7	-17	24.8	10.81	23.9	10.48	22.5	9.70	21.8	9.33	21.1	8.96	19.6	8.23
	-13.7	-15	25.4	10.70	23.9	9.95	22.5	9.23	21.8	8.88	21.1	8.53	19.6	7.84
	-11.8	-13	25.4	10.13	23.9	9.42	22.5	8.75	21.8	8.42	21.1	8.09	19.6	7.49
	-9.8	-11	25.4	9.56	23.9	8.91	22.5	8.28	21.8	7.96	21.1	7.66	19.6	7.07
	-9.5	-10	25.4	9.30	23.9	8.67	22.5	8.05	21.8	7.75	21.1	7.45	19.6	6.87
	-8.5	-9.1	25.4	9.05	23.9	8.44	22.5	7.85	21.8	7.56	21.1	7.26	19.6	6.70
	-7	-7.6	25.4	8.65	23.9	8.08	22.5	7.51	21.8	7.24	21.1	6.96	19.6	6.43
	-5	-5.6	25.4	8.15	23.9	7.61	22.5	7.09	21.8	6.83	21.1	6.57	19.6	6.08
	-3	-3.7	25.4	7.70	23.9	7.19	22.5	6.70	21.8	6.47	21.1	6.22	19.6	5.76
	0	-0.7	25.4	7.03	23.9	6.59	22.5	6.14	21.8	5.93	21.1	5.71	19.6	5.29
	3	2.2	25.4	6.45	23.9	6.05	22.5	5.65	21.8	5.45	21.1	5.27	19.6	4.88
	5	4.1	25.4	6.10	23.9	5.72	22.5	5.35	21.8	5.17	21.1	4.99	19.6	4.64
	7	6	25.4	5.77	23.9	5.42	22.5	5.07	21.8	4.90	21.1	4.74	19.6	4.40
	9	7.9	25.4	5.47	23.9	5.14	22.5	4.81	21.8	4.66	21.1	4.50	19.6	4.19
	11	9.8	25.4	5.19	23.9	4.88	22.5	4.58	21.8	4.43	21.1	4.27	19.6	3.99
	13	11.8	25.4	4.90	23.9	4.62	22.5	4.34	21.8	4.20	21.1	4.06	19.6	3.80
	15	13.7	25.4	4.67	23.9	4.39	22.5	4.13	21.8	4.01	21.1	3.88	19.6	3.62
50%	-19.8	-20	21.1	9.65	19.9	8.98	18.8	8.34	18.0	8.03	17.4	7.72	16.3	7.11
	-18.8	-19	21.1	9.44	19.9	8.79	18.8	8.18	18.0	7.86	17.4	7.56	16.3	6.97
	-16.7	-17	21.1	9.00	19.9	8.40	18.8	7.81	18.0	7.52	17.4	7.24	16.3	6.68
	-13.7	-15	21.1	8.57	19.9	8.00	18.8	7.44	18.0	7.17	17.4	6.90	16.3	6.38
	-11.8	-13	21.1	8.14	19.9	7.60	18.8	7.08	18.0	6.82	17.4	6.56	16.3	6.07
	-9.8	-11	21.1	7.71	19.9	7.21	18.8	6.72	18.0	6.47	17.4	6.24	16.3	5.77
	-9.5	-10	21.1	7.50	19.9	7.01	18.8	6.54	18.0	6.31	17.4	6.07	16.3	5.62
	-8.5	-9.1	21.1	7.31	19.9	6.84	18.8	6.38	18.0	6.15	17.4	5.93	16.3	5.49
	-7	-7.6	21.1	7.01	19.9	6.56	18.8	6.12	18.0	5.91	17.4	5.70	16.3	5.28
	-5	-5.6	21.1	6.61	19.9	6.20	18.8	5.79	18.0	5.59	17.4	5.40	16.3	5.00
	-3	-3.7	21.1	6.26	19.9	5.87	18.8	5.49	18.0	5.30	17.4	5.12	16.3	4.75
	0	-0.7	21.1	5.75	19.9	5.40	18.8	5.06	18.0	4.88	17.4	4.72	16.3	4.39
	3	2.2	21.1	5.29	19.9	4.98	18.8	4.66	18.0	4.51	17.4	4.36	16.3	4.06
	5	4.1	21.1	5.02	19.9	4.72	18.8	4.43	18.0	4.29	17.4	4.15	16.3	3.87
	7	6	21.1	4.76	19.9	4.48	18.8	4.22	18.0	4.08	17.4	3.95	16.3	3.69
	9	7.9	21.1	4.52	19.9	4.26	18.8	4.01	18.0	3.89	17.4	3.76	16.3	3.52
	11	9.8	21.1	4.30	19.9	4.05	18.8	3.82	18.0	3.70	17.4	3.59	16.3	3.35
	13	11.8	21.1	4.09	19.9	3.85	18.8	3.63	18.0	3.53	17.4	3.41	16.3	3.20
	15	13.7	21.1	3.89	19.9	3.68	18.8	3.47	18.0	3.36	17.4	3.26	16.3	3.06

**14HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
130%	-19.8	-20	29.1	7.91	29.0	8.46	28.9	9.03	28.9	9.30	28.7	9.58	28.7	10.15
	-18.8	-19	29.6	8.08	29.4	8.64	29.4	9.19	29.3	9.46	29.3	9.72	29.1	10.28
	-16.7	-17	30.7	8.46	30.6	8.98	30.4	9.52	30.4	9.78	30.4	10.04	30.3	10.57
	-13.7	-15	32.0	8.85	31.9	9.36	31.7	9.87	31.7	10.12	31.6	10.38	31.6	10.89
	-11.8	-13	33.3	9.25	33.3	9.74	33.1	10.22	33.0	10.47	33.0	10.71	32.9	11.19
	-9.8	-11	34.9	9.65	34.7	10.12	34.6	10.58	34.6	10.82	34.6	11.05	34.4	11.51
	-9.5	-10	35.7	9.86	35.6	10.31	35.4	10.76	35.4	10.99	35.3	11.21	35.3	11.66
	-8.5	-9.1	36.4	10.03	36.3	10.47	36.3	10.92	36.1	11.14	36.1	11.35	36.0	11.80
	-7	-7.6	37.7	10.32	37.7	10.76	37.6	11.18	37.6	11.40	37.4	11.60	37.3	12.04
	-5	-5.6	39.7	10.71	39.6	11.12	39.4	11.53	39.4	11.73	39.3	11.92	39.3	12.33
	-3	-3.7	41.6	11.06	41.4	11.46	41.4	11.83	41.3	12.04	41.3	12.23	41.1	12.60
	0	-0.7	44.9	11.60	44.9	11.96	44.7	12.31	44.7	12.44	44.6	12.68	44.6	13.03
	3	2.2	48.4	12.08	48.3	12.42	48.1	12.75	48.1	12.91	48.1	13.08	48.0	13.40
	5	4.1	50.9	12.39	50.7	12.71	50.7	13.01	50.6	13.17	50.6	13.33	50.4	13.64
	7	6	53.4	12.68	53.3	12.97	53.3	13.27	53.1	13.42	53.1	13.56	51.0	13.03
	9	7.9	56.1	12.94	56.0	13.23	56.0	13.50	55.9	13.65	54.7	13.36	51.0	12.24
	11	9.8	59.0	13.20	58.9	13.46	58.6	13.64	56.6	13.10	54.7	12.56	51.0	11.53
	13	11.8	62.1	13.45	62.0	13.71	58.6	12.78	56.6	12.27	54.7	11.79	51.0	10.82
	15	13.7	65.1	13.68	62.3	12.98	58.6	12.04	56.6	11.57	54.7	11.11	51.0	10.21
120%	-19.8	-20	29.0	8.66	28.9	9.17	28.7	9.70	28.7	9.94	28.7	10.21	28.6	10.73
	-18.8	-19	29.4	8.82	29.3	9.33	29.3	9.84	29.1	10.09	29.1	10.35	29.0	10.86
	-16.7	-17	30.6	9.17	30.4	9.67	30.2	10.15	30.3	10.39	30.3	10.64	30.1	11.12
	-13.7	-15	31.9	9.54	31.7	10.00	31.6	10.47	31.6	10.72	31.6	10.95	31.4	11.41
	-11.8	-13	33.1	9.90	33.1	10.35	33.0	10.80	33.0	11.03	32.9	11.25	32.9	11.70
	-9.8	-11	34.7	10.28	34.6	10.70	34.6	11.14	34.4	11.35	34.4	11.56	34.3	11.99
	-9.5	-10	35.6	10.47	35.4	10.89	35.3	11.30	35.3	11.51	35.3	11.72	35.1	12.14
	-8.5	-9.1	36.3	10.63	36.1	11.03	36.1	11.44	36.0	11.65	36.0	11.86	35.9	12.27
	-7	-7.6	37.6	10.90	37.6	11.30	37.4	11.69	37.4	11.89	37.3	12.08	37.3	12.47
	-5	-5.6	39.6	11.25	39.4	11.63	39.3	12.01	39.3	12.20	39.3	12.39	39.1	12.75
	-3	-3.7	41.4	11.59	41.4	11.95	41.3	12.30	41.3	12.47	41.1	12.66	41.1	13.01
	0	-0.7	44.7	12.08	44.7	12.42	44.6	12.74	44.6	12.91	44.4	13.07	44.4	13.40
	3	2.2	48.3	12.53	48.1	12.84	48.1	13.14	48.0	13.30	48.0	13.45	47.0	13.38
	5	4.1	50.7	12.81	50.6	13.10	50.6	13.39	50.4	13.53	50.4	13.68	47.0	12.56
	7	6	53.3	13.07	53.3	13.35	53.1	13.62	52.3	13.43	50.6	12.88	47.0	11.82
	9	7.9	56.0	13.33	55.9	13.59	54.0	13.14	52.3	12.62	50.6	12.11	47.0	11.12
	11	9.8	58.9	13.56	57.4	13.33	54.0	12.36	52.3	11.88	50.6	11.40	47.0	10.48
	13	11.8	61.0	13.43	57.4	12.50	54.0	11.59	52.3	11.15	50.6	10.72	47.0	9.86
	15	13.7	61.0	12.65	57.4	11.78	54.0	10.93	52.3	10.51	50.6	10.10	47.0	9.30
110%	-19.8	-20	28.9	9.42	28.7	9.89	28.6	10.37	28.6	10.60	28.6	10.83	28.4	11.31
	-18.8	-19	29.3	9.57	29.1	10.03	29.1	10.50	29.1	10.73	29.0	10.96	29.0	11.43
	-16.7	-17	30.4	9.89	30.3	10.34	30.7	10.79	30.1	11.01	30.1	11.24	30.0	11.67
	-13.7	-15	31.7	10.22	31.6	10.66	31.4	11.08	31.4	11.30	31.4	11.51	31.3	11.94
	-11.8	-13	33.0	10.57	33.0	10.98	32.9	11.38	32.9	11.59	32.7	11.79	32.7	12.21
	-9.8	-11	34.6	10.90	34.4	11.30	34.4	11.69	34.3	11.89	34.3	12.08	34.3	12.47
	-9.5	-10	35.4	11.08	35.3	11.46	35.1	11.85	35.1	12.04	35.1	12.23	35.0	12.60
	-8.5	-9.1	36.1	11.22	36.0	11.60	36.0	11.98	35.9	12.17	35.9	12.36	35.9	11.27
	-7	-7.6	37.4	11.49	37.4	11.83	37.3	12.20	37.3	12.39	37.3	12.56	37.1	12.92
	-5	-5.6	39.4	11.80	39.3	12.15	39.1	12.49	39.1	12.66	39.1	12.84	39.0	13.19
	-3	-3.7	41.3	12.11	41.3	12.43	41.1	12.76	41.1	12.92	41.0	13.08	41.0	13.42
	0	-0.7	44.6	12.56	44.6	12.87	44.4	13.17	44.4	13.32	44.4	13.48	43.1	13.21
	3	2.2	48.1	12.98	48.0	13.26	48.0	13.53	47.9	13.67	46.3	13.11	43.1	12.02
	5	4.1	50.6	13.23	50.6	13.51	49.6	13.37	47.9	12.84	46.3	12.33	43.1	11.31
	7	6	53.1	13.48	52.7	13.56	49.6	12.56	47.9	12.07	46.3	11.59	43.1	10.64
	9	7.9	55.9	13.70	52.7	12.75	49.6	11.82	47.9	11.35	46.3	10.90	43.1	10.03
	11	9.8	55.9	12.88	52.7	11.99	49.6	11.12	47.9	10.70	46.3	10.28	43.1	9.46
	13	11.8	55.9	12.08	52.7	11.25	49.6	10.45	47.9	10.06	46.3	9.67	43.1	8.91
	15	13.7	55.9	10.73	52.7	10.61	49.6	9.87	47.9	9.49	46.3	9.14	43.1	8.43

## 14HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-19.8	-20	28.7	10.18	28.6	10.60	28.6	11.03	28.4	11.25	28.4	11.45	28.3	11.89
	-18.8	-19	29.1	10.31	29.1	10.73	29.0	11.15	29.0	11.37	28.9	11.59	28.9	12.01
	-16.7	-17	30.3	10.60	30.1	11.00	30.1	11.41	30.0	11.62	30.0	11.82	30.0	12.23
	-13.7	-15	31.6	10.90	31.4	11.30	31.3	11.69	31.3	11.89	31.3	12.08	31.1	12.47
	-11.8	-13	32.9	11.22	32.9	11.59	32.7	11.96	32.7	12.15	32.7	12.34	32.6	12.72
	-9.8	-11	34.4	11.53	34.3	11.89	34.3	12.24	34.3	12.43	34.1	12.60	34.1	12.95
	-9.5	-10	35.3	11.69	35.1	12.04	35.1	12.39	35.0	12.56	35.0	12.74	34.9	13.08
	-8.5	-9.1	36.0	11.82	35.9	12.17	35.9	12.50	35.9	12.68	35.7	12.85	35.7	13.19
	-7	-7.6	37.3	12.05	37.3	12.39	37.1	12.71	37.1	12.88	37.1	13.04	37.0	13.37
	-5	-5.6	39.3	12.36	39.1	12.66	39.1	12.98	39.0	13.13	39.0	13.29	38.9	13.61
	-3	-3.7	41.1	12.63	41.1	11.47	41.0	13.23	41.0	13.37	41.0	13.52	39.3	12.95
	0	-0.7	44.4	13.04	44.4	13.32	44.3	13.59	43.6	13.37	42.1	12.82	39.3	11.76
	3	2.2	48.0	13.42	47.9	13.67	45.0	12.65	43.6	12.15	42.1	11.67	39.3	10.71
	5	4.1	50.4	13.67	47.9	12.84	45.0	11.89	43.6	11.44	42.1	10.99	39.3	10.10
	7	6	50.7	12.97	47.9	12.07	45.0	11.19	43.6	10.77	42.1	10.35	39.3	9.52
	9	7.9	50.7	12.18	47.9	11.35	45.0	10.54	43.6	10.02	42.1	9.75	39.3	8.98
	11	9.8	50.7	11.47	47.9	10.70	45.0	9.94	43.6	9.57	42.1	9.20	39.3	8.49
	13	11.8	50.7	10.77	47.9	10.06	45.0	9.36	43.6	9.01	42.1	8.68	39.3	8.01
	15	13.7	50.7	10.16	47.9	9.49	45.0	8.84	43.6	8.52	42.1	8.20	39.3	7.59
90%	-19.8	-20	28.5	10.93	28.4	11.31	28.4	11.70	28.2	11.89	28.2	12.09	28.2	12.47
	-18.8	-19	28.9	11.05	28.9	11.44	28.8	11.82	28.8	12.01	28.8	12.20	28.7	12.58
	-16.7	-17	30.1	11.32	29.9	11.69	29.9	12.05	29.9	12.24	29.8	12.42	29.8	12.78
	-13.7	-15	31.4	11.60	31.2	11.95	31.2	12.30	31.1	12.47	31.1	12.65	31.1	13.00
	-11.8	-13	32.7	11.88	32.7	12.21	32.5	12.55	32.5	12.72	32.5	12.88	32.4	13.21
	-9.8	-11	34.2	12.15	34.2	12.47	34.1	12.79	34.1	12.95	34.1	13.13	33.9	13.45
	-9.5	-10	35.1	12.30	34.9	12.62	34.9	12.92	34.8	13.08	34.8	13.24	34.8	13.55
	-8.5	-9.1	35.8	12.43	35.8	12.73	35.7	13.04	35.7	13.19	35.7	13.35	35.2	13.48
	-7	-7.6	37.1	12.63	37.1	12.92	36.9	13.23	36.9	13.37	36.9	13.52	35.2	12.87
	-5	-5.6	39.1	12.91	38.9	13.19	38.9	13.46	38.8	13.61	37.8	13.19	35.2	12.09
	-3	-3.7	40.9	13.16	40.9	13.42	40.5	13.48	39.1	12.94	37.8	12.42	35.2	11.40
	0	-0.7	44.4	13.53	43.1	13.20	40.5	12.23	39.1	11.75	37.8	11.28	35.2	10.36
	3	2.2	45.6	12.89	43.1	12.01	40.5	11.14	39.1	10.71	37.8	10.29	35.2	9.48
	5	4.1	45.6	12.12	43.1	11.30	40.5	10.50	39.1	10.09	37.8	9.71	35.2	8.94
	7	6	45.6	11.40	43.1	10.64	40.5	9.89	39.1	9.52	37.8	9.16	35.2	8.45
	9	7.9	45.6	10.74	43.1	10.02	40.5	9.32	39.1	8.98	37.8	8.65	35.2	7.98
	11	9.8	45.6	10.12	43.1	9.45	40.5	8.81	39.1	8.49	37.8	8.17	35.2	7.56
	13	11.8	45.6	9.52	43.1	8.91	40.5	8.30	39.1	8.01	37.8	7.72	35.2	7.14
	15	13.7	45.6	9.00	43.1	8.42	40.5	7.86	39.1	7.59	37.8	7.31	35.2	6.77
80%	-19.8	-20	28.4	11.69	28.3	12.02	28.3	12.37	28.3	12.55	28.1	12.72	28.1	13.05
	-18.8	-19	28.9	11.79	28.9	12.14	28.7	12.47	28.7	12.65	28.7	12.81	28.6	13.16
	-16.7	-17	30.0	12.04	29.9	12.36	29.9	12.69	29.9	12.85	29.9	13.01	29.7	13.33
	-13.7	-15	31.3	12.28	31.1	12.59	31.1	12.91	31.1	13.05	31.0	13.21	31.0	13.53
	-11.8	-13	32.6	12.53	32.6	12.84	32.4	13.13	32.4	13.27	32.4	13.43	31.4	13.07
	-9.8	-11	34.1	12.78	34.1	13.07	34.0	13.36	34.0	13.49	33.7	13.46	31.4	12.34
	-9.5	-10	35.0	12.91	34.9	13.18	34.9	13.46	34.9	13.61	33.7	13.07	31.4	11.98
	-8.5	-9.1	35.7	13.03	33.2	13.30	35.6	13.56	34.9	13.26	33.7	12.72	31.4	11.66
	-7	-7.6	37.0	13.21	37.0	13.48	36.0	13.18	34.9	12.66	33.7	12.15	31.4	11.15
	-5	-5.6	39.0	13.45	38.3	13.37	36.0	12.39	34.9	11.91	33.7	11.43	31.4	10.50
	-3	-3.7	40.6	13.52	38.3	12.59	36.0	11.66	34.9	11.22	33.7	10.77	31.4	9.91
	0	-0.7	40.6	12.27	38.3	11.43	36.0	10.61	34.9	10.22	33.7	9.81	31.4	9.04
	3	2.2	40.6	11.18	38.3	10.42	36.0	9.70	34.9	9.33	33.7	8.98	31.4	8.29
	5	4.1	40.6	10.53	38.3	9.83	36.0	9.14	34.9	8.81	33.7	8.49	31.4	7.84
	7	6	40.6	9.91	38.3	9.27	36.0	8.64	34.9	8.33	33.7	8.02	31.4	7.41
	9	7.9	40.6	9.36	38.3	8.75	36.0	8.15	34.9	7.86	33.7	7.59	31.4	7.02
	11	9.8	40.6	8.84	38.3	8.27	36.0	7.72	34.9	7.44	33.7	7.18	31.4	6.66
	13	11.8	40.6	8.33	38.3	7.81	36.0	7.30	34.9	7.04	33.7	6.79	31.4	6.29
	15	13.7	40.6	7.88	38.3	7.40	36.0	6.92	34.9	6.67	33.7	6.44	31.4	5.99

**14HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-19.8	-20	28.2	12.44	28.1	12.73	28.1	13.04	28.1	13.19	28.1	13.35	27.4	13.20
	-18.8	-19	28.6	12.54	28.6	12.84	28.5	13.13	28.5	13.27	28.5	13.43	27.4	12.92
	-16.7	-17	29.8	12.75	29.8	13.04	29.6	13.32	29.6	13.46	29.4	11.99	27.4	12.33
	-13.7	-15	31.1	12.97	30.9	13.24	30.9	13.52	30.4	13.32	29.4	12.78	27.4	11.72
	-11.8	-13	32.4	13.19	32.4	13.45	31.5	13.13	30.4	12.62	29.4	12.11	27.4	11.11
	-9.8	-11	33.9	13.40	33.5	13.39	31.5	12.40	30.4	11.92	29.4	11.44	27.4	10.51
	-9.5	-10	34.8	13.52	33.5	13.00	31.5	12.04	30.4	11.57	29.4	11.12	27.4	10.22
	-8.5	-9.1	35.5	13.59	33.5	12.65	31.5	11.72	30.4	11.27	29.4	10.83	27.4	9.96
	-7	-7.6	35.5	12.98	33.5	12.08	31.5	11.21	30.4	10.79	29.4	10.36	27.4	9.54
	-5	-5.6	35.5	12.20	33.5	11.37	31.5	10.55	30.4	10.15	29.4	11.99	27.4	9.00
	-3	-3.7	35.5	11.48	33.5	10.71	31.5	9.96	30.4	9.58	29.4	9.22	27.4	8.50
	0	-0.7	35.5	10.45	33.5	9.77	31.5	9.09	30.4	8.75	29.4	8.43	27.4	7.79
	3	2.2	35.5	9.55	33.5	8.94	31.5	8.33	30.4	8.02	29.4	7.73	27.4	7.15
	5	4.1	35.5	9.01	33.5	8.43	31.5	7.88	30.4	7.59	29.4	7.31	27.4	6.77
	7	6	35.5	8.52	33.5	7.98	31.5	7.44	30.4	7.18	29.4	6.93	27.4	6.43
	9	7.9	35.5	8.05	33.5	7.54	31.5	7.05	30.4	6.80	29.4	6.57	27.4	6.09
	11	9.8	35.5	7.62	33.5	7.14	31.5	6.69	30.4	6.45	29.4	6.24	27.4	5.79
	13	11.8	35.5	7.20	33.5	6.76	31.5	6.32	30.4	6.12	29.4	5.90	27.4	5.50
	15	13.7	35.5	6.82	33.5	6.41	31.5	6.00	30.4	5.82	29.4	5.61	27.4	5.23
60%	-19.8	-20	28.1	13.20	28.0	13.45	27.0	12.94	26.1	12.43	25.3	11.93	23.6	10.95
	-18.8	-19	28.6	13.29	28.6	13.53	27.0	12.66	26.1	12.17	25.3	11.67	23.6	10.71
	-16.7	-17	29.7	13.46	28.7	13.04	27.0	12.08	26.1	11.61	25.3	11.15	23.6	10.25
	-13.7	-15	30.4	13.32	28.7	12.39	27.0	11.48	26.1	11.05	25.3	10.61	23.6	9.75
	-11.8	-13	30.4	12.60	28.7	11.73	27.0	10.89	26.1	10.48	25.3	10.07	23.6	9.32
	-9.8	-11	30.4	11.91	28.7	11.09	27.0	10.31	26.1	9.91	25.3	9.54	23.6	8.79
	-9.5	-10	30.4	11.57	28.7	10.79	27.0	10.02	26.1	9.65	25.3	9.27	23.6	8.55
	-8.5	-9.1	30.4	11.27	28.7	10.51	27.0	9.77	26.1	9.41	25.3	9.04	23.6	8.34
	-7	-7.6	30.4	10.77	28.7	10.06	27.0	9.35	26.1	9.01	25.3	8.66	23.6	8.01
	-5	-5.6	30.4	10.15	28.7	9.48	27.0	8.82	26.1	8.50	25.3	8.18	23.6	7.57
	-3	-3.7	30.4	9.58	28.7	8.95	27.0	8.34	26.1	8.05	25.3	7.75	23.6	7.17
	0	-0.7	30.4	8.75	28.7	8.20	27.0	7.65	26.1	7.38	25.3	7.11	23.6	6.59
	3	2.2	30.4	8.02	28.7	7.53	27.0	7.04	26.1	6.79	25.3	6.56	23.6	6.08
	5	4.1	30.4	7.59	28.7	7.12	27.0	6.66	26.1	6.44	25.3	6.21	23.6	5.77
	7	6	30.4	7.18	28.7	6.74	27.0	6.31	26.1	6.11	25.3	5.90	23.6	5.48
	9	7.9	30.4	6.80	28.7	6.40	27.0	5.99	26.1	5.80	25.3	5.60	23.6	5.22
	11	9.8	30.4	6.45	28.7	6.08	27.0	5.70	26.1	5.51	25.3	5.32	23.6	4.97
	13	11.8	30.4	6.11	28.7	5.76	27.0	5.41	26.1	5.23	25.3	5.06	23.6	4.72
	15	13.7	30.4	5.81	28.7	5.47	27.0	5.15	26.1	4.99	25.3	4.83	23.6	4.51
50%	-19.8	-20	25.3	12.01	23.9	11.18	22.5	10.38	21.6	10.00	20.9	9.61	19.5	8.85
	-18.8	-19	25.3	11.75	23.9	10.95	22.5	10.18	21.6	9.78	20.9	9.41	19.5	8.68
	-16.7	-17	25.3	11.21	23.9	10.45	22.5	9.73	21.6	9.36	20.9	9.01	19.5	8.32
	-13.7	-15	25.3	10.67	23.9	9.96	22.5	9.26	21.6	8.93	20.9	8.59	19.5	7.94
	-11.8	-13	25.3	10.13	23.9	9.46	22.5	8.81	21.6	8.49	20.9	8.17	19.5	7.56
	-9.8	-11	25.3	9.59	23.9	8.97	22.5	8.36	21.6	8.05	20.9	7.76	19.5	7.18
	-9.5	-10	25.3	9.33	23.9	8.72	22.5	8.14	21.6	7.85	20.9	7.56	19.5	6.99
	-8.5	-9.1	25.3	9.10	23.9	8.52	22.5	7.94	21.6	7.66	20.9	7.38	19.5	6.83
	-7	-7.6	25.3	8.72	23.9	8.17	22.5	7.62	21.6	7.36	20.9	7.09	19.5	6.57
	-5	-5.6	25.3	8.23	23.9	7.72	22.5	7.21	21.6	6.96	20.9	6.72	19.5	6.22
	-3	-3.7	25.3	7.79	23.9	7.31	22.5	6.83	21.6	6.60	20.9	6.37	19.5	5.92
	0	-0.7	25.3	7.15	23.9	6.72	22.5	6.29	21.6	6.08	20.9	5.87	19.5	5.47
	3	2.2	25.3	6.58	23.9	6.19	22.5	5.80	21.6	5.61	20.9	5.42	19.5	5.06
	5	4.1	25.3	6.25	23.9	5.87	22.5	5.51	21.6	5.33	20.9	5.16	19.5	4.81
	7	6	25.3	5.93	23.9	5.58	22.5	5.25	21.6	5.07	20.9	4.91	19.5	4.59
	9	7.9	25.3	5.63	23.9	5.31	22.5	4.99	21.6	4.84	20.9	4.68	19.5	4.38
	11	9.8	25.3	5.35	23.9	5.04	22.5	4.75	21.6	4.61	20.9	4.46	19.5	4.17
	13	11.8	25.3	5.09	23.9	4.80	22.5	4.52	21.6	4.39	20.9	4.24	19.5	3.98
	15	13.7	25.3	4.84	23.9	4.58	22.5	4.32	21.6	4.19	20.9	4.06	19.5	3.81

## R410A All DC Inverter V4 Plus S Series 50Hz

## 16HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
130%	-19.8	-20	32.4	9.03	32.2	9.67	32.1	10.31	32.1	10.63	31.9	10.94	31.9	11.59
	-18.8	-19	32.9	9.23	32.7	9.86	32.7	10.50	32.5	10.81	32.5	11.11	32.4	11.74
	-16.7	-17	34.1	9.67	34.0	10.26	33.8	10.88	33.8	11.18	33.8	11.48	33.7	12.07
	-13.7	-15	35.6	10.11	35.4	10.70	35.2	11.28	35.2	11.56	35.1	11.86	35.1	12.44
	-11.8	-13	37.0	10.56	37.0	11.13	36.8	11.68	36.7	11.96	36.7	12.24	36.5	12.79
	-9.8	-11	38.7	11.03	38.6	11.56	38.4	12.09	38.4	12.36	38.4	12.62	38.3	13.15
	-9.5	-10	39.7	11.26	39.5	11.78	39.4	12.29	39.4	12.55	39.2	12.80	39.2	13.32
	-8.5	-9.1	40.5	11.46	40.3	11.96	40.3	12.47	40.2	12.72	40.2	12.97	40.0	13.49
	-7	-7.6	41.9	11.79	41.9	12.29	41.7	12.77	41.7	13.02	41.6	13.25	41.4	13.75
	-5	-5.6	44.1	12.24	44.0	12.70	43.8	13.17	43.8	13.40	43.7	13.62	43.7	14.08
	-3	-3.7	46.2	12.64	46.0	13.09	46.0	13.52	45.9	13.75	45.9	13.97	45.7	14.40
	0	-0.7	49.8	13.25	49.8	13.67	49.7	14.07	49.7	14.22	49.5	14.48	49.5	14.88
	3	2.2	53.8	13.80	53.7	14.18	53.5	14.57	53.5	14.75	53.5	14.95	53.3	15.31
	5	4.1	56.5	14.15	56.3	14.52	56.3	14.86	56.2	15.05	56.2	15.23	56.0	15.58
	7	6	59.4	14.48	59.2	14.81	59.2	15.16	59.0	15.33	59.0	15.49	56.7	14.88
	9	7.9	62.4	14.78	62.2	15.11	62.2	15.43	62.1	15.59	60.8	15.26	56.7	13.98
	11	9.8	65.6	15.08	65.4	15.38	65.1	15.58	62.9	14.96	60.8	14.35	56.7	13.17
	13	11.8	69.0	15.36	68.9	15.66	65.1	14.60	62.9	14.02	60.8	13.47	56.7	12.36
	15	13.7	72.4	15.63	69.2	14.83	65.1	13.75	62.9	13.22	60.8	12.69	56.7	11.66
120%	-19.8	-20	32.2	9.90	32.1	10.48	31.9	11.08	31.9	11.36	31.9	11.66	31.7	12.26
	-18.8	-19	32.7	10.08	32.5	10.66	32.5	11.24	32.4	11.53	32.4	11.83	32.2	12.41
	-16.7	-17	34.0	10.48	33.8	11.04	33.6	11.59	33.7	11.88	33.7	12.16	33.5	12.70
	-13.7	-15	35.4	10.89	35.2	11.43	35.1	11.96	35.1	12.24	35.1	12.51	34.9	13.04
	-11.8	-13	36.8	11.31	36.8	11.83	36.7	12.34	36.7	12.60	36.5	12.85	36.5	13.37
	-9.8	-11	38.6	11.74	38.4	12.22	38.4	12.72	38.3	12.97	38.3	13.20	38.1	13.70
	-9.5	-10	39.5	11.96	39.4	12.44	39.2	12.90	39.2	13.15	39.2	13.39	39.0	13.87
	-8.5	-9.1	40.3	12.14	40.2	12.60	40.2	13.07	40.0	13.30	40.0	13.55	39.8	14.02
	-7	-7.6	41.7	12.46	41.7	12.90	41.6	13.35	41.6	13.59	41.4	13.80	41.4	14.25
	-5	-5.6	44.0	12.85	43.8	13.29	43.6	13.72	43.6	13.93	43.6	14.15	43.5	14.57
	-3	-3.7	46.0	13.24	46.0	13.65	45.9	14.05	45.9	14.25	45.7	14.47	45.7	14.86
	0	-0.7	49.7	13.80	49.7	14.18	49.5	14.55	49.5	14.75	49.4	14.93	49.4	15.31
	3	2.2	53.7	14.32	53.5	14.67	53.5	15.01	53.3	15.20	53.3	15.36	52.2	15.28
	5	4.1	56.4	14.63	56.2	14.96	56.2	15.30	56.0	15.46	56.0	15.63	52.2	14.35
	7	6	59.2	14.93	59.2	15.25	59.1	15.56	58.1	15.35	56.2	14.72	52.2	13.50
	9	7.9	62.2	15.23	62.1	15.53	60.0	15.01	58.1	14.42	56.2	13.83	52.2	12.70
	11	9.8	65.4	15.49	63.8	15.23	60.0	14.12	58.1	13.57	56.2	13.02	52.2	11.97
	13	11.8	67.8	15.35	63.8	14.28	60.0	13.24	58.1	12.74	56.2	12.24	52.2	11.26
	15	13.7	67.8	14.45	63.8	13.45	60.0	12.49	58.1	12.01	56.2	11.54	52.2	10.63
110%	-19.8	-20	32.1	10.76	31.9	11.29	31.7	11.84	31.7	12.11	31.8	12.37	31.6	12.92
	-18.8	-19	32.5	10.93	32.4	11.46	32.4	11.99	32.4	12.26	32.2	12.52	32.2	13.05
	-16.7	-17	33.8	11.29	33.7	11.81	34.1	12.32	33.5	12.57	33.5	12.84	33.3	13.34
	-13.7	-15	35.2	11.68	35.1	12.17	34.9	12.65	34.9	12.90	34.9	13.15	34.8	13.63
	-11.8	-13	36.7	12.07	36.7	12.54	36.5	13.00	36.5	13.24	36.3	13.47	36.3	13.95
	-9.8	-11	38.4	12.46	38.3	12.90	38.3	13.35	38.1	13.59	38.1	13.80	38.1	14.25
	-9.5	-10	39.4	12.65	39.2	13.09	39.0	13.54	39.0	13.75	39.0	13.97	38.9	14.40
	-8.5	-9.1	40.2	12.82	40.0	13.25	40.0	13.69	39.8	13.90	39.8	14.12	39.8	12.87
	-7	-7.6	41.6	13.12	41.6	13.52	41.4	13.93	41.4	14.15	41.4	14.35	41.3	14.76
	-5	-5.6	43.8	13.49	43.7	13.88	43.5	14.27	43.5	14.47	43.5	14.67	43.3	15.07
	-3	-3.7	45.9	13.83	45.9	14.20	45.7	14.58	45.7	14.76	45.6	14.95	45.6	15.33
	0	-0.7	49.5	14.35	49.5	14.70	49.4	15.05	49.4	15.21	49.4	15.40	47.9	15.10
	3	2.2	53.5	14.83	53.3	15.15	53.3	15.46	53.2	15.61	51.4	14.98	47.9	13.74
	5	4.1	56.2	15.11	56.2	15.43	55.1	15.28	53.2	14.67	51.4	14.08	47.9	12.92
	7	6	59.0	15.40	58.6	15.50	55.1	14.35	53.2	13.78	51.4	13.24	47.9	12.16
	9	7.9	62.1	15.65	58.6	14.56	55.1	13.50	53.2	12.97	51.4	12.46	47.9	11.46
	11	9.8	62.1	14.72	58.6	13.70	55.1	12.70	53.2	12.22	51.4	11.74	47.9	10.81
	13	11.8	62.1	13.80	58.6	12.85	55.1	11.94	53.2	11.49	51.4	11.04	47.9	10.18
	15	13.7	62.1	12.26	58.6	12.12	55.1	11.28	53.2	10.85	51.4	10.45	47.9	9.63

**16HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-19.8	-20	31.9	11.63	31.7	12.11	31.7	12.61	31.6	12.85	31.6	13.09	31.4	13.58
	-18.8	-19	32.4	11.78	32.4	12.26	32.2	12.74	32.2	12.99	32.1	13.24	32.1	13.72
	-16.7	-17	33.7	12.11	33.5	12.57	33.5	13.04	33.3	13.27	33.3	13.50	33.3	13.97
	-13.7	-15	35.1	12.46	34.9	12.90	34.8	13.35	34.8	13.58	34.8	13.80	34.6	14.25
	-11.8	-13	36.5	12.82	36.5	13.24	36.4	13.67	36.4	13.88	36.4	14.10	36.2	14.53
	-9.8	-11	38.3	13.17	38.1	13.58	38.1	13.98	38.1	14.20	37.9	14.40	37.9	14.80
	-9.5	-10	39.2	13.35	39.1	13.75	39.1	14.15	38.9	14.35	38.9	14.55	38.7	14.95
	-8.5	-9.1	40.0	13.50	39.8	13.90	39.8	14.28	39.8	14.48	39.7	14.68	39.7	15.06
	-7	-7.6	41.4	13.77	41.4	14.15	41.3	14.52	41.3	14.71	41.3	14.90	41.1	15.28
	-5	-5.6	43.7	14.12	43.5	14.47	43.5	14.83	43.3	15.00	43.3	15.18	43.2	15.55
	-3	-3.7	45.7	14.43	45.7	13.10	45.6	15.11	45.6	15.28	45.6	15.45	43.7	14.80
	0	-0.7	49.4	14.90	49.4	15.21	49.2	15.53	48.4	15.28	46.8	14.65	43.7	13.44
	3	2.2	53.3	15.33	53.2	15.61	50.0	14.45	48.4	13.88	46.8	13.34	43.7	12.24
	5	4.1	56.0	15.61	53.2	14.67	50.0	13.58	48.4	13.07	46.8	12.56	43.7	11.54
	7	6	56.4	14.81	53.2	13.78	50.0	12.79	48.4	12.31	46.8	11.83	43.7	10.88
	9	7.9	56.4	13.92	53.2	12.97	50.0	12.04	48.4	11.44	46.8	11.14	43.7	10.26
	11	9.8	56.4	13.10	53.2	12.22	50.0	11.36	48.4	10.93	46.8	10.51	43.7	9.70
	13	11.8	56.4	12.31	53.2	11.49	50.0	10.70	48.4	10.30	46.8	9.91	43.7	9.15
	15	13.7	56.4	11.61	53.2	10.85	50.0	10.10	48.4	9.73	46.8	9.37	43.7	8.67
90%	-19.8	-20	31.7	12.49	31.5	12.92	31.5	13.37	31.4	13.58	31.4	13.82	31.4	14.25
	-18.8	-19	32.2	12.62	32.2	13.07	32.0	13.50	32.0	13.72	32.0	13.93	31.8	14.37
	-16.7	-17	33.4	12.94	33.3	13.35	33.3	13.77	33.3	13.98	33.1	14.18	33.1	14.60
	-13.7	-15	34.9	13.25	34.7	13.65	34.7	14.05	34.5	14.25	34.5	14.45	34.5	14.85
	-11.8	-13	36.3	13.57	36.3	13.95	36.1	14.33	36.1	14.53	36.1	14.71	36.0	15.10
	-9.8	-11	38.0	13.88	38.0	14.25	37.9	14.61	37.9	14.80	37.9	15.00	37.7	15.36
	-9.5	-10	39.0	14.05	38.8	14.42	38.8	14.76	38.7	14.95	38.7	15.13	38.7	15.48
	-8.5	-9.1	39.8	14.20	39.8	14.55	39.6	14.90	39.6	15.06	39.6	15.25	39.1	15.39
	-7	-7.6	41.2	14.43	41.2	14.76	41.0	15.11	41.0	15.28	41.0	15.44	39.1	14.70
	-5	-5.6	43.4	14.75	43.3	15.06	43.3	15.38	43.1	15.54	42.0	15.06	39.1	13.82
	-3	-3.7	45.5	15.03	45.5	15.33	45.0	15.39	43.4	14.78	42.0	14.18	39.1	13.02
	0	-0.7	49.3	15.46	47.9	15.08	45.0	13.97	43.4	13.42	42.0	12.89	39.1	11.84
	3	2.2	50.7	14.73	47.9	13.72	45.0	12.72	43.4	12.24	42.0	11.76	39.1	10.83
	5	4.1	50.7	13.85	47.9	12.90	45.0	11.99	43.4	11.53	42.0	11.09	39.1	10.21
	7	6	50.7	13.02	47.9	12.16	45.0	11.29	43.4	10.88	42.0	10.46	39.1	9.65
	9	7.9	50.7	12.27	47.9	11.44	45.0	10.64	43.4	10.26	42.0	9.88	39.1	9.12
	11	9.8	50.7	11.56	47.9	10.80	45.0	10.06	43.4	9.70	42.0	9.33	39.1	8.64
	13	11.8	50.7	10.88	47.9	10.18	45.0	9.48	43.4	9.15	42.0	8.82	39.1	8.15
	15	13.7	50.7	10.28	47.9	9.62	45.0	8.98	43.4	8.67	42.0	8.35	39.1	7.74
80%	-19.8	-20	31.6	13.35	31.4	13.73	31.4	14.13	31.4	14.33	31.3	14.53	31.3	14.91
	-18.8	-19	32.1	13.47	32.1	13.87	31.9	14.25	31.9	14.45	31.9	14.63	31.7	15.03
	-16.7	-17	33.3	13.75	33.2	14.12	33.2	14.50	33.2	14.68	33.2	14.86	33.0	15.23
	-13.7	-15	34.8	14.03	34.6	14.38	34.6	14.75	34.6	14.91	34.4	15.10	34.4	15.46
	-11.8	-13	36.2	14.32	36.2	14.66	36.0	15.00	36.0	15.16	36.0	15.35	34.9	14.93
	-9.8	-11	37.9	14.60	37.9	14.93	37.8	15.26	37.8	15.41	37.5	15.38	34.9	14.10
	-9.5	-10	38.9	14.75	38.7	15.06	38.7	15.38	38.7	15.54	37.5	14.93	34.9	13.68
	-8.5	-9.1	39.7	14.88	36.9	15.20	39.5	15.49	38.7	15.15	37.5	14.53	34.9	13.32
	-7	-7.6	41.1	15.10	41.1	15.39	40.0	15.06	38.7	14.46	37.5	13.88	34.9	12.74
	-5	-5.6	43.3	15.36	42.5	15.28	40.0	14.15	38.7	13.60	37.5	13.05	34.9	11.99
	-3	-3.7	45.1	15.45	42.5	14.38	40.0	13.32	38.7	12.82	37.5	12.31	34.9	11.33
	0	-0.7	45.1	14.02	42.5	13.05	40.0	12.12	38.7	11.67	37.5	11.21	34.9	10.33
	3	2.2	45.1	12.77	42.5	11.91	40.0	11.08	38.7	10.66	37.5	10.26	34.9	9.47
	5	4.1	45.1	12.02	42.5	11.23	40.0	10.45	38.7	10.06	37.5	9.70	34.9	8.95
	7	6	45.1	11.33	42.5	10.60	40.0	9.86	38.7	9.52	37.5	9.17	34.9	8.47
	9	7.9	45.1	10.70	42.5	10.00	40.0	9.32	38.7	8.98	37.5	8.67	34.9	8.02
	11	9.8	45.1	10.10	42.5	9.45	40.0	8.82	38.7	8.50	37.5	8.20	34.9	7.61
	13	11.8	45.1	9.52	42.5	8.92	40.0	8.34	38.7	8.04	37.5	7.76	34.9	7.19
	15	13.7	45.1	9.00	42.5	8.45	40.0	7.90	38.7	7.62	37.5	7.36	34.9	6.84

## 16HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-19.8	-20	31.4	14.22	31.2	14.55	31.2	14.90	31.2	15.06	31.2	15.25	30.4	15.08
	-18.8	-19	31.8	14.33	31.8	14.66	31.7	15.00	31.7	15.16	31.7	15.34	30.4	14.76
	-16.7	-17	33.1	14.56	33.1	14.90	32.9	15.21	32.9	15.38	32.6	13.70	30.4	14.08
	-13.7	-15	34.5	14.81	34.4	15.13	34.4	15.44	33.7	15.21	32.6	14.60	30.4	13.39
	-11.8	-13	35.9	15.06	35.9	15.36	35.0	15.00	33.7	14.41	32.6	13.83	30.4	12.69
	-9.8	-11	37.7	15.31	37.2	15.29	35.0	14.17	33.7	13.62	32.6	13.07	30.4	12.01
	-9.5	-10	38.6	15.44	37.2	14.85	35.0	13.75	33.7	13.22	32.6	12.70	30.4	11.67
	-8.5	-9.1	39.4	15.53	37.2	14.45	35.0	13.39	33.7	12.87	32.6	12.37	30.4	11.38
	-7	-7.6	39.4	14.83	37.2	13.80	35.0	12.80	33.7	12.32	32.6	11.84	30.4	10.89
	-5	-5.6	39.4	13.93	37.2	12.99	35.0	12.06	33.7	11.59	32.6	13.69	30.4	10.28
	-3	-3.7	39.4	13.12	37.2	12.24	35.0	11.38	33.7	10.94	32.6	10.53	30.4	9.72
	0	-0.7	39.4	11.94	37.2	11.16	35.0	10.38	33.7	10.00	32.6	9.63	30.4	8.90
	3	2.2	39.4	10.91	37.2	10.21	35.0	9.52	33.7	9.17	32.6	8.83	30.4	8.17
	5	4.1	39.4	10.30	37.2	9.63	35.0	9.00	33.7	8.67	32.6	8.35	30.4	7.74
	7	6	39.4	9.73	37.2	9.12	35.0	8.50	33.7	8.20	32.6	7.92	30.4	7.34
	9	7.9	39.4	9.20	37.2	8.62	35.0	8.05	33.7	7.77	32.6	7.51	30.4	6.96
	11	9.8	39.4	8.70	37.2	8.15	35.0	7.64	33.7	7.37	32.6	7.12	30.4	6.61
	13	11.8	39.4	8.22	37.2	7.72	35.0	7.22	33.7	6.99	32.6	6.74	30.4	6.28
	15	13.7	39.4	7.79	37.2	7.32	35.0	6.86	33.7	6.64	32.6	6.41	30.4	5.98
60%	-19.8	-20	31.3	15.08	31.1	15.36	30.0	14.78	29.0	14.20	28.1	13.63	26.2	12.50
	-18.8	-19	31.7	15.18	31.7	15.46	30.0	14.46	29.0	13.90	28.1	13.33	26.2	12.24
	-16.7	-17	33.0	15.38	31.9	14.90	30.0	13.80	29.0	13.27	28.1	12.74	26.2	11.71
	-13.7	-15	33.8	15.21	31.9	14.15	30.0	13.12	29.0	12.62	28.1	12.12	26.2	11.14
	-11.8	-13	33.8	14.40	31.9	13.40	30.0	12.44	29.0	11.97	28.1	11.51	26.2	10.65
	-9.8	-11	33.8	13.60	31.9	12.67	30.0	11.77	29.0	11.33	28.1	10.89	26.2	10.05
	-9.5	-10	33.8	13.22	31.9	12.32	30.0	11.44	29.0	11.03	28.1	10.59	26.2	9.76
	-8.5	-9.1	33.8	12.87	31.9	12.01	30.0	11.16	29.0	10.74	28.1	10.33	26.2	9.53
	-7	-7.6	33.8	12.31	31.9	11.49	30.0	10.68	29.0	10.30	28.1	9.90	26.2	9.15
	-5	-5.6	33.8	11.59	31.9	10.83	30.0	10.08	29.0	9.71	28.1	9.35	26.2	8.65
	-3	-3.7	33.8	10.94	31.9	10.23	30.0	9.53	29.0	9.20	28.1	8.85	26.2	8.19
	0	-0.7	33.8	10.00	31.9	9.37	30.0	8.74	29.0	8.44	28.1	8.12	26.2	7.52
	3	2.2	33.8	9.17	31.9	8.60	30.0	8.04	29.0	7.76	28.1	7.49	26.2	6.94
	5	4.1	33.8	8.67	31.9	8.14	30.0	7.61	29.0	7.36	28.1	7.09	26.2	6.59
	7	6	33.8	8.20	31.9	7.71	30.0	7.21	29.0	6.97	28.1	6.74	26.2	6.26
	9	7.9	33.8	7.77	31.9	7.31	30.0	6.84	29.0	6.63	28.1	6.39	26.2	5.96
	11	9.8	33.8	7.37	31.9	6.94	30.0	6.51	29.0	6.29	28.1	6.08	26.2	5.68
	13	11.8	33.8	6.97	31.9	6.58	30.0	6.18	29.0	5.98	28.1	5.78	26.2	5.40
	15	13.7	33.8	6.64	31.9	6.24	30.0	5.88	29.0	5.70	28.1	5.51	26.2	5.15
50%	-19.8	-20	28.2	13.72	26.6	12.77	25.0	11.86	24.1	11.43	23.3	10.98	21.7	10.11
	-18.8	-19	28.2	13.42	26.6	12.51	25.0	11.62	24.1	11.18	23.3	10.74	21.7	9.91
	-16.7	-17	28.2	12.80	26.6	11.94	25.0	11.11	24.1	10.69	23.3	10.30	21.7	9.50
	-13.7	-15	28.2	12.19	26.6	11.38	25.0	10.58	24.1	10.20	23.3	9.81	21.7	9.07
	-11.8	-13	28.2	11.57	26.6	10.81	25.0	10.06	24.1	9.70	23.3	9.33	21.7	8.64
	-9.8	-11	28.2	10.96	26.6	10.25	25.0	9.55	24.1	9.20	23.3	8.87	21.7	8.20
	-9.5	-10	28.2	10.66	26.6	9.96	25.0	9.30	24.1	8.97	23.3	8.64	21.7	7.99
	-8.5	-9.1	28.2	10.40	26.6	9.73	25.0	9.07	24.1	8.75	23.3	8.44	21.7	7.80
	-7	-7.6	28.2	9.96	26.6	9.33	25.0	8.70	24.1	8.40	23.3	8.10	21.7	7.51
	-5	-5.6	28.2	9.40	26.6	8.82	25.0	8.24	24.1	7.95	23.3	7.67	21.7	7.11
	-3	-3.7	28.2	8.90	26.6	8.35	25.0	7.80	24.1	7.54	23.3	7.27	21.7	6.76
	0	-0.7	28.2	8.17	26.6	7.67	25.0	7.19	24.1	6.94	23.3	6.71	21.7	6.24
	3	2.2	28.2	7.52	26.6	7.07	25.0	6.63	24.1	6.41	23.3	6.19	21.7	5.78
	5	4.1	28.2	7.14	26.6	6.71	25.0	6.29	24.1	6.09	23.3	5.90	21.7	5.50
	7	6	28.2	6.78	26.6	6.38	25.0	6.00	24.1	5.80	23.3	5.61	21.7	5.25
	9	7.9	28.2	6.43	26.6	6.06	25.0	5.70	24.1	5.53	23.3	5.35	21.7	5.00
	11	9.8	28.2	6.11	26.6	5.76	25.0	5.43	24.1	5.26	23.3	5.10	21.7	4.77
	13	11.8	28.2	5.81	26.6	5.48	25.0	5.16	24.1	5.02	23.3	4.85	21.7	4.55
	15	13.7	28.2	5.53	26.6	5.23	25.0	4.93	24.1	4.78	23.3	4.63	21.7	4.35

**18HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
130%	-19.8	-20	36.3	10.17	36.1	10.88	35.9	11.61	35.9	11.97	35.7	12.32	35.7	13.05
	-18.8	-19	36.8	10.40	36.6	11.11	36.6	11.82	36.4	12.17	36.4	12.51	36.3	13.22
	-16.7	-17	38.2	10.88	38.0	11.55	37.9	12.25	37.9	12.58	37.9	12.92	37.7	13.59
	-13.7	-15	39.8	11.39	39.6	12.04	39.5	12.69	39.5	13.01	39.3	13.35	39.3	14.00
	-11.8	-13	41.4	11.89	41.4	12.53	41.2	13.14	41.1	13.46	41.1	13.78	40.9	14.40
	-9.8	-11	43.4	12.41	43.2	13.01	43.0	13.61	43.0	13.91	43.0	14.21	42.8	14.81
	-9.5	-10	44.4	12.68	44.3	13.26	44.1	13.83	44.1	14.13	43.9	14.42	43.9	14.99
	-8.5	-9.1	45.3	12.90	45.2	13.46	45.2	14.04	45.0	14.32	45.0	14.60	44.8	15.18
	-7	-7.6	46.9	13.27	46.9	13.83	46.8	14.38	46.8	14.66	46.6	14.92	46.4	15.48
	-5	-5.6	49.4	13.78	49.2	14.30	49.1	14.83	49.1	15.09	48.9	15.33	48.9	15.85
	-3	-3.7	51.7	14.23	51.6	14.73	51.6	15.22	51.4	15.48	51.4	15.72	51.2	16.21
	0	-0.7	55.8	14.92	55.8	15.39	55.6	15.84	55.6	16.00	55.5	16.30	55.5	16.75
	3	2.2	60.3	15.54	60.1	15.97	59.9	16.40	59.9	16.60	59.9	16.83	59.7	17.24
	5	4.1	63.3	15.93	63.1	16.34	63.1	16.73	62.9	16.94	62.9	17.14	62.8	17.54
	7	6	66.5	16.30	66.3	16.68	66.3	17.07	66.1	17.26	66.1	17.44	63.5	16.75
	9	7.9	69.9	16.64	69.7	17.01	69.7	17.37	69.5	17.56	68.1	17.18	63.5	15.74
	11	9.8	73.4	16.98	73.2	17.31	72.9	17.54	70.4	16.85	68.1	16.15	63.5	14.83
	13	11.8	77.3	17.29	77.2	17.63	72.9	16.43	70.4	15.78	68.1	15.16	63.5	13.91
	15	13.7	81.1	17.59	77.5	16.70	72.9	15.48	70.4	14.88	68.1	14.28	63.5	13.12
120%	-19.8	-20	36.1	11.14	35.9	11.80	35.7	12.47	35.7	12.79	35.7	13.12	35.6	13.80
	-18.8	-19	36.6	11.35	36.4	12.00	36.4	12.66	36.3	12.98	36.3	13.31	36.1	13.97
	-16.7	-17	38.0	11.80	37.9	12.43	37.6	13.05	37.7	13.37	37.7	13.69	37.5	14.30
	-13.7	-15	39.6	12.26	39.5	12.86	39.3	13.46	39.3	13.78	39.3	14.08	39.1	14.68
	-11.8	-13	41.2	12.73	41.2	13.31	41.1	13.89	41.1	14.19	40.9	14.47	40.9	15.05
	-9.8	-11	43.2	13.22	43.0	13.76	43.0	14.32	42.8	14.60	42.8	14.86	42.7	15.43
	-9.5	-10	44.3	13.46	44.1	14.00	43.9	14.53	43.9	14.81	43.9	15.07	43.7	15.61
	-8.5	-9.1	45.2	13.67	45.0	14.19	45.0	14.71	44.8	14.98	44.8	15.26	44.6	15.78
	-7	-7.6	46.8	14.02	46.8	14.53	46.6	15.03	46.6	15.29	46.4	15.54	46.4	16.04
	-5	-5.6	49.2	14.47	49.1	14.96	48.9	15.44	48.9	15.69	48.9	15.93	48.7	16.40
	-3	-3.7	51.6	14.90	51.6	15.37	51.4	15.82	51.4	16.04	51.2	16.29	51.2	16.73
	0	-0.7	55.6	15.54	55.6	15.97	55.5	16.38	55.5	16.60	55.3	16.81	55.3	17.24
	3	2.2	60.1	16.12	59.9	16.51	59.9	16.90	59.7	17.11	59.7	17.29	58.5	17.20
	5	4.1	63.1	16.47	62.9	16.85	62.9	17.22	62.8	17.41	62.8	17.59	58.5	16.15
	7	6	66.3	16.81	66.3	17.16	66.1	17.52	65.1	17.27	62.9	16.57	58.5	15.20
	9	7.9	69.7	17.15	69.5	17.48	67.2	16.90	65.1	16.23	62.9	15.57	58.5	14.30
	11	9.8	73.2	17.44	71.5	17.15	67.2	15.89	65.1	15.27	62.9	14.66	58.5	13.48
	13	11.8	75.9	17.27	71.5	16.08	67.2	14.90	65.1	14.34	62.9	13.78	58.5	12.68
	15	13.7	75.9	16.27	71.5	15.14	67.2	14.06	65.1	13.52	62.9	12.99	58.5	11.97
110%	-19.8	-20	35.9	12.12	35.7	12.71	35.6	13.33	35.6	13.63	35.6	13.93	35.4	14.55
	-18.8	-19	36.4	12.30	36.3	12.90	36.3	13.50	36.3	13.80	36.1	14.10	36.1	14.70
	-16.7	-17	37.9	12.71	37.7	13.29	38.2	13.87	37.5	14.15	37.5	14.45	37.3	15.01
	-13.7	-15	39.5	13.14	39.3	13.70	39.1	14.25	39.1	14.53	39.1	14.81	38.9	15.35
	-11.8	-13	41.1	13.59	41.1	14.12	40.9	14.64	40.9	14.90	40.7	15.16	40.7	15.70
	-9.8	-11	43.0	14.02	42.8	14.53	42.8	15.03	42.7	15.29	42.7	15.54	42.7	16.04
	-9.5	-10	44.1	14.25	43.9	14.73	43.7	15.24	43.7	15.48	43.7	15.72	43.6	16.21
	-8.5	-9.1	45.0	14.43	44.8	14.92	44.8	15.41	44.6	15.65	44.6	15.89	44.6	14.49
	-7	-7.6	46.6	14.77	46.6	15.22	46.4	15.69	46.4	15.93	46.4	16.15	46.2	16.62
	-5	-5.6	49.1	15.18	48.9	15.63	48.7	16.06	48.7	16.28	48.7	16.51	48.5	16.96
	-3	-3.7	51.4	15.57	51.4	15.99	51.2	16.42	51.2	16.62	51.0	16.83	51.0	17.26
	0	-0.7	55.5	16.15	55.5	16.55	55.3	16.94	55.3	17.13	55.3	17.33	53.7	16.99
	3	2.2	59.9	16.70	59.7	17.05	59.7	17.41	59.6	17.58	57.6	16.86	53.7	15.46
	5	4.1	62.9	17.01	62.9	17.37	61.7	17.20	59.6	16.51	57.6	15.85	53.7	14.55
	7	6	66.1	17.33	65.6	17.44	61.7	16.15	59.6	15.52	57.6	14.90	53.7	13.69
	9	7.9	69.5	17.61	65.6	16.40	61.7	15.20	59.6	14.60	57.6	14.02	53.7	12.90
	11	9.8	69.5	16.57	65.6	15.43	61.7	14.30	59.6	13.76	57.6	13.22	53.7	12.17
	13	11.8	69.5	15.54	65.6	14.47	61.7	13.44	59.6	12.94	57.6	12.43	53.7	11.46
	15	13.7	69.5	13.80	65.6	13.65	61.7	12.70	59.6	12.21	57.6	11.76	53.7	10.84

## 18HP heating mode

CR: Combination Ratio; TC: Total Capacity (kW); PI: Power Input (kW) (Compressor + Outdoor fan motor)

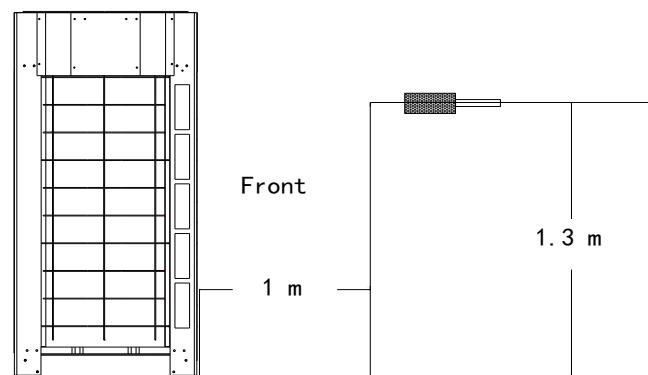
CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-19.8	-20	35.7	13.09	35.6	13.63	35.6	14.19	35.4	14.47	35.4	14.73	35.2	15.29
	-18.8	-19	36.3	13.26	36.3	13.80	36.1	14.34	36.1	14.62	35.9	14.90	35.9	15.44
	-16.7	-17	37.7	13.63	37.5	14.15	37.5	14.68	37.3	14.94	37.3	15.20	37.3	15.72
	-13.7	-15	39.3	14.02	39.1	14.53	38.9	15.03	38.9	15.29	38.9	15.54	38.8	16.04
	-11.8	-13	40.9	14.43	40.9	14.90	40.7	15.39	40.7	15.63	40.7	15.87	40.5	16.36
	-9.8	-11	42.8	14.83	42.7	15.29	42.7	15.74	42.7	15.99	42.5	16.21	42.5	16.66
	-9.5	-10	43.9	15.03	43.7	15.48	43.7	15.93	43.6	16.15	43.6	16.38	43.4	16.83
	-8.5	-9.1	44.8	15.20	44.6	15.65	44.6	16.08	44.6	16.30	44.4	16.53	44.4	16.96
	-7	-7.6	46.4	15.50	46.4	15.93	46.2	16.34	46.2	16.56	46.2	16.77	46.0	17.20
	-5	-5.6	48.9	15.89	48.7	16.28	48.7	16.70	48.5	16.88	48.5	17.09	48.4	17.50
	-3	-3.7	51.2	16.25	51.2	14.75	51.0	17.01	51.0	17.20	51.0	17.39	48.9	16.66
	0	-0.7	55.3	16.77	55.3	17.13	55.1	17.48	54.2	17.20	52.4	16.49	48.9	15.12
	3	2.2	59.7	17.26	59.6	17.57	56.0	16.27	54.2	15.63	52.4	15.01	48.9	13.78
	5	4.1	62.8	17.57	59.6	16.51	56.0	15.29	54.2	14.71	52.4	14.13	48.9	12.99
	7	6	63.1	16.68	59.6	15.52	56.0	14.40	54.2	13.85	52.4	13.31	48.9	12.25
	9	7.9	63.1	15.67	59.6	14.60	56.0	13.56	54.2	12.88	52.4	12.54	48.9	11.55
	11	9.8	63.1	14.75	59.6	13.76	56.0	12.79	54.2	12.30	52.4	11.83	48.9	10.92
	13	11.8	63.1	13.85	59.6	12.94	56.0	12.04	54.2	11.59	52.4	11.16	48.9	10.30
	15	13.7	63.1	13.07	59.6	12.21	56.0	11.37	54.2	10.96	52.4	10.55	48.9	9.76
90%	-19.8	-20	35.5	14.06	35.3	14.55	35.3	15.05	35.1	15.29	35.1	15.55	35.1	16.04
	-18.8	-19	36.0	14.21	36.0	14.71	35.8	15.20	35.8	15.44	35.8	15.69	35.7	16.17
	-16.7	-17	37.4	14.56	37.3	15.03	37.3	15.50	37.3	15.74	37.1	15.97	37.1	16.43
	-13.7	-15	39.0	14.92	38.9	15.37	38.9	15.82	38.7	16.04	38.7	16.27	38.7	16.71
	-11.8	-13	40.6	15.27	40.6	15.70	40.5	16.13	40.5	16.36	40.5	16.56	40.3	16.99
	-9.8	-11	42.6	15.63	42.6	16.04	42.4	16.45	42.4	16.66	42.4	16.88	42.2	17.29
	-9.5	-10	43.7	15.82	43.5	16.23	43.5	16.62	43.3	16.83	43.3	17.03	43.3	17.42
	-8.5	-9.1	44.5	15.99	44.5	16.38	44.4	16.77	44.4	16.96	44.4	17.16	43.8	17.33
	-7	-7.6	46.1	16.25	46.1	16.62	46.0	17.01	46.0	17.20	46.0	17.39	43.8	16.55
	-5	-5.6	48.6	16.60	48.4	16.96	48.4	17.31	48.3	17.50	47.0	16.96	43.8	15.55
	-3	-3.7	50.9	16.92	50.9	17.26	50.4	17.33	48.6	16.64	47.0	15.97	43.8	14.66
	0	-0.7	55.2	17.41	53.6	16.98	50.4	15.72	48.6	15.11	47.0	14.51	43.8	13.33
	3	2.2	56.8	16.58	53.6	15.44	50.4	14.32	48.6	13.78	47.0	13.24	43.8	12.19
	5	4.1	56.8	15.59	53.6	14.53	50.4	13.50	48.6	12.97	47.0	12.49	43.8	11.50
	7	6	56.8	14.66	53.6	13.69	50.4	12.71	48.6	12.25	47.0	11.78	43.8	10.86
	9	7.9	56.8	13.82	53.6	12.88	50.4	11.98	48.6	11.55	47.0	11.12	43.8	10.26
	11	9.8	56.8	13.01	53.6	12.15	50.4	11.33	48.6	10.92	47.0	10.51	43.8	9.72
	13	11.8	56.8	12.25	53.6	11.46	50.4	10.68	48.6	10.30	47.0	9.93	43.8	9.18
	15	13.7	56.8	11.57	53.6	10.83	50.4	10.11	48.6	9.76	47.0	9.40	43.8	8.71
80%	-19.8	-20	35.4	15.03	35.2	15.46	35.2	15.91	35.2	16.13	35.0	16.36	35.0	16.79
	-18.8	-19	35.9	15.16	35.9	15.61	35.7	16.04	35.7	16.26	35.7	16.47	35.6	16.92
	-16.7	-17	37.3	15.48	37.2	15.89	37.2	16.32	37.2	16.53	37.2	16.73	37.0	17.14
	-13.7	-15	38.9	15.80	38.8	16.19	38.8	16.60	38.8	16.79	38.6	16.99	38.6	17.40
	-11.8	-13	40.5	16.12	40.5	16.51	40.4	16.88	40.4	17.07	40.4	17.28	39.1	16.81
	-9.8	-11	42.5	16.43	42.5	16.81	42.3	17.18	42.3	17.35	42.0	17.31	39.1	15.87
	-9.5	-10	43.6	16.60	43.4	16.96	43.4	17.31	43.4	17.50	42.0	16.81	39.1	15.40
	-8.5	-9.1	44.4	16.75	41.3	17.11	44.3	17.44	43.4	17.05	42.0	16.36	39.1	14.99
	-7	-7.6	46.0	16.99	46.0	17.33	44.8	16.96	43.4	16.28	42.0	15.63	39.1	14.34
	-5	-5.6	48.5	17.29	47.6	17.20	44.8	15.93	43.4	15.31	42.0	14.69	39.1	13.50
	-3	-3.7	50.5	17.39	47.6	16.19	44.8	14.99	43.4	14.43	42.0	13.85	39.1	12.75
	0	-0.7	50.5	15.78	47.6	14.69	44.8	13.65	43.4	13.14	42.0	12.62	39.1	11.63
	3	2.2	50.5	14.38	47.6	13.40	44.8	12.47	43.4	12.00	42.0	11.55	39.1	10.66
	5	4.1	50.5	13.54	47.6	12.64	44.8	11.76	43.4	11.33	42.0	10.92	39.1	10.08
	7	6	50.5	12.75	47.6	11.93	44.8	11.11	43.4	10.71	42.0	10.32	39.1	9.53
	9	7.9	50.5	12.04	47.6	11.25	44.8	10.49	43.4	10.11	42.0	9.76	39.1	9.03
	11	9.8	50.5	11.37	47.6	10.64	44.8	9.93	43.4	9.57	42.0	9.23	39.1	8.56
	13	11.8	50.5	10.71	47.6	10.04	44.8	9.38	43.4	9.05	42.0	8.73	39.1	8.10
	15	13.7	50.5	10.13	47.6	9.52	44.8	8.90	43.4	8.58	42.0	8.28	39.1	7.70

**18HP heating mode**
**CR:** Combination Ratio; **TC:** Total Capacity (kW); **PI:** Power Input (kW) (Compressor + Outdoor fan motor)

CR	Outdoor temp.		Indoor temperature (°C DB)											
			16		18		20		21		22		24	
	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
70%	-19.8	-20	35.1	16.00	34.9	16.38	34.9	16.77	34.9	16.96	34.9	17.16	34.1	16.97
	-18.8	-19	35.7	16.13	35.7	16.51	35.5	16.88	35.5	17.07	35.5	17.27	34.1	16.62
	-16.7	-17	37.1	16.40	37.1	16.77	36.9	17.13	36.9	17.31	36.5	15.42	34.1	15.85
	-13.7	-15	38.7	16.68	38.5	17.03	38.5	17.39	37.8	17.13	36.5	16.43	34.1	15.07
	-11.8	-13	40.3	16.96	40.3	17.29	39.2	16.88	37.8	16.23	36.5	15.57	34.1	14.28
	-9.8	-11	42.2	17.24	41.7	17.22	39.2	15.95	37.8	15.33	36.5	14.71	34.1	13.52
	-9.5	-10	43.3	17.39	41.7	16.71	39.2	15.48	37.8	14.88	36.5	14.30	34.1	13.14
	-8.5	-9.1	44.2	17.48	41.7	16.26	39.2	15.07	37.8	14.49	36.5	13.93	34.1	12.81
	-7	-7.6	44.2	16.69	41.7	15.54	39.2	14.41	37.8	13.87	36.5	13.33	34.1	12.26
	-5	-5.6	44.2	15.69	41.7	14.62	39.2	13.57	37.8	13.05	36.5	15.42	34.1	11.57
	-3	-3.7	44.2	14.77	41.7	13.78	39.2	12.81	37.8	12.32	36.5	11.85	34.1	10.94
	0	-0.7	44.2	13.44	41.7	12.56	39.2	11.68	37.8	11.25	36.5	10.84	34.1	10.02
	3	2.2	44.2	12.28	41.7	11.50	39.2	10.71	37.8	10.32	36.5	9.95	34.1	9.20
	5	4.1	44.2	11.59	41.7	10.84	39.2	10.13	37.8	9.76	36.5	9.40	34.1	8.71
	7	6	44.2	10.96	41.7	10.26	39.2	9.57	37.8	9.23	36.5	8.92	34.1	8.26
	9	7.9	44.2	10.36	41.7	9.70	39.2	9.07	37.8	8.75	36.5	8.45	34.1	7.83
	11	9.8	44.2	9.80	41.7	9.18	39.2	8.60	37.8	8.30	36.5	8.02	34.1	7.44
	13	11.8	44.2	9.25	41.7	8.69	39.2	8.13	37.8	7.87	36.5	7.59	34.1	7.07
	15	13.7	44.2	8.77	41.7	8.24	39.2	7.72	37.8	7.48	36.5	7.22	34.1	6.73
60%	-19.8	-20	35.0	16.98	34.8	17.29	33.6	16.64	32.5	15.98	31.5	15.35	29.3	14.08
	-18.8	-19	35.6	17.09	35.6	17.41	33.6	16.28	32.5	15.65	31.5	15.01	29.3	13.78
	-16.7	-17	37.0	17.31	35.7	16.77	33.6	15.54	32.5	14.94	31.5	14.34	29.3	13.18
	-13.7	-15	37.9	17.12	35.7	15.93	33.6	14.77	32.5	14.21	31.5	13.65	29.3	12.54
	-11.8	-13	37.9	16.21	35.7	15.09	33.6	14.00	32.5	13.48	31.5	12.96	29.3	11.98
	-9.8	-11	37.9	15.31	35.7	14.26	33.6	13.25	32.5	12.75	31.5	12.26	29.3	11.31
	-9.5	-10	37.9	14.88	35.7	13.87	33.6	12.88	32.5	12.41	31.5	11.93	29.3	10.99
	-8.5	-9.1	37.9	14.49	35.7	13.52	33.6	12.56	32.5	12.10	31.5	11.63	29.3	10.73
	-7	-7.6	37.9	13.85	35.7	12.94	33.6	12.02	32.5	11.59	31.5	11.14	29.3	10.30
	-5	-5.6	37.9	13.05	35.7	12.19	33.6	11.35	32.5	10.94	31.5	10.52	29.3	9.74
	-3	-3.7	37.9	12.32	35.7	11.52	33.6	10.73	32.5	10.36	31.5	9.96	29.3	9.22
	0	-0.7	37.9	11.25	35.7	10.54	33.6	9.83	32.5	9.50	31.5	9.14	29.3	8.47
	3	2.2	37.9	10.32	35.7	9.68	33.6	9.05	32.5	8.73	31.5	8.43	29.3	7.81
	5	4.1	37.9	9.76	35.7	9.16	33.6	8.56	32.5	8.28	31.5	7.98	29.3	7.42
	7	6	37.9	9.23	35.7	8.67	33.6	8.11	32.5	7.85	31.5	7.59	29.3	7.05
	9	7.9	37.9	8.75	35.7	8.23	33.6	7.70	32.5	7.46	31.5	7.20	29.3	6.71
	11	9.8	37.9	8.30	35.7	7.81	33.6	7.33	32.5	7.09	31.5	6.84	29.3	6.39
	13	11.8	37.9	7.85	35.7	7.40	33.6	6.95	32.5	6.73	31.5	6.51	29.3	6.08
	15	13.7	37.9	7.48	35.7	7.03	33.6	6.62	32.5	6.41	31.5	6.21	29.3	5.80
50%	-19.8	-20	31.5	15.44	29.8	14.38	28.0	13.35	26.9	12.86	26.1	12.36	24.3	11.39
	-18.8	-19	31.5	15.11	29.8	14.08	28.0	13.09	26.9	12.58	26.1	12.10	24.3	11.16
	-16.7	-17	31.5	14.41	29.8	13.44	28.0	12.51	26.9	12.04	26.1	11.59	24.3	10.69
	-13.7	-15	31.5	13.72	29.8	12.81	28.0	11.91	26.9	11.48	26.1	11.05	24.3	10.21
	-11.8	-13	31.5	13.03	29.8	12.17	28.0	11.33	26.9	10.92	26.1	10.51	24.3	9.72
	-9.8	-11	31.5	12.34	29.8	11.53	28.0	10.75	26.9	10.36	26.1	9.98	24.3	9.24
	-9.5	-10	31.5	12.00	29.8	11.22	28.0	10.47	26.9	10.09	26.1	9.72	24.3	8.99
	-8.5	-9.1	31.5	11.70	29.8	10.96	28.0	10.21	26.9	9.85	26.1	9.50	24.3	8.79
	-7	-7.6	31.5	11.22	29.8	10.51	28.0	9.80	26.9	9.46	26.1	9.12	24.3	8.45
	-5	-5.6	31.5	10.58	29.8	9.93	28.0	9.27	26.9	8.96	26.1	8.64	24.3	8.00
	-3	-3.7	31.5	10.02	29.8	9.40	28.0	8.79	26.9	8.49	26.1	8.19	24.3	7.61
	0	-0.7	31.5	9.20	29.8	8.64	28.0	8.09	26.9	7.81	26.1	7.55	24.3	7.03
	3	2.2	31.5	8.47	29.8	7.96	28.0	7.46	26.9	7.22	26.1	6.97	24.3	6.51
	5	4.1	31.5	8.04	29.8	7.55	28.0	7.09	26.9	6.86	26.1	6.64	24.3	6.19
	7	6	31.5	7.63	29.8	7.18	28.0	6.75	26.9	6.52	26.1	6.32	24.3	5.91
	9	7.9	31.5	7.23	29.8	6.82	28.0	6.41	26.9	6.23	26.1	6.02	24.3	5.63
	11	9.8	31.5	6.88	29.8	6.49	28.0	6.11	26.9	5.93	26.1	5.74	24.3	5.37
	13	11.8	31.5	6.54	29.8	6.17	28.0	5.81	26.9	5.65	26.1	5.46	24.3	5.12
	15	13.7	31.5	6.23	29.8	5.89	28.0	5.55	26.9	5.38	26.1	5.22	24.3	4.90

## 8. Sound Levels

### Standard of testing

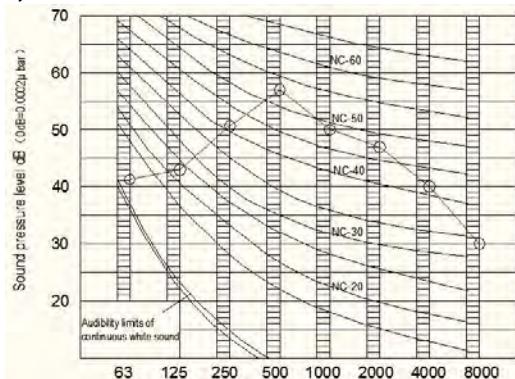


### Test value

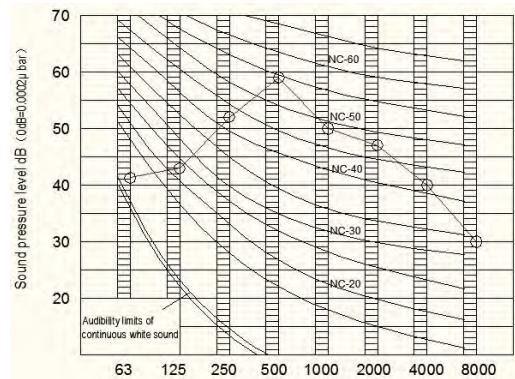
Outdoor unit (HP)	Noise level (dB)
8	57
10	57
12	59
14	61
16	62
18	62

### Sound Curve:

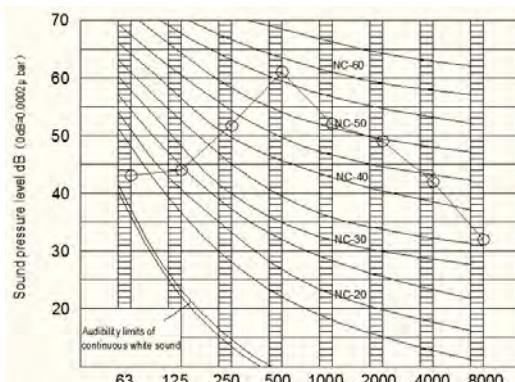
8,10 HP



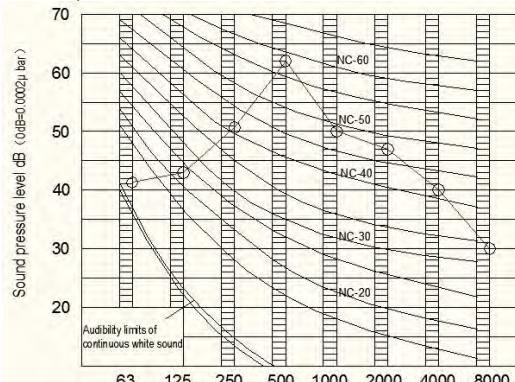
12 HP



14 HP

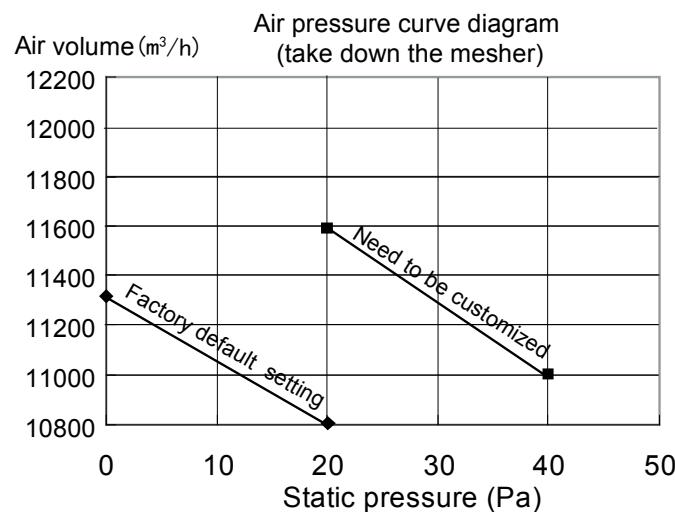


16,18HP

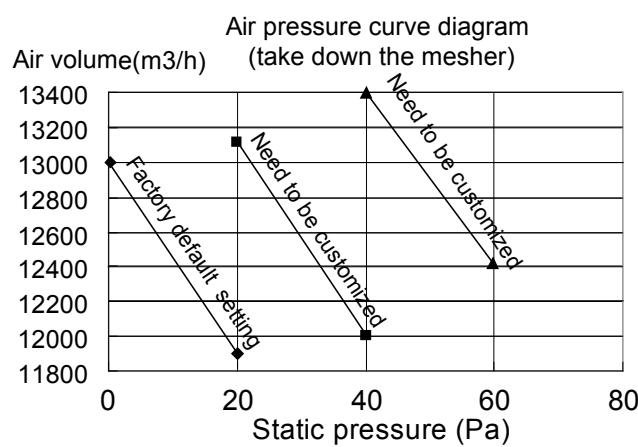


## 9. Outdoor Fan performance

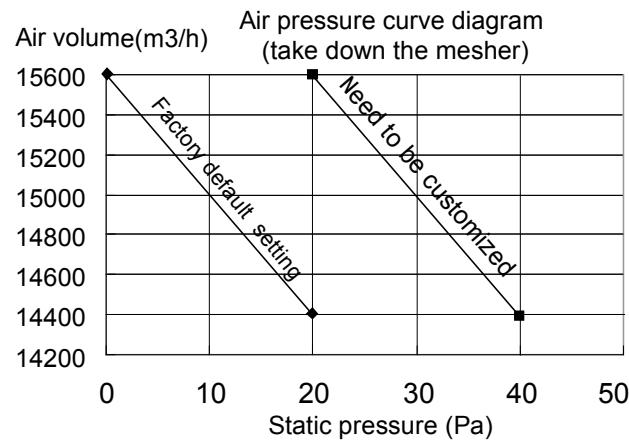
8/10HP



12HP



14/16/18HP



## 10. Accessories

### 10.1 Standard accessories

No	Name	Quantity	Purpose
1	Installation manual of outdoor unit	1	/
2	Outdoor unit owner's manual	1	Be sure to deliver it to the customer
3	Indoor unit owner's manual	1	Be sure to deliver it to the customer
4	Toggling flathead screw	1	For toggling of indoor and outdoor units
5	Gauge point subassembly	1	For purpose of air tight test units
6	90° mouthed elbow	1	For connecting pipes
7	Seal plug	8	For pipe cleaning
8	Connective pipe accessory	1	Connect to the side of liquid pipe
9	Bolt bage	1	Stone for service
10	Switching pipe (Air side)	1 (the qty. of 12,14HP are 2)	Connect to the air pipe side, use when it is needed

### 10.2 Optional accessories

Optional accessories	Model name	Function
Branch Joint of outdoor side	TFQZHW-02N1D	Distribute the refrigerant to indoor units and balance the resistance between each outdoor unit.
	TFQZHW-03N1D	
	TFQZHW-04N1D	
Branch Joint of indoor side	TFQZHN-01D	Distribute the refrigerant to indoor units and balance the resistance between each outdoor unit.
	TFQZHN-02D	
	TFQZHN-03D	
	TFQZHN-04D	
	TFQZHN-05D	
Outdoor controller	MD-CCM02/E	Monitor the outdoor operating parameter
Three phase electricity power protector	202301600580 DPA51CM44 or 202300800224 HWUA/DPB71CM48	To stop the air-conditioner running in case of bad power supply such as Phase Error, Over-voltage, Under-voltage loss, phase lost and phase sequence inverse. Thus to protect the equipment.
Digital ammeter (WHM)	DTS634/DT636	Electricity charge monitor



Air Conditioning Systems

Cooling & Heating

**TRUST AIR-CONDITIONING EQUIPMENT CO.**

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Fax.: +98-61-32230647    Web site: <http://www.trustacs.com>

برند برتر در اولین جشنواره بین المللی  
برترین نام و نشان های تجاری ایران

