

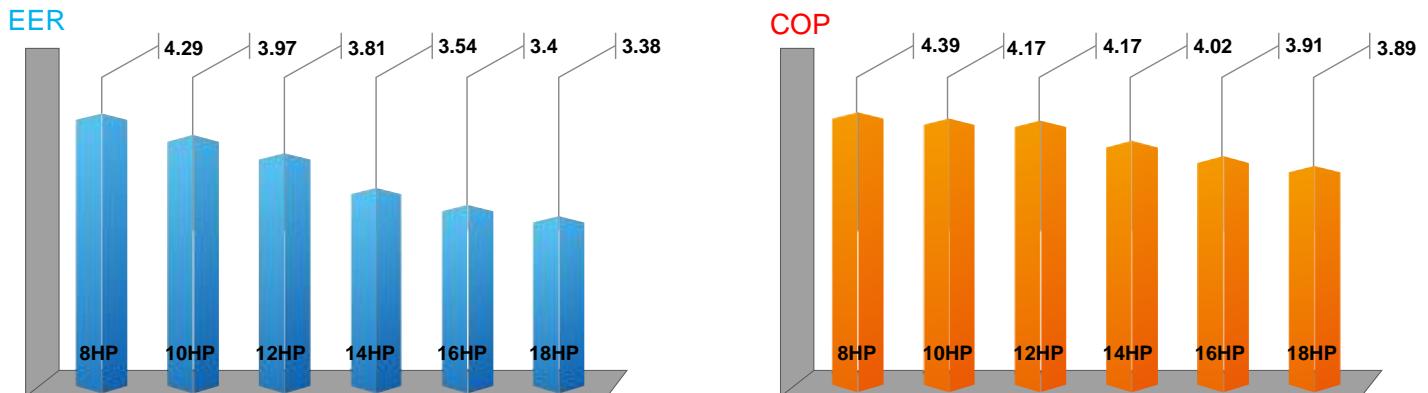
Part 1 General Information

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1. Features

1.1 Energy saving

V4+S Series achieves the industry's top class energy efficiency in cooling and heating by utilizing all DC inverter compressors, all DC fan motors, and high efficiency heat exchanger.



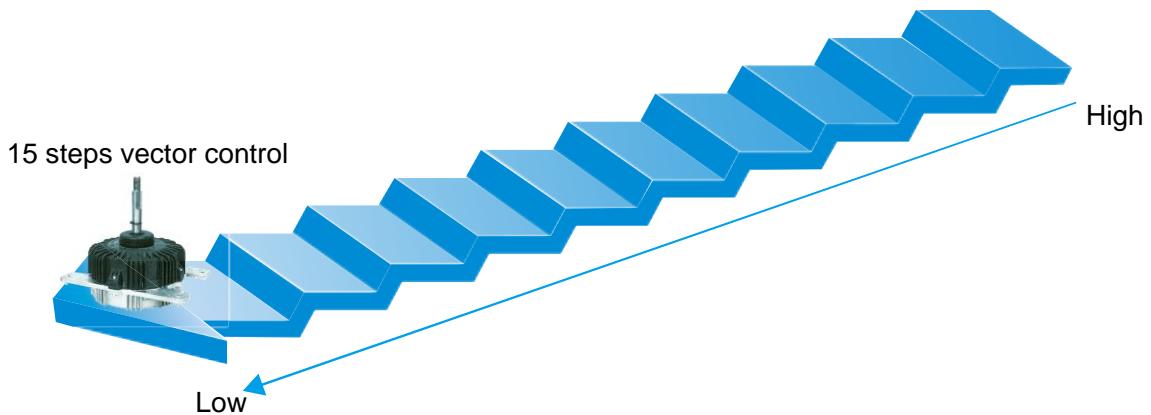
1.1.2 All DC inverter compressors

The DC inverter compressor adopts innovative design and numerous high performance key parts which can reduce power consumption by 25%.



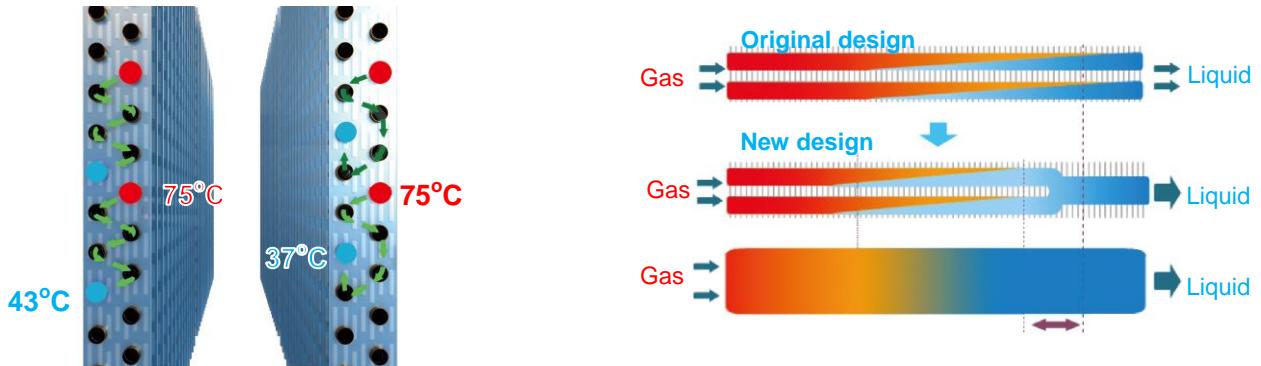
1.1.3 All DC fan motors

The system controls the speed of the fan motor according to the system pressure and system load achieving the minimum power consumption.



1.1.4 High efficiency heat exchanger

- ✧ Newly designed window type fins enlarge the heat exchange area and decrease air resistance, enhance heat exchange performance and save more energy.
- ✧ Hydrophilic fins and internally threaded copper pipes optimize heat exchange efficiency.
- ✧ δ design increases the hot liquid rate in the condenser and improves the heat-exchange efficiency.



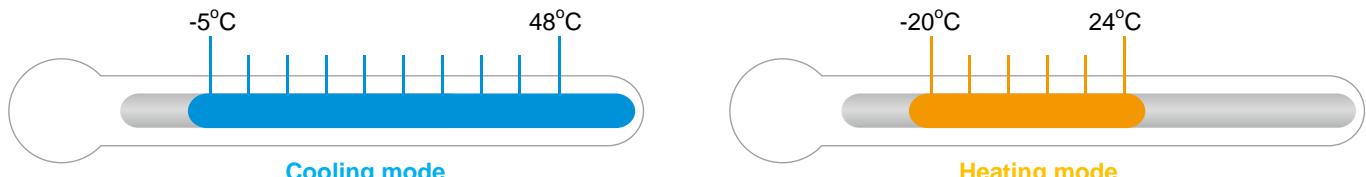
1.2 Flexible design

1.2.1 Wide capacity range

V4+S Series has extensive capacity ranging from 8HP to 72HP, meets all customer requirement concerning small to large buildings.

1.2.2 Wide operation range

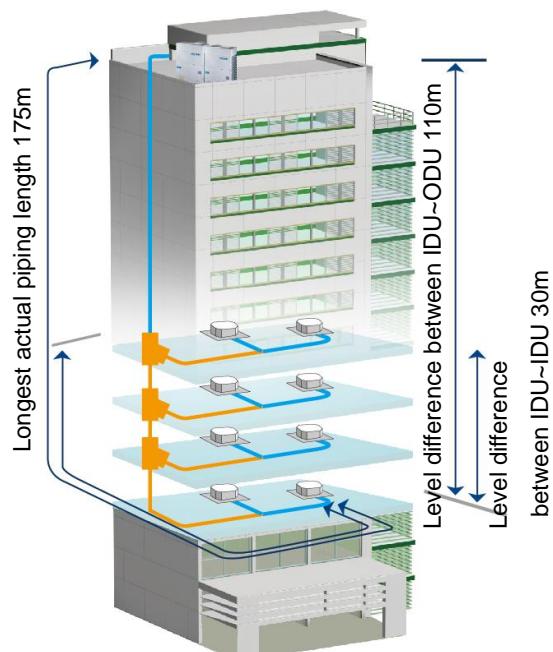
V4+S Series operates stably under extreme conditions, ranging from minus 20°C to 48°C.



1.2.3 Flexible piping design

Total piping length	1000m
Longest length actual (Equivalent)	175(200)m
Longest length after first branch	90*m
Level difference between indoor and outdoor units - ODU up (down)	70(110)m
Level difference between indoor units	30m

*The longest piping length is 40m standard. It can be extended to 90m. When the length is over 40m, please refer to installation part for more information and restrictions.



1.3 High reliability

1.3.1 Cycle duty operation

The cyclical start-up sequence of outdoor units and DC inverter compressors equalized compressor duty and extends operating life



1.3.2 Back-up function

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

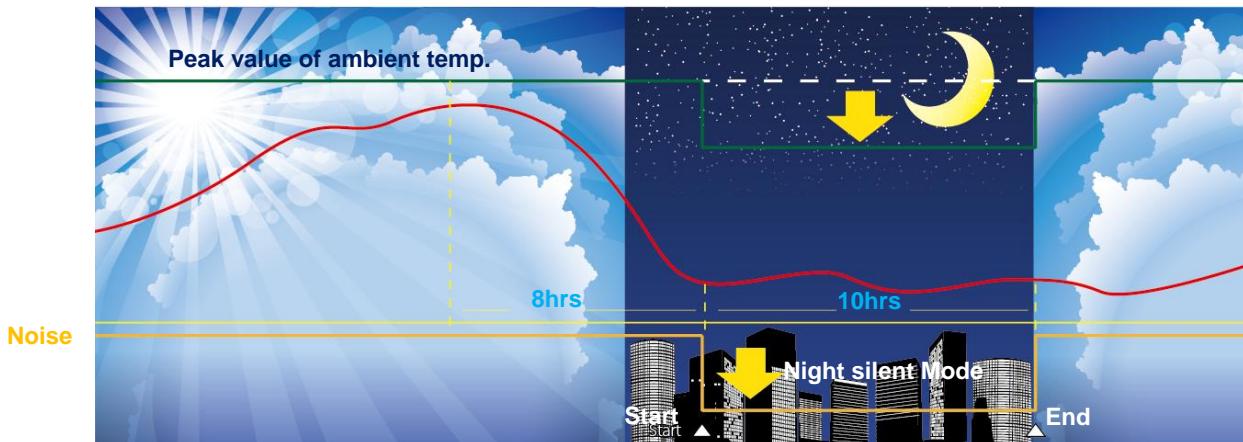
5 stages oil control technology ensures all outdoor unit and compressor oil is always kept at a safe level, completely solving any compressor oil shortage problems.

- ◊ **1st stage:** Compressor internal oil separation.
- ◊ **2nd stage:** High efficiency centrifugal oil separator (separation efficiency up to 99%) ensures oil separated from the discharge gas is returned to the compressors.
- ◊ **3rd stage:** Oil balance pipes between compressors ensure even oil distribution to keep compressors running normally.
- ◊ **4th stage:** Oil balance pipes among modules ensure even oil distribution among modules.
- ◊ **5th stage:** Auto oil return program by monitoring the running time and system status ensures reliable oil return.

1.4 Enhanced comfort

1.4.1 Night silent operation mode

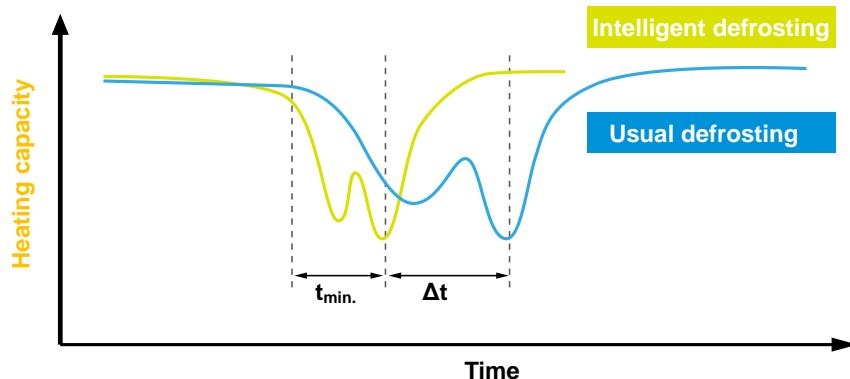
Night Silent Mode feature which is easily set on the PCB board allows the unit to be set to various time options during Non-peak and Peak operation time minimizing the units noise output.



1.4.2 Intelligent defrosting technology

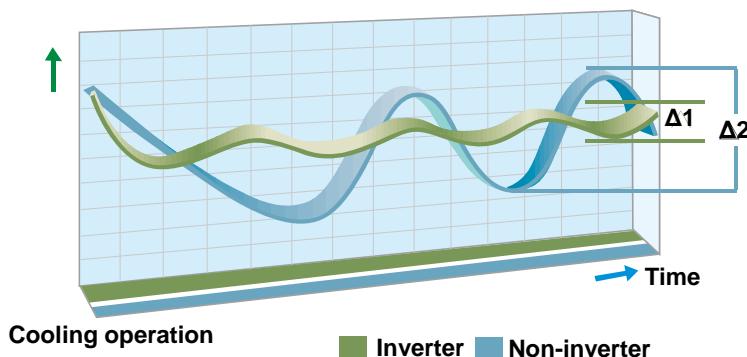
Intelligent defrosting program will judge the defrosting time according to the system real requirement, reduce heating loss caused by unnecessary defrosting and create more comfort.

Defrosting time can be shortened to 4 min. due to the specialized defrosting valve.



1.4.3 Rapid warm up and cool down function

The DC Inverter Compressor system reaches full load rapidly providing less temperature fluctuation and an improved living environment.



1.5 Easy installation and service

1.5.1 Auto addressing

Outdoor unit can distribute addresses for indoor units automatically.

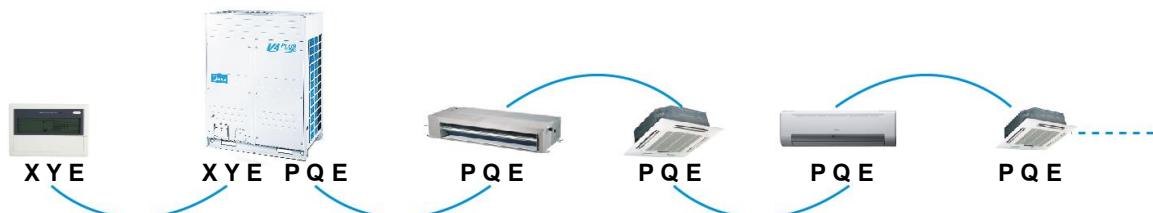
Wireless and wired controllers can query and modify each indoor unit's address.



1.5.2 Simple communication wiring

Centralized controller (CCM03 or CCM30) can be connected from indoor side or outdoor side (XYE terminals) at will.

With one set of wires, we can achieve the network communication and system communication, making installation at site more convenient.



1.5.3 Easy Maintenance

Inspection window for checking the systems status.

Self-diagnosis function helps service engineers locate faults quickly and easily.

Compressor is located near the door, which simplifies checks and enables valve or compressor parts to be replaced easily.



2. Outdoor units

● Outdoor units lineup

The outdoor units capacity ranges from 8HP up to 88HP in 2HP increments, a max. combination of 4 basic models.



8,10HP



14,16,18HP



20~36HP



38~54HP



56~72HP

● Combination table

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

3. Indoor units lineup

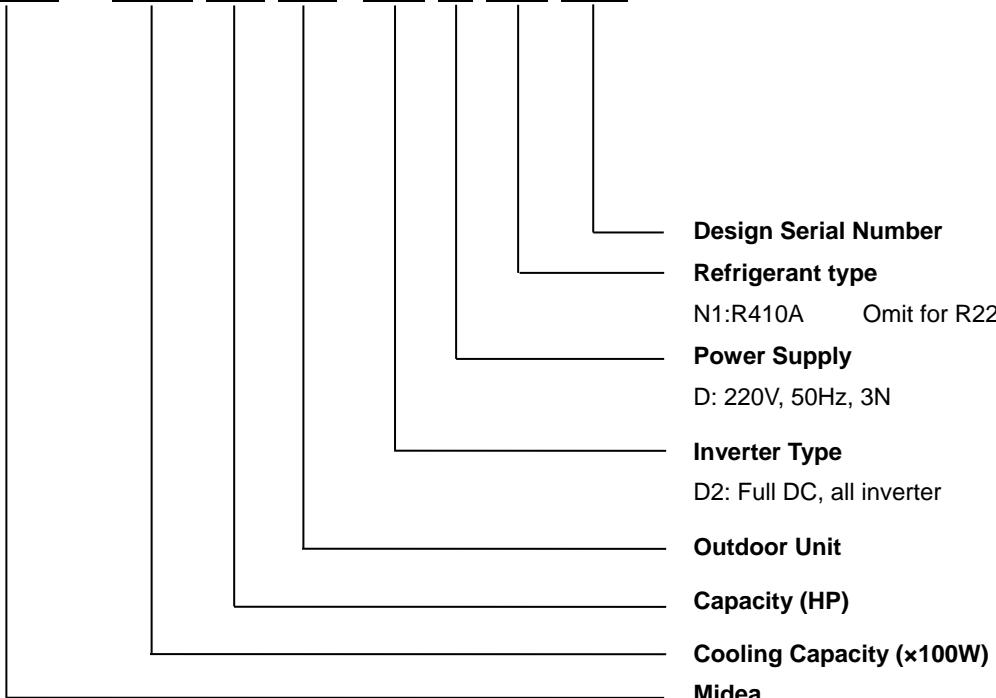
Capacity (kW)	Type					
	One-way cassette	Two-way Cassette	Compact four-way cassette	Four-way cassette	Low static pressure duct	Concealed duct unit (A5 Type)
1.8	1.8				1.8	
2.2	2.2	2.2	2.2		2.2	2.2
2.8	2.8	2.8	2.8	2.8	2.8	2.8
3.6	3.6	3.6	3.6	3.6	3.6	3.6
4.5	4.5	4.5	4.5	4.5	4.5	4.5
5.6	5.6	5.6		5.6	5.6	5.6
7.1	7.1	7.1		7.1	7.1	7.1
8				8		8
9				9		9
10				10		
11.2				11.2		11.2
12.5						
14				14		14

Capacity (kW)	Type					
	High static pressure duct	Ceiling & floor	Wall mounted	Console	Floor standing	Fresh air processing Unit
1.8						
2.2			2.2	2.2	2.2	
2.8			2.8	2.8	2.8	
3.6		3.6	3.6	3.6	3.6	
4.5		4.5	4.5	4.5	4.5	
5.6		5.6	5.6		5.6	
7.1	7.1	7.1	7.1		7.1	
8	8	8	8		8	
9	9	9	9			
10						
11.2	11.2	11.2				
12.5						12.5
14	14	14				14
16	16	16				
20	20					20
25	25					25
28	28					28
40	40					
45	45					
56	56					

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

4. Nomenclature

MDV - 252 (8) W / D2 D N1 (B)



Part 2 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 air conditioning system

- Select the ideal air conditioning system for 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 tubing length and level difference

- Check that the length of refrigerant tubing and the elevation difference are within the allowable ranges

Calculation of the corrected outdoor unit capacity

- Capacity correction coefficient for model, outdoor temperature conditions, tubing length and elevation 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 with the nearest greater capacity to the given load.

Note:

Individual indoor unit capacity is affected by ODU selection. Actual capacity has to be calculated according to the outdoor unit capacity table.

Calculation of actual capacity of indoor unit

Because the capacity of a multi air-conditioner system changes according to the temperature conditions, tubing length, elevation difference and other factors, select the correct model after taking into account the various correction values. 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 tubing length and elevation difference.

First, in the same way as for the outdoor unit, use the tubing length and elevation 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 units should be selected by the following factors, the location of the unit, zoning and usage

of the rooms.

The indoor and outdoor unit combination is determined 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 13~36 indoor units can be connected to one outdoor unit. It is recommended to choose a larger 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	22	28	36	45	56	71	80	90	100
Capacity Index (kW)	1.8	2.2	2.8	3.6	4.5	5.6	7.1	8	9	10
Unit Size	Model									
	112	125	140	160	200	250	280	400	450	560
Capacity Index (kW)	11.2	12.5	14	16	20	25	28	40	45	56

1.4 Actual performance data

Use OUTDOOR UNIT CAPACITY TABLES.

Determine 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.

$$\text{IUC} = \text{OUC} \times \text{INX/TNX}$$

Notes:

IUC: Each indoor unit capacity

OUC: Outdoors unit capacity

INX: Each indoor unit capacity index

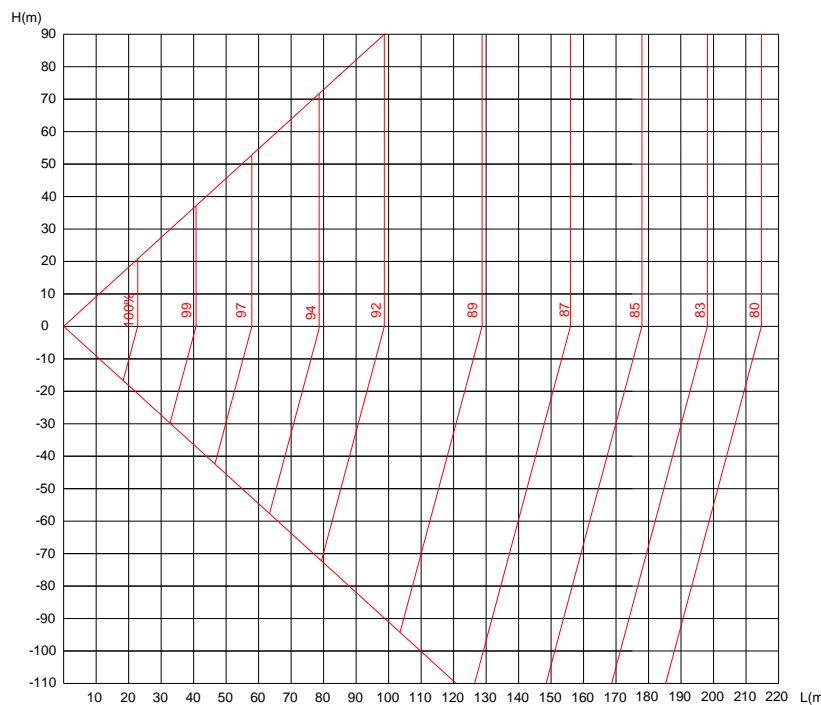
TNX: Total capacity index

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

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

1.5 Cooling capacity modification in accordance with the length of refrigerant pipe

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

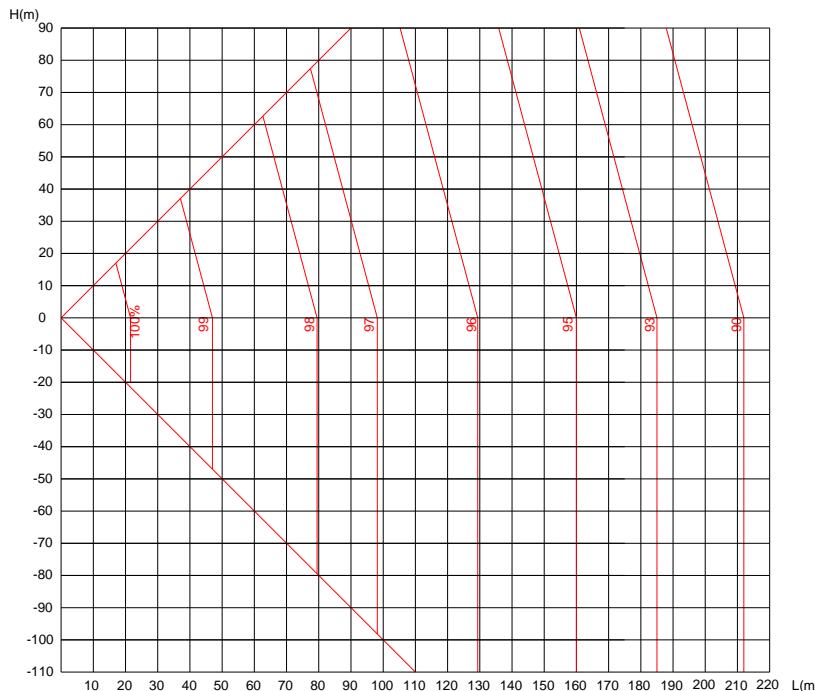
1.5.1 Cooling capacity modification

L: Refrigerant pipe equivalent length

H: Height difference between outdoor and indoor unit. Positive data means outdoor unit is higher. Negative

data means outdoor unit is lower.

1.5.2 Heating capacity modification



2. Unit selection (based on cooling load)

2.1 Given condition

Condition:

Cooling: indoor temperature 20°C (68°F)WB, outdoor temperature 35°C(95°F)DB;

Cooling load

Location	Room A	Room B	Room C	Room D	Room E	Room F
Load kW(Btu/h)	2.1(7170)	2.8(9559)	3.5(11900)	4.6(15700)	5.8(19790)	7.2(24570)

Power supply: outdoor 380~415V-3Ph-50Hz, indoor 220~240V-1Ph-50Hz.

Piping length: 164ft (50m); Height difference between indoor unit and outdoor unit: 98.4ft (30m)

2.2 Indoor unit selection

Select the suitable capacity for the following conditions: 'Indoor 20°C(68°F) WB, Outdoor 35°C(95°F) 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(Btu/h)	2.1(7170)	2.8(9559)	3.5(11900)	4.6(15700)	5.8(19790)	7.2(24570)
Model	22	28	36	45	56	71
Capacity kW(Btu/h)	2.3(7850)	2.9(9900)	3.7(12600)	4.8(16400)	6.0(20500)	7.5(25600)

2.3 Outdoor unit selection

1) Assume the indoor unit and outdoor unit combination as follows

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

$$2.2 \times 1 + 2.8 \times 1 + 3.6 \times 1 + 4.5 \times 1 + 5.6 \times 1 + 7.1 \times 1 = 25.8 \text{ kW} (88000 \text{ Btu/h})$$

- Select outdoor unit: MDV-280(10)W/D2DN1(B) which has nominal cooling capacity: 28kW (95500Btu/h).

- Calculate the proportion: 258/280= 92%

2) Result: Because the proportion is within 50~130%, it is a suitable selection.

Real function data with indoor unit combination

- For the 92% combination, calculate the cooling capacity of outdoor unit MDV-280(10)W/D2DN1(B):

26.8kW(91440Btu/h) ← 90% (Indoor temperature: WB 20°C(68°F), Outdoor temperature: DB 35°C(95°F))

28.3kW(96560Btu/h) ← 100% (Indoor temperature: WB 20°C(68°F), Outdoor temperature: DB 35°C(95°F))

Then calculate the outdoor capacity in 92% combination index: $26.8 + \{(28.3 - 26.8)/10\} \times 2 = 27.1\text{kW}$ (92470Btu/h);

- Capacity modification coefficient with pipe length 50m(164ft) and height difference 30m(98.4ft): 0.958
- Each indoor unit cooling capacity

Room A: MDV-D22T2 ($27.1 \times 22 / 258 \times 0.958 = 2.21\text{kW}$) ($92470 \times 7510 / 88000 \times 0.958 = 7540\text{Btu/h}$)

Room B: MDV-D28T2 ($27.1 \times 28 / 258 \times 0.958 = 2.82\text{kW}$) ($92470 \times 9550 / 88000 \times 0.958 = 9620\text{Btu/h}$)

Room C: MDV-D36T2 ($27.1 \times 36 / 258 \times 0.958 = 3.62\text{kW}$) ($92470 \times 12300 / 88000 \times 0.958 = 12350\text{Btu/h}$)

Room D: MDV-D45T2 ($27.1 \times 45 / 258 \times 0.958 = 4.53\text{kW}$) ($92470 \times 15400 / 88000 \times 0.958 = 15460\text{Btu/h}$)

Room E: MDV-D56T2 ($27.1 \times 56 / 258 \times 0.958 = 5.64\text{kW}$) ($92470 \times 19110 / 88000 \times 0.958 = 19250\text{Btu/h}$)

Room F: MDV-D71T2 ($27.1 \times 71 / 258 \times 0.958 = 7.14\text{kW}$) ($92470 \times 24200 / 88000 \times 0.958 = 24360\text{Btu/h}$)

Location	Room A	Room B	Room C	Room D	Room E	Room F
Load kW(Btu/h)	2.1(7170)	2.8(9559)	3.5(11900)	4.6(15700)	5.8(19790)	7.2(24570)
Model	22	28	36	45	56	71
Capacity kW(Btu/h)	2.21(7540)	2.82(9620)	3.62(12350)	4.53(15460)	5.64(19250)	7.14(24360)

2.4 Conclusion

Generally, this result is acceptable, therefore the calculation process has been completed. But if it appears that the result is not acceptable, the above process may be repeated.

Remark: In this sample, other capacity modification indexes were not considered and are assumed as 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.

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1. Specifications

Outdoor unit specifications

Independent unit specifications

HP		8	10	12	
Model		MDV-252(8)W/D2DN1(B)	MDV-280(10)W/D2DN1(B)	MDV-335(12)W/D2DN1(B)	
Power supply	V/Ph/Hz	220/3/60			
Cooling	Capacity	kW	25.2	28.0	
		kBtu/h	86.0	95.5	
	Power input	kW	5.88	7.05	
	EER		4.29	3.97	
Heating	Capacity	kW	27.0	31.5	
		kBtu/h	92.1	107.5	
	Power input	kW	6.15	7.55	
	COP		4.39	4.17	
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity		
	Max. quantity		13	16	20
Compressor	Type		DC inverter		
	Model		E655DHD-65A2YG		E405DHD-36A2YG+E655DHD-65A2YG
	Brand		Hitachi		
	Quantity		1	1	2
	Crankcase heater	W	27.6×2	27.6×2	27.6×4
	Refrigerant oil type		FVC68D		
	Refrigerant oil charge	ml(gal.)	500	500	500×2
Fan motor	Type		DC motor		
	Model		WZDK560-38G(B)		
	Brand		Panasonic&Nidec		
	Quantity		1	1	2
	Insulation class		E		
	Safe class		IPX4		
	Input	W	534	534	272×2
	Output	W	420	420	210×2
	Static pressure	Pa(in. W.G.)	0-20(0-0.08) (default)		
		Pa(in. W.G.)	0-40(0-0.16) (customized)		0-60(0-0.24) (customized)
Fan	Material		Plastic		
	Type		Axial		
	Quantity		1	1	2
Outdoor coil	Number of rows		2		
	Tube pitch(a)×	mm(in.)	22×19(7/8×3/4)		
	row pitch(b)				
	Fin spacing	mm(in.)	1.6(1/16)		
	Fin type		Hydrophilic aluminum		
	Tube outside diameter	mm(in.)	Φ7.94(Φ5/16)		
	Tube type		Inner-grooved		
	Coil length × height	mm(in.)	1985×1232(78-5/32×48-1/2)	2270×1232(89-3/8×48-1/2)	

	Number of circuits		22		
	Type		R410A		
Refrigerant	Factory charging	kg(lbs.)	9(20)	9(20)	11(24)
Pipe connections	Liquid pipe	mm(in.)	Φ12.7(Φ1/2)	Φ12.7(Φ1/2)	Φ15.9(Φ5/8)
	Gas pipe	mm(in.)	Φ25.4(Φ1)	Φ25.4(Φ1)	Φ31.8(Φ1-1/4)
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)		
Design pressure(High/low)	MPa		4.4/2.6		
	PSI		640/380		
Air flow rate	m ³ /h	11242	11242	13000	
Sound pressure level	dB(A)	57	57	59	
Net dimension (WxHxD)	mm	960×1615×765			1250×1615×765
	inch	37-25/32×63-9/16×30-1/8			49-7/32×63-9/16×30-1/8
Packing size (WxHxD)	mm	1025×1790×830			1305×1790×820
	inch	40-3/8×70-1/2×32-11/16			51-3/8×70-15/32×32-9/32
Net weight	kg(lbs.)	202(444)	202(444)	285(627)	
Gross weight	kg(lbs.)	218(480)	218(480)	305(671)	
Operating temperature range	°C(°F)	Cooling: -5-48(23~118.4); Heating: -20-24(-4~75.2)			

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Independent unit specifications

HP		14	16	18		
Model	MDV-400(14)W/D2DN1(B)		MDV-450(16)W/D2DN1(B)	MDV-500(18)W/D2DN1(B)		
Power supply	V/Ph/Hz	220/3/60				
Cooling	Capacity	kW	40.0	45.0		
		kBtu/h	136.5	153.5		
	Power input	kW	11.30	13.25		
	EER		3.54	3.40		
Heating	Capacity	kW	45.0	50.0		
		kBtu/h	153.5	170.6		
	Power input	kW	11.19	12.79		
	COP		4.02	3.91		
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity				
	Max. quantity	23	26	29		
Compressor	Type	DC inverter				
	Model	E405DHD-36A2YG+E655DHD-65A2YG		E655DHD-65A2YG		
	Brand	Hitachi				
	Quantity	2				
	Crankcase heater	W	27.6×4			
	Refrigerant oil type		FVC68D			
	Refrigerant oil charge	ml(gal.)	500×2			
Fan motor	Type	DC motor				
	Model	WZDK560-38G(B)				
	Brand	Panasonic&Nidec				
	Quantity	2				
	Insulation class	E				
	Safe class	IPX4				
	Input	W	450×2			
	Output	W	360×2			
	Static pressure	Pa(in. W.G.)	0-20(0-0.08) (default)			
		Pa(in. W.G.)	0-40(0-0.16) (customized)			
Fan	Material		Plastic			
	Type		Axial			
	Quantity		2			
Outdoor coil	Number of rows		2			
	Tube pitch(a)×	mm(in.)	22x19(7/8x3/4)			
	row pitch(b)					
	Fin spacing	mm(in.)	1.6(1/16)			
	Fin type		Hydrophilic aluminum			
	Tube outside diameter	mm(in.)	Φ7.94(Φ5/16)			
	Tube type		Inner-grooved			
	Coil length × height	mm(in.)	2270×1232(89-3/8×48-1/2)	2867×1232(112-7/8×48-1/2)		
	Number of circuits		22			
Refrigerant	Type	R410A				

	Factory charging	kg(lbs.)	13(29)	13(29)	16(35)
Pipe connections	Liquid pipe	mm(in.)	Φ15.9(Φ5/8)	Φ15.9(Φ5/8)	Φ19.1(Φ3/4)
	Gas pipe	mm(in.)	Φ31.8(Φ1-1/4)	Φ31.8(Φ1-1/4)	Φ31.8(Φ1-1/4)
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)		
Design pressure(High/low)		MPa	4.4/2.6		
		PSI	640/380		
Air flow rate	m ³ /h	15620	15620	15620	
Sound pressure level	dB(A)	61	62	62	
Net dimension (WxHxD)	mm	1250×1615×765			
	inch	49-7/32×63-9/16×30-1/8			
Packing size (WxHxD)	mm	1305×1790×820			
	inch	51-3/8×70-15/32×32-9/32			
Net weight	kg(lbs.)	285(627)	288(634)	310(682)	
Gross weight	kg(lbs.)	305(671)	308(678)	330(726)	
Operating temperature range	°C(°F)	Cooling: -5-48(23-118.4); Heating: -20-24(-4~75.2)			

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		20	22	24
Model		MDV-560(20)W/D2DN1(B)	MDV-615(22)W/D2DN1(B)	MDV-680(24)W/D2DN1(B)
Combined type		10HP×2	10HP+12HP	10HP+14HP
Power supply		V/Ph/Hz	220/3/60	
Cooling	Capacity	kW	56.0	61.5
		kBtu/h	191.1	209.8
	Power input	kW	14.11	15.85
	EER		3.97	3.88
Heating	Capacity	kW	63.0	69.0
		kBtu/h	215.0	235.4
	Power input	kW	15.11	16.55
	COP		4.17	4.17
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity	
	Max. quantity		33	36
Compressor	Type		DC inverter	
	Quantity		2	3
Fan motor	Type		DC motor	
	Quantity		2	3
Refrigerant	Type		R410A	
	Factory charging	kg(lbs.)	10(22)×2	10+12(22+26)
Pipe connections	Liquid pipe	mm(in.)	Φ15.9(Φ5/8)	Φ15.9(Φ5/8)
	Gas pipe	mm(in.)	Φ28.6(Φ1-1/8)	Φ28.6(Φ1-1/8)
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)	
Air flow rate		m ³ /h	11242×2	11242+13000
Sound pressure level		dB(A)	62	63
Net dimension (WxHxD)		mm	(960×1615×765)×2	(960×1615×765)+(1250×1615×765)
Packing size (WxHxD)		mm	(1025×1790×830)×2	(1025×1790×830)+(1305×1790×820)
Net weight		kg(lbs.)	202×2(444×2)	202+285(444+627)
Gross weight		kg(lbs.)	218×2(480×2)	218+305(480+671)
Operating temperature range		°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)	

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		26	28	30
Model		MDV-730(26)W/D2DN1(B)	MDV-780(28)W/D2DN1(B)	MDV-850(30)W/D2DN1(B)
Combined type		10HP+16HP	10HP+18HP	14HP+16HP
Power supply		V/Ph/Hz		220/3/60
Cooling	Capacity	kW	73.0	78.0
		kBtu/h	249.1	266.1
	Power input	kW	20.29	21.85
	EER		3.60	3.57
Heating	Capacity	kW	81.5	87.5
		kBtu/h	278.1	298.6
	Power input	kW	20.34	21.95
	COP		4.01	3.99
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity		
	Max. quantity	43	46	50
Compressor	Type	DC inverter		
	Quantity	3	3	4
Fan motor	Type	DC motor		
	Quantity	3	3	4
Refrigerant	Type	R410A		
	Factory charging	kg(lbs.)	9+13(20+29)	9+16(20+35)
Pipe connections	Liquid pipe	mm(in.)	Φ19.1(Φ3/4)	Φ19.1(Φ3/4)
	Gas pipe	mm(in.)	Φ31.8(Φ1-1/4)	Φ31.8(Φ1-1/4)
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)	
Air flow rate		m ³ /h	11242+15620	15620×2
Sound pressure level		dB(A)	63	64
Net dimension (WxHxD)		mm	(960×1615×765)+(1250×1615×765)	(1250×1615×765)×2
Packing size (WxHxD)		mm	(1025×1790×830)+(1305×1790×820)	(1305×1790×820)×2
Net weight		kg(lbs.)	202+288(444+634)	202+310(444+682)
Gross weight		kg(lbs.)	218+308(480+678)	218+330(480+726)
Operating temperature range		°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)	

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP			32	34	36
Model		MDV-900(32)W/D2DN1(B)	MDV-950(34)W/D2DN1(B)	MDV-1000(36)W/D2DN1(B)	
Combined type		14HP+18HP	16HP+18HP	18HP×2	
Power supply		V/Ph/Hz	220/3/60		
Cooling	Capacity	kW	90.0	95.0	100.0
		kBtu/h	307.1	324.1	341.2
	Power input	kW	26.09	28.03	29.59
	EER		3.45	3.39	3.38
Heating	Capacity	kW	101.0	106.0	112.0
		kBtu/h	344.6	361.7	382.1
	Power input	kW	25.59	27.18	28.79
	COP		3.95	3.90	3.89
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity		
	Max. quantity		53	56	59
Compressor	Type		DC inverter		
	Quantity		4		
Fan motor	Type		DC motor		
	Quantity		4		
Refrigerant	Type		R410A		
	Factory charging	kg(lbs.)	13+16(29+35)	13+16(29+35)	16×2(35×2)
Pipe connections	Liquid pipe	mm(in.)	Φ19.1(Φ3/4)	Φ19.1(Φ3/4)	Φ19.1(Φ3/4)
	Gas pipe	mm(in.)	Φ31.8(Φ1-1/4)	Φ38.1(Φ1-1/2)	Φ38.1(Φ1-1/2)
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)		
Air flow rate		m ³ /h	15620×2		
Sound pressure level		dB(A)	64		
Net dimension (WxHxD)		mm	(1250×1615×765)×2		
Packing size (WxHxD)		mm	(1305×1790×820)×2		
Net weight		kg(lbs.)	285+310(627+682)	288+310(634+682)	310×2(682×2)
Gross weight		kg(lbs.)	305+330(671+726)	308+330(678+726)	330×2(726×2)
Operating temperature range		°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)		

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		38	40	42	
Model		MDV-1060(38)W/D2DN1(B)	MDV-1130(40)W/D2DN1(B)	MDV-1180(42)W/D2DN1(B)	
Combined type		10HP×2+18HP	10HP+14HP+16HP	10HP+16HP×2	
Power supply	V/Ph/Hz	380-415/3/50 & 380-415/3/60 & 220/3/60			
Cooling	Capacity	kW	106.0	113.0	
		kBtu/h	361.7	385.6	
	Power input	kW	28.90	31.59	
	EER		3.67	3.58	
Heating	Capacity	kW	119.0	126.5	
		kBtu/h	406.0	431.6	
	Power input	kW	29.50	31.54	
	COP		4.03	4.01	
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity		
	Max. quantity		63	64	
Compressor	Type		DC inverter		
	Quantity		4	5	
Fan motor	Type		DC motor		
	Quantity		4	5	
Refrigerant	Type		R410A		
	Factory charging	kg(lbs.)	9×2+16(20×2+35)	9+13×2(20+29×2)	9+13×2(20+29×2)
Pipe connections	Liquid pipe	mm(in.)	Φ19.1(Φ3/4)		
	Gas pipe	mm(in.)	Φ38.1(Φ1-1/2)		
	Oil balance pipe	mm(in.)	Φ6		
Air flow rate	m ³ /h	11242×2+15620	11242+15620×2		
Sound pressure level	dB(A)	64	65		
Net dimension (W×H×D)	mm	(960×1615×765)×2+(1250×1615×765)	(960×1615×765)+(1250×1615×765)×2		
Packing size (W×H×D)	mm	(1025×1790×830)×2+(1305×1790×820)	(1025×1790×830)+(1305×1790×820)×2		
Net weight	kg(lbs.)	202×2+310(444×2+682)	202+285+288(444+627+634)	202+288×2(444+634×2)	
Gross weight	kg(lbs.)	218×2+330(480×2+726)	218+305+308(480+671+678)	218+308×2(480+678×2)	
Operating temperature range	°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)			

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		44	46	48
Model		MDV-1230(44)W/D2DN1(B)	MDV-1280(46)W/D2DN1(B)	MDV-1350(48)W/D2DN1(B)
Combined type		10HP+16HP+18HP	10HP+18HPx2	14HP+16HP+18HP
Power supply		380-415/3/50 & 380-415/3/60 & 220/3/60		
Cooling	Capacity	kW	123.0	128.0
		kBtu/h	419.7	436.7
	Power input	kW	35.08	36.64
	EER		3.51	3.49
Heating	Capacity	kW	137.5	143.5
		kBtu/h	469.2	489.6
	Power input	kW	34.74	36.35
	COP		3.96	3.95
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity		
	Max. quantity	64		
Compressor	Type	DC inverter		
	Quantity	5		6
Fan motor	Type	DC motor		
	Quantity	5		6
Refrigerant	Type	R410A		
	Factory charging	kg(lbs.)	10+15+16(22+33+35)	10+16x2(22+35x2)
Pipe connections	Liquid pipe	mm(in.)	Φ19.1(Φ3/4)	
	Gas pipe	mm(in.)	Φ38.1(Φ1-1/2)	
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)	
Air flow rate		m ³ /h	11242+15620x2	
Sound pressure level		dB(A)	65	
Net dimension (WxHxD)		mm	(960x1615x765)+(1250x1615x765)x2	
Packing size (WxHxD)		mm	(1025x1790x830)+(1305x1790x820)x2	
Net weight		kg(lbs.)	202+288+310(444+634+682)	202+310x2(444+682x2)
Gross weight		kg(lbs.)	218+308+330(480+678+726)	218+330x2(480+726x2)
Operating temperature range		°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)	

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		50	52	54
Model		MDV-1400(50)W/D2DN1(B)	MDV-1450(52)W/D2DN1(B)	MDV-1500(54)W/D2DN1(B)
Combined type		14HP+18HPx2	16HP+18HPx2	18HPx3
Power supply		380-415/3/50 & 380-415/3/60 & 220/3/60		
Cooling	Capacity	kW	140.0	145.0
		kBtu/h	477.7	494.7
	Power input	kW	40.89	42.82
	EER		3.42	3.39
Heating	Capacity	kW	157.0	162.0
		kBtu/h	535.7	552.7
	Power input	kW	39.99	41.58
	COP		3.93	3.90
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity		
	Max. quantity	64		
Compressor	Type	DC inverter		
	Quantity	6		
Fan motor	Type	DC motor		
	Quantity	6		
Refrigerant	Type	R410A		
	Factory charging	kg(lbs.)	13+16x2(29+35x2)	13+16x2(29+35x2)
Pipe connections	Liquid pipe	mm(in.)	Φ22.2(Φ7/8)	
	Gas pipe	mm(in.)	Φ41.3(Φ1-5/8)	
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)	
Air flow rate		m ³ /h	15620x3	
Sound pressure level		dB(A)	66	
Net dimension (WxHxD)		mm	(1250x1615x765)x3	
Packing size (WxHxD)		mm	(1305x1790x820)x3	
Net weight		kg(lbs.)	285+310x2(627+682x2)	288+310x2(634+682x2)
Gross weight		kg(lbs.)	305+330x2(671+726x2)	308+330x2(678+726x2)
Operating temperature range		°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)	

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		56	58	60
Model		MDV-1560(56)W/D2DN1(B)	MDV-1630(58)W/D2DN1(B)	MDV-1680(60)W/D2DN1(B)
Combined type		10HPx2+18HPx2	10HP+14HP+16HP+18HP	10HP+14HP+18HPx2
Power supply		V/Ph/Hz	380-415/3/50 & 380-415/3/60 & 220/3/60	
Cooling	Capacity	kW	156.0	163.0
		kBtu/h	532.3	556.2
	Power input	kW	43.69	46.38
	EER		3.57	3.51
Heating	Capacity	kW	175.0	182.5
		kBtu/h	597.1	622.7
	Power input	kW	43.90	45.93
	COP		3.99	3.97
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity		
	Max. quantity	64		
Compressor	Type	DC inverter		
	Quantity	6	7	7
Fan motor	Type	DC motor		
	Quantity	6	7	7
Refrigerant	Type	R410A		
	Factory charging	kg(lbs.)	9x2+16x2(20x2+35x2)	9+13x2+16(20+29x2+35)
Pipe connections	Liquid pipe	mm(in.)	Φ22.2(Φ7/8)	
	Gas pipe	mm(in.)	Φ41.3(Φ1-5/8)	
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)	
Air flow rate		m³/h	11242x2+15620x2	11242+15620x3
Sound pressure level		dB(A)	66	67
Net dimension (WxHxD)		mm	(960x1615x765)x2+(1250x1615x765)x2	(960x1615x765)+(1250x1615x765)x3
Packing size (WxHxD)		mm	(1025x1790x830)x2+(1305x1790x820)x2	(1025x1790x830)+(1305x1790x820)x3
Net weight		kg(lbs.)	202x2+310x2 (444x2+682x2)	202+285+288+310 (444+627+634+682)
Gross weight		kg(lbs.)	218x2+330x2 (480x2+726x2)	218+305+308+330 (480+671+678+726)
Operating temperature range		°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)	

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		62	64	66
Model		MDV-1730(62)W/D2DN1(B)	MDV-1780(64)W/D2DN1(B)	MDV-1850(66)W/D2DN1(B)
Combined type		10HP+16HP+18HPx2	10HP+18HPx3	14HP+16HP+18HPx2
Power supply		V/Ph/Hz	380-415/3/50 & 380-415/3/60 & 220/3/60	
Cooling	Capacity	kW	173.0	178.0
		kBtu/h	590.3	607.3
	Power input	kW	49.87	51.43
		EER	3.47	3.46
Heating	Capacity	kW	193.5	199.5
		kBtu/h	660.2	680.7
	Power input	kW	49.13	50.74
		COP	3.94	3.93
Connectable indoor unit	Total capacity		50~130% of outdoor unit capacity	
	Max. quantity		64	
Compressor	Type	DC inverter		
	Quantity	7		8
Fan motor	Type	DC motor		
	Quantity	7		8
Refrigerant	Type	R410A		
	Factory charging	kg(lbs.)	9+13+16x2(20+29+35x2)	9+16x3(20+35x3)
Pipe connections	Liquid pipe	mm(in.)	Φ22.2(Φ7/8)	Φ22.2(Φ7/8)
	Gas pipe	mm(in.)	Φ41.3(Φ1-5/8)	Φ41.3(Φ1-5/8)
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)	
Air flow rate		m³/h	11242+15620x3	
Sound pressure level		dB(A)	67	
Net dimension (WxHxD)		mm	(960x1615x765)+(1250x1615x765)x3	
Packing size (WxHxD)		mm	(1025x1790x830)+(1305x1790x820)x3	
Net weight		kg(lbs.)	202+288+310x2 (444+634x682x2)	202+310x3(444+682x3)
Gross weight		kg(lbs.)	218+308+330x2 (480+678+726x2)	218+330x3(480+726x3)
Operating temperature range		°C(°F)	Cooling: -5~48(23~118.4); Heating: -20~24(-4~75.2)	

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

Combination unit specifications

HP		68	70	72
Model		MDV-1900(68)W/D2DN1(B)	MDV-1950(70)W/D2DN1(B)	MDV-2000(72)W/D2DN1(B)
Combined type		14HP+18HPx3	16HP+18HPx3	18HPx4
Power supply		380-415/3/50 & 380-415/3/60 & 220/3/60		
Cooling	Capacity	kW	190.0	195.0
		kBtu/h	648.3	665.3
	Power input	kW	55.68	57.61
	EER		3.41	3.38
Heating	Capacity	kW	213.0	218.0
		kBtu/h	726.8	743.8
	Power input	kW	54.38	55.98
	COP		3.92	3.89
Connectable indoor unit	Total capacity	50~130% of outdoor unit capacity		
	Max. quantity	64		
Compressor	Type	DC inverter		
	Quantity	8		
Fan motor	Type	DC motor		
	Quantity	8		
Refrigerant	Type	R410A		
	Factory charging	kg(lbs.)	13+16x3(29+35x3)	13+16x3(29+35x3)
Pipe connections	Liquid pipe	mm(in.)	Φ25.4(Φ1)	
	Gas pipe	mm(in.)	Φ44.5(Φ1-3/4)	
	Oil balance pipe	mm(in.)	Φ6(Φ1/4)	
Air flow rate		m ³ /h	15620x4	
Sound pressure level		dB(A)	68	
Net dimension (WxHxD)		mm	(1250x1615x765)x4	
Packing size (WxHxD)		mm	(1305x1790x820)x4	
Net weight		kg(lbs.)	285+310x3(627+682x3)	288+310x3(634+682x3)
Gross weight		kg(lbs.)	305+330x3(671+726x3)	308+330x3(678+726x3)
Operating temperature range		°C(°F)	Cooling: -5-48(23~118.4); Heating: -20-24(-4~75.2)	

Notes:

Capacities are based on the following conditions:

Cooling: Indoor temperature 27°C DB/19°C WB; Outdoor temperature 35°C DB/24°C WB;

Heating: Indoor temperature 20°C DB/15°C WB; Outdoor temperature 7°C DB/6°C WB.

Piping length: Interconnecting piping length is 7.5m, level difference is zero.

Connection piping diameter of single-unit is the stop valve diameter of the unit.

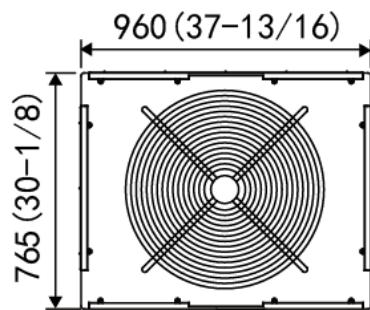
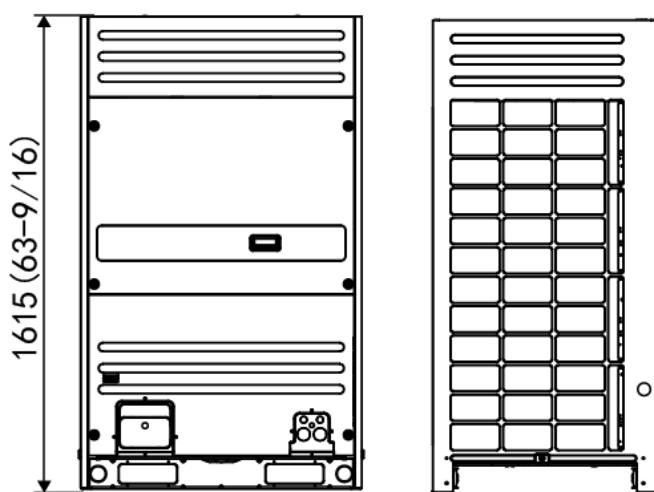
Connection piping diameter of multi-unit is the main pipe connecting to the first indoor branch joint, in case of the total equivalent liquid length is less than 90m. If the total equivalent liquid length is more than 90m, please refer to technical manual to choose the connection piping diameter.

Sound values are measured in a semi-anechoic room, at a position of 1m in front of the unit and 1.3m above the floor.

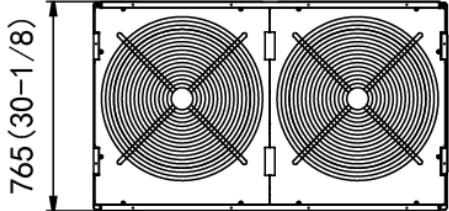
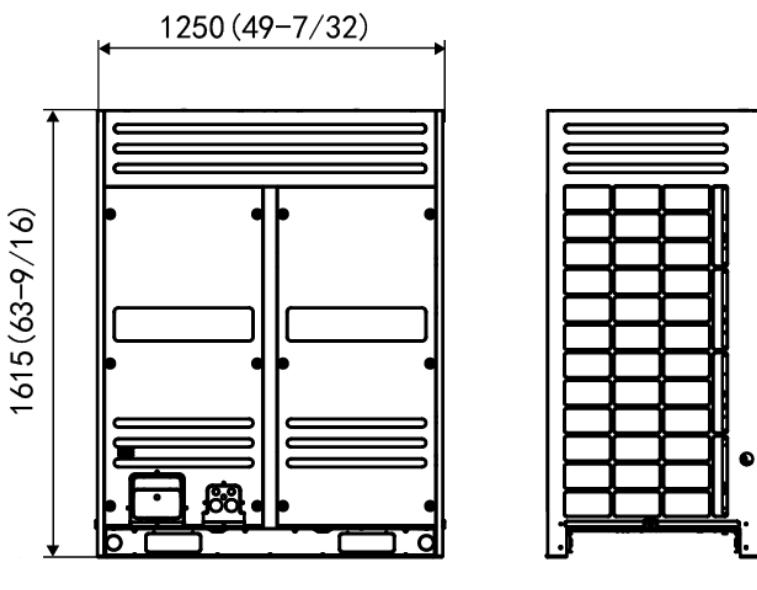
2. Dimensions

2.1 Overall dimensions

8, 10HP, unit: mm (in.)

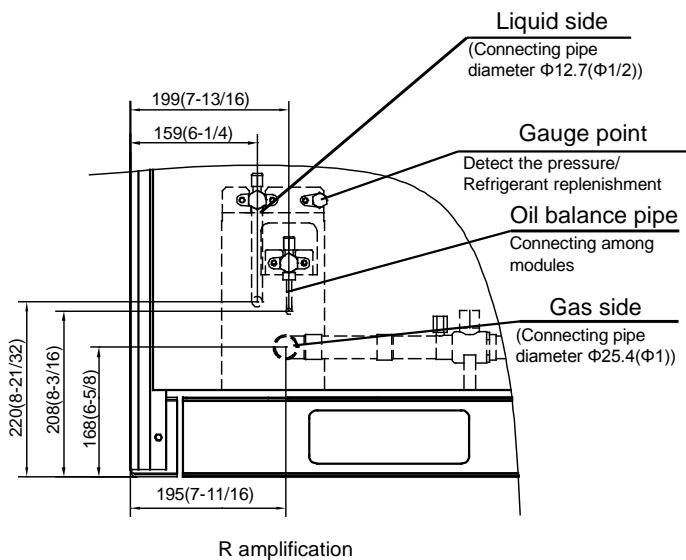
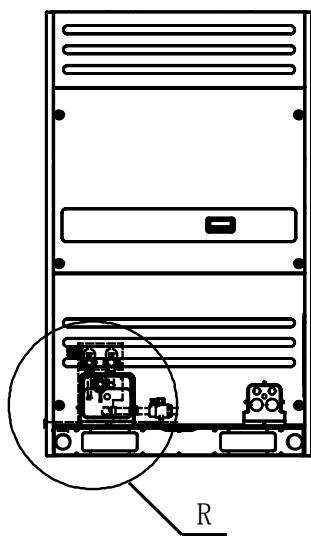


12, 14, 16, 18HP, unit: mm (in.)

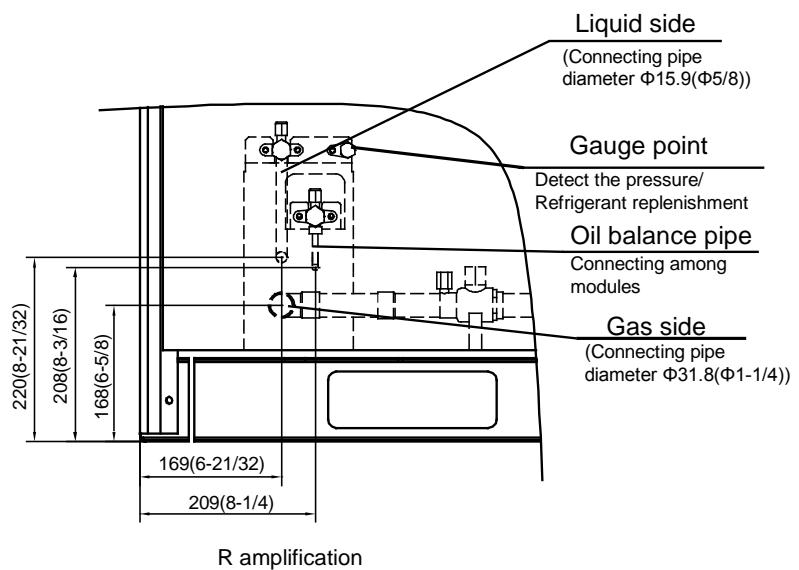
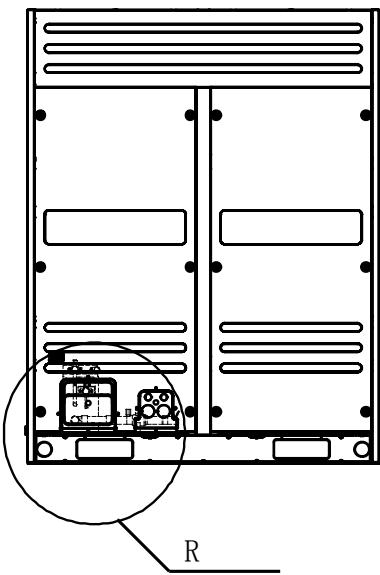


2.2 Section dimensions

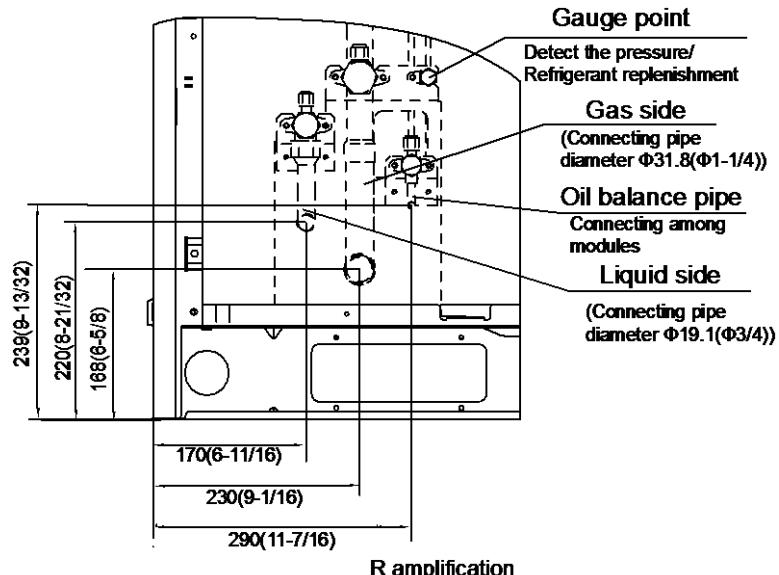
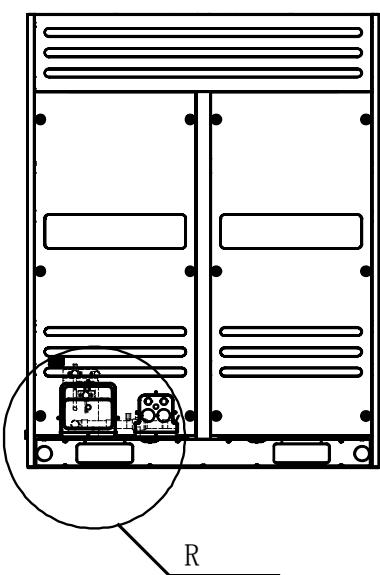
8, 10HP, unit: mm (in.)



12, 14, 16HP, unit: mm (in.)



18HP, unit: mm (in.)

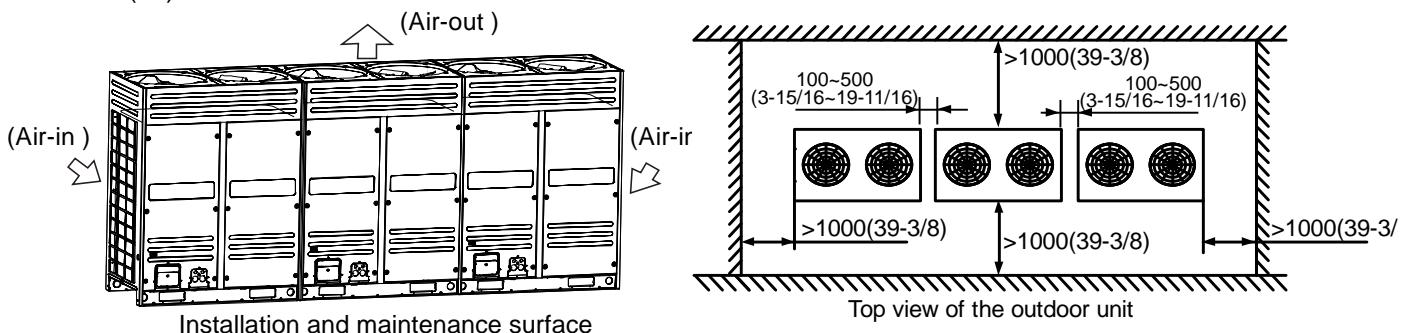


3. Service space

Ensure enough space for maintenance. Combined modules must be level.

- When installing the unit, leave enough space for maintenance.

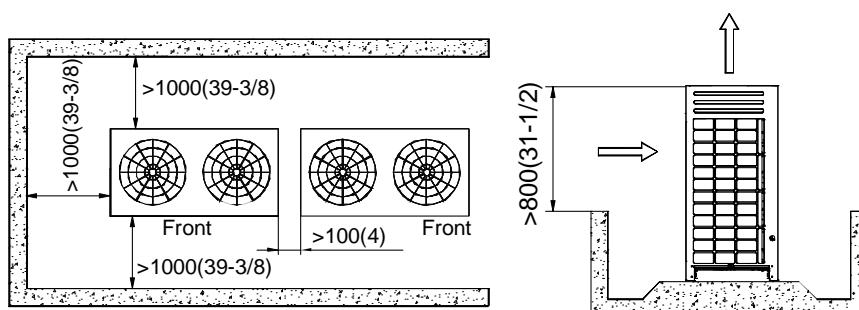
Unit: mm (in.)



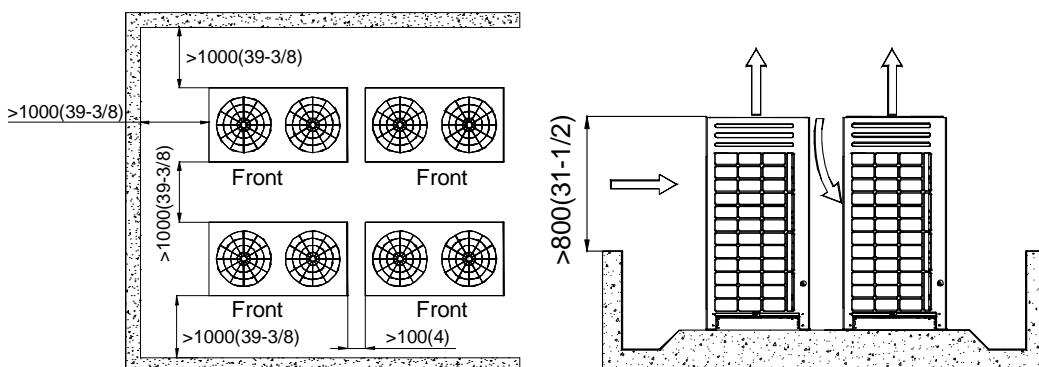
- When the outdoor unit is higher than the surrounding obstacle

Unit: mm (in.)

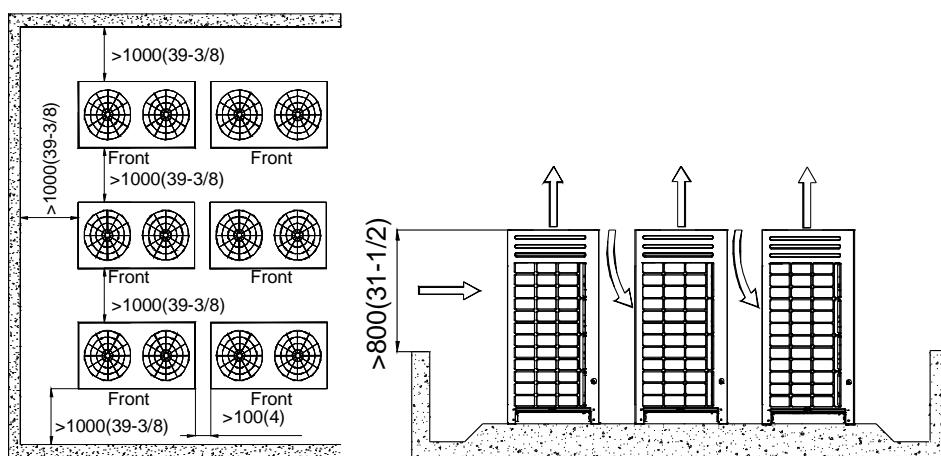
One row



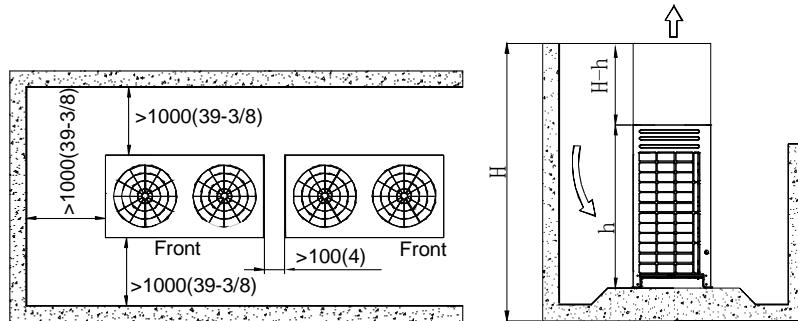
Two rows



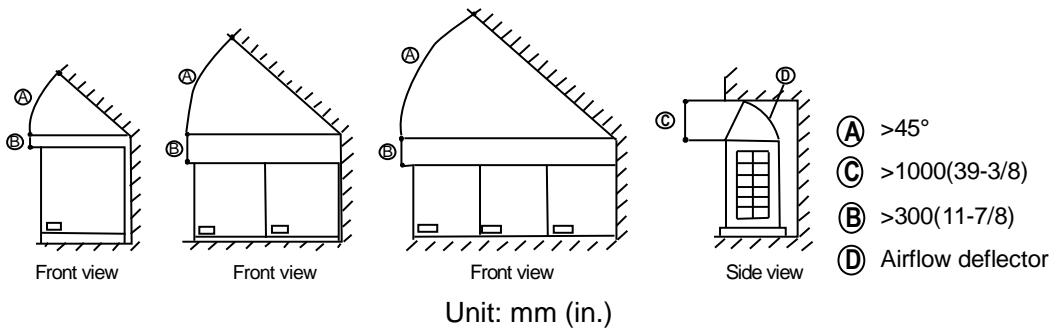
More than two rows



- When the outdoor unit is lower than the surrounding obstacle, to avoid cross connection of the outdoor hot air from affecting the heat exchange capabilities, please add an air director onto the exhaust hood of the outdoor unit to facilitate heat dissipation. See the figure below. The height of the air director is HD (namely H-h). Please make the air director on site.

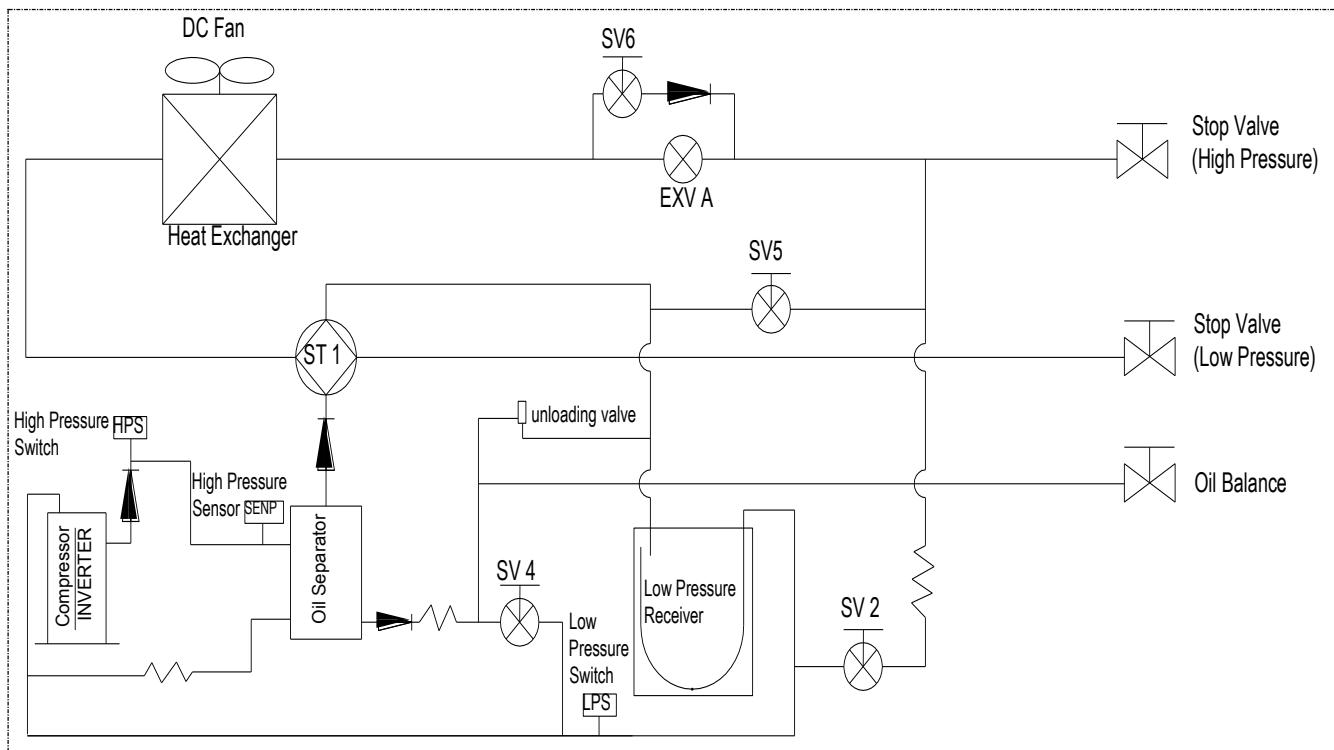


- If miscellaneous articles are piled around the outdoor unit, such articles must be 800mm (31-1/2in) below the top of the outdoor unit. The articles must be 800mm (31-1/2in) below the top of the outdoor unit. Otherwise, a mechanical exhaust device must be added.

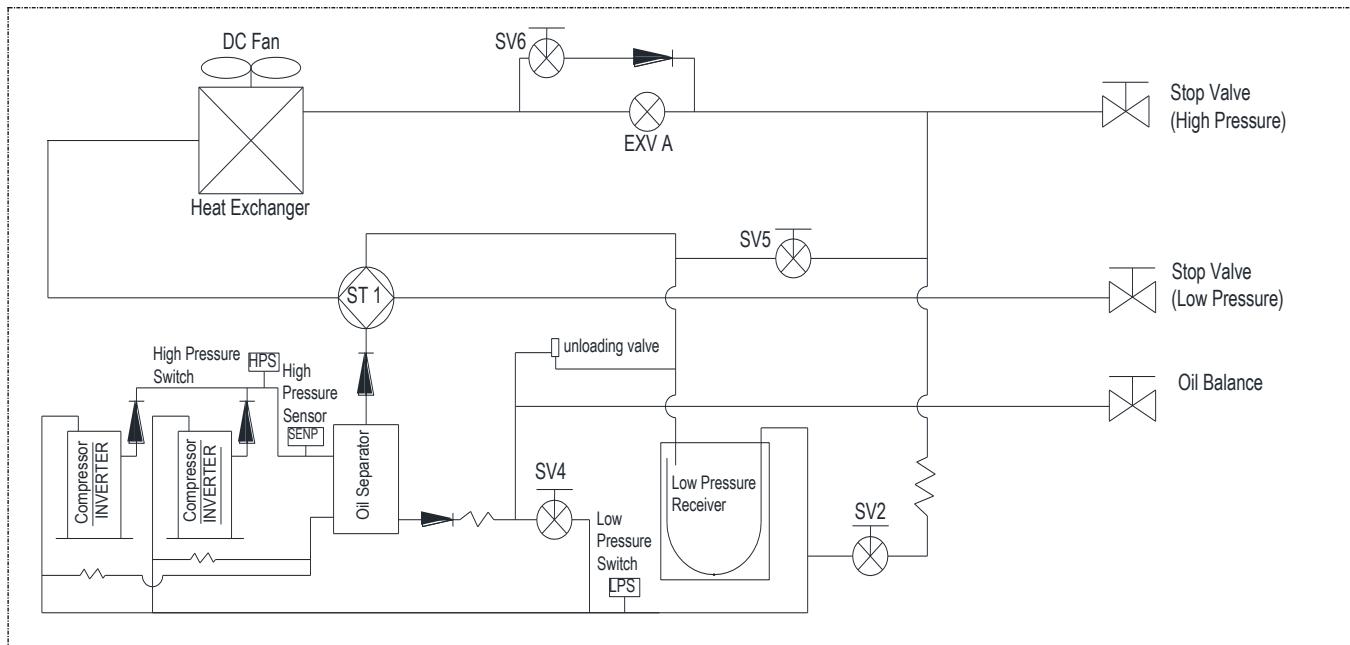


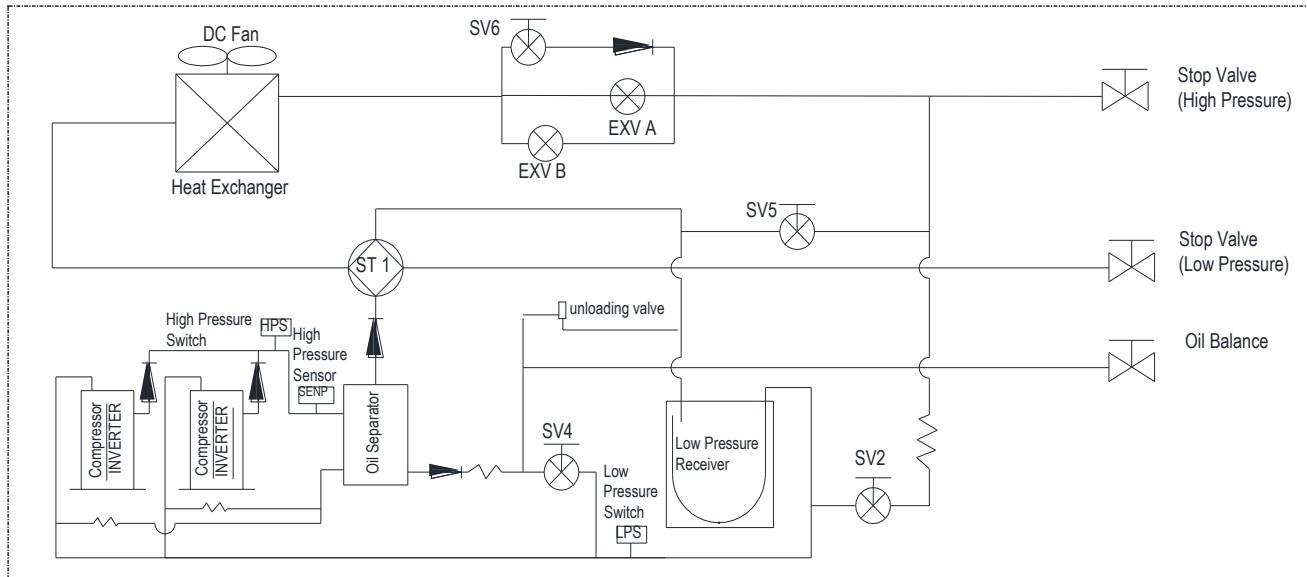
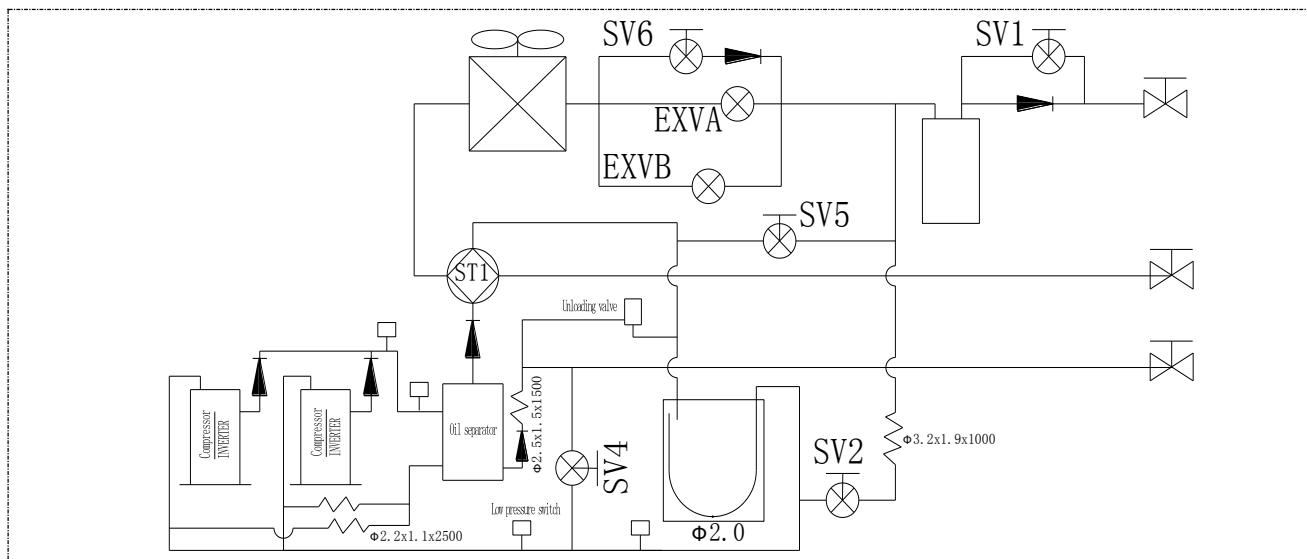
4. Piping diagrams

8-10HP



12HP



14-16HP**18HP****Key components:**

Oil separator: It is used to separate oil from high pressure and high 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.

Gas-liquid separator: It is used to store the liquid refrigerant and oil; it can protect the compressor from liquid hammering.

EXV (Electronic Expansion Valve): It is used to adjust refrigerant volume.

Four-way valve ST1: Closed in cooling mode and open in heating mode. The four-way valve is used to change the refrigerant flow direction in heating mode. When the ST1 is OFF, the heat exchanger functions as a condenser. When the ST1 is ON, the heat exchanger functions as an evaporator.

SV2: It is used to protect the compressor. When any compressor discharge temperature is higher than 100°C, SV2 will be open and spray a small amount of liquid refrigerant to cooling compressor, and it will be closed when the discharge temperature is lower than 90°C.

SV4: Oil return valve. Opens after the inverter compressor has run for 5 minutes and will close 15 minutes later (for single outdoor unit system).

Every 20 minutes, the SV4 of each outdoor unit will open for 3 minutes (for multiple outdoor unit system).

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

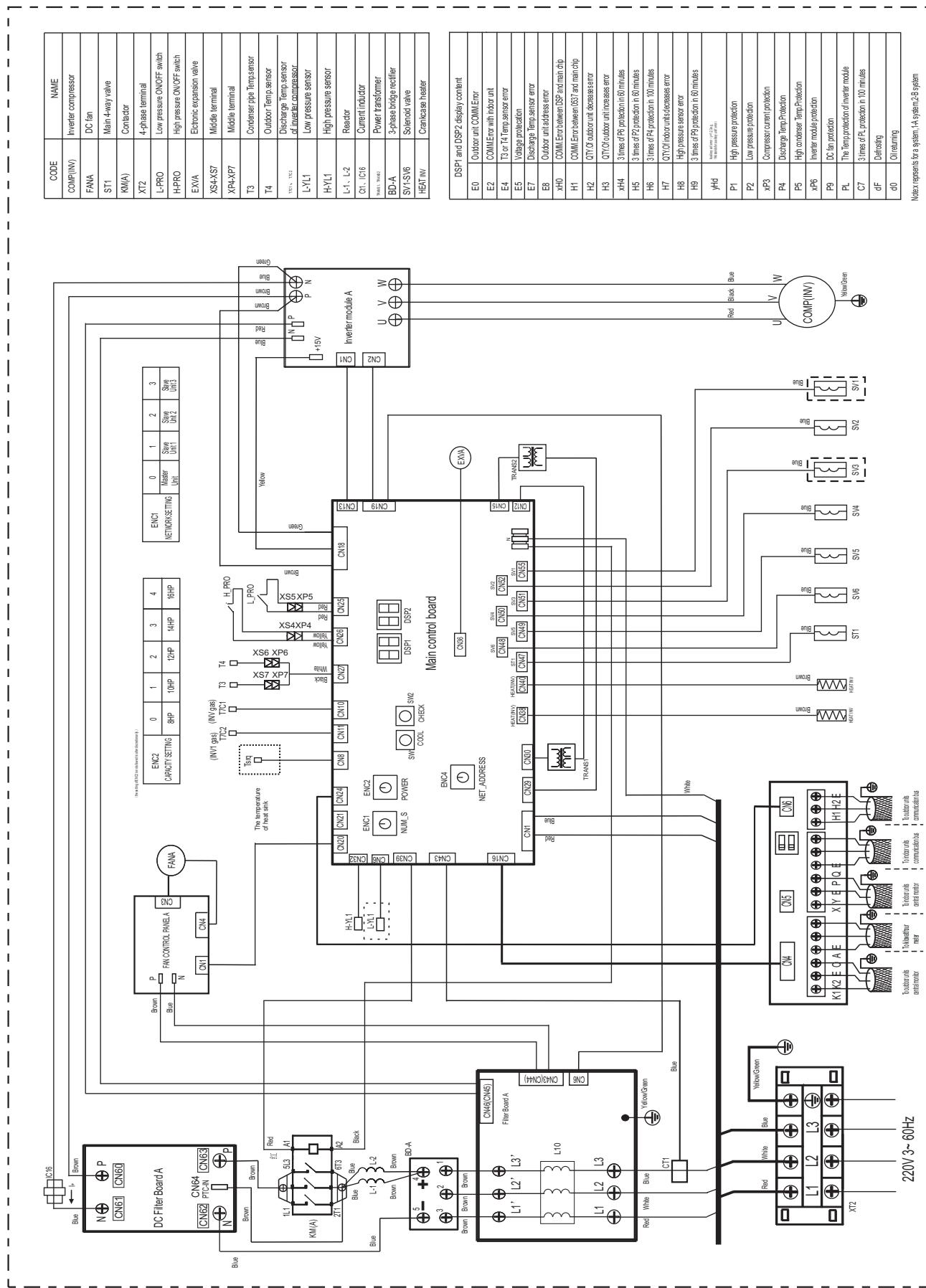
SV6: It is used for by-pass. Open when the discharge temperature is over-high in cooling mode, and close when the unit is standby or system is in heating mode.

Pressure switch: It is used to protect the system pressure. When the system pressure is too high or too low, the pressure switch will open. Once the pressure switch is open, the compressor will stop, and the compressor will restart after ten minutes.

5. Wiring diagram and field wiring

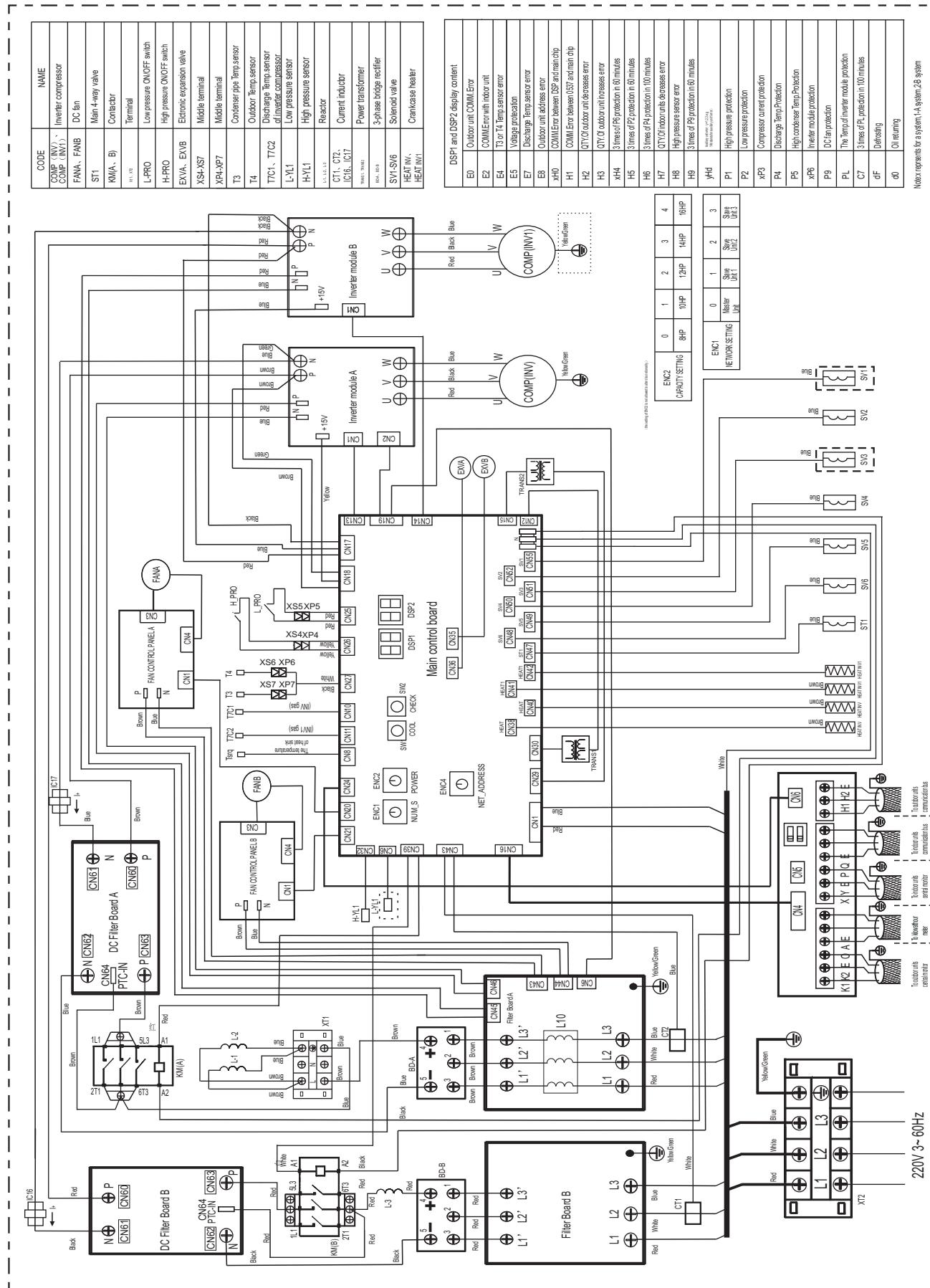
5.1 Wiring diagram

8, 10HP



Wiring diagram

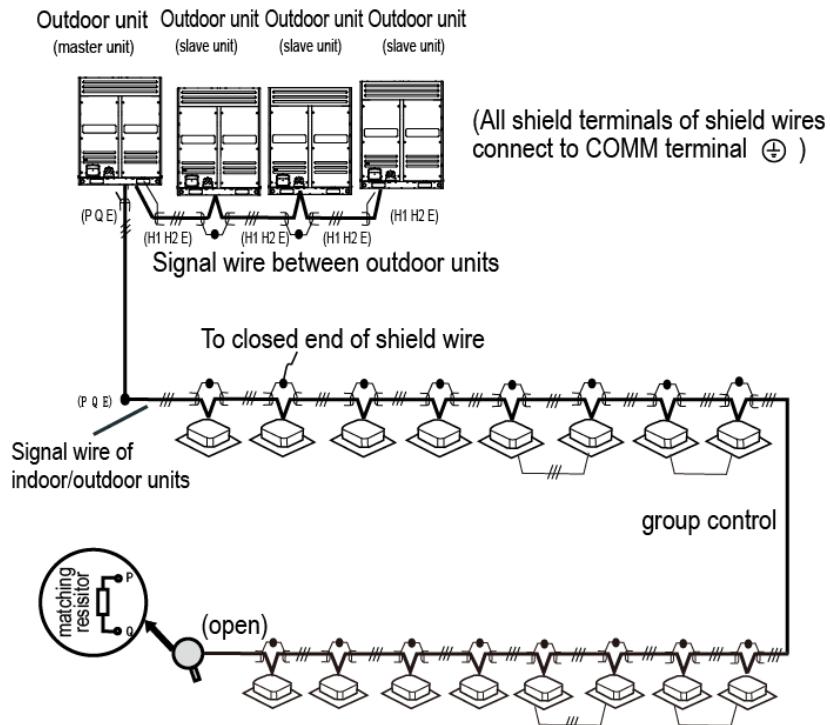
12, 14, 16, 18HP



5.2 Field wiring

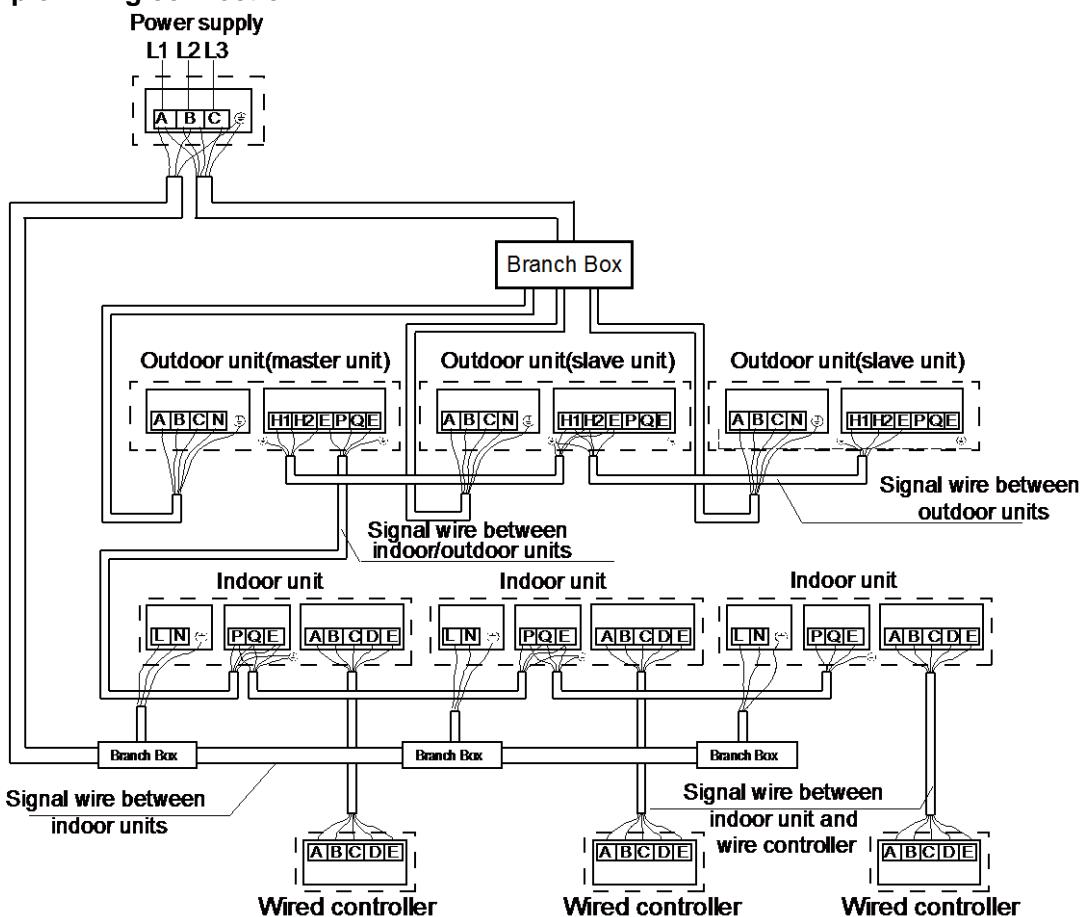
5.2.1 Signal wire between outdoor unit and indoor unit

Signal wire of indoor/outdoor unit adopts 3-core shielded wire ($\geq 0.0012\text{in.}^2(0.75\text{mm}^2)$) which has polarity, please connect it correctly.



The indoor unit at the terminal of communication system should parallel connect a impedance between port P and port Q.

5.2.2 Example wiring connection



6. Electric characteristics

Model	Units				Power supply			Compressor		OFM	
	Hz	Voltage (V)	Min. (V)	Max. (V)	MCA (A)	TOCA (A)	MFA (A)	MSC (A)	RLA (A)	kW	FLA (A)
MDV-252(8)W/D2DN1(B)	60	220	196	244	36	35	40	-	35.5	0.42	4.4
MDV-280(10)W/D2DN1(B)					36	35	40	-	35.5	0.42	4.4
MDV-335(12)W/D2DN1(B)					46.5	49.5	55	-	35.5+21.1	0.21x2	2.2x2
MDV-400(14)W/D2DN1(B)					54.6	54.4	60	-	35.5+21.1	0.36x2	3.4x2
MDV-450(16)W/D2DN1(B)					54.6	54.4	60	-	35.5+21.1	0.36x2	3.4x2
MDV-500(18)W/D2DN1(B)					64.1	65.0	70	-	35.5x2	0.36x2	3.4x2

Notes:

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

MCA: Min. Circuit Amps. (A); **TOCA:** Total Over-current Amps. (A); **MFA:** Max. Fuse Amps. (A); **MSC:** Max. Starting Amps. (A)

RLA: Rated Load Amps. (A); **OFM:** Outdoor Fan Motor; **FLA:** Full Load Amps. (A); **KW:** Rated Motor Output (KW)

Cooling capacity tables**8HP 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
	6	8.5	1.02	10.2	1.19	11.8	1.36	12.6	1.43	13.4	1.52	15.0	1.71	16.7	1.90
	8	8.5	1.04	10.2	1.21	11.8	1.38	12.6	1.46	13.4	1.54	15.0	1.74	16.7	1.96
	10	8.5	1.06	10.2	1.23	11.8	1.40	12.6	1.48	13.4	1.58	15.0	1.78	16.7	1.99
	12	8.5	1.07	10.2	1.24	11.8	1.43	12.6	1.51	13.4	1.61	15.0	1.81	16.7	2.02
	14	8.5	1.08	10.2	1.26	11.8	1.44	12.6	1.54	13.4	1.64	15.0	1.84	16.7	2.06
	16	8.5	1.10	10.2	1.27	11.8	1.46	12.6	1.57	13.4	1.66	15.0	1.88	16.7	2.09
	18	8.5	1.12	10.2	1.30	11.8	1.49	12.6	1.59	13.4	1.69	15.0	1.91	16.7	2.13
	20	8.5	1.13	10.2	1.31	11.8	1.51	12.6	1.61	13.4	1.73	15.0	1.94	16.7	2.17
	21	8.5	1.14	10.2	1.33	11.8	1.53	12.6	1.63	13.4	1.74	15.0	1.96	16.7	2.19
	23	8.5	1.16	10.2	1										

Cooling capacity table

10HP 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
	6	20.8	2.63	24.8	3.18	28.8	3.80	30.8	4.10	32.8	4.41	35.3	4.59	36.1	4.72
	8	20.8	2.66	24.8	3.24	28.8	3.84	30.8	4.14	32.8	4.46	35.3	4.62	36.1	4.76
	10	20.8	2.69	24.8	3.28	28.8	3.90	30.8	4.21	32.8	4.53	35.3	4.66	36.1	4.81
	12	20.8	2.75	24.8	3.35	28.8	3.97	30.8	4.30	32.8	4.62	34.9	4.72	35.6	4.87
	14	20.8	2.79	24.8	3.40	28.8	4.05	30.8	4.37	32.8	4.71	34.4	4.76	35.2	4.90
	16	20.8	2.84	24.8	3.47	28.8	4.13	30.8	4.46	32.8	4.80	34.0	4.82	34.7	4.96
	18	20.8	2.90	24.8	3.54	28.8	4.21	30.8	4.58	32.8	5.03	33.5	5.07	34.3	5.11
	20	20.8	2.96	24.8	3.61	28.8	4.46	30.8	4.92	32.3	5.28	33.1	5.31	33.8	5.36
	21	20.8	2.98	24.8	3.72	28.8	4.62	30.8	5.10	32.1	5.40	32.8	5.44	33.6	5.48
	23	20.8	3.13	24.8	3.98	28.8	4.95	30.8	5.48	31.6	5.64				

Cooling capacity table**10HP 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	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	2.43	20.9	2.87	22.4	3.09	23.9	3.32	26.8	3.79	29.7	4.27
	18	15.1	2.06	18.0	2.48	20.9	2.93	22.4	3.16	23.9	3.38	26.8	3.87	29.7	4.35
	20	15.1	2.10	18.0	2.53	20.9	2.98	22.4	3.21	23.9	3.45	26.8	4.01	29.7	4.66
	21	15.1	2.12	18.0	2.55	20.9	3.01	22.4	3.25	23.9	3.53	26.8	4.15	29.7	4.83
	23	15.1	2.16	18.0	2.60	20.9	3.16	22.4	3.46	23.9	3.77	26.8			

7.2 Heating capacity tables

8HP 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	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

Heating capacity tables

10HP 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

Heating capacity tables

10HP 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	
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

Heating capacity tables**12HP 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	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

Heating capacity tables

12HP 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	
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

Heating capacity tables**12HP 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	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

Heating capacity tables**14HP 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	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

Heating capacity tables**14HP 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

Heating capacity tables

14HP 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	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

Heating capacity tables**16HP 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	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

Heating capacity tables

16HP 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	
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

Heating capacity tables

16HP 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

Heating capacity tables

18HP 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	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

Heating capacity tables

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

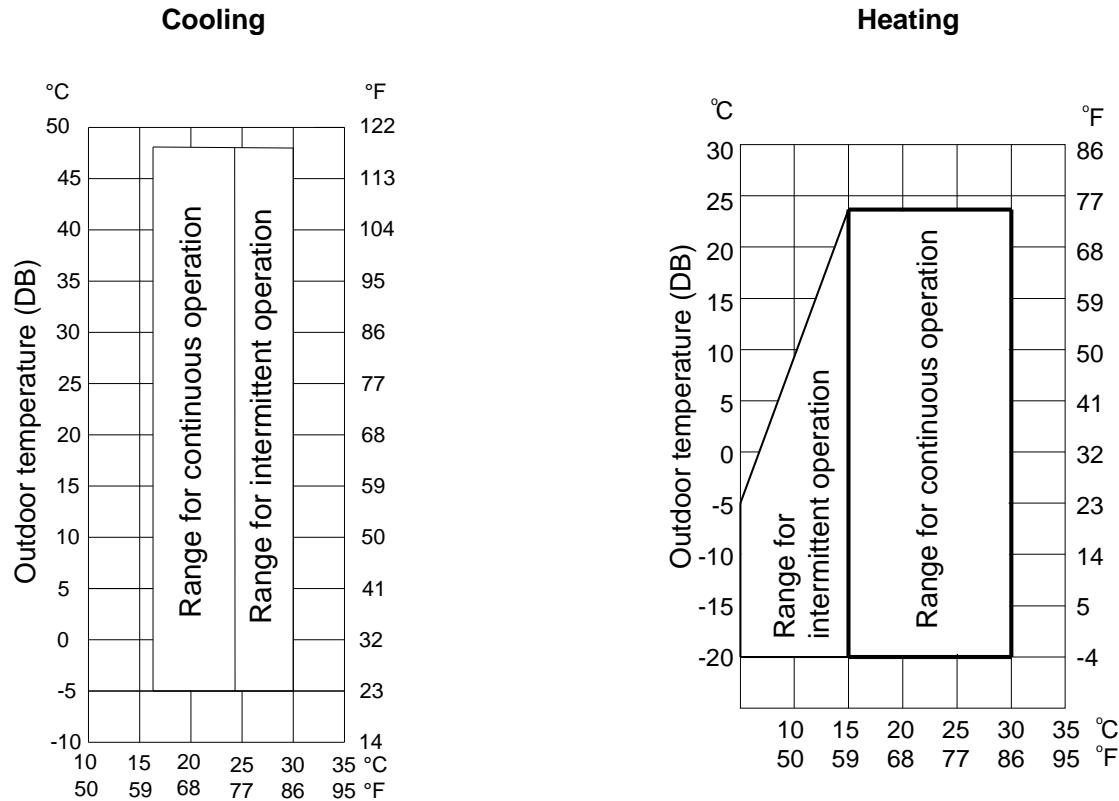
CR	Outdoor temp.	Indoor temperature (°C DB)												
		16		18		20		21		22		24		
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	
°C DB	°C WB	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
100%	-19.8	-20	35.7	13.09	35.6	13.63	35.6	14.19	35.4	14.47	35.4	14.73	35.2	15.29
	-18.8	-19	36.3	13.26	36.3	13.80	36.1	14.34	36.1	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

Heating capacity tables

18HP 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	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

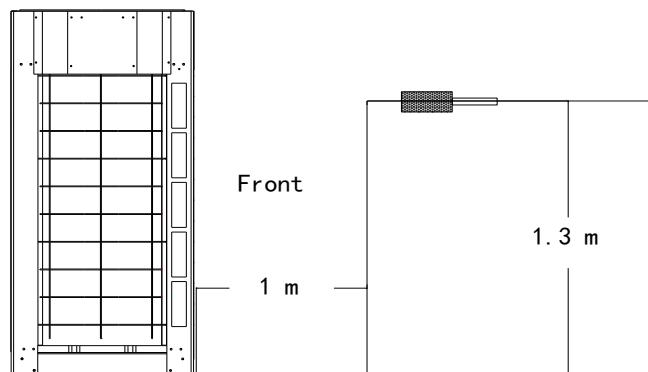
8. Operation limits



Note:

1. These figures assume the following operating conditions:
Equivalent piping length: 7.5m (295-1/4inch)
Level difference: 0
2. If the system is running in cooling mode, when the ambient temperature is lower than -5°C (23°F) or higher than 48°C(118.4°F), the unit will stop for protection control.

9. Sound levels



Notes:

- Data is valid at free field condition
- Data is valid at nominal operating condition
- Sound level will vary depending on a range of factors such as the construction (acoustic absorption coefficient) of particular room in which the equipment is installed
- Sound level can be increased in static pressure mode or used air guide.

Sound pressure level

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

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° mouting 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

Branch joint of outdoor & indoor unit

Optional accessories	Model name	Packing Size in.(mm)	Net/gross Weight (lbs.(kg))	Function
Branch joint of outdoor side	FQZHW-02N1D	10-1/16x6x7-5/16 (255x150x185)	3.3/2.6 (1.5/1.2)	Distribute the refrigerant to indoor units and balance the resistance between each outdoor unit.
	FQZHW-03N1D	13-9/16x6-5/16x11-1/4 (345x160x285)	7.5/5.3 (3.4/2.4)	
	FQZHW-04N1D	18-11/16x6-1/2x11-7/8 (475x165x300)	10.6/7.9 (4.8/3.6)	
Branch joint of indoor side	FQZHN-01D	11-7/16x4-1/8x4 (290x105x100)	0.9/0.7 (0.4/0.3)	
	FQZHN-02D	11-7/16x4-1/8x4 (290x105x100)	1.3/0.9 (0.6/0.4)	
	FQZHN-03D	12-3/16x5-1/8x5 (310x130x125)	2.0/1.3 (0.9/0.6)	
	FQZHN-04D	13-3/4x6-5/8x7-1/8 (350x170x180)	3.3/2.4 (1.5/1.1)	
	FQZHN-05D	14-3/8x7-11/16x8-1/2 (365x195x215)	4.2/3.1 (1.9/1.4)	

10.3 Other optional accessories

Optional accessories	Model name	Function
Outdoor controller	MD-CCM02/E	Monitor the outdoor operating parameter
Three phase electricity power protector	DPA51CM44 or HWUA/DPB71CM48	To stop the air-conditioner running in case of bad power supply such as Phase Error, Over-voltage, Under-voltage lose, phase lost and phase sequence inverse. Thus to protect the equipment.
Digital ammeter (WHM)	DTS634/DT636	Electricity Charge monitor