

# TROPICAL INVERTER VRF SYSTEM (X SERIES)



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TRUST AIR CONDITIONING EQUIPMENT CO.  
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# General Information

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**توجه:**

شرکت تراست حق تغییر مشخصات دستگاه‌ها را در جهت بهبود و ارتقای کیفیت برای خود محفوظ می‌دارد.

2016

# 1 Indoor and Outdoor Unit Capacities

## 1.1 Indoor Units

### 1.1.1 Standard indoor units

Table 1-1.1: Standard indoor unit abbreviation codes

Abbreviation code	Type
C1	One-way Cassette
C2	Two-way Cassette
P4	Compact Four-way Cassette
C4	Four-way Cassette
DL	Low Static Pressure Duct
DM	Medium Static Pressure Duct

Abbreviation code	Type
DH	High Static Pressure Duct
W1	Wall-mounted
FC	Ceiling & Floor
FS	Floor Standing
CO	Console

Table 1-1.2: Standard indoor unit capacity range

Capacity		Capacity index	C1	C2	P4	C4	DL	DM	DH	W1	FC	FS	CO
kW	HP												
1.8	0.6	18	18	—	—	—	18	—	—	—	—	18	—
2.2	0.8	22	22	22	22	—	22	22	—	22	—	22	22
2.8	1	28	28	28	28	28	28	28	—	28	—	28	28
3.6	1.25	36	36	36	36	36	36	36	—	36	36	36	36
4.5	1.6	45	45	45	45	45	45	45	—	45	45	45	45
5.6	2	56	56	56	—	56	56	56	—	56	56	56	—
7.1	2.5	71	71	71	—	71	71	71	71	71	71	71	—
8.0	3	80	—	—	—	80	—	80	80	80	80	80	—
9.0	3.2	90	—	—	—	90	—	90	90	90	90	90	—
10.0	3.6	100	—	—	—	100	—	—	—	—	—	—	—
11.2	4	112	—	—	—	112	—	112	112	—	112	—	—
14.0	5	140	—	—	—	140	—	140	140	—	140	—	—
16.0	6	160	—	—	—	—	—	—	160	—	160	—	—
20.0	7	200	—	—	—	—	—	—	200	—	—	—	—
25.0	9	250	—	—	—	—	—	—	250	—	—	—	—
28.0	10	280	—	—	—	—	—	—	280	—	—	—	—
40.0	14	400	—	—	—	—	—	—	400	—	—	—	—
45.0	16	450	—	—	—	—	—	—	450	—	—	—	—
56.0	20	560	—	—	—	—	—	—	560	—	—	—	—

### 1.1.2 Fresh air processing unit

Table 1-1.3: Fresh air processing unit capacity range

Capacity	12.5kW	14kW	20kW	25kW	28kW
Capacity index	125	140	200	250	280

## 1.2 Heat recovery ventilator

Table 1-1.4: Heat recovery ventilator capacity range

Model	HRV-200	HRV-300	HRV-400	HRV-500	HRV-800	HRV-1000	HRV-1500	HRV-2000
Capacity (m <sup>3</sup> /h)	200	300	400	500	800	1000	1500	2000

### 1.3 Outdoor Units

Table 1-1.5: Outdoor unit capacity range

Capacity	8HP	10HP	12HP	14HP	16HP	18HP	20HP	22HP
Model (TMVV5)	X252W	X280W	X335W	X400W	X450W	X500W	X560W	X615W

Capacity	24HP	26HP	28HP	30HP	32HP	34HP	36HP	38HP
Model (TMVV5)	X670W	X730W	X780W	X840W	X895W	X950W	X1000W	X1065W
Outdoor unit 1	12HP	10HP	10HP	10HP	10HP	12HP	18HP	16HP
Outdoor unit 2	12HP	16HP	18HP	20HP	22HP	22HP	18HP	22HP

Capacity	40HP	42HP	44HP	46HP	48HP	50HP	52HP	54HP
Model TMVV5	X1115W	X1175W	X1230W	X1285W	X1345W	X1395W	X1455W	X1510W
Outdoor unit 1	18HP	20HP	22HP	12HP	10HP	10HP	10HP	10HP
Outdoor unit 2	22HP	22HP	22HP	12HP	16HP	18HP	20HP	22HP
Outdoor unit 3	—	—	—	22HP	22HP	22HP	22HP	22HP

Capacity	56HP	58HP	60HP	62HP	64HP	66HP	68HP	70HP
Model (TMVV5)	X1565W	X1615W	X1680W	X1730W	X1790W	X1845W	X1900W	X1960W
Outdoor unit 1	12HP	18HP	16HP	18HP	20HP	22HP	12HP	10HP
Outdoor unit 2	22HP	18HP	22HP	22HP	22HP	22HP	12HP	16HP
Outdoor unit 3	22HP	22HP	22HP	22HP	22HP	22HP	22HP	22HP
Outdoor unit 4	—	—	—	—	—	—	22HP	22HP

Capacity	72HP	74HP	76HP	78HP	80HP	82HP	84HP	86HP
Model (TMVV5)	X2010W	X2070W	X2125W	X2180W	X2230W	X2295W	X2345W	X2405W
Outdoor unit 1	10HP	10HP	10HP	12HP	18HP	16HP	18HP	20HP
Outdoor unit 2	18HP	20HP	22HP	22HP	18HP	22HP	22HP	22HP
Outdoor unit 3	22HP	22HP	22HP	22HP	22HP	22HP	22HP	22HP
Outdoor unit 4	22HP	22HP	22HP	22HP	22HP	22HP	22HP	22HP

Capacity	88HP
Model (TMVV5)	X2460W
Outdoor unit 1	22HP
Outdoor unit 2	22HP
Outdoor unit 3	22HP
Outdoor unit 4	22HP

Notes:


1. The full model names can be obtained by substituting the asterisk in the model name format given in the left-hand column of the table above with the shortened model names given in the table. For example, the model name for the 40HP model is TMVV5X1115HT3I4.7O4ATW1T.
2. The combinations of units shown in the table are factory-recommended. Other combinations of units are also possible.

## 2 External Appearance

### 2.1 Indoor Units


#### 2.1.1 Standard indoor units

Table 1-2.1: Standard indoor unit appearance

<p>One-way Cassette C1</p> 	<p>Two-way Cassette C2</p> 
<p>Compact Four-way Cassette P4</p> 	<p>Four-way Cassette C4</p> 
<p>Low Static Pressure Duct DL</p> 	<p>Medium Static Pressure Duct DM</p> 
<p>High Static Pressure Duct DH</p> 	<p>Wall-mounted W 1</p> 
<p>Ceiling &amp; Floor FC</p> 	<p>Floor Standing FS</p> 
<p>Console CO</p> 	

#### 2.1.2 Fresh air processing unit

Table 1-2.2: Fresh air processing unit appearance

<p>Fresh Air Processing Unit DF</p> 
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## 2.2 Heat Recovery Ventilator

Table 1-2.3: Heat recovery ventilator appearance

Heat Recovery Ventilator

HR



## 2.3 Outdoor Units

### 2.3.1 Single units

Table 1-2.4: Single outdoor unit appearance

8/10/12HP	14/16/18/20/22HP

### 2.3.2 Combinations of units

Table 1-2.5: Combination outdoor unit appearance

<b>24HP</b> 	<b>26/28/30/32/34HP</b> 	<b>36/38/40/42/44HP</b> 
<b>46HP</b> 	<b>48/50/52/54/56HP</b> 	<b>58/60/62/64/66HP</b> 
<b>68HP</b> 	<b>70/72/74/76/78HP</b> 	<b>80/82/84/86/88HP</b> 

### 3 Outdoor Unit

**Combinations** *Table 1-3.1: Outdoor*

System capacity		Number of units	Modules <sup>1</sup>								Outdoor branch joint kit <sup>2</sup>
kW	HP		8	10	12	14	16	18	20	22	
25.2	8	1	•								—
28.0	10	1		•							
33.5	12	1			•						
40.0	14	1				•					
45.0	16	1					•				
50.0	18	1						•			
56.0	20	1							•		
61.5	22	1								•	
67.0	24	2			••						
73.0	26	2		•			•				
78.0	28	2		•				•			
84.0	30	2		•					•		
89.5	32	2		•						•	
95.0	34	2			•					•	
100.0	36	2						••			
106.5	38	2					•			•	
111.5	40	2						•		•	
117.5	42	2							•	•	
123.0	44	2								••	
128.5	46	3			••					•	TFQZHW-03N1D
134.5	48	3		•			•			•	
139.5	50	3		•				•		•	
145.5	52	3		•					•	•	
151.0	54	3		•						••	
156.5	56	3			•					••	
161.5	58	3						••		•	
168.0	60	3					•			••	
173.0	62	3						•		••	
179.0	64	3							•	••	
184.5	66	3								•••	TFQZHW-04N1D
190.0	68	4			••					••	
196.0	70	4		•			•			••	
201.0	72	4		•				•		••	
207.0	74	4		•					•	••	
212.5	76	4		•						•••	
218.0	78	4			•					•••	
223.0	80	4						••		••	
229.5	82	4					•			•••	
234.5	84	4						•		•••	
240.5	86	4							•	•••	
246.0	88	4								••••	

Notes:

1. The combinations of units shown in the table are factory-recommended. Other combinations of units are also possible.
2. For systems with two or more outdoor units, outdoor branch joints (sold separately) are required.

## 4 Combination Ratio

$$\text{Combination ratio} = \frac{\text{Sum of capacity indexes of the indoor units}}{\text{Capacity index of the outdoor units}}$$

Table 1-5.1: Indoor and outdoor unit combination ratio limitations

Type	Minimum combination ratio	Maximum combination ratio		
		Standard indoor units only	Fresh air processing units only	Fresh air processing units and standard indoor units together
TMVV5 X Series outdoor units	50%	130%	100%	100% <sup>1</sup>

Notes:

- When fresh air processing units are installed together with standard indoor units, the total capacity of the fresh air processing units must not exceed 30% of the total capacity of the outdoor units and the combination ratio must not exceed 100%.

Table 1-5.2: Combinations of Indoor and outdoor units

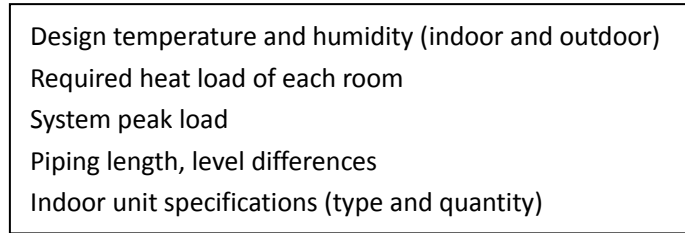
Outdoor unit capacity			Sum of capacity indexes of connected indoor units (standard indoor units only)	Sum of capacity indexes of connected indoor units (fresh air processing units and standard indoor units together)	Maximum number of connected indoor units
kW	HP	Capacity index			
25.2	8	252	126 to 327.6	126 to 252	13
28.0	10	280	140 to 364	140 to 280	16
33.5	12	335	167.5 to 435.5	167.5 to 335	20
40.0	14	400	200 to 520	200 to 400	23
45.0	16	450	225 to 585	225 to 450	26
50.0	18	500	250 to 650	250 to 500	29
56.0	20	560	280 to 728	280 to 560	33
61.5	22	615	307.5 to 799.5	307.5 to 615	36
67.0	24	670	335 to 871	335 to 670	39
73.0	26	730	365 to 949	365 to 730	43
78.0	28	780	390 to 1014	390 to 780	46
84.0	30	840	420 to 1092	420 to 840	50
89.5	32	895	447.5 to 1163.5	447.5 to 895	53
95.0	34	950	475 to 1235	475 to 950	56
100.0	36	1000	500 to 1300	500 to 1000	59
106.5	38	1065	532.5 to 1384.5	532.5 to 1065	63
111.5	40	1115	557.5 to 1449.5	557.5 to 1115	64
117.5	42	1175	587.5 to 1527.5	587.5 to 1175	
123.0	44	1230	615 to 1599	615 to 1230	
128.5	46	1285	642.5 to 1670.5	642.5 to 1285	
134.5	48	1345	672.5 to 1748.5	672.5 to 1345	
139.5	50	1395	697.5 to 1813.5	697.5 to 1395	
145.5	52	1455	727.5 to 1891.5	727.5 to 1455	
151.0	54	1510	755 to 1963	755 to 1510	
156.5	56	1565	782.5 to 2034.5	782.5 to 1565	
161.5	58	1615	807.5 to 2099.5	807.5 to 1615	
168.0	60	1680	840 to 2184	840 to 1680	
173.0	62	1730	865 to 2249	865 to 1730	
179.0	64	1790	895 to 2327	895 to 1790	
184.5	66	1845	922.5 to 2398.5	922.5 to 1845	
190.0	68	1900	950 to 2470	950 to 1900	
196.0	70	1960	980 to 2548	980 to 1960	
201.0	72	2010	1005 to 2613	1005 to 2010	
207.0	74	2070	1035 to 2691	1035 to 2070	
212.5	76	2125	1062.5 to 2762.5	1062.5 to 2125	
218.0	78	2180	1090 to 2834	1090 to 2180	
223.0	80	2230	1115 to 2899	1115 to 2230	
229.5	82	2295	1147.5 to 2983.5	1147.5 to 2295	
234.5	84	2345	1172.5 to 3048.5	1172.5 to 2345	
240.5	86	2405	1202.5 to 3126.5	1202.5 to 2405	
246.0	88	2460	1230 to 3198	1230 to 2460	



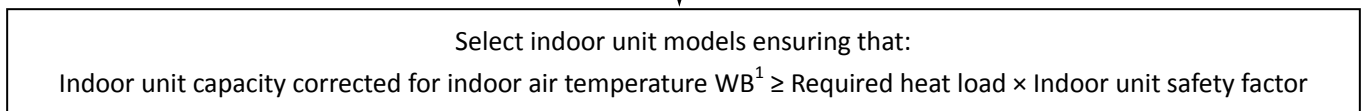
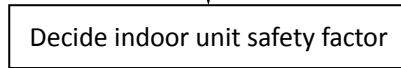
## 5 Selection Procedure

### 5.1 Procedure

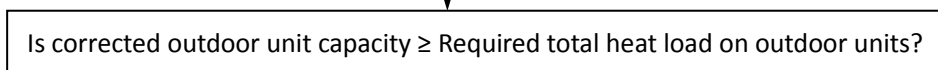
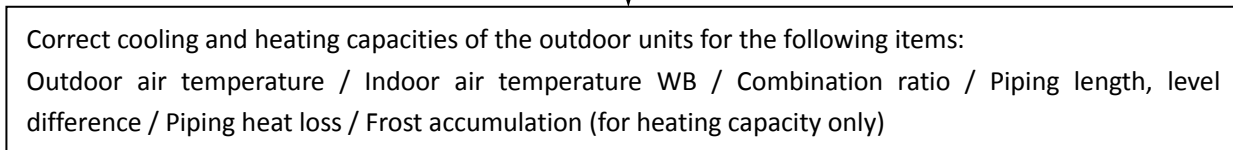
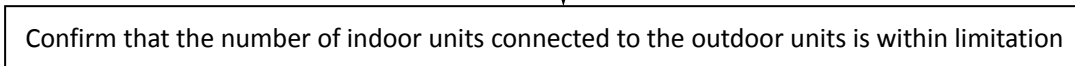
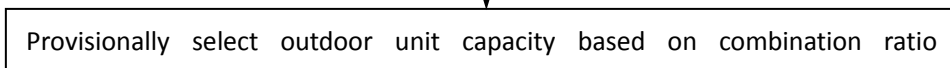
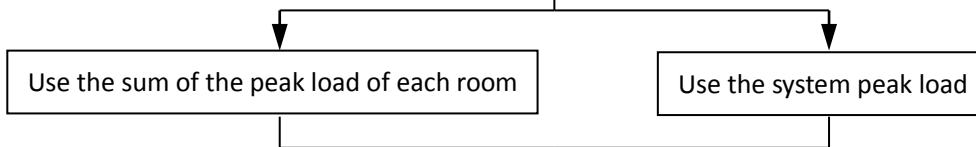
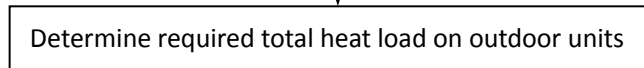
#### Step 1: Design conditions



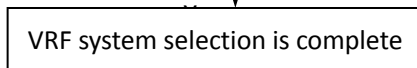
#### Step 2: Selection of indoor units



#### Step 3: Selection of outdoor units



No



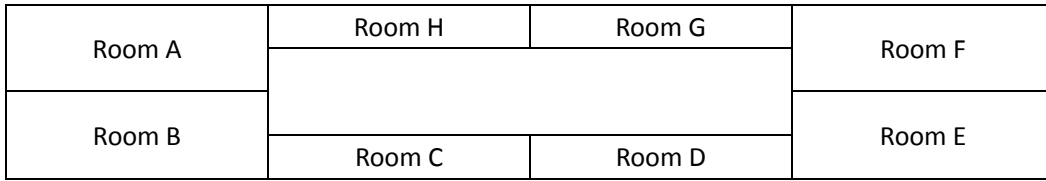
#### Notes:

1. If the indoor design temperature falls between two temperatures listed in the indoor unit's capacity table, calculate the corrected capacity by interpolation. If the indoor unit selection is to be based on total heat load and sensible heat load, select indoor units which satisfy not only the total head load requirements of each room but also the sensible heat load requirements of each room. As with total heat capacity, the sensible heat capacity of indoor units should be corrected for indoor temperature, interpolating where necessary. For the indoor unit capacity tables, refer to the indoor unit technical manuals.

## 5.2 Example

The following is a selection example based on total heat load for cooling.

Figure 1-6.1: Room plan



### Step 1: Design conditions

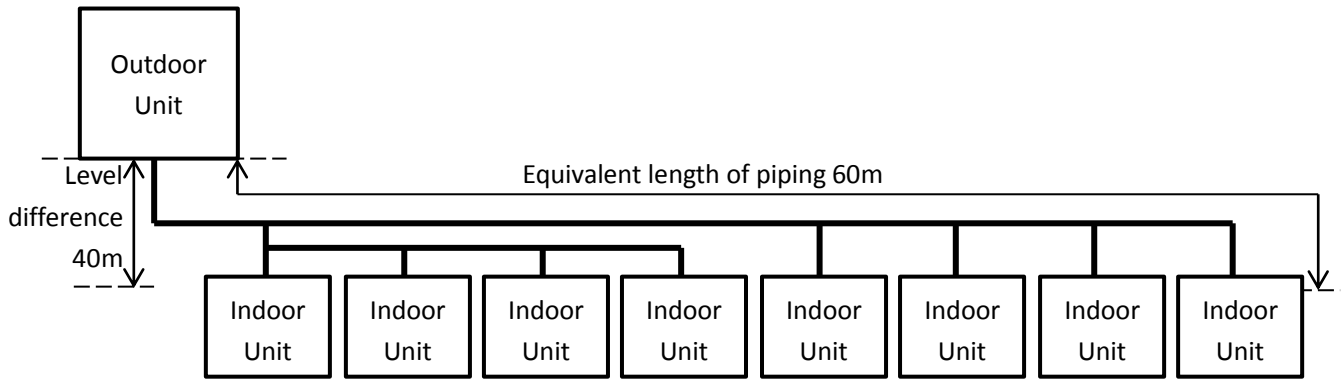
- Indoor air temperature 25°C DB, 18°C WB; outdoor air temperature 33°C DB.
- Determine peak load of each room and system peak load. As shown in Table 1-6.1, the system peak load is 50.7kW.

Table 1-6.1: Required heat load of each room (kW)

Time	Room A	Room B	Room C	Room D	Room E	Room F	Room G	Room H	Total
9:00	4.8	4.8	3.0	3.0	9.1	9.0	2.9	2.9	39.5
12:00	6.6	7.1	5.1	5.1	7.4	6.8	4.0	4.0	46.1
14:00	9.0	9.4	4.9	4.9	7.3	6.8	4.2	4.2	50.7
16:00	10.6	10.7	3.9	3.9	6.3	6.2	3.8	3.8	49.2

- The maximum piping lengths and level differences in this example are as given in Figure 1-6.2.

Figure 1-6.2: System diagram



- Indoor unit type for all rooms: medium static pressure duct (T2).

### Step 2: Selection of indoor units

- In this example, a safety factor is not used (i.e. the safety factor is 1).
- Select indoor unit models using the medium static pressure duct cooling capacity table. Each indoor unit's corrected capacity needs to be greater than or equal to the peak load of the relevant room. The selected indoor units are shown in Table 1-6.3.

Table 1-6.2: Extract from medium static pressure duct (T2) cooling capacity table

Model	Capacity index	Indoor air temperature													
		14°C WB		16°C WB		18°C WB		19°C WB		20°C WB		22°C WB		24°C WB	
		20°C DB		23°C DB		26°C DB		27°C DB		28°C DB		30°C DB		32°C DB	
		TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC	TC	SHC
T2	22	1.5	1.4	1.8	1.5	2.1	1.6	2.2	1.6	2.3	1.7	2.4	1.5	2.4	1.5
	28	1.9	1.7	2.3	1.9	2.6	2.1	2.8	2.1	3.0	2.1	3.1	2.0	3.1	1.9
	36	2.5	2.1	2.9	2.3	3.4	2.5	3.6	2.6	3.8	2.7	4.2	2.8	3.9	2.3
	45	3.1	2.6	3.7	2.8	4.2	3.1	4.5	3.2	4.8	3.2	4.9	3.1	5.1	2.9
	56	3.9	3.0	4.6	3.3	5.3	3.6	5.6	3.7	5.9	3.8	6.2	3.7	6.2	3.4
	71	4.9	3.9	5.8	4.3	6.7	4.7	7.1	4.9	7.5	4.8	7.8	4.6	7.8	4.3
	80	5.5	4.4	6.6	4.9	7.5	5.3	8.0	5.5	8.4	5.5	8.8	5.2	8.8	4.8
	90	6.2	5.3	7.3	5.8	8.4	6.3	9.0	6.4	9.6	6.5	9.9	6.1	9.9	5.7
	112	7.7	6.4	9.1	7.1	10.5	7.7	11.2	7.8	11.9	8.1	12.5	7.8	12.5	7.4
	140	9.7	7.8	11.3	8.6	13.2	9.6	14.0	9.8	14.8	9.8	15.7	9.7	15.4	8.8

Abbreviations:

TC: Total capacity (kW); SHC: Sensible heat capacity (kW)

Table 1-6.3: Selected indoor units

	Room A	Room B	Room C	Room D
Peak heat load (kW)	10.6	10.7	5.1	5.1
Selected indoor unit	TMVDMN140	TMVDMN140	TMVDMN56	TMVDMN56
Corrected TC (kW)	13.2	13.2	5.3	5.3
	Room E	Room F	Room G	Room H
Peak heat load (kW)	9.1	9.0	4.2	4.2
Selected indoor unit	TMVDMN112	TMVDMN112	TMVDMN45	TMVDMN45
Corrected TC (kW)	10.5	10.5	4.2	4.2

### Step 3: Selection of outdoor units

- Determine the required total heat load from the indoor units to the outdoor units based on either the sum of the peak loads of each room or the system peak load. In this example, it is determined based on the system peak load. Therefore, the required heat load is 50.7kW.
- Provisionally select outdoor units using the sum of the capacity indexes (CIs) of the selected indoor units (as shown in Table 1-6.4), ensuring that the combination ratio is between 50% and 130%. Refer to Table 1-6.5. As the sum of CIs of the indoor units is 706, outdoor units from 20HP to 50HP are potentially suitable. Start from the smallest, which is the 20HP unit.

Table 1-6.4: Sum of indoor unit capacity indexes

Model	Capacity Index	No. of units
TMVDMN140	140	2
TMVDMN112	112	2
TMVDMN56	56	2
TMVDMN45	45	2
<b>Sum of CIs</b>	<b>706</b>	

Table 1-6.5: Extract from Table 1-5.2 (Combinations of Indoor and outdoor units)

kW	HP	Capacity index	Sum of capacity indexes of connected indoor units	Maximum number of connected indoor units
50.0	18	500	250 to 650	29
56.0	20	560	280 to 728	33
61.5	22	615	307.5 to 799.5	36
67.0	24	670	335 to 871	39
73.0	26	730	365 to 949	43
78.0	28	780	390 to 1014	46
84.0	30	840	420 to 1092	50
89.5	32	895	447.5 to 1163.5	53
95.0	34	950	475 to 1235	56
100.0	36	1000	500 to 1300	59
106.5	38	1065	532.5 to 1384.5	63
111.5	40	1115	557.5 to 1449.5	64
117.5	42	1175	587.5 to 1527.5	
123.0	44	1230	615 to 1599	
128.5	46	1285	642.5 to 1670.5	
134.5	48	1345	672.5 to 1748.5	
139.5	50	1395	697.5 to 1813.5	
145.5	52	1455	727.5 to 1891.5	

- The number of connected indoor units is 8 and the maximum number of connected indoor units on the 20HP outdoor unit is 33, so the number of connected indoor units is within the limitation.
- Calculate the corrected capacity of the outdoor units:
  - a) The sum of the indoor unit CIs is 706 and the CI of the 20HP outdoor unit (TMVV5X560HT3I<sup>4.7</sup>O4ATW1T) is 560, so the combination ratio is  $706 / 560 = 126\%$ .
  - b) Using the outdoor units' cooling capacity table, interpolate to obtain the capacity ("B") corrected for outdoor air temperature, indoor air temperature, and combination ratio. Refer to Tables 1-6.6 and 1-6.7.

Table 1-6.6: Extract from Table 2-8.7  
TMVV5X560HT3I<sup>3.86</sup>O4ATW1T cooling capacity

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)	
		25.8 / 18.0	
		TC	PI
		kW	kW
130%	31	60.0	13.69
	33	59.2	14.20
	35	58.2	14.73
120%	31	59.0	13.61
	33	58.2	14.12
	35	57.2	14.63

Table 1-6.7: Cooling capacity calculated by interpolation

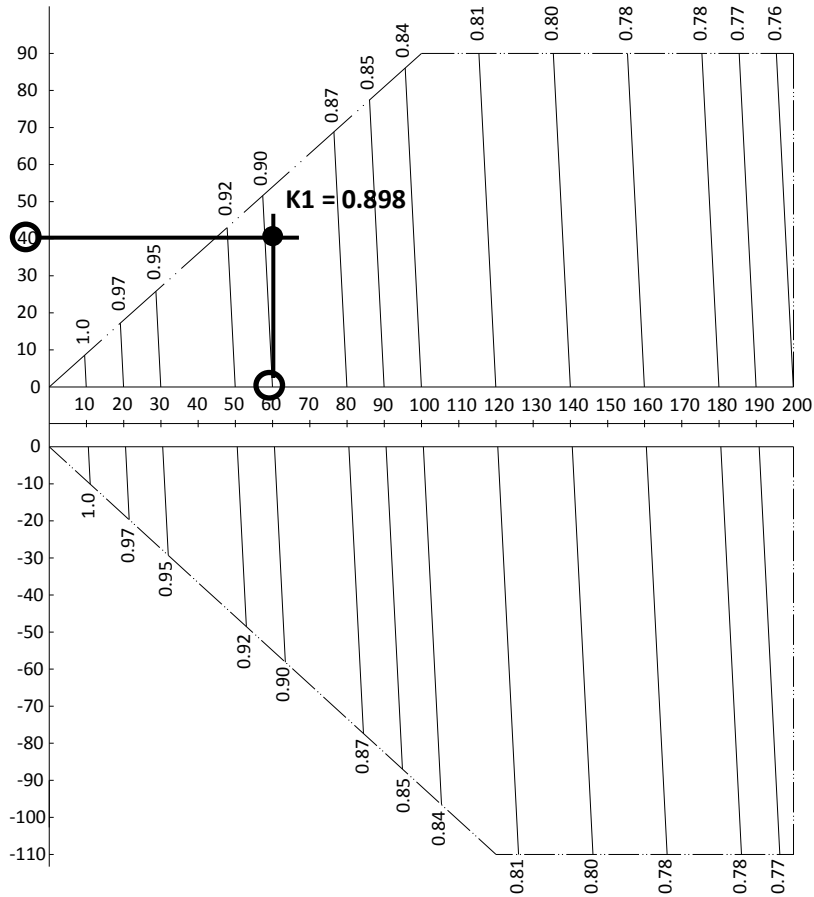
CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)	
		25.8 / 18.0	
		TC	PI
		kW	kW
130%			
	33	59.2	14.20
	<b>B = 58.8<sup>1</sup></b>		
120%			
	33	58.2	14.12

Notes:

$$1. \quad 58.2 + (59.2 - 58.2) \times (126 - 120) / (130 - 120) = 58.8.$$

c) Find the correction factor for piping length and level difference ("K1")

Figure 1-6.3: TMVV5X560HT3I<sup>4.7</sup>O4ATW1T rate of change in cooling capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.

d) Calculate the corrected capacity of TMVV5X56T3I<sup>4.7</sup>O4ATW1T ("C") by using K1:

$$C = B \times K1 = 58.8 \times 0.898 = 52.8\text{kW}$$

- The corrected capacity 52.8kW is larger than required total heat load 50.7kW, so selection is complete. (In the event that the corrected capacity is lower than the required total heat load, Step 3 should be repeated from the point where the outdoor unit capacity is provisionally selected.)

# Outdoor Unit

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# 1 Specifications

Table 2-1.1: specifications

HP		8		10		12	
Model name: CCO1		TMVV5X252HT3I <sup>4.7</sup> /O4ATW3T		TMVV5X280HT3I <sup>4.5</sup> /O4ATW3T		TMVV5X335HT3I <sup>4.3</sup> /O4ATW3T	
Power supply		3 phase, 380-415V, 50Hz					
Cooling <sup>1</sup>	Capacity	kW	25.2	28	33.5		
		kBtu/h	86	95.5	114.3		
	Power input	kW	5.36	6.22	7.79		
	EER		4.7	4.5	4.3		
Cooling <sup>2</sup>	Capacity	kW	22.9	25.4	30.35		
		kBtu/h	78	86.7	103.6		
	Power input	kW	5.92	6.92	8.67		
	EER		3.87	3.67	3.50		
Heating <sup>3</sup>	Capacity	kW	27	31.5	37.5		
		kBtu/h	92.1	107.5	128		
	Power input	kW	4.82	5.94	7.65		
	COP		5.6	5.3	4.9		
Connected indoor units	Total capacity		50-130% of outdoor unit capacity				
	Maximum quantity		13	16	20		
Compressor s	Type		DC inverter				
	Quantity		1				
	Oil type		FVC68D				
	Start-up method		Soft start				
Fans	Type		Propeller				
	Motor type		DC				
	Quantity		1				
	Insulation class		E				
	Safety class		IP23				
	Motor input	W	580				
	Motor output	W	465				
	Airflow rate	m <sup>3</sup> /h	12000				
	Static pressure	Pa (in. W.G.)	0-20 (0-0.08) (default)				
		Pa (in. W.G.)	20-60 (0.08-0.24) (customized)				
Drive type		Direct					
Refrigerant	Type		R410A				
	Factory charge	kg (lbs.)	9 (20)	9 (20)	11 (24)		
Pipe connections <sup>4</sup>	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)	Φ28.6 (Φ1-1/8)		
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)				
Sound pressure level <sup>5</sup>		dB(A)	58	59	60		
Net dimensions (W×H×D)	mm		990×1635×790				
	in.		39×64-3/8×31-1/8				
Packed dimensions (W×H×D)	mm		1055×1805×855				
	in.		41-1/2×71-1/16×33-5/8				
Net weight		kg (lbs.)	219 (483)	219 (483)	237 (523)		
Gross weight		kg (lbs.)	234 (516)	234 (516)	252 (556)		
Operating temperature range		°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)				
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector						
Standard accessories	Installation manual, operation manual, connection pipes, clamps						

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those of the unit's stop valve.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:  
 kBtu/h = kW × 3.412;  
 in.W.G. = Pa × 0.004;  
 lbs. = kg × 2.2;  
 in. = mm / 25.4

Table 2-1.2: specifications

HP		14		16		18		
Model name: CCO1		TMVV5X400HT3I <sup>4,3</sup> /O4ATW3T		TMVV5X450HT3I <sup>4,1</sup> /O4ATW3T		TMVV5X500HT3I <sup>3,9</sup> /O4ATW3T		
Power supply		3 phase, 380-415V, 50Hz						
Cooling <sup>1</sup>	Capacity	kW	40	45	50			
		kBtu/h	136.5	153.5	170.6			
	Power input	kW	9.3	10.98	12.82			
	EER		4.3	4.1	3.9			
Cooling <sup>2</sup>	Capacity	kW	36.3	40.85	45.4			
		kBtu/h	123.9	139.4	154.9			
	Power input	kW	10.35	12.21	14.27			
	EER		3.51	3.35	3.18			
Heating <sup>3</sup>	Capacity	kW	45	50	56			
		kBtu/h	153.5	170.6	191.1			
	Power input	kW	9.38	10.87	13.18			
	COP		4.8	4.6	4.25			
Connected indoor units	Total capacity	50-130% of outdoor unit capacity						
	Maximum quantity	23	26	29				
Compressors	Type	DC inverter						
	Quantity	2						
	Oil type	FVC68D						
	Start-up method	Soft start						
Fans	Type	Propeller						
	Motor type	DC						
	Quantity	2						
	Insulation class	E						
	Safety class	IP23						
	Motor input	W	360+290	360+290	520+440			
	Motor output	W	290+230	290+230	420+350			
	Airflow rate	m <sup>3</sup> /h	14000	14000	16000			
	Static pressure	Pa (in. W.G.)	0-20 (0-0.08) (default)					
		Pa (in. W.G.)	20-60 (0.08-0.24) (customized)					
Drive type	Direct							
Refrigerant	Type	R410A						
	Factory charge	kg (lbs.)	13 (29)					
Pipe connections <sup>4</sup>	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.)	Φ8 (Φ5/16)					
Sound pressure level <sup>5</sup>	dB(A)	62	62	63				
Net dimensions (W×H×D)	mm	1340×1635×790						
	in.	52-3/4×64-3/8×31-1/8						
Packed dimensions (W×H×D)	mm	1405×1805×855						
	in.	55-3/8×71-1/16×33-5/8						
Net weight	kg (lbs.)	297 (655)	297 (655)	305 (673)				
Gross weight	kg (lbs.)	315 (695)	315 (695)	323 (712)				
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)						
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector							
Standard accessories	Installation manual, operation manual, connection pipes, clamps							

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those of the unit's stop valve.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

$$\text{kBtu/h} = \text{kW} \times 3.412;$$

$$\text{in.W.G.} = \text{Pa} \times 0.004;$$

$$\text{lbs.} = \text{kg} \times 2.2;$$

$$\text{in.} = \text{mm} / 25.4$$



Table 2-1.3: specifications

HP		20		22	
Model name: CC01		TMVV5X560HT3 <sup>3.86</sup> /O4ATW3T		TMVV5X615HT3 <sup>3.74</sup> /O4ATW3T	
Power supply		3 phase, 380-415V, 50Hz			
Cooling <sup>1</sup>	Capacity	kW	56	61.5	
		kBtu/h	191.1	209.8	
	Power input	kW	14.51	16.44	
	EER		3.86	3.74	
Cooling <sup>2</sup>	Capacity	kW	50.85	55.75	
		kBtu/h	173.5	190.2	
	Power input	kW	16.15	18.3	
	EER		3.15	3.05	
Heating <sup>3</sup>	Capacity	kW	63	69	
		kBtu/h	214.9	235.4	
	Power input	kW	15.29	17.12	
	COP		4.12	4.03	
Connected indoor units	Total capacity	50-130% of outdoor unit capacity			
	Maximum quantity	33	36		
Compressors	Type	DC inverter			
	Quantity	2			
	Oil type	FVC68D			
	Start-up method	Soft start			
Fans	Type	Propeller			
	Motor type	DC			
	Quantity	2			
	Insulation class	E			
	Safety class	IP23			
	Motor input	W	550+430		
	Motor output	W	440+350		
	Airflow rate	m <sup>3</sup> /h	16000		
	Static pressure	Pa (in. W.G.)	0-20 (0-0.08) (default)		
Pa (in. W.G.)		20-60 (0.08-0.24) (customized)			
Drive type	Direct				
Refrigerant	Type	R410A			
	Factory charge	kg (lbs.)	16 (35)		
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ19.1 (Φ3/4)		
	Gas pipe	mm (in.)	Φ31.8 (Φ1-1/4)		
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)		
Sound pressure level <sup>5</sup>	dB(A)	63			
Net dimensions (W×H×D)	mm	1340×1635×790			
	in.	52-3/4×64-3/8×31-1/8			
Packed dimensions (W×H×D)	mm	1405×1805×855			
	in.	55-3/8×71-1/16×33-5/8			
Net weight	kg (lbs.)	340 (750)			
Gross weight	kg (lbs.)	358 (790)			
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)			
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector				
Standard accessories	Installation manual, operation manual, connection pipes, clamps				

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those of the unit's stop valve.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

$$\text{kBtu/h} = \text{kW} \times 3.412;$$

$$\text{in.W.G.} = \text{Pa} \times 0.004;$$

$$\text{lbs.} = \text{kg} \times 2.2;$$

$$\text{in.} = \text{mm} / 25.4$$

Table 2-1.4: specifications

HP			24	26	28
Model name (Combination unit)			TMVV5X670HT31 <sup>4,3</sup> /O4ATW3T	TMVV5X730HT31 <sup>4,24</sup> /O4ATW3T	TMVV5X780HT31 <sup>4,1</sup> /O4ATW3T
Combination type			12HP×2	10HP+16HP	10HP+18HP
Power supply			3 phase, 380-415V, 50Hz		
Cooling <sup>1</sup>	Capacity	kW	67	73	78
		kBtu/h	228.6	249	266.1
	Power input	kW	15.58	17.2	19.04
	EER		4.3	4.24	4.1
Cooling <sup>2</sup>	Capacity	kW	60.7	66.25	70.8
		kBtu/h	207.2	226.1	241.6
	Power input	kW	17.34	19.13	21.19
	EER		3.50	3.46	3.34
Heating <sup>3</sup>	Capacity	kW	75	81.5	87.5
		kBtu/h	256	278.1	298.6
	Power input	kW	15.31	16.81	19.12
	COP		4.9	4.85	4.58
Connected indoor units	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		39	43	46
Compressors	Type		DC inverter		
	Quantity		2	3	3
	Oil type		FVC68D		
	Start-up method		Soft start		
Fans	Type		Propeller		
	Motor type		DC		
	Quantity		2	3	3
	Motor input	W	580+580	580+(360+290)	580+(520+440)
	Motor output	W	465+465	465+(290+230)	465+(420+350)
	Airflow rate	m <sup>3</sup> /h	24000	26000	28000
Drive type		Direct			
Refrigerant	Type		R410A		
	Factory charge	kg (lbs.)	11×2 (24×2)	9+13 (20+29)	9+13 (20+29)
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ15.9 (Φ5/8)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)
	Gas pipe	mm (in.)	Φ28.6 (Φ1-1/8)	Φ31.8 (Φ1-1/4)	Φ31.8 (Φ1-1/4)
	Oil balance pipe	mm (in.)		Φ8 (Φ5/16)	
Sound pressure level <sup>5</sup>	dB(A)	64	65	65	
Net dimensions (W×H×D)	mm	(990×1635×790)×2	(990×1635×790)+(1340×1635×790)		
	in.	(39×64-3/8×31-1/8)×2	(39×64-3/8×31-1/8)+(52-3/4×64-3/8×31-1/8)		
Packed dimensions (W×H×D)	mm	(1055×1805×855)×2	(1055×1805×855)+(1405×1805×855)		
	in.	(41-1/2×71-1/16×33-5/8)×2	(41-1/2×71-1/16×33-5/8)+(55-3/8×71-1/16×33-5/8)		
Net weight	kg (lbs.)	237(523)×2	219+297 (483+655)	219+305 (483+673)	
Gross weight	kg (lbs.)	252(556)×2	234+315 (516+695)	234+323 (516+712)	
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)			
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector				
Standard accessories	Installation manual, operation manual, connection pipes, clamps				

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

$$\text{kBtu/h} = \text{kW} \times 3.412;$$

$$\text{in.W.G.} = \text{Pa} \times 0.004;$$

$$\text{lbs.} = \text{kg} \times 2.2;$$

$$\text{in.} = \text{mm} / 25.4$$

Table 2-1.5: specifications

HP		30		32		34	
Model name (Combination unit)		TMVV5X840HT3I <sup>4.05</sup> /O4ATW3T		TMVV5X895HT3I <sup>3.95</sup> /O4ATW3T		TMVV5X950HT3I <sup>3.92</sup> /O4ATW3T	
Combination type		10HP+20HP		10HP+22HP		12HP+22HP	
Power supply		3 phase, 380-415V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	84	89.5	95		
		kBtu/h	286.6	305.3	324.1		
	Power input	kW	20.73	22.67	24.23		
	EER		4.05	3.95	3.92		
Cooling <sup>2</sup>	Capacity	kW	76.25	81.15	86.1		
		kBtu/h	260.2	276.9	293.8		
	Power input	kW	23.07	25.22	26.97		
	EER		3.31	3.22	3.19		
Heating <sup>3</sup>	Capacity	kW	94.5	100.5	106.5		
		kBtu/h	322.4	342.9	363.4		
	Power input	kW	21.23	23.06	24.77		
	COP		4.45	4.36	4.3		
Connected indoor units	Total capacity		50-130% of outdoor unit capacity				
	Maximum quantity		50	53	56		
Compressors	Type		DC inverter				
	Quantity		3				
	Oil type		FVC68D				
	Start-up method		Soft start				
Fans	Type		Propeller				
	Motor type		DC				
	Quantity		3				
	Motor input	W	580+(550+430)	580+(550+430)	580+(550+430)		
	Motor output	W	465+(440+350)	465+(440+350)	465+(440+350)		
	Airflow rate	m <sup>3</sup> /h	28000				
Refrigerant	Drive type		Direct				
	Type		R410A				
	Factory charge	kg (lbs.)	9+16 (20+35)	9+16 (20+35)	11+16 (24+35)		
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ19.1 (Φ3/4)				
	Gas pipe	mm (in.)	Φ31.8 (Φ1-1/4)				
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)				
Sound pressure level <sup>5</sup>	dB(A)		65				
Net dimensions (W×H×D)	mm		(990×1635×790)+(1340×1635×790)				
	in.		(39×64-3/8×31-1/8)+(52-3/4×64-3/8×31-1/8)				
Packed dimensions (W×H×D)	mm		(1055×1805×855)+(1405×1805×855)				
	in.		(41-1/2×71-1/16×33-5/8)+(55-3/8×71-1/16×33-5/8)				
Net weight	kg (lbs.)	219+340 (483+750)	219+340 (483+750)	237+340 (523+750)			
Gross weight	kg (lbs.)	234+358 (516+790)	234+358 (516+790)	252+358 (556+790)			
Operating temperature range	°C (°F)		Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)				
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector						
Standard accessories	Installation manual, operation manual, connection pipes, clamps						

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

$$\text{kBtu/h} = \text{kW} \times 3.412;$$

$$\text{in.W.G.} = \text{Pa} \times 0.004;$$

$$\text{lbs.} = \text{kg} \times 2.2;$$

$$\text{in.} = \text{mm} / 25.4$$

Table 2-1.6: specifications

HP			36	38	40
Model name (Combination unit)			TMVV5X1000HT3I <sup>3.9</sup> /O4ATW3T	TMVV5X1065HT3I <sup>3.88</sup> /O4ATW3T	TMVV5X1115HT3I <sup>3.81</sup> /O4ATW3T
Combination type			18HP×2	16HP+22HP	18HP+22HP
Power supply			3 phase, 380-415V, 50Hz		
Cooling <sup>1</sup>	Capacity	kW	100	106.5	111.5
		kBtu/h	341.2	363.3	380.4
	Power input	kW	25.64	27.42	29.26
	EER			3.9	3.88
Cooling <sup>2</sup>	Capacity	kW	90.8	96.6	101.15
		kBtu/h	309.8	329.6	345.1
	Power input	kW	28.54	30.51	32.57
	EER			3.18	3.17
Heating <sup>3</sup>	Capacity	kW	112	119	125
		kBtu/h	382.2	406	426.5
	Power input	kW	26.35	27.99	30.3
	COP			4.25	4.25
Connected indoor units	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		59	63	64
Compressors	Type		DC inverter		
	Quantity		4		
	Oil type		FVC68D		
	Start-up method		Soft start		
Fans	Type		Propeller		
	Motor type		DC		
	Quantity		4		
	Motor input	W	(520+440)+(520+440)	(360+290)+(550+430)	(520+440)+(550+430)
	Motor output	W	(420+350)+(420+350)	(290+230)+(440+350)	(420+350)+(440+350)
	Airflow rate	m <sup>3</sup> /h	32000	30000	32000
	Drive type		Direct		
Refrigerant	Type		R410A		
	Factory charge	kg (lbs.)	13×2 (29×2)	13+16 (29+35)	13+16 (29+35)
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ19.1 (Φ3/4)		
	Gas pipe	mm (in.)	Φ38.1 (Φ1-1/2)		
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)		
Sound pressure level <sup>5</sup>		dB(A)	66		
Net dimensions (W×H×D)	mm		(1340×1635×790)×2		
	in.		(52-3/4×64-3/8×31-1/8)×2		
Packed dimensions (W×H×D)	mm		(1405×1805×855)×2		
	in.		(55-3/8×71-1/16×33-5/8)×2		
Net weight	kg (lbs.)	305×2 (673×2)	297+340 (655+750)	305+340 (673+750)	
Gross weight	kg (lbs.)	323×2 (712×2)	315+358 (695+790)	323+358 (712+790)	
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)			
Safety devices			High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector		
Standard accessories			Installation manual, operation manual, connection pipes, clamps		

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.

Conversion Formulae:

kBtu/h = kW × 3.412;  
in.W.G. = Pa × 0.004;  
lbs. = kg × 2.2;  
in. = mm / 25.4

3. Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
4. Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
5. Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Table 2-1.7: specifications

HP		42		44		46	
Model name (Combination unit)		TMVV5X1175HT3 <sup>13.8</sup> /O4ATW3T		TMVV5X1230HT3 <sup>13.74</sup> /O4ATW3T		TMVV5X1285HT3 <sup>14.01</sup> /O4ATW3T	
Combination type		20HP+22HP		22HP×2		12HP×2+22HP	
Power supply		3 phase, 380-415V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	117.5	123	128.5		
		kBtu/h	400.9	419.6	438.4		
	Power input	kW	30.95	32.89	32.03		
	EER		3.8	3.74	4.01		
Cooling <sup>2</sup>	Capacity	kW	106.6	111.5	116.45		
		kBtu/h	363.7	380.4	397.4		
	Power input	kW	34.45	36.6	35.64		
	EER		3.09	3.05	3.27		
Heating <sup>3</sup>	Capacity	kW	132	138	144		
		kBtu/h	450.3	470.8	491.4		
	Power input	kW	32.41	34.24	32.43		
	COP		4.07	4.03	4.44		
Connected indoor units	Total capacity		50-130% of outdoor unit capacity				
	Maximum quantity		64				
Compressors	Type		DC inverter				
	Quantity		4				
	Oil type		FVC68D				
	Start-up method		Soft start				
Fans	Type		Propeller				
	Motor type		DC				
	Quantity		4				
	Motor input	W	(550+430)+(550+430)	(550+430)+(550+430)	(580)+(580)+(550+430)		
	Motor output	W	(440+350)+(440+350)	(440+350)+(440+350)	(465)+(465)+(440+350)		
	Airflow rate	m <sup>3</sup> /h	32000	32000	40000		
	Drive type		Direct				
Refrigerant	Type		R410A				
	Factory charge	kg (lbs.)	16×2 (35×2)	16×2 (35×2)	11×2+16 (24×2+35)		
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ19.1 (Φ3/4)				
	Gas pipe	mm (in.)	Φ38.1 (Φ1-1/2)				
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)				
Sound pressure level <sup>5</sup>		dB(A)		66			
Net dimensions (W×H×D)	mm	(1340×1635×790)×2			(990×1635×790)×2+(1340×1635×790)		
	in.	(52-3/4×64-3/8×31-1/8)×2			(39×64-3/8×31-1/8)×2+(52-3/4×64-3/8×31-1/8)		
Packed dimensions (W×H×D)	mm	(1405×1805×855)×2			(1055×1805×855)×2+(1405×1805×855)		
	in.	(55-3/8×71-1/16×33-5/8)×2			(41-1/2×71-1/16×33-5/8)×2+(55-3/8×71-1/16×33-5/8)		
Net weight	kg (lbs.)	340×2 (750×2)	340×2 (750×2)	237×2+340 (523×2+750)			
Gross weight	kg (lbs.)	358×2 (790×2)	358×2 (790×2)	252×2+358 (556×2+790)			
Operating temperature range		°C (°F)		Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)			
Safety devices		High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector					
Standard accessories		Installation manual, operation manual, connection pipes, clamps					

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

kBtu/h = kW × 3.412;  
in.W.G. = Pa × 0.004;  
lbs. = kg × 2.2;  
in. = mm / 25.4

Table 2-1.8: specifications

HP		48		50		52	
Model name (Combination unit)		TMVV5X1345HT31 <sup>4</sup> /O4ATW3T		TMVV5X1395HT31 <sup>3,93</sup> /O4ATW3T		TMVV5X1455HT31 <sup>3,91</sup> /O4ATW3T	
Combination type		10HP+16HP+22HP		10HP+18HP+22HP		10HP+20HP+22HP	
Power supply		3 phase, 380-415V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	134.5	139.5	145.5		
		kBtu/h	458.8	475.9	496.4		
	Power input	kW	33.64	35.49	37.17		
	EER		4	3.93	3.91		
Cooling <sup>2</sup>	Capacity	kW	122	126.55	132		
		kBtu/h	416.3	431.8	450.4		
	Power input	kW	37.43	39.49	41.37		
	EER		3.26	3.20	3.19		
Heating <sup>3</sup>	Capacity	kW	150.5	156.5	163.5		
		kBtu/h	513.5	534	557.8		
	Power input	kW	33.93	36.24	38.36		
	COP		4.44	4.32	4.26		
Connected indoor units	Total capacity		50-130% of outdoor unit capacity				
	Maximum quantity		64				
Compressors	Type		DC inverter				
	Quantity		5				
	Oil type		FVC68D				
	Start-up method		Soft start				
Fans	Type		Propeller				
	Motor type		DC				
	Quantity		5				
	Motor input	W	(580)+(360+290)+(550+430)	(580)+(520+440)+(550+430)	(580)+(550+430)+(550+430)		
	Motor output	W	(465)+(290+230)+(440+350)	(465)+(420+350)+(440+350)	(465)+(440+350)+(440+350)		
	Airflow rate	m <sup>3</sup> /h	42000	44000	44000		
	Drive type		Direct				
Refrigerant	Type		R410A				
	Factory charge	kg (lbs.)	9+13+16 (20+29+35)	9+13+16 (20+29+35)	9+16×2 (20+35×2)		
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ19.1 (Φ3/4)	Φ19.1 (Φ3/4)	Φ22.2 (Φ7/8)		
	Gas pipe	mm (in.)	Φ38.1 (Φ1-1/2)	Φ38.1 (Φ1-1/2)	Φ41.3 (Φ1-5/8)		
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)				
Sound pressure level <sup>5</sup>	dB(A)		67				
Net dimensions (W×H×D)	mm		(990×1635×790)+(1340×1635×790)×2				
	in.		(39×64-3/8×31-1/8)+(52-3/4×64-3/8×31-1/8)×2				
Packed dimensions (W×H×D)	mm		(1055×1805×855)+(1405×1805×855)×2				
	in.		(41-1/2×71-1/16×33-5/8)+(55-3/8×71-1/16×33-5/8)×2				
Net weight	kg (lbs.)	219+297+340 (483+655+750)		219+305+340 (483+673+750)		219+340×2 (483+750×2)	
		234+315+358 (516+695+790)		234+323+358 (516+712+790)		234+358×2 (516+790×2)	
Gross weight	kg (lbs.)	234+315+358 (516+695+790)		234+323+358 (516+712+790)		234+358×2 (516+790×2)	
Operating temperature range	°C (°F)		Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)				
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector						
Standard accessories	Installation manual, operation manual, connection pipes, clamps						

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

kBtu/h = kW × 3.412;  
in.W.G. = Pa × 0.004;  
lbs. = kg × 2.2;  
in. = mm / 25.4

Table 2-1.9: specifications

HP		54		56		58	
Model name (Combination unit)		TMVV5X1510HT3 <sup>13.86</sup> /O4ATW3T		TMVV5X1565HT3 <sup>13.85</sup> /O4ATW3T		TMVV5X1615HT3 <sup>13.84</sup> /O4ATW3T	
Combination type		10HP+22HP×2		12HP+22HP×2		18HP×2+22HP	
Power supply		3 phase, 380-415V, 50Hz					
Cooling <sup>1</sup>	Capacity	kW	151	156.5	161.5		
		kBtu/h	515.1	533.9	551		
	Power input	kW	39.11	40.68	42.08		
	EER		3.86	3.85	3.84		
Cooling <sup>2</sup>	Capacity	kW	136.9	141.85	146.55		
		kBtu/h	467.1	484	500		
	Power input	kW	43.52	45.27	46.84		
	EER		3.15	3.13	3.13		
Heating <sup>3</sup>	Capacity	kW	169.5	175.5	181		
		kBtu/h	578.3	598.8	617.6		
	Power input	kW	40.19	41.9	43.47		
	COP		4.22	4.19	4.16		
Connected indoor units	Total capacity		50-130% of outdoor unit capacity				
	Maximum quantity		64				
Compressors	Type		DC inverter				
	Quantity		5	5	6		
	Oil type		FVC68D				
	Start-up method		Soft start				
Fans	Type		Propeller				
	Motor type		DC				
	Quantity		5	5	6		
	Motor input	W	(580)+(550+430)+ (550+430)	(580)+(550+430)+ (550+430)	(520+440)+(520+440)+ (550+430)		
	Motor output	W	(465)+(440+350)+ (440+350)	(465)+(440+350)+ (440+350)	(420+350)+(420+350)+ (440+350)		
	Airflow rate	m <sup>3</sup> /h	44000	44000	48000		
	Drive type		Direct				
Refrigerant	Type		R410A				
	Factory charge	kg (lbs.)	9+16×2 (20+35×2)	11+16×2 (24+35×2)	13×2+16 (29×2+35)		
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ22.2 (Φ7/8)				
	Gas pipe	mm (in.)	Φ41.3 (Φ1-5/8)				
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)				
Sound pressure level <sup>5</sup>	dB(A)	67	67	68			
Net dimensions (W×H×D)	mm	(990×1635×790)+(1340×1635×790)×2			(1340×1635×790)×3		
	in.	(39×64-3/8×31-1/8)+(52-3/4×64-3/8×31-1/8)×2			(52-3/4×64-3/8×31-1/8)×3		
Packed dimensions (W×H×D)	mm	(1055×1805×855)+(1405×1805×855)×2			(1405×1805×855)×3		
	in.	(41-1/2×71-1/16×33-5/8)+ (55-3/8×71-1/16×33-5/8)×2			(55-3/8×71-1/16×33-5/8)×3		
Net weight	kg (lbs.)	219+340×2 (483+750×2)	237+340×2 (523+750×2)	305×2+340 (673×2+750)			
Gross weight	kg (lbs.)	234+358×2 (516+790×2)	252+358×2 (556+790×2)	323×2+358 (712×2+323)			
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)					
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector						
Standard accessories	Installation manual, operation manual, connection pipes, clamps						

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

kBtu/h = kW × 3.412;  
in.W.G. = Pa × 0.004;  
lbs. = kg × 2.2;  
in. = mm / 25.4



Table 2-1.10: specifications

HP		60		62		64	
Model name (Combination unit)		TMVV5X1680HT3I <sup>3.83</sup> /O4ATW3T		TMVV5X1730HT3I <sup>3.73</sup> /O4ATW3T		TMVV5X1790HT3I <sup>3.78</sup> /O4ATW3T	
Combination type		16HP+22HP×2		18HP+22HP×2		20HP+22HP×2	
Power supply		3 phase, 380-415V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	168	173	179		
		kBtu/h	573.1	590.2	610.7		
	Power input	kW	43.86	45.71	47.4		
	EER		3.83	3.78	3.78		
Cooling <sup>2</sup>	Capacity	kW	152.35	156.9	162.35		
		kBtu/h	519.8	535.3	553.9		
	Power input	kW	48.81	50.87	52.75		
	EER		3.12	3.08	3.08		
Heating <sup>3</sup>	Capacity	kW	188	194	201		
		kBtu/h	641.4	661.9	685.7		
	Power input	kW	45.11	47.42	49.53		
	COP		4.17	4.09	4.06		
Connected indoor units	Total capacity		50-130% of outdoor unit capacity				
	Maximum quantity		64				
Compressor s	Type		DC inverter				
	Quantity		6				
	Oil type		FVC68D				
	Start-up method		Soft start				
Fans	Type		Propeller				
	Motor type		DC				
	Quantity		6				
	Motor input	W	(360+290)+(550+430)+(550+430)	(520+440)+(550+430)+(550+430)	(550+430)+(550+430)+(550+430)		
	Motor output	W	(290+230)+(440+350)+(440+350)	(420+350)+(440+350)+(440+350)	(440+350)+(440+350)+(440+350)		
	Airflow rate	m <sup>3</sup> /h	46000	48000	48000		
Drive type		Direct					
Refrigerant	Type		R410A				
	Factory charge	kg (lbs.)	13+16×2 (29+35×2)	13+16×2 (29+35×2)	16×3 (35×3)		
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ22.2 (Φ7/8)				
	Gas pipe	mm (in.)	Φ41.3 (Φ1-5/8)				
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)				
Sound pressure level <sup>5</sup>	dB(A)		68				
Net dimensions (W×H×D)	mm		(1340×1635×790)×3				
	in.		(52-3/4×64-3/8×31-1/8)×3				
Packed dimensions (W×H×D)	mm		(1405×1805×855)×3				
	in.		(55-3/8×71-1/16×33-5/8)×3				
Net weight	kg (lbs.)	297+340×2 (655+750×2)	305+340×2 (673+750×2)	340×3 (750×3)			
Gross weight	kg (lbs.)	315+358×2 (695+790×2)	323+358×2 (712+790×2)	358×3 (790×3)			
Operating temperature range	°C (°F)		Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)				
Safety devices		High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector					
Standard accessories		Installation manual, operation manual, connection pipes, clamps					

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

kBtu/h = kW × 3.412;  
in.W.G. = Pa × 0.004;  
lbs. = kg × 2.2;  
in. = mm / 25.4

Table 2-1.11: specifications

HP		66		68		70	
Model name (Combination unit)		TMVV5X1845HT3 <sup>13.74</sup> /O4ATW3T		TMVV5X1900HT3 <sup>13.92</sup> /O4ATW3T		TMVV5X1960HT3 <sup>13.91</sup> /O4ATW3T	
Combination type		22HP×3		12HP×2+22HP×2		10HP+16HP+22HP×2	
Power supply		3 phase, 380-415V, 50/60Hz					
Cooling <sup>1</sup>	Capacity	kW	184.5	190	196		
		kBtu/h	629.4	648.2	668.6		
	Power input	kW	49.33	48.47	50.09		
EER			3.74	3.92	3.91		
Cooling <sup>2</sup>	Capacity	kW	167.25	172.2	177.75		
		kBtu/h	570.6	587.6	606.5		
	Power input	kW	54.9	53.94	55.73		
EER			3.05	3.19	3.19		
Heating <sup>3</sup>	Capacity	kW	207	213	219.5		
		kBtu/h	706.2	726.8	748.9		
	Power input	kW	51.36	46.13	51.06		
COP			4.03	4.62	4.3		
Connected indoor units	Total capacity		50-130% of outdoor unit capacity				
	Maximum quantity		64				
Compressors	Type		DC inverter				
	Quantity		6	6	7		
	Oil type		FVC68D				
	Start-up method		Soft start				
Fans	Type		Propeller				
	Motor type		DC				
	Quantity		6	6	7		
	Motor input	W	(550+430)+(550+430)+ (550+430)	(580)+(580)+ (550+430)+(550+430)	(580)+(360+290)+ (550+430)+(550+430)		
	Motor output	W	(440+350)+(440+350)+ (440+350)	(465)+(465)+ (440+350)+(440+350)	(465)+(290+230)+ (440+350)+(440+350)		
	Airflow rate	m <sup>3</sup> /h	48000	56000	58000		
	Drive type		Direct				
Refrigerant	Type		R410A				
	Factory charge	kg (lbs.)	16×3 (35×3)	11×2+16×2 (24×2+35×2)	9+13+16×2 (20+29+35×2)		
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ22.2 (Φ7/8)	Φ25.4 (Φ1)	Φ25.4 (Φ1)		
	Gas pipe	mm (in.)	Φ41.3 (Φ1-5/8)	Φ44.5 (Φ1-3/4)	Φ44.5 (Φ1-3/4)		
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)				
Sound pressure level <sup>5</sup>	dB(A)	68	68	69			
Net dimensions (W×H×D)	mm	(1340×1635×790)×3	(990×1635×790)×2+ (1340×1635×790)×2	(990×1635×790)+ (1340×1635×790)×3			
	in.	(52-3/4×64-3/8×31-1/8)×3	(39×64-3/8×31-1/8)×2+ (52-3/4×64-3/8×31-1/8)×2	(39×64-3/8×31-1/8)+ (52-3/4×64-3/8×31-1/8)×3			
Packed dimensions (W×H×D)	mm	(1405×1805×855)×3	(1055×1805×855)×2+ (1405×1805×855)×2	(1055×1805×855)+ (1405×1805×855)×3			
	in.	(55-3/8×71-1/16×33-5/8)×3	(41-1/2×71-1/16×33-5/8)×2+ (55-3/8×71-1/16×33-5/8)×2	(41-1/2×71-1/16×33-5/8)+ (55-3/8×71-1/16×33-5/8)×3			
Net weight	kg (lbs.)	340×3 (750×3)	237×2+340×2 (523×2+750×2)	219+297+340×2 (483+655+750×2)			
Gross weight	kg (lbs.)	358×3 (790×3)	252×2+358×2 (556×2+790×2)	234+315+358×2 (516+695+790×2)			
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)					
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector						
Standard accessories	Installation manual, operation manual, connection pipes, clamps						

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths

Conversion Formulae:

$$\text{kBtu/h} = \text{kW} \times 3.412;$$

$$\text{in.W.G.} = \text{Pa} \times 0.004;$$

$$\text{lbs.} = \text{kg} \times 2.2;$$

$$\text{in.} = \text{mm} / 25.4$$

of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.

5. Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Table 2-1.12: specifications

HP			72	74	76
Model name (Combination unit)			TMVV5X2010HT3 <sup>3.87</sup> /O4ATW3T	TMVV5X2070HT3 <sup>3.86</sup> /O4ATW3T	TMVV5X2125HT3 <sup>3.83</sup> /O4ATW3T
Combination type			10HP+18HP+22HP×2	10HP+20HP+22HP×2	10HP+22HP×3
Power supply			3 phase, 380-415V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	201	207	212.5
		kBtu/h	685.7	706.2	724.9
	Power input	kW	51.93	53.62	55.55
	EER		3.87	3.86	3.83
Cooling <sup>2</sup>	Capacity	kW	182.3	187.75	192.65
		kBtu/h	622	640.6	657.3
	Power input	kW	57.79	59.67	61.82
	EER		3.15	3.15	3.12
Heating <sup>3</sup>	Capacity	kW	225.5	232.5	238.5
		kBtu/h	769.4	793.2	813.7
	Power input	kW	53.36	55.48	57.31
	COP		4.23	4.19	4.16
Connected indoor units	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		7		
	Oil type		FVC68D		
	Start-up method		Soft start		
Fans	Type		Propeller		
	Motor type		DC		
	Quantity		7		
	Motor input	W	(580)+(520+440)+ (550+430)+(550+430)	(580)+(550+430)+ (550+430)+(550+430)	(580)+(550+430)+ (550+430)+(550+430)
	Motor output	W	(465)+(420+350)+ (440+350)+(440+350)	(465)+(440+350)+ (440+350)+(440+350)	(465)+(440+350)+ (440+350)+(440+350)
	Airflow rate	m <sup>3</sup> /h	60000		
	Drive type		Direct		
Refrigerant	Type		R410A		
	Factory charge	kg (lbs.)	9+13+16×2 (20+29+35×2)	9+16×3 (20+35×3)	9+16×3 (20+35×3)
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ25.4 (Φ1)		
	Gas pipe	mm (in.)	Φ44.5 (Φ1-3/4)		
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)		
Sound pressure level <sup>5</sup>		dB(A)	69		
Net dimensions (W×H×D)	mm		(990×1635×790)+(1340×1635×790)×3		
	in.		(39×64-3/8×31-1/8)+(52-3/4×64-3/8×31-1/8)×3		
Packed dimensions (W×H×D)	mm		(1055×1805×855)+(1405×1805×855)×3		
	in.		(41-1/2×71-1/16×33-5/8)+(55-3/8×71-1/16×33-5/8)×3		
Net weight	kg (lbs.)	219+305+340×2 (483+673+750×2)	219+340×3 (483+750×3)	219+340×3 (483+750×3)	
Gross weight	kg (lbs.)	234+323+358×2 (516+712+790×2)	234+358×3 (516+790×3)	234+358×3 (516+790×3)	
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)			
Safety devices			High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector		
Standard accessories			Installation manual, operation manual, connection pipes, clamps		

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

kBtu/h = kW × 3.412;  
in.W.G. = Pa × 0.004;  
lbs. = kg × 2.2;  
in. = mm / 25.4

Table 2-1.13: specifications

HP			78	80	82
Model name (Combination unit)			TMVV5X2180HT3 <sup>1.82</sup> /O4ATW3T	TMVV5X2230HT3 <sup>1.81</sup> /O4ATW3T	TMVV5X2295HT3 <sup>1.81</sup> /O4ATW3T
Combination type			12HP+22HP×3	18HP×2+22HP×2	16HP+22HP×3
Power supply			3 phase, 380-415V, 50/60Hz		
Cooling <sup>1</sup>	Capacity	kW	218	223	229.5
		kBtu/h	743.7	760.8	782.9
	Power input	kW	57.12	58.53	60.31
	EER			3.82	3.81
Cooling <sup>2</sup>	Capacity	kW	197.6	202.3	208.1
		kBtu/h	674.2	690.2	710
	Power input	kW	63.57	65.14	67.11
	EER			3.11	3.11
Heating <sup>3</sup>	Capacity	kW	244.5	250	257
		kBtu/h	834.2	853	876.8
	Power input	kW	59.02	60.6	62.23
	COP			4.14	4.13
Connected indoor units	Total capacity		50-130% of outdoor unit capacity		
	Maximum quantity		64		
Compressors	Type		DC inverter		
	Quantity		7	8	8
	Oil type		FVC68D		
	Start-up method		Soft start		
Fans	Type		Propeller		
	Motor type		DC		
	Quantity		7	8	8
	Motor input	W	(580)+(550+430)+ (550+430)+(550+430)	(520+440)+(520+440)+ (550+430)+(550+430)	(360+290)+(550+430)+ (550+430)+(550+430)
	Motor output	W	(465)+(440+350)+ (440+350)+(440+350)	(420+350)+(420+350)+ (440+350)+(440+350)	(290+230)+(440+350)+ (440+350)+(440+350)
	Airflow rate	m <sup>3</sup> /h	60000	64000	62000
	Drive type		Direct		
Refrigerant	Type		R410A		
	Factory charge	kg (lbs.)	11+16×3 (24+35×3)	13×2+16×2 (29×2+35×2)	13+16×3 (29+35×3)
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ25.4 (Φ1)		
	Gas pipe	mm (in.)	Φ44.5 (Φ1-3/4)		
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)		
Sound pressure level <sup>5</sup>	dB(A)	69	70	70	
Net dimensions (W×H×D)	mm	(990×1635×790)+ (1340×1635×790)×3	(1340×1635×790)×4		
	in.	(39×64-3/8×31-1/8)+ (52-3/4×64-3/8×31-1/8)×3	(52-3/4×64-3/8×31-1/8)×4		
Packed dimensions (W×H×D)	mm	(1055×1805×855)+ (1405×1805×855)×3	(1405×1805×855)×4		
	in.	(41-1/2×71-1/16×33-5/8)+ (55-3/8×71-1/16×33-5/8)×3	(55-3/8×71-1/16×33-5/8)×4		
Net weight	kg (lbs.)	237+340×3 (523+750×3)	305×2+340×2 (673×2+750×2)	297+340×3 (655+750×3)	
Gross weight	kg (lbs.)	252+358×3 (556+790×3)	323×2+358×2 (712×2+323×2)	315+358×3 (695+790×3)	
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)			
Safety devices	High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector				
Standard accessories	Installation manual, operation manual, connection pipes, clamps				

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

kBtu/h = kW × 3.412;  
in.W.G. = Pa × 0.004;  
lbs. = kg × 2.2;  
in. = mm / 25.4

Table 2-1.14: specifications

HP		84		86		88		
Model name (Combination unit)		TMVV5X2345HT3 <sup>13.77</sup> /O4ATW3T		TMVV5X2405HT3 <sup>13.77</sup> /O4ATW3T		TMVV5X2460HT3 <sup>13.74</sup> /O4ATW3T		
Combination type		18HP+22HP×3		20HP+22HP×3		22HP×4		
Power supply		3 phase, 380-415V, 50/60Hz						
Cooling <sup>1</sup>	Capacity	kW	234.5	240.5	246			
		kBtu/h	800	820.5	839.2			
	Power input	kW	62.15	63.84	65.78			
	EER		3.77	3.77	3.74			
Cooling <sup>2</sup>	Capacity	kW	212.65	218.1	223			
		kBtu/h	725.5	744.1	760.8			
	Power input	kW	69.17	71.05	73.2			
	EER		3.07	3.07	3.05			
Heating <sup>3</sup>	Capacity	kW	263	270	276			
		kBtu/h	897.3	921.1	941.6			
	Power input	kW	64.54	66.66	68.49			
	COP		4.07	4.05	4.03			
Connected indoor units	Total capacity	50-130% of outdoor unit capacity						
	Maximum quantity	64						
Compressors	Type	DC inverter						
	Quantity	8						
	Oil type	FVC68D						
	Start-up method	Soft start						
Fans	Type	Propeller						
	Motor type	DC						
	Quantity	8						
	Motor input	W	(520+440)+(550+430)+(550+430)+(550+430)	(550+430)+(550+430)+(550+430)+(550+430)	(550+430)+(550+430)+(550+430)+(550+430)			
	Motor output	W	(420+350)+(440+350)+(440+350)+(440+350)	(440+350)+(440+350)+(440+350)+(440+350)	(440+350)+(440+350)+(440+350)+(440+350)			
	Airflow rate	m <sup>3</sup> /h	64000					
	Drive type		Direct					
Refrigerant	Type	R410A						
	Factory charge	kg (lbs.)	13+16×3 (29+35×3)	16×4 (35×4)	16×4 (35×4)			
Pipe connections <sup>4</sup>	Liquid pipe	mm (in.)	Φ25.4 (Φ1)					
	Gas pipe	mm (in.)	Φ44.5 (Φ1-3/4)					
	Oil balance pipe	mm (in.)	Φ8 (Φ5/16)					
Sound pressure level <sup>5</sup>	dB(A)	70						
Net dimensions (W×H×D)	mm	(1340×1635×790)×4						
	in.	(52-3/4×64-3/8×31-1/8)×4						
Packed dimensions (W×H×D)	mm	(1405×1805×855)×4						
	in.	(55-3/8×71-1/16×33-5/8)×4						
Net weight	kg (lbs.)	305+340×3 (673+750×3)	340×4 (750×4)	340×4 (750×4)				
Gross weight	kg (lbs.)	323+358×3 (712+790×3)	358×4 (790×4)	358×4 (790×4)				
Operating temperature range	°C (°F)	Cooling: -5 to 54 (23 to 129.2); heating: -20 to 24 (-4 to 75.2)						
Safety devices		High/low pressure switch, fan driver overload protector, overcurrent relay, inverter overload protector, overvoltage protector						
Standard accessories		Installation manual, operation manual, connection pipes, clamps						

Notes:

- Indoor air temperature 27°C (80.6°F) DB, 19°C (66.2°F) WB; outdoor air temperature 35°C (95.0°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 29°C (84.2°F) DB, 19°C (66.2°F) WB; outdoor air temperature 46°C (114.8°F) DB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Indoor air temperature 20°C (68.0°F) DB; outdoor air temperature 7°C (44.6°F) DB, 6°C (42.8°F) WB; equivalent refrigerant piping length 7.5m (24.6ft.) with zero level difference.
- Diameters given are those for the pipe connecting the outdoor unit combination to the first indoor branch joint for systems with total equivalent liquid piping lengths of less than 90m (295.2ft). For systems with total equivalent liquid piping lengths of 90m (295.2ft) or longer, please refer to Part 3 "System Design and Installation" for connection piping diameters.
- Sound pressure level is measured at a position 1m (3.28ft.) in front of the unit and 1.3m (4.26ft.) above the floor in a semi-anechoic chamber.

Conversion Formulae:

$$\text{kBtu/h} = \text{kW} \times 3.412;$$

$$\text{in.W.G.} = \text{Pa} \times 0.004;$$

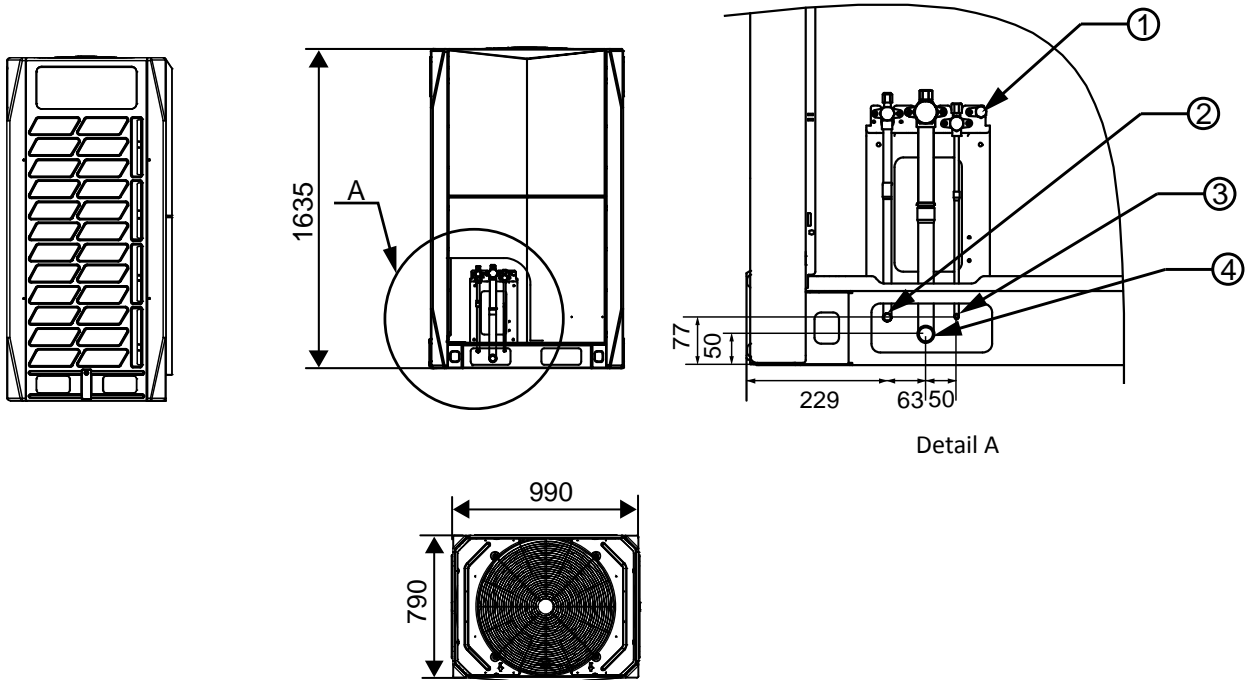
$$\text{lbs.} = \text{kg} \times 2.2;$$

$$\text{in.} = \text{mm} / 25.4$$

## 2 Dimensions

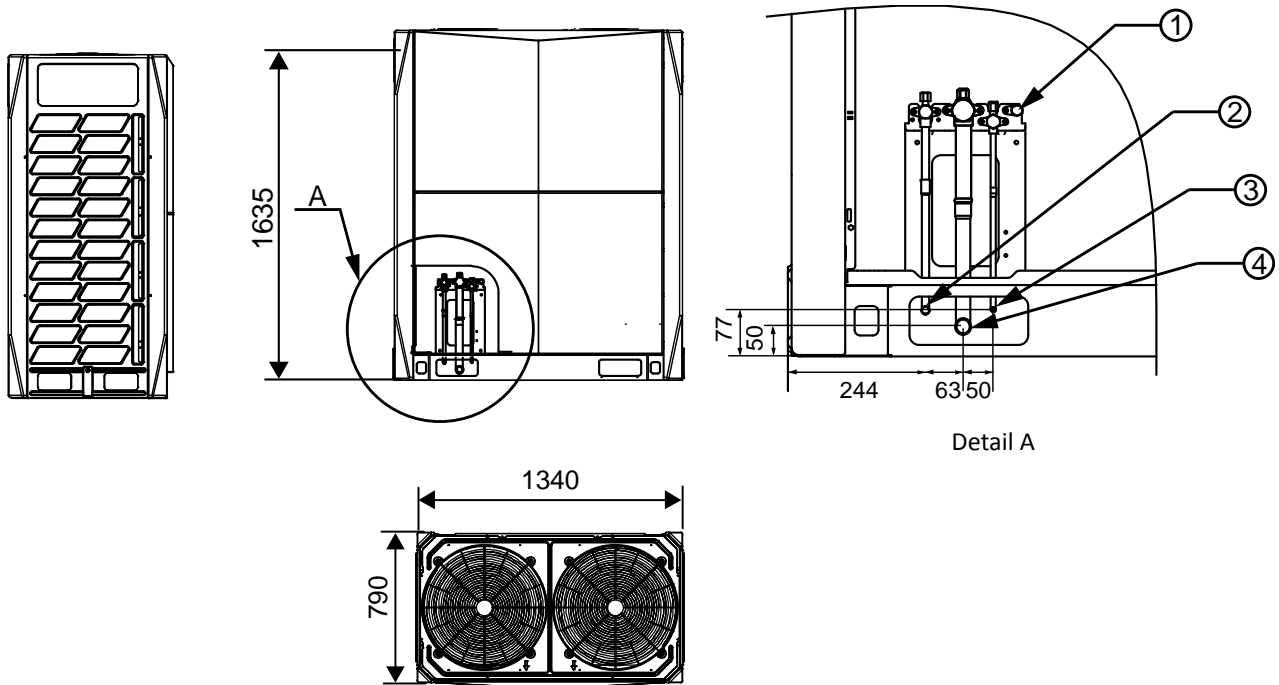
### 2.1 Single Units

Figure 2-2.1: TMVV5X252HT3<sup>4.7</sup>/O4ATW3T, TMVV5X280HT3<sup>4.5</sup>/O4ATW3T, TMVV5X335HT3<sup>4.3</sup>/O4ATW3T dimensions (unit: mm)



Legend		
No.	Parts name	Remarks
1	Check port	The check port is used to measure system pressure, charge refrigerant and vacuumize the system.
2	Liquid pipe connection port	Φ12.7 brazed connection on TMVV5X252HT3 <sup>4.7</sup> /O4ATW3T, TMVV5X280HT3 <sup>4.5</sup> /O4ATW3T T Φ15.9 brazed connection on TMVV5X335HT3 <sup>4.3</sup> /O4ATW3T
3	Oil balance pipe connection port	The oil balance pipe runs between outdoor units. Φ8 brazed connection.
4	Gas pipe connection port	Φ25.4 brazed connection on TMVV5X252HT3 <sup>4.7</sup> /O4ATW3T, TMVV5X280HT3 <sup>4.5</sup> /O4ATW3T Φ28.6 brazed connection on TMVV5X335HT3 <sup>4.3</sup> /O4ATW3T

Figure2-2.2: TMVV5X400HT3<sup>4.3</sup>/O4ATW3T, TMVV5X450HT3<sup>4.1</sup>/O4ATW3T, TMVV5X500HT3<sup>3.9</sup>/O4ATW3T, TMVV5X560HT3<sup>3.86</sup>/O4ATW3T, TMVV5X615HT3<sup>3.74</sup>/O4ATW3T dimensions (unit: mm)



Legend		
No.	Parts name	Remarks
1	Check port	The check port is used to measure system pressure, charge refrigerant and vacuumize the system.
2	Liquid pipe connection port	Φ15.9 brazed connection on TMVV5X400HT3 <sup>4.3</sup> /O4ATW3T, TMVV5X450HT3 <sup>4.1</sup> /O4ATW3T Φ19.1 brazed connection on TMVV5X500HT3 <sup>3.9</sup> /O4ATW3T, TMVV5X560HT3 <sup>3.86</sup> /O4ATW3T, TMVV5X615HT3 <sup>3.74</sup> /O4ATW3T
3	Oil balance pipe connection port	The oil balance pipe runs between outdoor units. Φ8 brazed connection.
4	Gas pipe connection port	Φ31.8 brazed connection on TMVV5X400HT3 <sup>4.3</sup> /O4ATW3T, TMVV5X450HT3 <sup>4.1</sup> /O4ATW3T, TMVV5X500HT3 <sup>3.9</sup> /O4ATW3T, TMVV5X560HT3 <sup>3.86</sup> /O4ATW3T, TMVV5X615HT3 <sup>3.74</sup> /O4ATW3T



## 2.2 Combinations of Units

Figure 2-2.3: TMVV5X670HT3<sup>4.3</sup>/O4ATW3T dimensions (unit: mm)

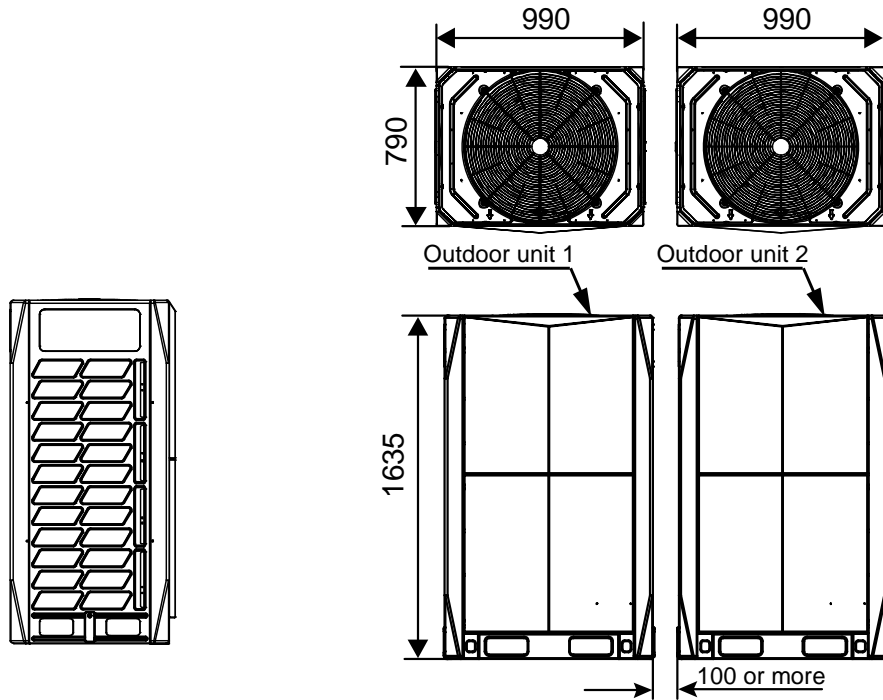


Figure 2-2.4: TMVV5X730HT3<sup>4.24</sup>/O4ATW3T, TMVV5X780HT3<sup>4.1</sup>/O4ATW3T, TMVV5X840HT3<sup>4.05</sup>/O4ATW3T, TMVV5X895HT3<sup>3.95</sup>/O4ATW3T, TMVV5X950HT3<sup>3.92</sup>/O4ATW3T dimensions (unit: mm)

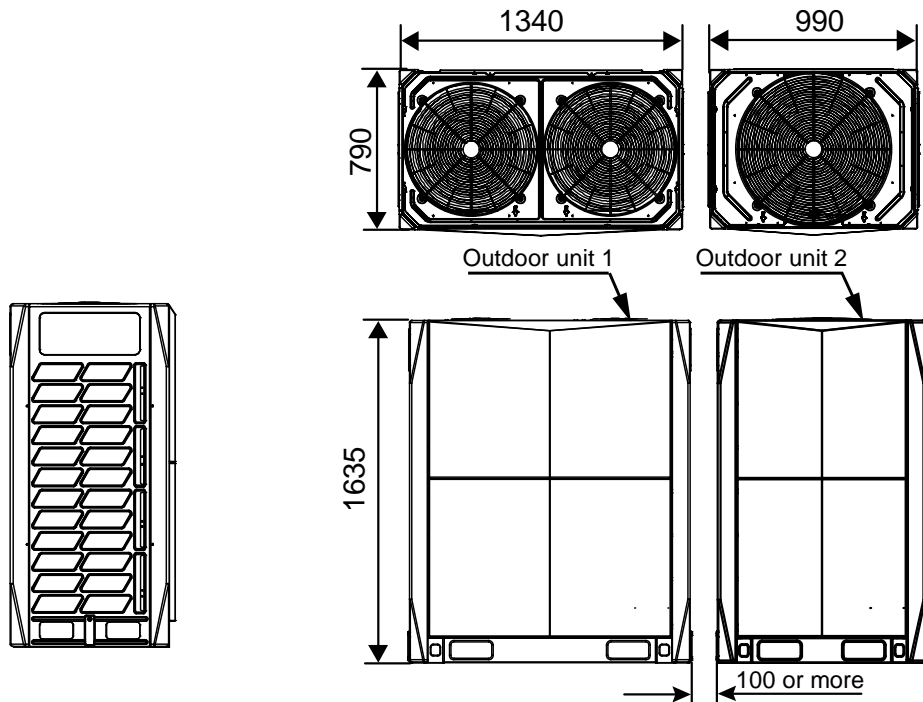


Figure 2-2.5: TMVV5X1000HT3<sup>3.9</sup>/O4ATW3T, TMVV5X1065HT3<sup>3.88</sup>/O4ATW3T, TMVV5X1115HT3<sup>3.81</sup>/O4ATW3T, TMVV5X1175HT3<sup>3.8</sup>/O4ATW3T, TMVV5X1230HT3<sup>3.74</sup>/O4ATW3T dimensions (unit: mm)

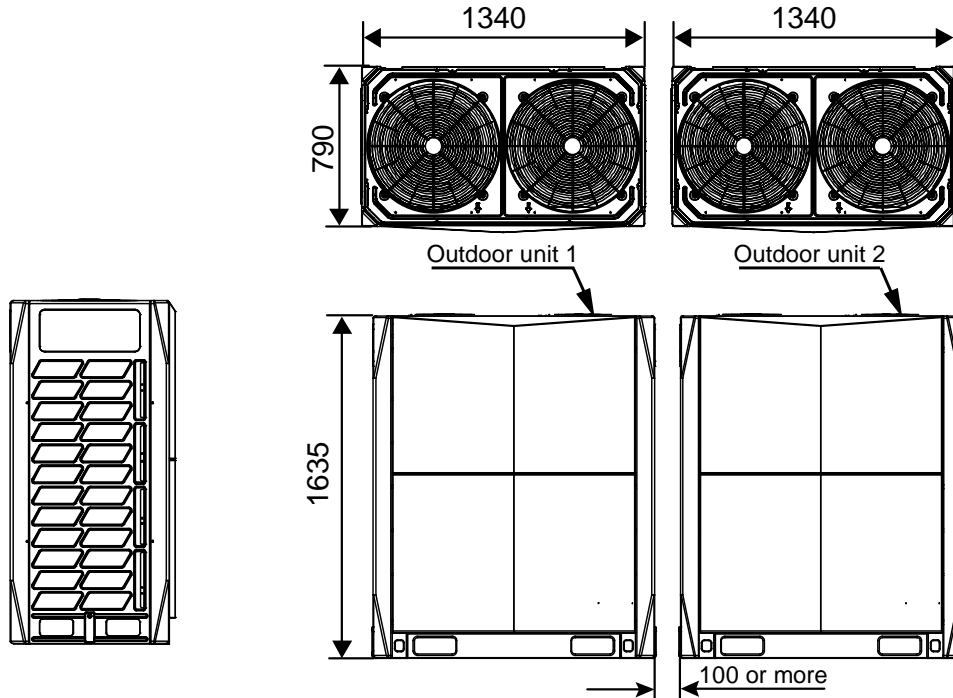


Figure 2-2.6: TMVV5X1285HT3<sup>4.01</sup>/O4ATW3T dimensions (unit: mm)

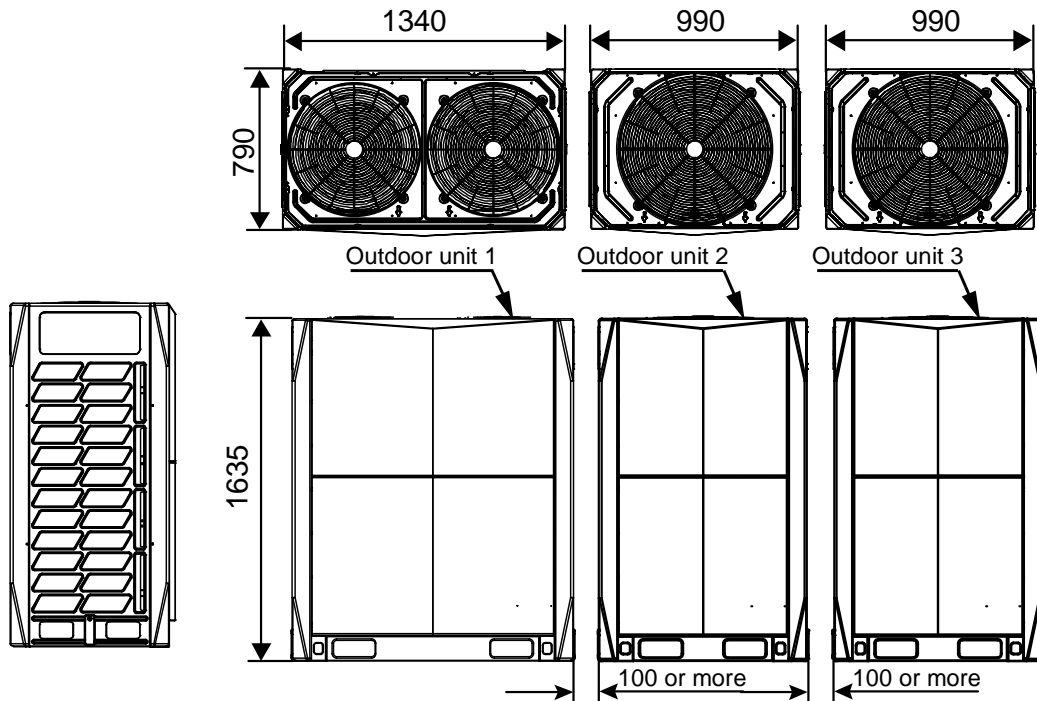


Figure 2-2.7: TMVV5X1345HT3<sup>14</sup>/O4ATW3T, TMVV5X1395HT3<sup>13.93</sup>/O4ATW3T, TMVV5X1455HT3<sup>13.91</sup>/O4ATW3T, TMVV5X1510HT3<sup>13.86</sup>/O4ATW3T, TMVV5X1565HT3<sup>13.85</sup>/O4ATW3T dimensions (unit: mm)

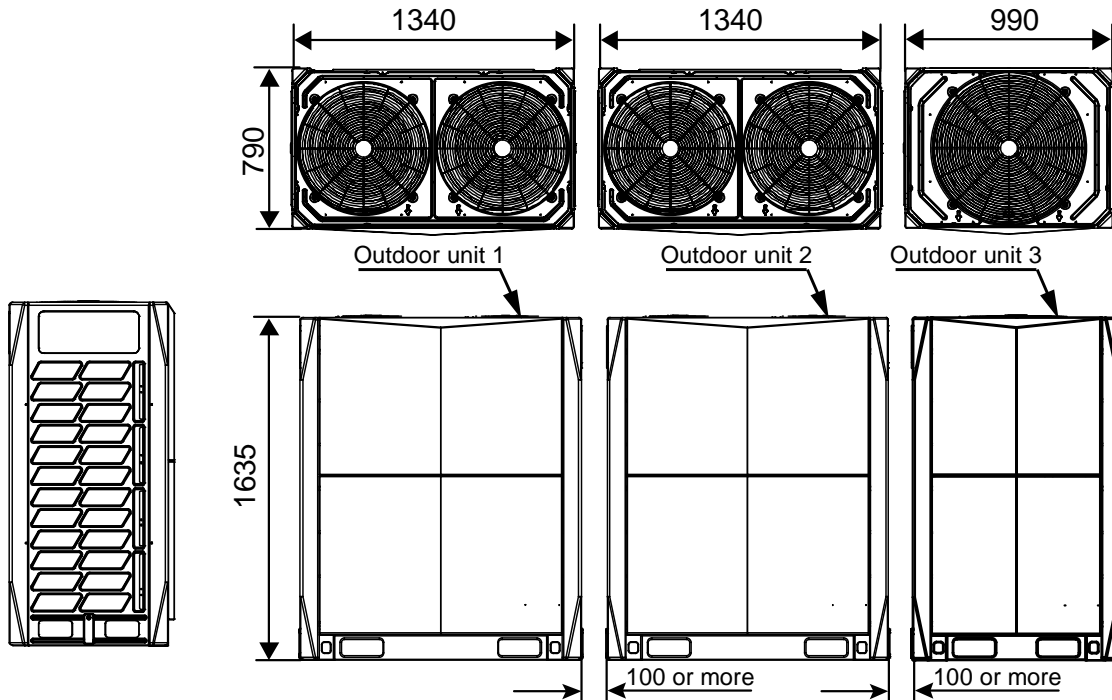


Figure 2-2.8: TMVV5X1615HT3<sup>13.84</sup>/O4ATW3T, TMVV5X1680HT3<sup>13.83</sup>/O4ATW3T, TMVV5X1730HT3<sup>13.73</sup>/O4ATW3T, TMVV5X1790HT3<sup>13.78</sup>/O4ATW3T, TMVV5X1845HT3<sup>13.74</sup>/O4ATW3T dimensions (unit: mm)

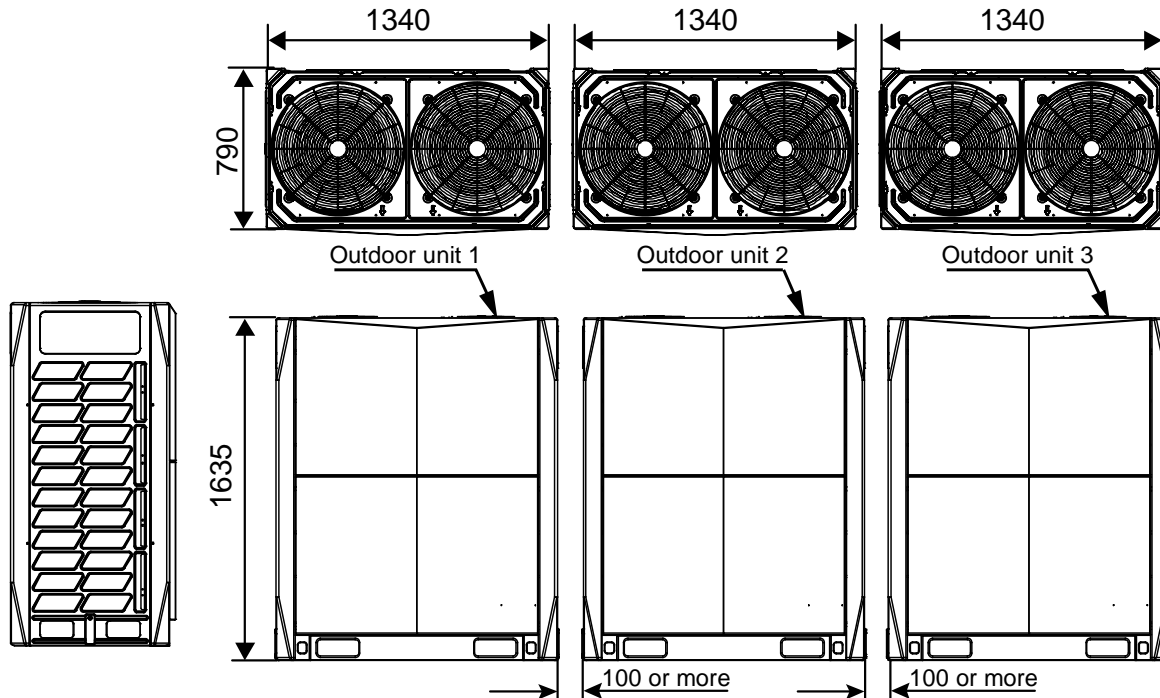


Figure 2-2.9: TMVV5X1900HT3<sup>β.92</sup>/O4ATW3T dimensions (unit: mm)

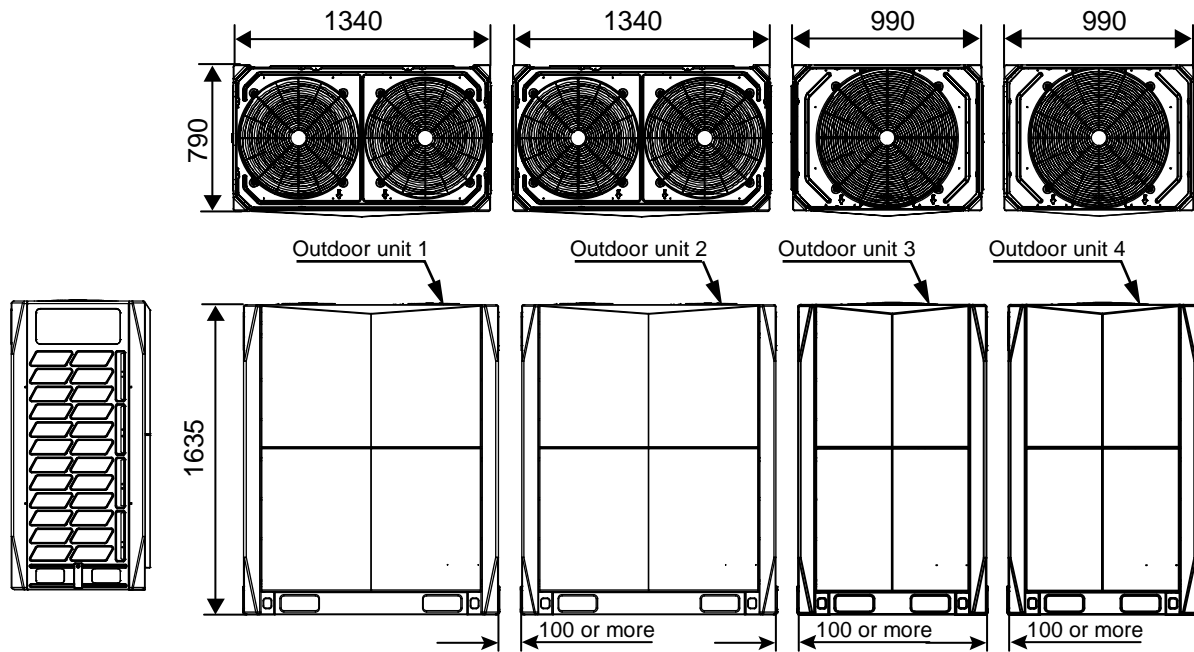


Figure 2-2.10 TMVV5X1960HT3<sup>β.91</sup>/O4ATW3T, TMVV5X2010HT3<sup>β.87</sup>/O4ATW3T, TMVV5X2070HT3<sup>β.86</sup>/O4ATW3T, TMVV5X2125HT3<sup>β.83</sup>/O4ATW3T, TMVV5X2180HT3<sup>β.82</sup>/O4ATW3T dimensions (unit: mm)

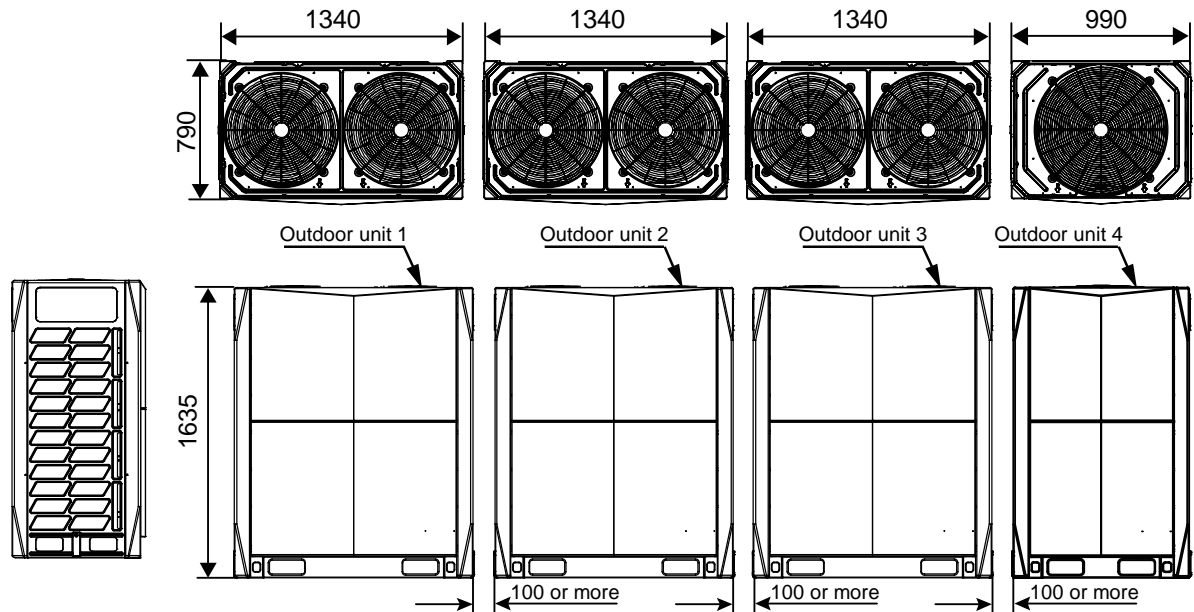
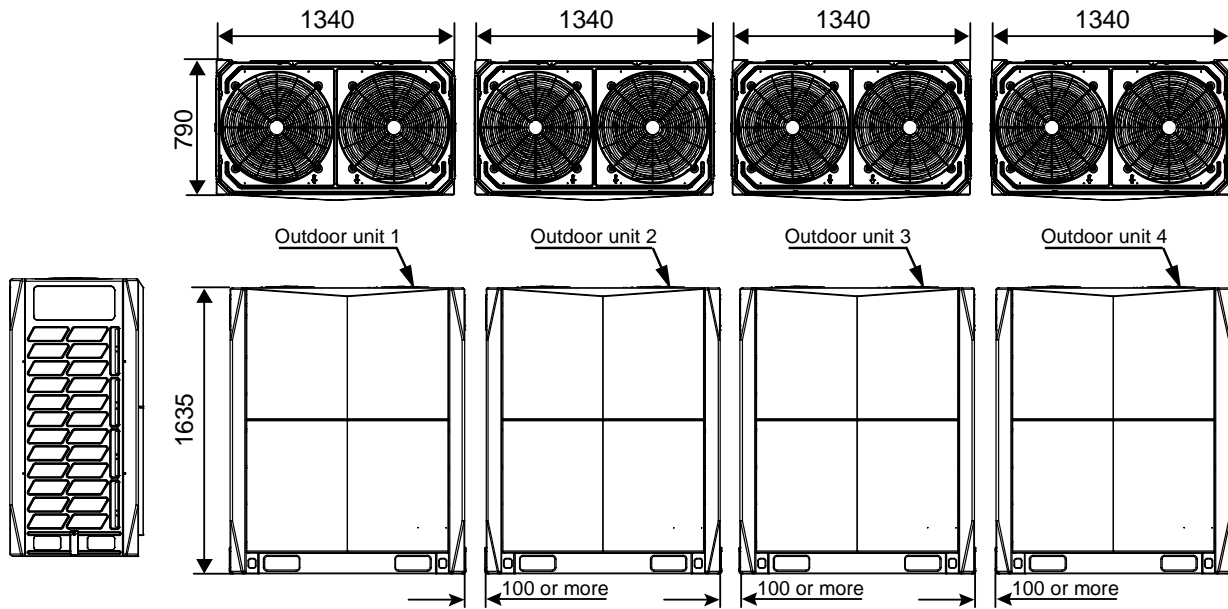


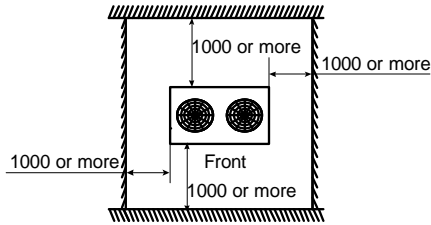
Figure 2-2.11 TMVV5X2230HT3<sup>3.81</sup>/O4ATW3T, TMVV5X2295HT3<sup>3.81</sup>/O4ATW3T, TMVV5X2345HT3<sup>3.77</sup>/O4ATW3T, TMVV5X2405HT3<sup>3.77</sup>/O4ATW3T, TMVV5X2460HT3<sup>3.74</sup>/O4ATW3T dimensions (unit: mm)



### 3 Installation Space Requirements

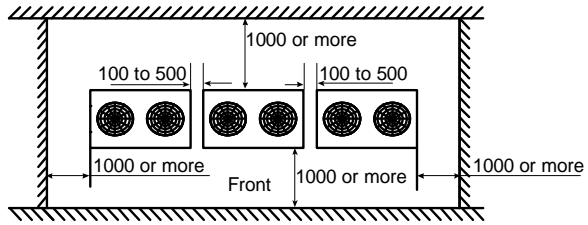
#### For single unit installation

Figure 2-3.1: Single unit installation (unit: mm)



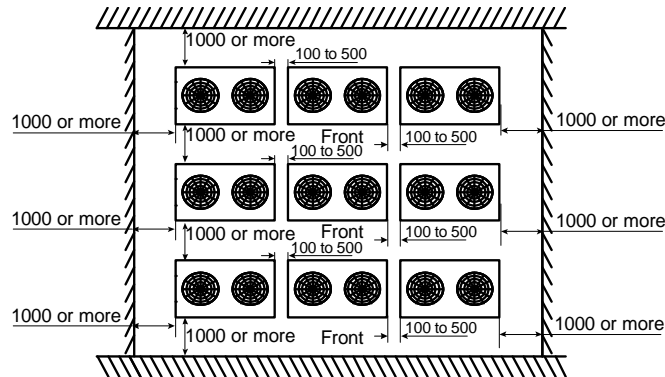
#### For single row installation

Figure 2-3.2: Single row installation (unit: mm)



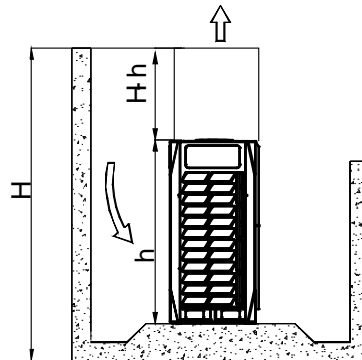
#### For multi-row installation

Figure 2-3.3: Multi-row installation (unit: mm)



Depending on the height of adjacent walls relative to the height of the units, ducting may be required to ensure proper air discharge. In the situation depicted in Figure 2-3.4, the vertical section of ducting should be at least  $H-h$  high.

Figure 2-3.4: Top of unit below top of adjacent wall



## 4 Piping Diagrams

Figure 2-4.1: TMVV5X252HT3<sup>4,7</sup>/O4ATW3T, TMVV5X280HT3<sup>4,5</sup>/O4ATW3T, TMVV5X335HT3<sup>4,3</sup>/O4ATW3T piping diagram

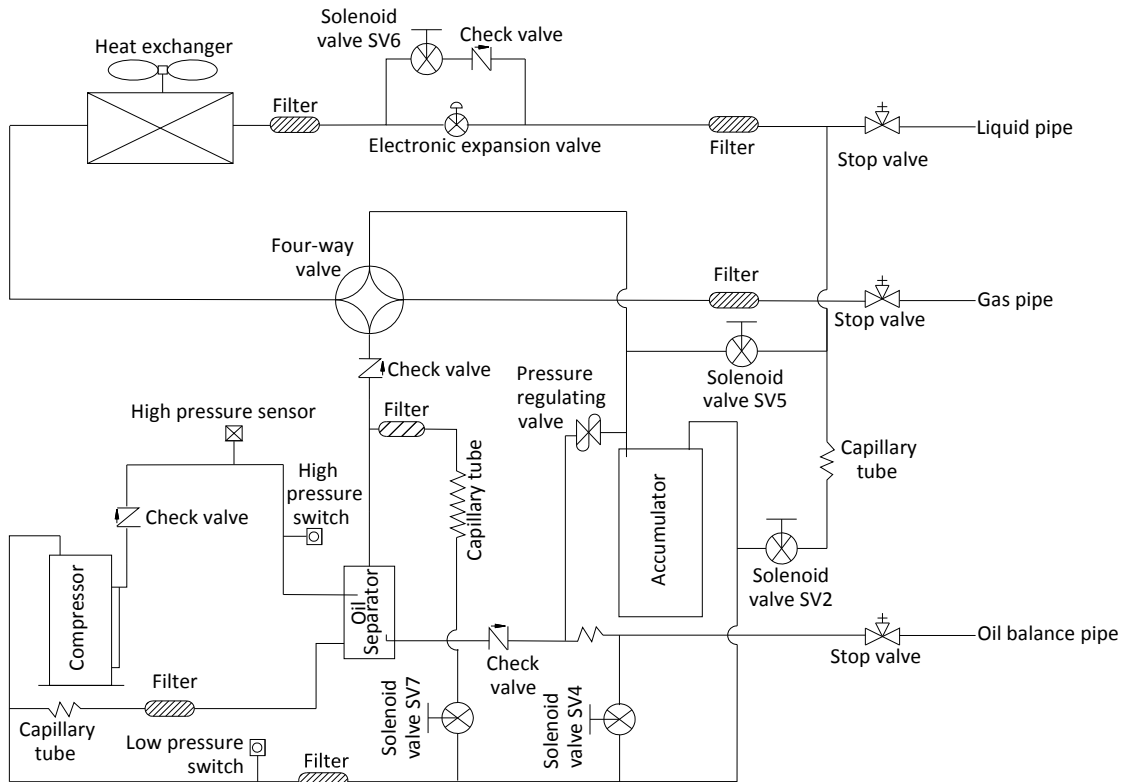


Figure 2-4.2: TMVV5X400HT3<sup>4,3</sup>/O4ATW3T, TMVV5X450HT3<sup>4,1</sup>/O4ATW3T piping diagram

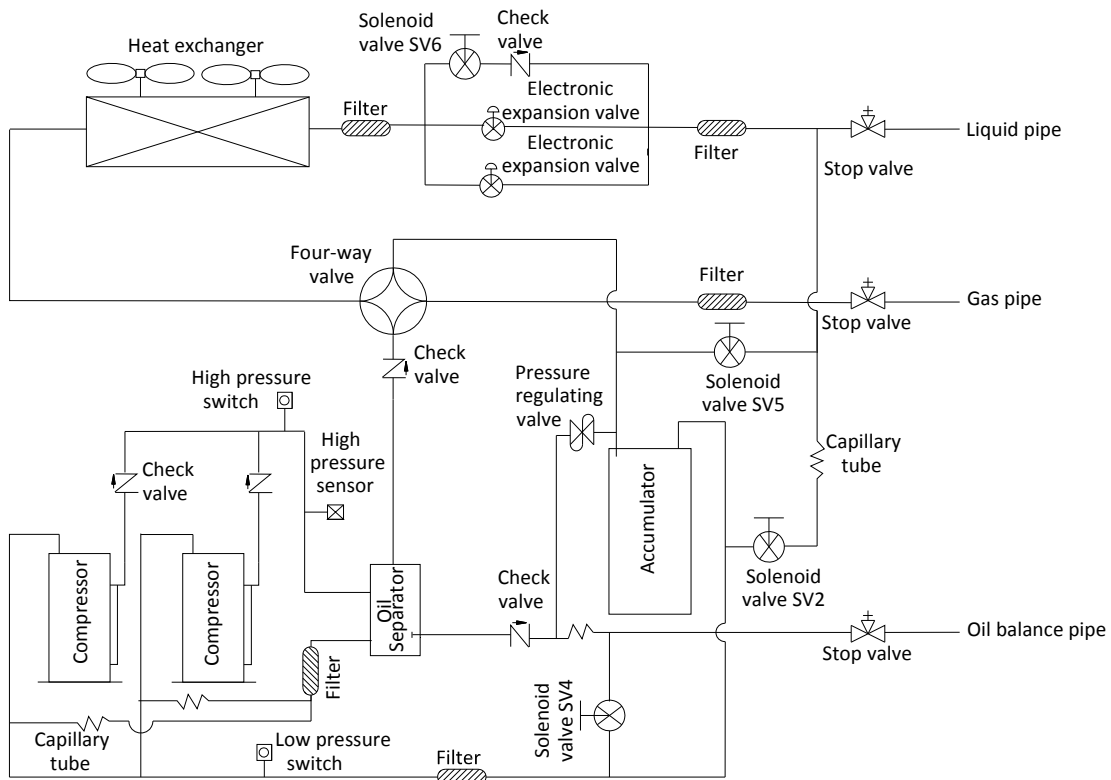
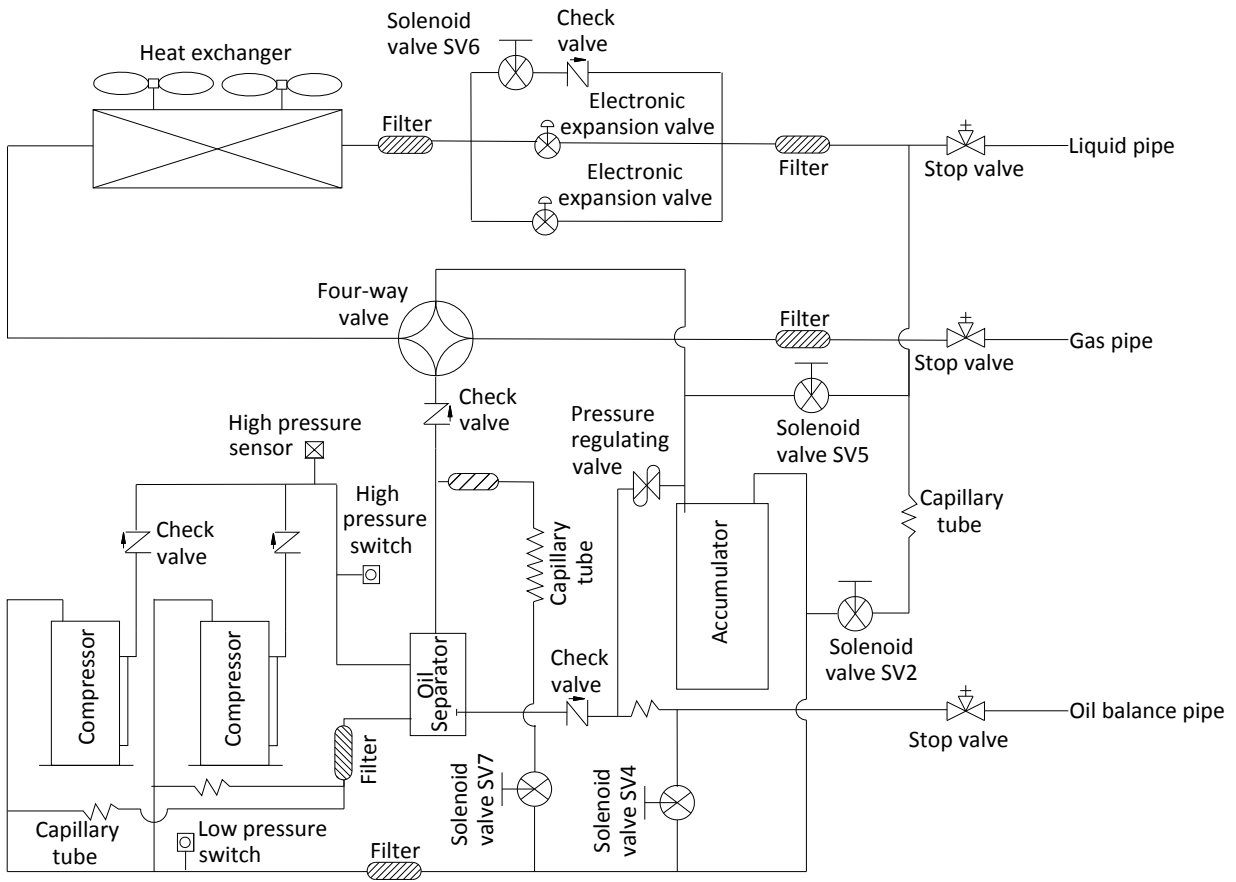


Figure 2-4.3: , TMVV5X500HT3<sup>3.9</sup>/O4ATW3T, TMVV5X560HT3<sup>3.86</sup>/O4ATW3T, TMVV5X615HT3<sup>3.74</sup>/O4ATW3T piping diagram





**Key components:****1. Oil separator:**

Separates oil from gas refrigerant pumped out of the compressor and quickly returns it to the compressor. Separation efficiency is up to 99%.

**2. Accumulator:**

Stores liquid refrigerant and oil to protect compressor from liquid hammering.

**3. Electronic expansion valve (EXV):**

Controls refrigerant flow and reduces refrigerant pressure.

**4. Four-way valve:**

Controls refrigerant flow direction. Closed in cooling mode and open in heating mode. When closed, the heat exchanger functions as a condenser; when open, the heat exchanger functions as an evaporator.

**5. Solenoid valve SV2:**

Protects the compressor. If compressor discharge temperature rises above 100°C, SV2 opens and sprays a small amount of liquid refrigerant to cool the compressor. SV2 closes again once the discharge temperature has fallen below 90°C.

**6. Solenoid valve SV4:**

Returns oil to the compressor. In single outdoor unit systems: opens once the compressor has run for 5 minutes and closes 15 minutes later. In multiple outdoor unit systems: each unit's SV4 opens for 3 minutes every 20 minutes.

**7. Solenoid valve SV5:**

Enables fast defrosting. During defrosting operation, opens to shorten the refrigerant flow cycle and quicken the defrosting process. Closed in cooling mode.

**8. Solenoid valve SV6:**

Allows refrigerant to bypass the expansion valves. Open in cooling mode when discharge temperature exceeds the limit. Closed in heating mode and standby.

**9. Solenoid valve SV7:**

Allows refrigerant to return directly to the compressor. Open when indoor air temperature is close to the set temperature to avoid frequent compressor on/off.

**10. High and low pressure switches:**

Regulate system pressure. When system pressure rises above the upper limit or falls below the lower limit, the high or low pressure switches turn off, stopping the compressor. After 10 minutes, the compressor restarts.

# 5 Wiring Diagrams

Figure 2-5.1: TMVV5X252HT3<sup>4,7</sup>/O4ATW3T, TMVV5X280HT3<sup>4,5</sup>/O4ATW3T, TMVV5X335HT3<sup>4,3</sup>/O4ATW3T wiring diagram

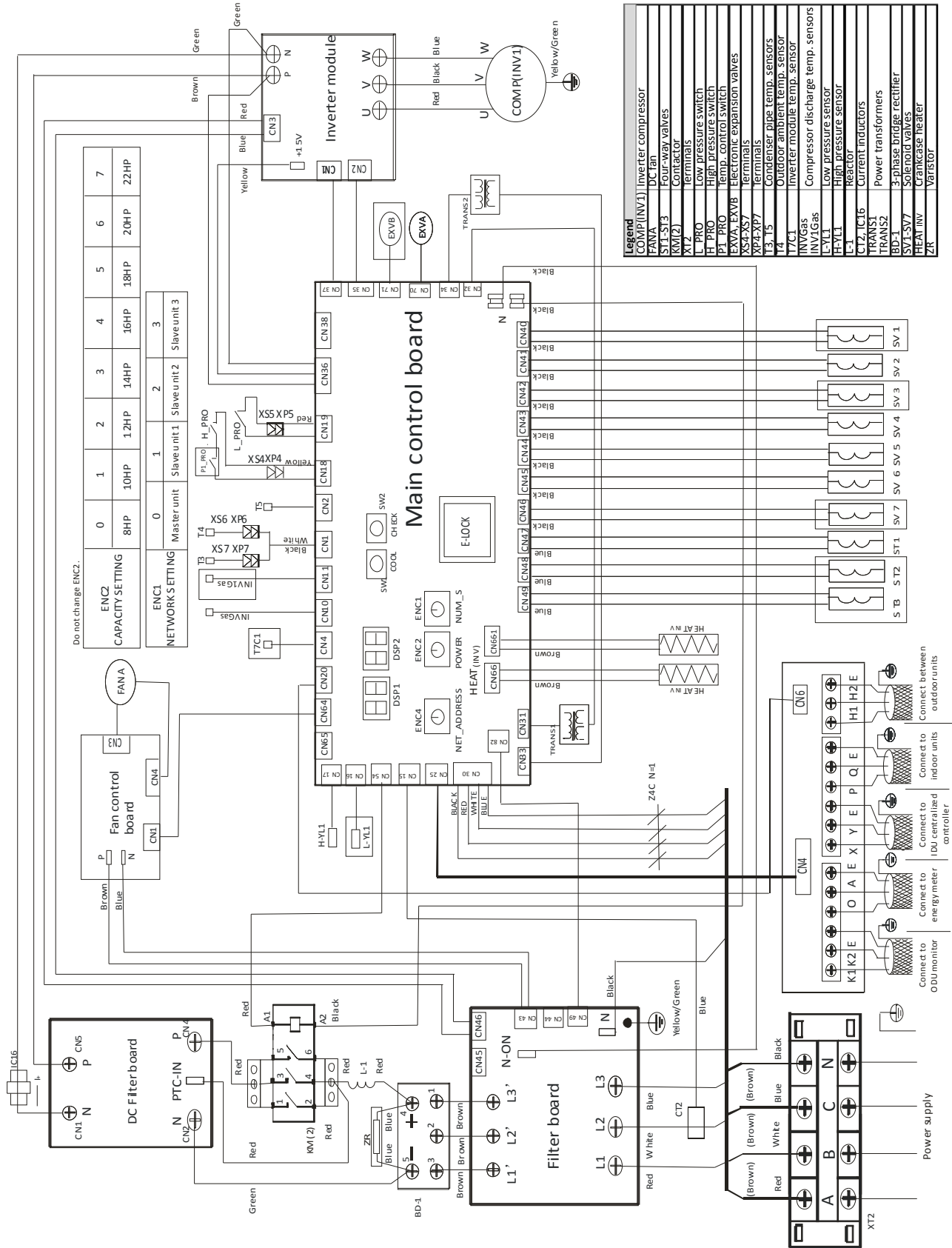
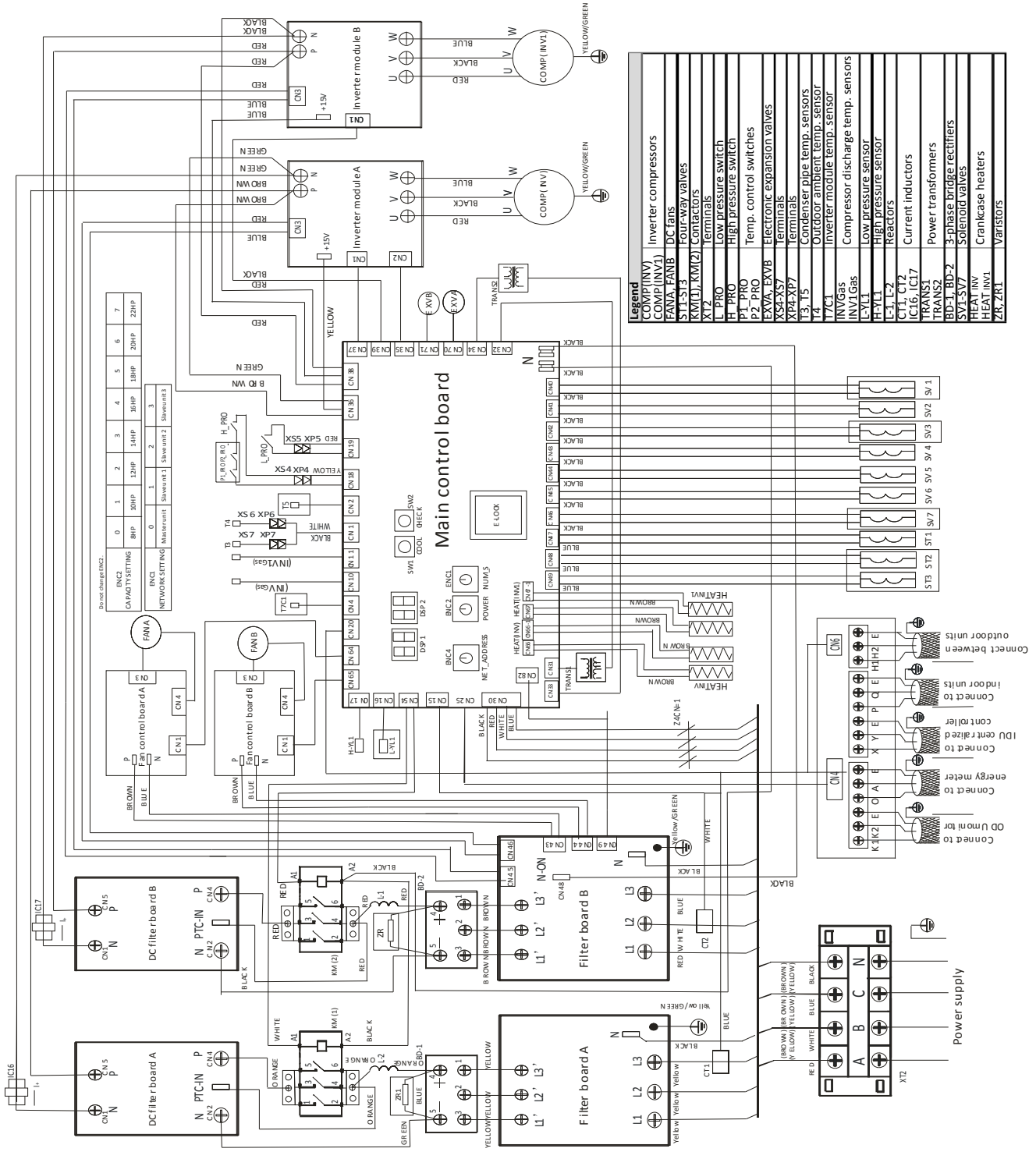


Figure 2-5.2: TMVV5X400HT3<sup>4,3</sup>/O4ATW3T, TMVV5X450HT3<sup>4,1</sup>/O4ATW3T, TMVV5X500HT3<sup>3,9</sup>/O4ATW3T, TMVV5X560HT3<sup>3,86</sup>/O4ATW3T, TMVV5X615HT3<sup>3,74</sup>/O4ATW3T wiring diagram



## 6 Electrical Characteristics

Table 2-6.1: Outdoor unit electrical characteristics

Model					Power supply <sup>1</sup>							Compressors			Outdoor fan motors	
Capacity	Modules				Hz	Volts	Min. volts	Max. volts	MCA <sup>2</sup>	TOCA <sup>3</sup>	MFA <sup>4</sup>	MSC <sup>5</sup>	RLA <sup>6</sup>	Rated motor output (kW)	FLA	
8HP	8HP				50/60	380-415	342	456	20.0	25.6	25	-	7.2	0.465	4.6	
10HP	10HP				50/60	380-415	342	456	21.0	25.6	25	-	8.7	0.465	4.6	
12HP	12HP				50/60	380-415	342	456	23.0	27.5	25	-	9.8	0.465	4.5	
14HP	14HP				50/60	380-415	342	456	27.3	35.2	30	-	7.1×2	0.29+0.23	2.8+2.4	
16HP	16HP				50/60	380-415	342	456	29.9	35.2	35	-	7.8×2	0.29+0.23	2.8+2.4	
18HP	18HP				50/60	380-415	342	456	34.4	42.4	40	-	10+6	0.42+0.35	3.9+3.5	
20HP	20HP				50/60	380-415	342	456	41.2	53.4	50	-	10.9×2	0.44+0.35	4.0+3.4	
22HP	22HP				50/60	380-415	342	456	44.9	53.4	50	-	11.7×2	0.44+0.35	4.0+3.4	
24HP	12HP	12HP			50/60	380-415	342	456	46.0	55.0	60	-	9.8×2	0.465×2	4.5×2	
26HP	10HP	16HP			50/60	380-415	342	456	50.9	60.8	65	-	8.7+7.8×2	0.465+(0.29+0.23)	4.6+(2.8+2.4)	
28HP	10HP	18HP			50/60	380-415	342	456	55.4	68.0	70	-	8.7+10+6	0.465+(0.42+0.35)	4.6+(3.9+3.5)	
30HP	10HP	20HP			50/60	380-415	342	456	62.2	79.0	80	-	8.7+10.9×2	0.465+(0.44+0.35)	4.6+(4.0+3.4)	
32HP	10HP	22HP			50/60	380-415	342	456	65.9	79.0	80	-	8.7+11.7×2	0.465+(0.44+0.35)	4.6+(4.0+3.4)	
34HP	12HP	22HP			50/60	380-415	342	456	67.9	80.9	85	-	9.8+11.7×2	0.465+(0.44+0.35)	4.5+(4.0+3.4)	
36HP	18HP	18HP			50/60	380-415	342	456	68.8	84.8	85	-	(10+6)×2	(0.42+0.35)×2	(3.9+3.5)×2	
38HP	16HP	22HP			50/60	380-415	342	456	74.8	88.6	90	-	7.8×2+11.7×2	(0.29+0.23)+ (0.44+0.35)	(2.8+2.4)+ (4.0+3.4)	
40HP	18HP	22HP			50/60	380-415	342	456	79.3	95.8	100	-	10+6+11.7×2	(0.42+0.35)+ (0.44+0.35)	(3.9+3.5)+ (4.0+3.4)	
42HP	20HP	22HP			50/60	380-415	342	456	86.1	106.8	110	-	10.9×2+11.7×2	(0.44+0.35)×2	(4.0+3.4)×2	
44HP	22HP	22HP			50/60	380-415	342	456	89.8	106.8	110	-	11.7×4	(0.44+0.35)×2	(4.0+3.4)×2	
46HP	12HP	12HP	22HP		50/60	380-415	342	456	90.9	108.4	110	-	9.8×2+11.7×2	0.465×2+(0.44+0.35)	4.5×2+(4.0+3.4)	
48HP	10HP	16HP	22HP		50/60	380-415	342	456	95.8	114.2	115	-	8.7+7.8×2+11.7×2	0.465+(0.29+0.23)+ (0.44+0.35)	4.6+(2.8+2.4)+ (4.0+3.4)	
50HP	10HP	18HP	22HP		50/60	380-415	342	456	100.3	121.4	125	-	8.7+10+6+11.7×2	0.465+(0.42+0.35)+ (0.44+0.35)	4.6+(3.9+3.5)+ (4.0+3.4)	
52HP	10HP	20HP	22HP		50/60	380-415	342	456	107.1	132.4	135	-	8.7+10.9×2+11.7×2	0.465+(0.44+0.35)×2	4.6+(4.0+3.4)×2	
54HP	10HP	22HP	22HP		50/60	380-415	342	456	110.8	132.4	135	-	8.7+11.7×4	0.465+(0.44+0.35)×2	4.6+(4.0+3.4)×2	
56HP	12HP	22HP	22HP		50/60	380-415	342	456	112.8	134.3	135	-	9.8+11.7×4	0.465+(0.44+0.35)×2	4.5+(4.0+3.4)×2	
58HP	18HP	18HP	22HP		50/60	380-415	342	456	113.7	138.2	140	-	(10+6)×2+11.7×2	(0.42+0.35)×2+ (0.44+0.35)	(3.9+3.5)×2+ (4.0+3.4)	
60HP	16HP	22HP	22HP		50/60	380-415	342	456	119.7	142.0	145	-	7.8×2+11.7×4	(0.29+0.23)+ (0.44+0.35)×2	(2.8+2.4)+ (4.0+3.4)×2	
62HP	18HP	22HP	22HP		50/60	380-415	342	456	124.2	149.2	150	-	10+6+11.7×4	(0.42+0.35)+ (0.44+0.35)×2	(3.9+3.5)+ (4.0+3.4)×2	
64HP	20HP	22HP	22HP		50/60	380-415	342	456	131.0	160.2	165	-	10.9×2+11.7×4	(0.44+0.35)×3	(4.0+3.4)×3	
66HP	22HP	22HP	22HP		50/60	380-415	342	456	134.7	160.2	165	-	11.7×6	(0.44+0.35)×3	(4.0+3.4)×3	
68HP	12HP	12HP	22HP	22HP	50/60	380-415	342	456	135.8	161.8	165	-	9.8×2+11.7×4	0.465×2+ (0.44+0.35)×2	4.5×2+(4.0+3.4)×2	
70HP	10HP	16HP	22HP	22HP	50/60	380-415	342	456	140.7	167.6	170	-	8.7+7.8×2+11.7×4	0.465+(0.29+0.23)+ (0.44+0.35)×2	4.6+(2.8+2.4)+ (4.0+3.4)×2	
72HP	10HP	18HP	22HP	22HP	50/60	380-415	342	456	145.2	174.8	175	-	8.7+10+6+11.7×4	0.465+(0.42+0.35)+ (0.44+0.35)×2	4.6+(3.9+3.5)+ (4.0+3.4)×2	
74HP	10HP	20HP	22HP	22HP	50/60	380-415	342	456	152.0	185.8	190	-	8.7+10.9×2+11.7×4	0.465+(0.44+0.35)×3	4.6+(4.0+3.4)×3	
76HP	10HP	22HP	22HP	22HP	50/60	380-415	342	456	155.7	185.8	190	-	8.7+11.7×6	0.465+(0.44+0.35)×3	4.6+(4.0+3.4)×3	
78HP	12HP	22HP	22HP	22HP	50/60	380-415	342	456	157.7	187.7	190	-	9.8+11.7×6	0.465+(0.44+0.35)×3	4.5+(4.0+3.4)×3	
80HP	18HP	18HP	22HP	22HP	50/60	380-415	342	456	158.6	191.6	195	-	(10+6)×2+11.7×4	(0.42+0.35)×2+ (0.44+0.35)×2	(3.9+3.5)×2+ (4.0+3.4)×2	
82HP	16HP	22HP	22HP	22HP	50/60	380-415	342	456	164.6	195.4	200	-	7.8×2+11.7×6	(0.29+0.23)+ (0.44+0.35)×3	(2.8+2.4)+ (4.0+3.4)×3	
84HP	18HP	22HP	22HP	22HP	50/60	380-415	342	456	169.1	202.6	205	-	10+6+11.7×6	(0.42+0.35)+ (0.44+0.35)×3	(3.9+3.5)+ (4.0+3.4)×3	
86HP	20HP	22HP	22HP	22HP	50/60	380-415	342	456	175.9	213.6	215	-	10.9×2+11.7×6	(0.44+0.35)×4	(4.0+3.4)×4	
88HP	22HP	22HP	22HP	22HP	50/60	380-415	342	456	179.6	213.6	215	-	11.7×8	(0.44+0.35)×4	(4.0+3.4)×4	

Abbreviations:

MCA: Minimum Circuit Amps  
 TOCA: Total Over-current Amps  
 MFA: Maximum Fuse Amps  
 MSC: Maximum Starting Current (A)  
 RLA: Rated Load Amps  
 FLA: Full Load Amps

Notes:

- Units are suitable for use on electrical systems where voltage supplied to unit terminals is not below or above listed range limits. Maximum allowable voltage variation between phases is 2%.
- Select wire size based on the value of MCA.
- TOCA indicates the total overcurrent amps value of each OC set.
- MFA is used to select overcurrent circuit breakers and residual-current circuit breakers.
- MSC indicates the maximum current on compressor start-up in Amps.
- RLA is based on the following conditions: indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB.

## 7 Functional Components and Safety Devices

Table 2-7.1: TMVV5X (252, 280, 335)W functional components and safety devices

Item		TMVV5X252HT3I <sup>4.7</sup> /O4ATW3T	TMVV5X280HT3I <sup>4.5</sup> /O4ATW3T	TMVV5X335HT3I <sup>4.3</sup> /O4ATW3T
Compressor	High temperature protection	120°C		
	Crankcase heater	27.6W × 2		
Fan motor	Safety thermostat	On	115°C	
		Off	-	
System	High pressure switch	Off: 4.4 (±0.1) MPa / On: 3.2 (±0.1) MPa		
	Low pressure switch	Off: 0.05 (±0.05) MPa / On: 0.15 (±0.05) MPa		
Temperature sensor	Temperature sensor (Condenser outlet/ambient temperature)	25°C = 10kΩ		
	Temperature sensor (Discharge temperature)	BW130°C / On: 130°C / Off: 85°C		
High pressure sensor (discharge)		Output voltage (V) = 1.1603 × P + 0.5 (where P is the discharge pressure in MPa)		

Table 2-7.2: TMVV5X 400(450, 500)W functional components and safety devices

Item		TMVV5X400HT3I <sup>4.3</sup> /O4ATW3T	TMVV5X450HT3I <sup>4.1</sup> /O4ATW3T	TMVV5X500HT3I <sup>3.9</sup> /O4ATW3T
Compressor	High temperature protection	120°C		
	Crankcase heater	27.6W × 2 × 2		
Fan motor	Safety thermostat	On	115°C	
		Off	-	
System	High pressure switch	Off: 4.4 (±0.1) MPa / On: 3.2 (±0.1) MPa		
	Low pressure switch	Off: 0.05 (±0.05) MPa / On: 0.15 (±0.05) MPa		
Temperature sensor	Temperature sensor (Condenser outlet/ambient temperature)	25°C = 10kΩ		
	Temperature sensor (Discharge temperature)	BW130°C / On: 130°C / Off: 85°C		
High pressure sensor (discharge)		Output voltage (V) = 1.1603 × P + 0.5 (where P is the discharge pressure in MPa)		

Table 2-7.3 TMVV5X 560(615)W functional components and safety devices

Item		TMVV5X560HT3I <sup>3.86</sup> /O4ATW3T	TMVV5X615HT3I <sup>3.74</sup> /O4ATW3T
Compressor	High temperature protection	120°C	
	Crankcase heater	27.6W × 2 × 2	
Fan motor	Safety thermostat	On	115°C
		Off	-
System	High pressure switch	Off: 4.4 (±0.1) MPa / On: 3.2 (±0.1) MPa	
	Low pressure switch	Off: 0.05 (±0.05) MPa / On: 0.15 (±0.05) MPa	
Temperature sensor	Temperature sensor (Condenser outlet/ambient temperature)	25°C = 10kΩ	
	Temperature sensor (Discharge temperature)	BW130°C / On: 130°C / Off: 85°C	
High pressure sensor (discharge)		Output voltage (V) = 1.1603 × P + 0.5 (where P is the discharge pressure in MPa)	











Table 2-8.1: TMVV5X252HT3I<sup>4,7</sup>/O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	-5	8.5	0.87	10.2	1.00	11.8	1.15	12.6	1.21	13.4	1.27	15.0	1.45	16.7	1.56
	-2	8.5	0.87	10.2	1.02	11.8	1.16	12.6	1.22	13.4	1.30	15.0	1.47	16.7	1.58
	0	8.5	0.89	10.2	1.04	11.8	1.19	12.6	1.24	13.4	1.31	15.0	1.49	16.7	1.61
	2	8.5	0.90	10.2	1.05	11.8	1.21	12.6	1.26	13.4	1.33	15.0	1.50	16.7	1.64
	4	8.5	0.91	10.2	1.07	11.8	1.22	12.6	1.27	13.4	1.36	15.0	1.54	16.7	1.68
	6	8.5	0.93	10.2	1.09	11.8	1.24	12.6	1.30	13.4	1.39	15.0	1.56	16.7	1.73
	8	8.5	0.95	10.2	1.11	11.8	1.26	12.6	1.33	13.4	1.40	15.0	1.58	16.7	1.79
	10	8.5	0.97	10.2	1.12	11.8	1.28	12.6	1.35	13.4	1.44	15.0	1.63	16.7	1.81
	12	8.5	0.98	10.2	1.13	11.8	1.30	12.6	1.38	13.4	1.47	15.0	1.65	16.7	1.84
	14	8.5	0.99	10.2	1.15	11.8	1.31	12.6	1.41	13.4	1.50	15.0	1.68	16.7	1.88
	16	8.5	1.00	10.2	1.16	11.8	1.34	12.6	1.43	13.4	1.52	15.0	1.71	16.7	1.91
	18	8.5	1.02	10.2	1.18	11.8	1.36	12.6	1.45	13.4	1.55	15.0	1.74	16.7	1.94
	20	8.5	1.03	10.2	1.20	11.8	1.38	12.6	1.47	13.4	1.57	15.0	1.77	16.7	1.98
	21	8.5	1.04	10.2	1.21	11.8	1.39	12.6	1.49	13.4	1.59	15.0	1.79	16.7	2.00
	23	8.5	1.05	10.2	1.23	11.8	1.42	12.6	1.52	13.4	1.62	15.0	1.82	16.7	2.04
	25	8.5	1.07	10.2	1.25	11.8	1.44	12.6	1.55	13.4	1.67	15.0	1.91	16.7	2.18
	27	8.5	1.09	10.2	1.30	11.8	1.52	12.6	1.65	13.4	1.77	15.0	2.04	16.7	2.33
	29	8.5	1.15	10.2	1.37	11.8	1.62	12.6	1.75	13.4	1.89	15.0	2.17	16.7	2.48
	31	8.5	1.21	10.2	1.45	11.8	1.71	12.6	1.86	13.4	2.00	15.0	2.30	16.7	2.64
	33	8.5	1.29	10.2	1.54	11.8	1.82	12.6	1.96	13.4	2.12	15.0	2.45	16.7	2.80
35	8.5	1.36	10.2	1.63	11.8	1.92	12.6	2.08	13.4	2.25	15.0	2.60	16.7	2.98	
37	8.5	1.43	10.2	1.72	11.8	2.04	12.6	2.20	13.4	2.38	15.0	2.76	16.7	3.16	
39	8.5	1.51	10.2	1.81	11.8	2.15	12.6	2.33	13.4	2.53	15.0	2.93	16.7	3.36	
41	8.5	1.57	10.2	1.89	11.8	2.23	12.6	2.44	13.4	2.64	15.0	3.08	16.7	3.51	
43	8.5	1.68	10.2	2.02	11.8	2.31	12.6	2.55	13.4	2.70	15.0	3.24	16.7	3.67	
45	8.5	1.71	10.2	2.07	11.8	2.46	12.6	2.75	13.4	2.82	15.0	3.55	16.7	3.98	
48	8.5	1.75	10.2	2.13	11.8	2.61	12.6	2.92	13.4	2.94	15.0	3.83	16.7	4.29	
50	8.4	1.76	10.1	2.14	11.7	2.62	12.5	2.94	13.3	2.96	14.9	3.85	16.6	4.31	
52	8.3	1.77	9.9	2.15	11.5	2.63	12.3	2.95	13.1	2.97	14.7	3.87	16.3	4.32	
54	8.2	1.78	9.8	2.17	11.3	2.65	12.1	2.97	12.9	2.99	14.4	3.90	16.1	4.35	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.









Table 2-8.2: TMVV5X280HT3<sup>A.5</sup>/O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-5	9.5	1.01	11.3	1.16	13.1	1.34	14.0	1.40	14.9	1.48	16.7	1.68	18.6	1.81
	-2	9.5	1.01	11.3	1.19	13.1	1.35	14.0	1.42	14.9	1.50	16.7	1.70	18.6	1.83
	0	9.5	1.03	11.3	1.21	13.1	1.38	14.0	1.44	14.9	1.52	16.7	1.73	18.6	1.87
	2	9.5	1.05	11.3	1.22	13.1	1.40	14.0	1.46	14.9	1.55	16.7	1.74	18.6	1.90
	4	9.5	1.06	11.3	1.24	13.1	1.41	14.0	1.48	14.9	1.58	16.7	1.78	18.6	1.95
	6	9.5	1.07	11.3	1.26	13.1	1.44	14.0	1.51	14.9	1.61	16.7	1.81	18.6	2.01
	8	9.5	1.10	11.3	1.28	13.1	1.46	14.0	1.54	14.9	1.63	16.7	1.84	18.6	2.07
	10	9.5	1.12	11.3	1.30	13.1	1.48	14.0	1.57	14.9	1.68	16.7	1.89	18.6	2.10
	12	9.5	1.13	11.3	1.32	13.1	1.51	14.0	1.60	14.9	1.71	16.7	1.92	18.6	2.14
	14	9.5	1.15	11.3	1.33	13.1	1.53	14.0	1.63	14.9	1.74	16.7	1.95	18.6	2.18
	16	9.5	1.16	11.3	1.35	13.1	1.55	14.0	1.66	14.9	1.76	16.7	1.99	18.6	2.21
	18	9.5	1.18	11.3	1.37	13.1	1.58	14.0	1.68	14.9	1.79	16.7	2.02	18.6	2.25
	20	9.5	1.20	11.3	1.39	13.1	1.60	14.0	1.71	14.9	1.83	16.7	2.05	18.6	2.30
	21	9.5	1.21	11.3	1.41	13.1	1.62	14.0	1.73	14.9	1.84	16.7	2.08	18.6	2.32
	23	9.5	1.22	11.3	1.42	13.1	1.64	14.0	1.76	14.9	1.88	16.7	2.11	18.6	2.37
	25	9.5	1.24	11.3	1.45	13.1	1.68	14.0	1.79	14.9	1.94	16.7	2.22	18.6	2.53
	27	9.5	1.27	11.3	1.51	13.1	1.77	14.0	1.91	14.9	2.05	16.7	2.36	18.6	2.70
	29	9.5	1.33	11.3	1.59	13.1	1.88	14.0	2.03	14.9	2.19	16.7	2.51	18.6	2.88
	31	9.5	1.41	11.3	1.68	13.1	1.99	14.0	2.15	14.9	2.32	16.7	2.67	18.6	3.06
	33	9.5	1.49	11.3	1.79	13.1	2.11	14.0	2.28	14.9	2.46	16.7	2.84	18.6	3.25
35	9.5	1.58	11.3	1.89	13.1	2.23	14.0	2.41	14.9	2.61	16.7	3.02	18.6	3.45	
37	9.5	1.66	11.3	1.99	13.1	2.36	14.0	2.56	14.9	2.77	16.7	3.20	18.6	3.67	
39	9.5	1.75	11.3	2.10	13.1	2.50	14.0	2.71	14.9	2.93	16.7	3.39	18.6	3.90	
41	9.5	1.82	11.3	2.19	13.1	2.59	14.0	2.83	14.9	3.06	16.7	3.58	18.6	4.08	
43	9.5	1.94	11.3	2.35	13.1	2.68	14.0	2.96	14.9	3.14	16.7	3.76	18.6	4.26	
45	9.5	1.99	11.3	2.41	13.1	2.86	14.0	3.19	14.9	3.27	16.7	4.12	18.6	4.62	
48	9.5	2.04	11.3	2.47	13.1	3.03	14.0	3.39	14.9	3.42	16.7	4.45	18.6	4.97	
50	9.4	2.05	11.2	2.49	13.0	3.04	13.9	3.41	14.8	3.43	16.5	4.47	18.4	5.00	
52	9.2	2.05	11.0	2.49	12.8	3.05	13.7	3.42	14.5	3.45	16.3	4.49	18.1	5.02	
54	9.1	2.07	10.8	2.51	12.6	3.08	13.4	3.45	14.3	3.47	16.0	4.52	17.8	5.05	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.











Table 2-8.3: TMVV5X335HT3<sup>A.3</sup>/O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-5	11.3	1.26	13.5	1.46	15.7	1.67	16.8	1.75	17.8	1.85	20.0	2.10	22.3	2.27
	-2	11.3	1.27	13.5	1.49	15.7	1.69	16.8	1.78	17.8	1.88	20.0	2.13	22.3	2.30
	0	11.3	1.29	13.5	1.51	15.7	1.72	16.8	1.80	17.8	1.90	20.0	2.17	22.3	2.34
	2	11.3	1.31	13.5	1.53	15.7	1.75	16.8	1.83	17.8	1.94	20.0	2.18	22.3	2.38
	4	11.3	1.32	13.5	1.56	15.7	1.77	16.8	1.85	17.8	1.98	20.0	2.23	22.3	2.44
	6	11.3	1.35	13.5	1.58	15.7	1.80	16.8	1.89	17.8	2.01	20.0	2.27	22.3	2.52
	8	11.3	1.38	13.5	1.61	15.7	1.83	16.8	1.93	17.8	2.04	20.0	2.30	22.3	2.60
	10	11.3	1.41	13.5	1.63	15.7	1.86	16.8	1.97	17.8	2.10	20.0	2.36	22.3	2.63
	12	11.3	1.42	13.5	1.65	15.7	1.89	16.8	2.01	17.8	2.14	20.0	2.40	22.3	2.68
	14	11.3	1.44	13.5	1.67	15.7	1.91	16.8	2.05	17.8	2.17	20.0	2.45	22.3	2.73
	16	11.3	1.46	13.5	1.69	15.7	1.94	16.8	2.08	17.8	2.20	20.0	2.49	22.3	2.77
	18	11.3	1.48	13.5	1.72	15.7	1.97	16.8	2.11	17.8	2.25	20.0	2.53	22.3	2.82
	20	11.3	1.50	13.5	1.74	15.7	2.01	16.8	2.14	17.8	2.29	20.0	2.57	22.3	2.88
	21	11.3	1.51	13.5	1.76	15.7	2.03	16.8	2.16	17.8	2.31	20.0	2.60	22.3	2.91
	23	11.3	1.53	13.5	1.78	15.7	2.06	16.8	2.20	17.8	2.35	20.0	2.65	22.3	2.97
	25	11.3	1.55	13.5	1.82	15.7	2.10	16.8	2.25	17.8	2.42	20.0	2.78	22.3	3.17
	27	11.3	1.59	13.5	1.89	15.7	2.21	16.8	2.39	17.8	2.57	20.0	2.96	22.3	3.38
	29	11.3	1.67	13.5	1.99	15.7	2.35	16.8	2.54	17.8	2.74	20.0	3.15	22.3	3.60
	31	11.3	1.76	13.5	2.11	15.7	2.49	16.8	2.70	17.8	2.91	20.0	3.35	22.3	3.83
	33	11.3	1.87	13.5	2.24	15.7	2.65	16.8	2.86	17.8	3.09	20.0	3.56	22.3	4.07
35	11.3	1.97	13.5	2.36	15.7	2.79	16.8	3.02	17.8	3.27	20.0	3.78	22.3	4.33	
37	11.3	2.08	13.5	2.50	15.7	2.96	16.8	3.20	17.8	3.46	20.0	4.01	22.3	4.60	
39	11.3	2.19	13.5	2.63	15.7	3.13	16.8	3.39	17.8	3.67	20.0	4.25	22.3	4.88	
41	11.3	2.28	13.5	2.75	15.7	3.24	16.8	3.55	17.8	3.83	20.0	4.48	22.3	5.11	
43	11.3	2.44	13.5	2.94	15.7	3.35	16.8	3.71	17.8	3.93	20.0	4.71	22.3	5.33	
45	11.3	2.49	13.5	3.01	15.7	3.58	16.8	4.00	17.8	4.10	20.0	5.16	22.3	5.79	
48	11.3	2.55	13.5	3.10	15.7	3.79	16.8	4.25	17.8	4.28	20.0	5.57	22.3	6.23	
50	11.2	2.56	13.4	3.11	15.5	3.81	16.6	4.27	17.6	4.30	19.8	5.60	22.0	6.26	
52	11.0	2.57	13.2	3.12	15.3	3.83	16.3	4.29	17.4	4.32	19.5	5.62	21.7	6.28	
54	10.8	2.59	13.0	3.15	15.0	3.85	16.1	4.32	17.1	4.35	19.2	5.66	21.4	6.33	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.







Table 2-8.4: TMVV5X400HT3<sup>A</sup>.3O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW	TC kW	PI kW
70%	-5	18.9	2.03	22.6	2.38	26.1	2.70	28.0	2.89	29.9	3.09	33.4	3.53	37.1	4.06
	-2	18.9	2.05	22.6	2.39	26.1	2.72	28.0	2.95	29.9	3.14	33.4	3.59	37.1	4.12
	0	18.9	2.06	22.6	2.43	26.1	2.77	28.0	3.01	29.9	3.20	33.4	3.66	37.1	4.17
	2	18.9	2.07	22.6	2.44	26.1	2.82	28.0	3.06	29.9	3.26	33.4	3.74	37.1	4.24
	4	18.9	2.10	22.6	2.50	26.1	2.88	28.0	3.12	29.9	3.33	33.4	3.80	37.1	4.34
	6	18.9	2.13	22.6	2.54	26.1	2.95	28.0	3.22	29.9	3.41	33.4	3.87	37.1	4.42
	8	18.9	2.17	22.6	2.62	26.1	3.02	28.0	3.27	29.9	3.48	33.4	3.98	37.1	4.51
	10	18.9	2.21	22.6	2.66	26.1	3.10	28.0	3.33	29.9	3.57	33.4	4.06	37.1	4.56
	12	18.9	2.27	22.6	2.69	26.1	3.16	28.0	3.40	29.9	3.64	33.4	4.14	37.1	4.65
	14	18.9	2.31	22.6	2.74	26.1	3.21	28.0	3.45	29.9	3.70	33.4	4.21	37.1	4.74
	16	18.9	2.34	22.6	2.80	26.1	3.27	28.0	3.52	29.9	3.77	33.4	4.29	37.1	4.83
	18	18.9	2.38	22.6	2.85	26.1	3.33	28.0	3.58	29.9	3.84	33.4	4.37	37.1	4.93
	20	18.9	2.42	22.6	2.90	26.1	3.40	28.0	3.65	29.9	3.91	33.4	4.46	37.1	5.06
	21	18.9	2.44	22.6	2.92	26.1	3.42	28.0	3.69	29.9	3.95	33.4	4.52	37.1	5.24
	23	18.9	2.48	22.6	2.97	26.1	3.50	28.0	3.81	29.9	4.15	33.4	4.85	37.1	5.62
	25	18.9	2.53	22.6	3.10	26.1	3.72	28.0	4.07	29.9	4.42	33.4	5.19	37.1	6.00
	27	18.9	2.68	22.6	3.30	26.1	3.97	28.0	4.34	29.9	4.73	33.4	5.54	37.1	6.42
	29	18.9	2.85	22.6	3.50	26.1	4.22	28.0	4.63	29.9	5.03	33.4	5.90	37.1	6.86
	31	18.9	3.01	22.6	3.71	26.1	4.50	28.0	4.91	29.9	5.35	33.4	6.29	37.1	7.31
	33	18.9	3.20	22.6	3.95	26.1	4.79	28.0	5.23	29.9	5.70	33.4	6.71	37.1	7.80
	35	18.9	3.38	22.6	4.19	26.1	5.08	28.0	5.57	29.9	6.07	33.4	7.14	37.1	8.31
	37	18.9	3.57	22.6	4.44	26.1	5.40	28.0	5.90	29.9	6.45	33.4	7.61	37.1	8.85
	39	18.9	3.79	22.6	4.70	26.1	5.73	28.0	6.28	29.9	6.86	33.4	8.08	37.1	9.43
	41	18.9	3.95	22.6	4.87	26.1	5.90	28.0	6.49	29.9	7.06	33.4	8.42	37.1	9.84
	43	18.9	4.27	22.6	5.20	26.1	6.14	28.0	6.84	29.9	7.27	33.4	8.72	37.1	10.15
45	18.9	4.37	22.6	5.31	26.1	6.27	28.0	6.95	29.9	7.64	33.4	9.20	37.1	10.54	
48	18.9	4.48	22.6	5.36	26.1	6.33	28.0	7.06	29.9	7.84	33.4	9.61	37.1	10.79	
50	18.7	4.50	22.3	5.39	25.9	6.36	27.7	7.10	29.6	7.88	33.1	9.66	36.8	10.84	
52	18.4	4.52	22.0	5.41	25.5	6.39	27.3	7.12	29.1	7.91	32.6	9.69	36.2	10.88	
54	18.1	4.55	21.7	5.45	25.1	6.43	26.9	7.17	28.6	7.97	32.1	9.76	35.6	10.96	
60%	-5	16.1	1.73	19.3	2.01	22.4	2.34	24.0	2.50	25.6	2.69	28.7	3.03	31.9	3.47
	-2	16.1	1.74	19.3	2.04	22.4	2.38	24.0	2.53	25.6	2.72	28.7	3.07	31.9	3.49
	0	16.1	1.77	19.3	2.07	22.4	2.42	24.0	2.56	25.6	2.77	28.7	3.12	31.9	3.54
	2	16.1	1.80	19.3	2.11	22.4	2.46	24.0	2.61	25.6	2.80	28.7	3.18	31.9	3.58
	4	16.1	1.85	19.3	2.15	22.4	2.51	24.0	2.64	25.6	2.85	28.7	3.23	31.9	3.63
	6	16.1	1.87	19.3	2.20	22.4	2.56	24.0	2.70	25.6	2.90	28.7	3.29	31.9	3.72
	8	16.1	1.91	19.3	2.23	22.4	2.60	24.0	2.75	25.6	2.96	28.7	3.36	31.9	3.78
	10	16.1	1.94	19.3	2.28	22.4	2.64	24.0	2.83	25.6	3.02	28.7	3.42	31.9	3.83
	12	16.1	1.98	19.3	2.32	22.4	2.69	24.0	2.88	25.6	3.07	28.7	3.48	31.9	3.90
	14	16.1	2.01	19.3	2.36	22.4	2.73	24.0	2.93	25.6	3.13	28.7	3.55	31.9	3.97
	16	16.1	2.03	19.3	2.39	22.4	2.78	24.0	2.98	25.6	3.18	28.7	3.61	31.9	4.05
	18	16.1	2.07	19.3	2.43	22.4	2.83	24.0	3.03	25.6	3.25	28.7	3.67	31.9	4.12
	20	16.1	2.09	19.3	2.48	22.4	2.88	24.0	3.10	25.6	3.31	28.7	3.75	31.9	4.21
	21	16.1	2.12	19.3	2.49	22.4	2.91	24.0	3.12	25.6	3.33	28.7	3.78	31.9	4.25
	23	16.1	2.14	19.3	2.54	22.4	2.96	24.0	3.18	25.6	3.40	28.7	3.93	31.9	4.52
	25	16.1	2.18	19.3	2.58	22.4	3.07	24.0	3.33	25.6	3.61	28.7	4.20	31.9	4.82
	27	16.1	2.27	19.3	2.74	22.4	3.27	24.0	3.56	25.6	3.85	28.7	4.47	31.9	5.15
	29	16.1	2.39	19.3	2.91	22.4	3.48	24.0	3.78	25.6	4.10	28.7	4.77	31.9	5.50
	31	16.1	2.54	19.3	3.08	22.4	3.70	24.0	4.02	25.6	4.36	28.7	5.08	31.9	5.85
	33	16.1	2.68	19.3	3.27	22.4	3.92	24.0	4.27	25.6	4.64	28.7	5.40	31.9	6.24
	35	16.1	2.84	19.3	3.47	22.4	4.16	24.0	4.54	25.6	4.92	28.7	5.75	31.9	6.64
	37	16.1	3.01	19.3	3.67	22.4	4.41	24.0	4.81	25.6	5.23	28.7	6.12	31.9	7.07
	39	16.1	3.17	19.3	3.89	22.4	4.67	24.0	5.10	25.6	5.55	28.7	6.49	31.9	7.52
	41	16.1	3.27	19.3	4.05	22.4	4.84	24.0	5.30	25.6	5.76	28.7	6.80	31.9	7.86
	43	16.1	3.37	19.3	4.22	22.4	5.01	24.0	5.46	25.6	5.96	28.7	7.09	31.9	8.20
45	16.1	3.53	19.3	4.44	22.4	5.22	24.0	5.67	25.6	6.25	28.7	7.40	31.9	8.65	
48	16.1	3.67	19.3	4.63	22.4	5.40	24.0	5.81	25.6	6.49	28.7	7.67	31.9	9.06	
50	16.0	3.68	19.1	4.66	22.2	5.42	23.8	5.84	25.3	6.53	28.4	7.71	31.5	9.11	
52	15.7	3.70	18.8	4.67	21.9	5.44	23.4	5.87	24.9	6.55	28.0	7.74	31.1	9.14	
54	15.5	3.72	18.5	4.71	21.5	5.48	23.0	5.91	24.5	6.60	27.6	7.80	30.6	9.21	

Abbreviations:  
CR: Combination ratio  
TC: Total capacity (kW)  
PI: Power input (compressor + outdoor fan motor) (kW)

Notes:  
1. Shaded cells indicate rating condition.

Table continued on next page ...



Table 2-8.4: TMVV5X400HT3<sup>A</sup>.3O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-5	13.5	1.51	16.1	1.74	18.7	2.00	20.0	2.09	21.3	2.21	23.9	2.51	26.6	2.71
	-2	13.5	1.52	16.1	1.78	18.7	2.02	20.0	2.12	21.3	2.25	23.9	2.54	26.6	2.74
	0	13.5	1.54	16.1	1.80	18.7	2.06	20.0	2.15	21.3	2.27	23.9	2.59	26.6	2.79
	2	13.5	1.56	16.1	1.83	18.7	2.09	20.0	2.18	21.3	2.31	23.9	2.60	26.6	2.84
	4	13.5	1.58	16.1	1.86	18.7	2.12	20.0	2.21	21.3	2.36	23.9	2.66	26.6	2.92
	6	13.5	1.61	16.1	1.89	18.7	2.15	20.0	2.26	21.3	2.40	23.9	2.70	26.6	3.00
	8	13.5	1.65	16.1	1.92	18.7	2.18	20.0	2.31	21.3	2.44	23.9	2.75	26.6	3.10
	10	13.5	1.68	16.1	1.94	18.7	2.22	20.0	2.35	21.3	2.51	23.9	2.82	26.6	3.15
	12	13.5	1.69	16.1	1.97	18.7	2.26	20.0	2.39	21.3	2.56	23.9	2.87	26.6	3.20
	14	13.5	1.72	16.1	1.99	18.7	2.28	20.0	2.44	21.3	2.59	23.9	2.92	26.6	3.26
	16	13.5	1.74	16.1	2.02	18.7	2.32	20.0	2.48	21.3	2.63	23.9	2.97	26.6	3.31
	18	13.5	1.77	16.1	2.06	18.7	2.36	20.0	2.52	21.3	2.68	23.9	3.02	26.6	3.37
	20	13.5	1.79	16.1	2.08	18.7	2.39	20.0	2.56	21.3	2.73	23.9	3.07	26.6	3.43
	21	13.5	1.80	16.1	2.11	18.7	2.42	20.0	2.58	21.3	2.76	23.9	3.11	26.6	3.47
	23	13.5	1.83	16.1	2.13	18.7	2.46	20.0	2.63	21.3	2.81	23.9	3.16	26.6	3.55
	25	13.5	1.85	16.1	2.17	18.7	2.51	20.0	2.68	21.3	2.90	23.9	3.32	26.6	3.78
	27	13.5	1.89	16.1	2.26	18.7	2.64	20.0	2.86	21.3	3.07	23.9	3.53	26.6	4.04
	29	13.5	1.99	16.1	2.38	18.7	2.81	20.0	3.03	21.3	3.27	23.9	3.76	26.6	4.30
	31	13.5	2.11	16.1	2.52	18.7	2.97	20.0	3.22	21.3	3.47	23.9	4.00	26.6	4.57
	33	13.5	2.23	16.1	2.67	18.7	3.16	20.0	3.41	21.3	3.68	23.9	4.25	26.6	4.86
35	13.5	2.36	16.1	2.82	18.7	3.33	20.0	3.61	21.3	3.90	23.9	4.51	26.6	5.16	
37	13.5	2.48	16.1	2.98	18.7	3.53	20.0	3.82	21.3	4.14	23.9	4.79	26.6	5.49	
39	13.5	2.62	16.1	3.15	18.7	3.73	20.0	4.05	21.3	4.39	23.9	5.08	26.6	5.83	
41	13.5	2.73	16.1	3.28	18.7	3.87	20.0	4.24	21.3	4.58	23.9	5.35	26.6	6.10	
43	13.5	2.91	16.1	3.51	18.7	4.01	20.0	4.43	21.3	4.69	23.9	5.62	26.6	6.37	
45	13.5	2.97	16.1	3.60	18.7	4.28	20.0	4.77	21.3	4.89	23.9	6.16	26.6	6.91	
48	13.5	3.04	16.1	3.70	18.7	4.53	20.0	5.07	21.3	5.11	23.9	6.65	26.6	7.44	
50	13.4	3.06	16.0	3.72	18.5	4.55	19.8	5.10	21.1	5.13	23.6	6.69	26.3	7.47	
52	13.2	3.07	15.7	3.73	18.2	4.57	19.5	5.12	20.8	5.15	23.3	6.71	25.9	7.50	
54	13.0	3.09	15.5	3.76	18.0	4.60	19.2	5.15	20.4	5.19	22.9	6.76	25.5	7.56	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.









Table 2-8.5: TMVV5X450HT3<sup>A</sup>.1O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
50%	-5	15.2	1.78	18.2	2.05	21.1	2.36	22.5	2.47	23.9	2.61	26.8	2.97	29.9	3.20
	-2	15.2	1.79	18.2	2.10	21.1	2.39	22.5	2.51	23.9	2.65	26.8	3.00	29.9	3.24
	0	15.2	1.82	18.2	2.13	21.1	2.43	22.5	2.54	23.9	2.68	26.8	3.06	29.9	3.29
	2	15.2	1.85	18.2	2.16	21.1	2.47	22.5	2.58	23.9	2.73	26.8	3.07	29.9	3.36
	4	15.2	1.86	18.2	2.19	21.1	2.50	22.5	2.61	23.9	2.79	26.8	3.14	29.9	3.44
	6	15.2	1.90	18.2	2.23	21.1	2.54	22.5	2.67	23.9	2.84	26.8	3.19	29.9	3.55
	8	15.2	1.94	18.2	2.27	21.1	2.58	22.5	2.73	23.9	2.88	26.8	3.24	29.9	3.66
	10	15.2	1.98	18.2	2.29	21.1	2.62	22.5	2.77	23.9	2.96	26.8	3.33	29.9	3.71
	12	15.2	2.00	18.2	2.32	21.1	2.66	22.5	2.83	23.9	3.02	26.8	3.39	29.9	3.77
	14	15.2	2.03	18.2	2.35	21.1	2.69	22.5	2.89	23.9	3.06	26.8	3.45	29.9	3.85
	16	15.2	2.06	18.2	2.38	21.1	2.74	22.5	2.93	23.9	3.11	26.8	3.51	29.9	3.91
	18	15.2	2.09	18.2	2.43	21.1	2.78	22.5	2.97	23.9	3.17	26.8	3.57	29.9	3.98
	20	15.2	2.12	18.2	2.46	21.1	2.83	22.5	3.02	23.9	3.23	26.8	3.63	29.9	4.05
	21	15.2	2.13	18.2	2.49	21.1	2.86	22.5	3.05	23.9	3.26	26.8	3.67	29.9	4.10
	23	15.2	2.16	18.2	2.52	21.1	2.90	22.5	3.11	23.9	3.31	26.8	3.73	29.9	4.19
	25	15.2	2.19	18.2	2.56	21.1	2.96	22.5	3.17	23.9	3.42	26.8	3.92	29.9	4.47
	27	15.2	2.23	18.2	2.66	21.1	3.12	22.5	3.37	23.9	3.63	26.8	4.17	29.9	4.76
	29	15.2	2.35	18.2	2.81	21.1	3.31	22.5	3.58	23.9	3.86	26.8	4.44	29.9	5.08
	31	15.2	2.49	18.2	2.97	21.1	3.51	22.5	3.80	23.9	4.10	26.8	4.72	29.9	5.40
	33	15.2	2.63	18.2	3.15	21.1	3.73	22.5	4.02	23.9	4.35	26.8	5.02	29.9	5.74
	35	15.2	2.78	18.2	3.33	21.1	3.94	22.5	4.26	23.9	4.60	26.8	5.33	29.9	6.10
37	15.2	2.93	18.2	3.52	21.1	4.17	22.5	4.51	23.9	4.88	26.8	5.65	29.9	6.48	
39	15.2	3.09	18.2	3.71	21.1	4.41	22.5	4.78	23.9	5.18	26.8	5.99	29.9	6.88	
41	15.2	3.22	18.2	3.87	21.1	4.57	22.5	5.00	23.9	5.40	26.8	6.31	29.9	7.20	
43	15.2	3.43	18.2	4.14	21.1	4.73	22.5	5.23	23.9	5.54	26.8	6.63	29.9	7.52	
45	15.2	3.51	18.2	4.25	21.1	5.05	22.5	5.63	23.9	5.78	26.8	7.27	29.9	8.16	
48	15.2	3.59	18.2	4.37	21.1	5.35	22.5	5.99	23.9	6.03	26.8	7.86	29.9	8.78	
50	15.0	3.61	18.0	4.39	20.8	5.37	22.3	6.02	23.7	6.06	26.6	7.90	29.6	8.82	
52	14.8	3.63	17.7	4.40	20.5	5.39	21.9	6.04	23.4	6.08	26.2	7.93	29.2	8.86	
54	14.6	3.65	17.4	4.44	20.2	5.43	21.6	6.08	23.0	6.13	25.8	7.98	28.7	8.92	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.











Table 2-8.6: TMVV5X500HT3<sup>B3.9</sup>O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-5	16.9	2.07	20.2	2.40	23.4	2.76	25.0	2.89	26.6	3.04	29.8	3.46	33.2	3.73
	-2	16.9	2.09	20.2	2.45	23.4	2.79	25.0	2.93	26.6	3.10	29.8	3.51	33.2	3.78
	0	16.9	2.12	20.2	2.49	23.4	2.84	25.0	2.97	26.6	3.13	29.8	3.57	33.2	3.85
	2	16.9	2.15	20.2	2.52	23.4	2.89	25.0	3.01	26.6	3.19	29.8	3.58	33.2	3.92
	4	16.9	2.18	20.2	2.56	23.4	2.92	25.0	3.04	26.6	3.25	29.8	3.67	33.2	4.02
	6	16.9	2.22	20.2	2.60	23.4	2.96	25.0	3.11	26.6	3.31	29.8	3.73	33.2	4.14
	8	16.9	2.27	20.2	2.65	23.4	3.01	25.0	3.18	26.6	3.36	29.8	3.79	33.2	4.27
	10	16.9	2.32	20.2	2.68	23.4	3.06	25.0	3.23	26.6	3.45	29.8	3.89	33.2	4.34
	12	16.9	2.33	20.2	2.71	23.4	3.11	25.0	3.30	26.6	3.52	29.8	3.96	33.2	4.41
	14	16.9	2.37	20.2	2.75	23.4	3.14	25.0	3.37	26.6	3.58	29.8	4.03	33.2	4.49
	16	16.9	2.40	20.2	2.78	23.4	3.20	25.0	3.42	26.6	3.63	29.8	4.09	33.2	4.56
	18	16.9	2.44	20.2	2.83	23.4	3.25	25.0	3.47	26.6	3.70	29.8	4.16	33.2	4.65
	20	16.9	2.47	20.2	2.87	23.4	3.30	25.0	3.52	26.6	3.77	29.8	4.23	33.2	4.73
	21	16.9	2.49	20.2	2.90	23.4	3.33	25.0	3.56	26.6	3.80	29.8	4.28	33.2	4.79
	23	16.9	2.52	20.2	2.94	23.4	3.39	25.0	3.63	26.6	3.87	29.8	4.35	33.2	4.89
	25	16.9	2.56	20.2	2.99	23.4	3.45	25.0	3.70	26.6	3.99	29.8	4.58	33.2	5.22
	27	16.9	2.61	20.2	3.11	23.4	3.65	25.0	3.94	26.6	4.23	29.8	4.87	33.2	5.56
	29	16.9	2.75	20.2	3.28	23.4	3.87	25.0	4.18	26.6	4.51	29.8	5.18	33.2	5.93
	31	16.9	2.90	20.2	3.47	23.4	4.09	25.0	4.44	26.6	4.79	29.8	5.51	33.2	6.31
	33	16.9	3.08	20.2	3.68	23.4	4.35	25.0	4.70	26.6	5.08	29.8	5.86	33.2	6.70
	35	16.9	3.25	20.2	3.89	23.4	4.60	25.0	4.98	26.6	5.37	29.8	6.22	33.2	7.12
37	16.9	3.42	20.2	4.11	23.4	4.87	25.0	5.27	26.6	5.70	29.8	6.60	33.2	7.57	
39	16.9	3.61	20.2	4.34	23.4	5.15	25.0	5.58	26.6	6.05	29.8	7.00	33.2	8.03	
41	16.9	3.76	20.2	4.52	23.4	5.33	25.0	5.84	26.6	6.31	29.8	7.37	33.2	8.41	
43	16.9	4.01	20.2	4.83	23.4	5.52	25.0	6.10	26.6	6.47	29.8	7.74	33.2	8.78	
45	16.9	4.10	20.2	4.96	23.4	5.89	25.0	6.58	26.6	6.74	29.8	8.49	33.2	9.53	
48	16.9	4.20	20.2	5.10	23.4	6.24	25.0	6.99	26.6	7.04	29.8	9.17	33.2	10.25	
50	16.7	4.22	20.0	5.12	23.2	6.27	24.8	7.03	26.3	7.08	29.5	9.22	32.9	10.30	
52	16.5	4.23	19.7	5.14	22.8	6.30	24.4	7.05	25.9	7.10	29.1	9.25	32.4	10.34	
54	16.2	4.26	19.4	5.18	22.4	6.34	24.0	7.10	25.5	7.16	28.6	9.32	31.9	10.42	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.









Table 2-8.7: TMVV5X560HT3<sup>β.86</sup>O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
50%	-5	18.9	2.35	22.6	2.72	26.2	3.12	28.0	3.27	29.8	3.45	33.4	3.92	37.2	4.22
	-2	18.9	2.37	22.6	2.77	26.2	3.15	28.0	3.31	29.8	3.51	33.4	3.97	37.2	4.28
	0	18.9	2.40	22.6	2.82	26.2	3.21	28.0	3.36	29.8	3.55	33.4	4.04	37.2	4.35
	2	18.9	2.44	22.6	2.85	26.2	3.27	28.0	3.41	29.8	3.61	33.4	4.05	37.2	4.44
	4	18.9	2.46	22.6	2.90	26.2	3.30	28.0	3.45	29.8	3.68	33.4	4.16	37.2	4.55
	6	18.9	2.51	22.6	2.95	26.2	3.35	28.0	3.53	29.8	3.75	33.4	4.22	37.2	4.69
	8	18.9	2.57	22.6	3.00	26.2	3.41	28.0	3.60	29.8	3.80	33.4	4.29	37.2	4.84
	10	18.9	2.62	22.6	3.03	26.2	3.46	28.0	3.66	29.8	3.91	33.4	4.40	37.2	4.91
	12	18.9	2.64	22.6	3.07	26.2	3.52	28.0	3.73	29.8	3.99	33.4	4.48	37.2	4.99
	14	18.9	2.68	22.6	3.11	26.2	3.56	28.0	3.81	29.8	4.05	33.4	4.56	37.2	5.08
	16	18.9	2.72	22.6	3.15	26.2	3.62	28.0	3.87	29.8	4.11	33.4	4.63	37.2	5.16
	18	18.9	2.76	22.6	3.21	26.2	3.68	28.0	3.93	29.8	4.18	33.4	4.71	37.2	5.26
	20	18.9	2.80	22.6	3.25	26.2	3.73	28.0	3.99	29.8	4.26	33.4	4.79	37.2	5.36
	21	18.9	2.82	22.6	3.28	26.2	3.77	28.0	4.03	29.8	4.30	33.4	4.85	37.2	5.42
	23	18.9	2.85	22.6	3.32	26.2	3.83	28.0	4.11	29.8	4.38	33.4	4.93	37.2	5.53
	25	18.9	2.89	22.6	3.38	26.2	3.91	28.0	4.18	29.8	4.52	33.4	5.18	37.2	5.91
	27	18.9	2.95	22.6	3.52	26.2	4.13	28.0	4.46	29.8	4.79	33.4	5.51	37.2	6.30
	29	18.9	3.11	22.6	3.71	26.2	4.38	28.0	4.73	29.8	5.10	33.4	5.87	37.2	6.71
	31	18.9	3.28	22.6	3.93	26.2	4.63	28.0	5.03	29.8	5.42	33.4	6.24	37.2	7.14
	33	18.9	3.48	22.6	4.16	26.2	4.93	28.0	5.32	29.8	5.75	33.4	6.63	37.2	7.59
	35	18.9	3.68	22.6	4.40	26.2	5.20	28.0	5.63	29.8	6.08	33.4	7.04	37.2	8.06
	37	18.9	3.87	22.6	4.65	26.2	5.51	28.0	5.96	29.8	6.45	33.4	7.47	37.2	8.56
	39	18.9	4.09	22.6	4.91	26.2	5.83	28.0	6.32	29.8	6.84	33.4	7.92	37.2	9.09
	41	18.9	4.26	22.6	5.12	26.2	6.04	28.0	6.61	29.8	7.14	33.4	8.34	37.2	9.51
43	18.9	4.54	22.6	5.47	26.2	6.25	28.0	6.91	29.8	7.32	33.4	8.76	37.2	9.94	
45	18.9	4.64	22.6	5.61	26.2	6.67	28.0	7.44	29.8	7.63	33.4	9.61	37.2	10.78	
48	18.9	4.75	22.6	5.77	26.2	7.06	28.0	7.91	29.8	7.97	33.4	10.38	37.2	11.60	
50	18.7	4.77	22.4	5.80	25.9	7.10	27.7	7.95	29.5	8.01	33.1	10.43	36.8	11.66	
52	18.4	4.79	22.0	5.82	25.5	7.13	27.3	7.98	29.1	8.04	32.6	10.47	36.3	11.70	
54	18.1	4.83	21.7	5.86	25.1	7.18	26.9	8.04	28.6	8.10	32.1	10.55	35.7	11.79	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.











Table 2-8.8: TMVV5X615HT3<sup>3.74</sup>O4ATW3T cooling capacity (continued)

CR	Outdoor air temp. (°C DB)	Indoor air temp. (°C DB / °C WB)													
		20.8 / 14.0		23.3 / 16.0		25.8 / 18.0		27.0 / 19.0		28.2 / 20.0		30.7 / 22.0		32.0 / 24.0	
		TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
		kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	
50%	-5	20.8	2.66	24.8	3.08	28.8	3.53	30.8	3.70	32.7	3.90	36.7	4.44	40.9	4.79
	-2	20.8	2.68	24.8	3.14	28.8	3.57	30.8	3.75	32.7	3.97	36.7	4.50	40.9	4.85
	0	20.8	2.72	24.8	3.19	28.8	3.64	30.8	3.80	32.7	4.02	36.7	4.57	40.9	4.93
	2	20.8	2.76	24.8	3.23	28.8	3.70	30.8	3.86	32.7	4.09	36.7	4.59	40.9	5.03
	4	20.8	2.79	24.8	3.29	28.8	3.74	30.8	3.90	32.7	4.17	36.7	4.71	40.9	5.16
	6	20.8	2.84	24.8	3.34	28.8	3.80	30.8	3.99	32.7	4.25	36.7	4.78	40.9	5.31
	8	20.8	2.91	24.8	3.40	28.8	3.86	30.8	4.08	32.7	4.31	36.7	4.86	40.9	5.48
	10	20.8	2.97	24.8	3.43	28.8	3.92	30.8	4.15	32.7	4.43	36.7	4.98	40.9	5.56
	12	20.8	2.99	24.8	3.48	28.8	3.99	30.8	4.23	32.7	4.52	36.7	5.07	40.9	5.65
	14	20.8	3.04	24.8	3.52	28.8	4.03	30.8	4.32	32.7	4.59	36.7	5.16	40.9	5.76
	16	20.8	3.08	24.8	3.57	28.8	4.10	30.8	4.39	32.7	4.65	36.7	5.25	40.9	5.85
	18	20.8	3.12	24.8	3.63	28.8	4.17	30.8	4.45	32.7	4.74	36.7	5.34	40.9	5.96
	20	20.8	3.17	24.8	3.68	28.8	4.23	30.8	4.52	32.7	4.83	36.7	5.43	40.9	6.07
	21	20.8	3.19	24.8	3.72	28.8	4.28	30.8	4.56	32.7	4.87	36.7	5.49	40.9	6.14
	23	20.8	3.23	24.8	3.77	28.8	4.34	30.8	4.65	32.7	4.96	36.7	5.58	40.9	6.27
	25	20.8	3.28	24.8	3.83	28.8	4.43	30.8	4.74	32.7	5.12	36.7	5.87	40.9	6.69
	27	20.8	3.35	24.8	3.99	28.8	4.67	30.8	5.05	32.7	5.43	36.7	6.25	40.9	7.13
	29	20.8	3.52	24.8	4.21	28.8	4.96	30.8	5.36	32.7	5.78	36.7	6.65	40.9	7.60
	31	20.8	3.72	24.8	4.45	28.8	5.25	30.8	5.69	32.7	6.14	36.7	7.07	40.9	8.09
	33	20.8	3.94	24.8	4.72	28.8	5.58	30.8	6.03	32.7	6.51	36.7	7.51	40.9	8.60
	35	20.8	4.17	24.8	4.98	28.8	5.89	30.8	6.38	32.7	6.89	36.7	7.98	40.9	9.13
	37	20.8	4.39	24.8	5.27	28.8	6.25	30.8	6.76	32.7	7.31	36.7	8.46	40.9	9.70
	39	20.8	4.63	24.8	5.56	28.8	6.60	30.8	7.16	32.7	7.75	36.7	8.97	40.9	10.30
	41	20.8	4.82	24.8	5.80	28.8	6.84	30.8	7.49	32.7	8.09	36.7	9.45	40.9	10.78
43	20.8	5.14	24.8	6.20	28.8	7.08	30.8	7.83	32.7	8.30	36.7	9.93	40.9	11.26	
45	20.8	5.26	24.8	6.36	28.8	7.56	30.8	8.43	32.7	8.65	36.7	10.89	40.9	12.22	
48	20.8	5.38	24.8	6.54	28.8	8.00	30.8	8.97	32.7	9.03	36.7	11.76	40.9	13.15	
50	20.5	5.41	24.6	6.57	28.5	8.04	30.4	9.01	32.4	9.08	36.3	11.82	40.4	13.21	
52	20.2	5.43	24.2	6.59	28.1	8.07	30.0	9.04	31.9	9.11	35.8	11.87	39.8	13.26	
54	19.9	5.47	23.8	6.64	27.6	8.13	29.5	9.11	31.4	9.18	35.2	11.95	39.2	13.36	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

## 8.2 Heating Capacity Tables

Table 2-8.9: TMVV5X252HT3<sup>A</sup>7O4ATW3T heating capacity

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-19.8	-20.0	17.5	3.41	17.4	3.64	17.3	3.89	17.3	4.01	17.2	4.13	17.2	4.37
	-18.8	-19.0	17.7	3.48	17.7	3.72	17.7	3.96	17.6	4.07	17.6	4.19	17.5	4.43
	-16.7	-17.0	18.4	3.64	18.3	3.87	18.3	4.10	18.3	4.21	18.3	4.33	18.2	4.55
	-13.7	-15.0	19.2	3.81	19.1	4.03	19.0	4.25	19.0	4.36	18.9	4.47	18.9	4.69
	-11.8	-13.0	20.0	3.98	20.0	4.19	19.9	4.40	19.8	4.51	19.8	4.61	19.7	4.82
	-9.8	-11.0	20.9	4.16	20.8	4.36	20.7	4.56	20.7	4.66	20.7	4.76	20.7	4.96
	-9.5	-10.0	21.4	4.24	21.3	4.44	21.3	4.63	21.3	4.73	21.2	4.83	21.2	5.02
	-8.5	-9.1	21.9	4.32	21.8	4.51	21.8	4.70	21.7	4.79	21.7	4.89	21.6	5.08
	-7.0	-7.6	22.6	4.44	22.6	4.63	22.5	4.81	22.5	4.91	22.5	4.99	22.4	5.18
	-5.0	-5.6	23.8	4.61	23.7	4.79	23.7	4.96	23.7	5.05	23.6	5.13	23.6	5.31
	-3.0	-3.7	24.9	4.76	24.9	4.93	24.9	5.10	24.8	5.18	24.8	5.26	24.7	5.43
	0.0	-0.7	26.9	4.99	26.9	5.15	26.8	5.30	26.8	5.36	26.7	5.46	26.7	5.61
	3.0	2.2	29.1	5.20	29.0	5.35	28.9	5.49	28.9	5.56	28.9	5.63	28.8	5.77
	5.0	4.1	30.5	5.33	30.4	5.47	30.4	5.60	30.3	5.67	30.3	5.74	30.3	5.87
	7.0	6.0	32.1	5.46	32.0	5.58	32.0	5.72	31.9	5.78	31.9	5.84	30.6	5.61
120%	9.0	7.9	33.7	5.57	33.6	5.70	33.6	5.82	33.5	5.88	32.8	5.75	30.6	5.27
	11.0	9.8	35.4	5.68	35.3	5.80	35.1	5.87	33.9	5.64	32.8	5.41	30.6	4.96
	13.0	11.8	37.3	5.79	37.2	5.90	35.1	5.50	33.9	5.28	32.8	5.08	30.6	4.66
	15.0	13.7	39.1	5.89	37.4	5.59	35.1	5.18	33.9	4.98	32.8	4.78	30.6	4.39
	-19.8	-20.0	17.4	3.73	17.3	3.95	17.2	4.18	17.2	4.28	17.2	4.39	17.1	4.62
	-18.8	-19.0	17.7	3.80	17.6	4.02	17.6	4.24	17.5	4.34	17.5	4.46	17.4	4.68
	-16.7	-17.0	18.3	3.95	18.3	4.16	18.1	4.37	18.2	4.48	18.2	4.58	18.1	4.79
	-13.7	-15.0	19.1	4.11	19.0	4.31	18.9	4.51	18.9	4.61	18.9	4.71	18.9	4.91
	-11.8	-13.0	19.9	4.26	19.9	4.46	19.8	4.65	19.8	4.75	19.7	4.84	19.7	5.04
	-9.8	-11.0	20.8	4.43	20.7	4.61	20.7	4.80	20.7	4.89	20.7	4.98	20.6	5.16
	-9.5	-10.0	21.3	4.51	21.3	4.69	21.2	4.86	21.2	4.96	21.2	5.05	21.1	5.23
	-8.5	-9.1	21.8	4.58	21.7	4.75	21.7	4.93	21.6	5.01	21.6	5.11	21.5	5.28
	-7.0	-7.6	22.5	4.69	22.5	4.86	22.5	5.03	22.5	5.12	22.4	5.20	22.4	5.37
	-5.0	-5.6	23.7	4.84	23.7	5.01	23.6	5.17	23.6	5.25	23.6	5.33	23.5	5.49
	-3.0	-3.7	24.9	4.99	24.9	5.15	24.8	5.30	24.8	5.37	24.7	5.45	24.7	5.60
0.0	-0.7	26.8	5.20	26.8	5.35	26.7	5.48	26.7	5.56	26.7	5.63	26.7	5.77	
3.0	2.2	29.0	5.40	28.9	5.53	28.9	5.66	28.8	5.73	28.8	5.79	28.2	5.76	
5.0	4.1	30.4	5.51	30.3	5.64	30.3	5.77	30.3	5.83	30.3	5.89	28.2	5.41	
7.0	6.0	32.0	5.63	32.0	5.75	31.9	5.87	31.4	5.78	30.3	5.55	28.2	5.09	
9.0	7.9	33.6	5.74	33.5	5.85	32.4	5.66	31.4	5.43	30.3	5.21	28.2	4.79	
11.0	9.8	35.3	5.84	34.5	5.74	32.4	5.32	31.4	5.11	30.3	4.91	28.2	4.51	
13.0	11.8	36.6	5.78	34.5	5.38	32.4	4.99	31.4	4.80	30.3	4.61	28.2	4.24	
15.0	13.7	36.6	5.45	34.5	5.07	32.4	4.71	31.4	4.53	30.3	4.35	28.2	4.01	
110%	-19.8	-20.0	17.3	4.06	17.2	4.26	17.1	4.46	17.1	4.56	17.1	4.66	17.1	4.87
	-18.8	-19.0	17.6	4.12	17.5	4.32	17.5	4.52	17.5	4.62	17.4	4.72	17.4	4.92
	-16.7	-17.0	18.3	4.26	18.2	4.45	18.4	4.64	18.1	4.74	18.1	4.84	18.0	5.03
	-13.7	-15.0	19.0	4.40	18.9	4.59	18.9	4.77	18.9	4.86	18.9	4.96	18.8	5.14
	-11.8	-13.0	19.8	4.55	19.8	4.73	19.7	4.90	19.7	4.99	19.6	5.08	19.6	5.26
	-9.8	-11.0	20.7	4.70	20.7	4.86	20.7	5.03	20.6	5.12	20.6	5.20	20.6	5.37
	-9.5	-10.0	21.3	4.77	21.2	4.93	21.1	5.10	21.1	5.18	21.1	5.26	21.0	5.43
	-8.5	-9.1	21.7	4.83	21.6	5.00	21.6	5.16	21.5	5.24	21.5	5.32	21.5	4.85
	-7.0	-7.6	22.5	4.95	22.5	5.10	22.4	5.25	22.4	5.33	22.4	5.41	22.3	5.56
	-5.0	-5.6	23.7	5.08	23.6	5.23	23.5	5.38	23.5	5.45	23.5	5.53	23.4	5.68
	-3.0	-3.7	24.8	5.21	24.8	5.35	24.7	5.50	24.7	5.56	24.6	5.63	24.6	5.78
	0.0	-0.7	26.7	5.41	26.7	5.54	26.7	5.67	26.7	5.73	26.7	5.80	25.9	5.69
	3.0	2.2	28.9	5.59	28.8	5.71	28.8	5.83	28.7	5.88	27.8	5.65	25.9	5.18
	5.0	4.1	30.3	5.70	30.3	5.82	29.7	5.76	28.7	5.53	27.8	5.31	25.9	4.87
	7.0	6.0	31.9	5.80	31.6	5.84	29.7	5.41	28.7	5.20	27.8	4.99	25.9	4.58
9.0	7.9	33.5	5.90	31.6	5.49	29.7	5.09	28.7	4.89	27.8	4.70	25.9	4.32	
11.0	9.8	33.5	5.55	31.6	5.16	29.7	4.79	28.7	4.61	27.8	4.43	25.9	4.08	
13.0	11.8	33.5	5.20	31.6	4.84	29.7	4.50	28.7	4.33	27.8	4.16	25.9	3.84	
15.0	13.7	33.5	4.62	31.6	4.57	29.7	4.25	28.7	4.09	27.8	3.94	25.9	3.63	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.9 TMVV5X252HT3<sup>1,7</sup>O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
			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	-20.0	17.2	4.38	17.1	4.56	17.1	4.75	17.1	4.85	17.1	4.93	17.0	5.12
	-18.8	-19.0	17.5	4.44	17.5	4.62	17.4	4.80	17.4	4.90	17.3	4.99	17.3	5.17
	-16.7	-17.0	18.2	4.56	18.1	4.74	18.1	4.91	18.0	5.00	18.0	5.09	18.0	5.26
	-13.7	-15.0	18.9	4.69	18.9	4.86	18.8	5.03	18.8	5.12	18.8	5.20	18.7	5.37
	-11.8	-13.0	19.7	4.83	19.7	4.99	19.6	5.15	19.6	5.23	19.6	5.31	19.5	5.48
	-9.8	-11.0	20.7	4.96	20.6	5.12	20.6	5.27	20.6	5.35	20.5	5.43	20.5	5.58
	-9.5	-10.0	21.2	5.03	21.1	5.18	21.1	5.33	21.0	5.41	21.0	5.48	20.9	5.63
	-8.5	-9.1	21.6	5.09	21.5	5.24	21.5	5.38	21.5	5.46	21.4	5.53	21.4	5.68
	-7.0	-7.6	22.4	5.19	22.4	5.33	22.3	5.47	22.3	5.55	22.3	5.61	22.2	5.76
	-5.0	-5.6	23.6	5.32	23.5	5.45	23.5	5.59	23.4	5.65	23.4	5.72	23.3	5.86
	-3.0	-3.7	24.7	5.44	24.7	4.94	24.6	5.70	24.6	5.76	24.6	5.82	23.6	5.58
	0.0	-0.7	26.7	5.61	26.7	5.73	26.6	5.85	26.1	5.76	25.3	5.52	23.6	5.06
	3.0	2.2	28.8	5.78	28.7	5.88	27.0	5.45	26.1	5.23	25.3	5.03	23.6	4.61
	5.0	4.1	30.3	5.88	28.7	5.53	27.0	5.12	26.1	4.93	25.3	4.73	23.6	4.35
	7.0	6.0	30.4	5.58	28.7	5.20	<b>27.0</b>	<b>4.82</b>	26.1	4.64	25.3	4.46	23.6	4.10
9.0	7.9	30.4	5.25	28.7	4.89	27.0	4.54	26.1	4.31	25.3	4.20	23.6	3.87	
11.0	9.8	30.4	4.94	28.7	4.61	27.0	4.28	26.1	4.12	25.3	3.96	23.6	3.66	
13.0	11.8	30.4	4.64	28.7	4.33	27.0	4.03	26.1	3.88	25.3	3.74	23.6	3.45	
15.0	13.7	30.4	4.38	28.7	4.09	27.0	3.81	26.1	3.67	25.3	3.53	23.6	3.27	
90%	-19.8	-20.0	17.1	4.71	17.0	4.87	17.0	5.04	16.9	5.12	16.9	5.21	16.9	5.37
	-18.8	-19.0	17.4	4.76	17.4	4.93	17.3	5.09	17.3	5.17	17.3	5.25	17.2	5.41
	-16.7	-17.0	18.1	4.88	18.0	5.03	18.0	5.19	18.0	5.27	17.9	5.35	17.9	5.50
	-13.7	-15.0	18.8	5.00	18.7	5.15	18.7	5.30	18.7	5.37	18.7	5.45	18.7	5.60
	-11.8	-13.0	19.6	5.11	19.6	5.26	19.5	5.40	19.5	5.48	19.5	5.55	19.4	5.69
	-9.8	-11.0	20.5	5.23	20.5	5.37	20.4	5.51	20.4	5.58	20.4	5.65	20.4	5.79
	-9.5	-10.0	21.0	5.30	21.0	5.43	21.0	5.57	20.9	5.63	20.9	5.70	20.9	5.83
	-8.5	-9.1	21.5	5.35	21.5	5.48	21.4	5.61	21.4	5.68	21.4	5.75	21.1	5.80
	-7.0	-7.6	22.2	5.44	22.2	5.57	22.2	5.70	22.2	5.76	22.2	5.82	21.1	5.54
	-5.0	-5.6	23.4	5.56	23.4	5.68	23.4	5.80	23.3	5.86	22.7	5.68	21.1	5.21
	-3.0	-3.7	24.6	5.67	24.6	5.78	24.3	5.80	23.4	5.57	22.7	5.35	21.1	4.91
	0.0	-0.7	26.6	5.83	25.8	5.68	24.3	5.26	23.4	5.06	22.7	4.86	21.1	4.46
	3.0	2.2	27.4	5.55	25.8	5.17	24.3	4.79	23.4	4.61	22.7	4.43	21.1	4.08
	5.0	4.1	27.4	5.22	25.8	4.86	24.3	4.52	23.4	4.34	22.7	4.18	21.1	3.85
	7.0	6.0	27.4	4.91	25.8	4.58	24.3	4.26	23.4	4.10	22.7	3.94	21.1	3.64
9.0	7.9	27.4	4.63	25.8	4.31	24.3	4.01	23.4	3.87	22.7	3.72	21.1	3.44	
11.0	9.8	27.4	4.36	25.8	4.07	24.3	3.79	23.4	3.66	22.7	3.52	21.1	3.25	
13.0	11.8	27.4	4.10	25.8	3.84	24.3	3.57	23.4	3.45	22.7	3.32	21.1	3.07	
15.0	13.7	27.4	3.87	25.8	3.62	24.3	3.39	23.4	3.27	22.7	3.15	21.1	2.92	
80%	-19.8	-20.0	17.1	5.03	17.0	5.18	17.0	5.33	17.0	5.40	16.9	5.48	16.9	5.62
	-18.8	-19.0	17.3	5.08	17.3	5.23	17.2	5.37	17.2	5.45	17.2	5.51	17.1	5.66
	-16.7	-17.0	18.0	5.18	17.9	5.32	17.9	5.46	17.9	5.53	17.9	5.60	17.8	5.74
	-13.7	-15.0	18.8	5.29	18.7	5.42	18.7	5.56	18.7	5.62	18.6	5.69	18.6	5.83
	-11.8	-13.0	19.5	5.40	19.5	5.53	19.5	5.65	19.5	5.71	19.5	5.78	18.9	5.63
	-9.8	-11.0	20.5	5.50	20.5	5.63	20.4	5.75	20.4	5.81	20.2	5.80	18.9	5.31
	-9.5	-10.0	21.0	5.56	20.9	5.68	20.9	5.80	20.9	5.86	20.2	5.63	18.9	5.16
	-8.5	-9.1	21.4	5.61	19.9	5.73	21.3	5.84	20.9	5.71	20.2	5.48	18.9	5.02
	-7.0	-7.6	22.2	5.69	22.2	5.80	21.6	5.68	20.9	5.45	20.2	5.23	18.9	4.80
	-5.0	-5.6	23.4	5.79	23.0	5.76	21.6	5.33	20.9	5.13	20.2	4.92	18.9	4.52
	-3.0	-3.7	24.3	5.82	23.0	5.42	21.6	5.02	20.9	4.83	20.2	4.64	18.9	4.27
	0.0	-0.7	24.3	5.28	23.0	4.92	21.6	4.57	20.9	4.40	20.2	4.23	18.9	3.89
	3.0	2.2	24.3	4.81	23.0	4.49	21.6	4.18	20.9	4.02	20.2	3.87	18.9	3.57
	5.0	4.1	24.3	4.53	23.0	4.23	21.6	3.94	20.9	3.79	20.2	3.66	18.9	3.37
	7.0	6.0	24.3	4.27	23.0	3.99	21.6	3.72	20.9	3.59	20.2	3.46	18.9	3.19
9.0	7.9	24.3	4.03	23.0	3.77	21.6	3.51	20.9	3.39	20.2	3.27	18.9	3.02	
11.0	9.8	24.3	3.81	23.0	3.56	21.6	3.32	20.9	3.21	20.2	3.09	18.9	2.87	
13.0	11.8	24.3	3.59	23.0	3.36	21.6	3.14	20.9	3.03	20.2	2.92	18.9	2.71	
15.0	13.7	24.3	3.39	23.0	3.19	21.6	2.98	20.9	2.87	20.2	2.77	18.9	2.58	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.9 TMVV5X252HT3<sup>1</sup>.7O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	16.9	5.36	16.8	5.48	16.8	5.61	16.8	5.68	16.8	5.75	16.4	5.68
	-18.8	-19.0	17.2	5.40	17.2	5.53	17.1	5.65	17.1	5.71	17.1	5.78	16.4	5.56
	-16.7	-17.0	17.9	5.49	17.9	5.61	17.8	5.73	17.8	5.80	17.6	5.16	16.4	5.31
	-13.7	-15.0	18.6	5.58	18.6	5.70	18.6	5.82	18.2	5.73	17.6	5.50	16.4	5.05
	-11.8	-13.0	19.4	5.68	19.4	5.79	18.9	5.65	18.2	5.43	17.6	5.21	16.4	4.78
	-9.8	-11.0	20.4	5.77	20.1	5.76	18.9	5.34	18.2	5.13	17.6	4.93	16.4	4.53
	-9.5	-10.0	20.9	5.82	20.1	5.60	18.9	5.18	18.2	4.98	17.6	4.79	16.4	4.40
	-8.5	-9.1	21.3	5.85	20.1	5.45	18.9	5.05	18.2	4.85	17.6	4.66	16.4	4.29
	-7.0	-7.6	21.3	5.59	20.1	5.20	18.9	4.83	18.2	4.64	17.6	4.46	16.4	4.11
	-5.0	-5.6	21.3	5.25	20.1	4.89	18.9	4.54	18.2	4.37	17.6	5.16	16.4	3.87
	-3.0	-3.7	21.3	4.95	20.1	4.61	18.9	4.29	18.2	4.12	17.6	3.97	16.4	3.66
	0.0	-0.7	21.3	4.50	20.1	4.21	18.9	3.91	18.2	3.77	17.6	3.63	16.4	3.36
	3.0	2.2	21.3	4.11	20.1	3.85	18.9	3.59	18.2	3.46	17.6	3.33	16.4	3.08
	5.0	4.1	21.3	3.88	20.1	3.63	18.9	3.39	18.2	3.27	17.6	3.15	16.4	2.92
	7.0	6.0	21.3	3.67	20.1	3.44	18.9	3.20	18.2	3.09	17.6	2.99	16.4	2.77
9.0	7.9	21.3	3.47	20.1	3.25	18.9	3.04	18.2	2.93	17.6	2.83	16.4	2.62	
11.0	9.8	21.3	3.28	20.1	3.07	18.9	2.88	18.2	2.78	17.6	2.69	16.4	2.49	
13.0	11.8	21.3	3.10	20.1	2.91	18.9	2.72	18.2	2.64	17.6	2.54	16.4	2.37	
15.0	13.7	21.3	2.94	20.1	2.76	18.9	2.59	18.2	2.50	17.6	2.42	16.4	2.25	
60%	-19.8	-20.0	16.9	5.68	16.8	5.79	16.2	5.57	15.7	5.35	15.2	5.14	14.1	4.71
	-18.8	-19.0	17.1	5.72	17.1	5.83	16.2	5.45	15.7	5.24	15.2	5.03	14.1	4.61
	-16.7	-17.0	17.8	5.80	17.2	5.61	16.2	5.20	15.7	5.00	15.2	4.80	14.1	4.41
	-13.7	-15.0	18.3	5.73	17.2	5.33	16.2	4.94	15.7	4.76	15.2	4.57	14.1	4.20
	-11.8	-13.0	18.3	5.43	17.2	5.05	16.2	4.69	15.7	4.51	15.2	4.34	14.1	4.01
	-9.8	-11.0	18.3	5.13	17.2	4.78	16.2	4.44	15.7	4.27	15.2	4.11	14.1	3.79
	-9.5	-10.0	18.3	4.98	17.2	4.64	16.2	4.31	15.7	4.16	15.2	3.99	14.1	3.68
	-8.5	-9.1	18.3	4.85	17.2	4.53	16.2	4.21	15.7	4.05	15.2	3.89	14.1	3.59
	-7.0	-7.6	18.3	4.64	17.2	4.33	16.2	4.02	15.7	3.88	15.2	3.73	14.1	3.45
	-5.0	-5.6	18.3	4.37	17.2	4.08	16.2	3.80	15.7	3.66	15.2	3.52	14.1	3.26
	-3.0	-3.7	18.3	4.12	17.2	3.86	16.2	3.59	15.7	3.47	15.2	3.34	14.1	3.09
	0.0	-0.7	18.3	3.77	17.2	3.53	16.2	3.29	15.7	3.18	15.2	3.06	14.1	2.84
	3.0	2.2	18.3	3.46	17.2	3.24	16.2	3.03	15.7	2.92	15.2	2.82	14.1	2.62
	5.0	4.1	18.3	3.27	17.2	3.07	16.2	2.87	15.7	2.77	15.2	2.67	14.1	2.48
	7.0	6.0	18.3	3.09	17.2	2.90	16.2	2.72	15.7	2.63	15.2	2.54	14.1	2.36
9.0	7.9	18.3	2.93	17.2	2.75	16.2	2.58	15.7	2.50	15.2	2.41	14.1	2.25	
11.0	9.8	18.3	2.78	17.2	2.62	16.2	2.45	15.7	2.37	15.2	2.29	14.1	2.14	
13.0	11.8	18.3	2.63	17.2	2.48	16.2	2.33	15.7	2.25	15.2	2.18	14.1	2.03	
15.0	13.7	18.3	2.50	17.2	2.35	16.2	2.22	15.7	2.15	15.2	2.08	14.1	1.94	
50%	-19.8	-20.0	15.2	5.17	14.4	4.81	13.5	4.47	13.0	4.31	12.6	4.14	11.7	3.81
	-18.8	-19.0	15.2	5.06	14.4	4.71	13.5	4.38	13.0	4.21	12.6	4.05	11.7	3.74
	-16.7	-17.0	15.2	4.83	14.4	4.50	13.5	4.19	13.0	4.03	12.6	3.88	11.7	3.58
	-13.7	-15.0	15.2	4.59	14.4	4.29	13.5	3.99	13.0	3.84	12.6	3.70	11.7	3.42
	-11.8	-13.0	15.2	4.36	14.4	4.07	13.5	3.79	13.0	3.66	12.6	3.52	11.7	3.25
	-9.8	-11.0	15.2	4.13	14.4	3.86	13.5	3.60	13.0	3.47	12.6	3.34	11.7	3.09
	-9.5	-10.0	15.2	4.02	14.4	3.76	13.5	3.51	13.0	3.38	12.6	3.25	11.7	3.01
	-8.5	-9.1	15.2	3.92	14.4	3.67	13.5	3.42	13.0	3.30	12.6	3.18	11.7	2.94
	-7.0	-7.6	15.2	3.76	14.4	3.52	13.5	3.28	13.0	3.17	12.6	3.05	11.7	2.83
	-5.0	-5.6	15.2	3.54	14.4	3.32	13.5	3.10	13.0	3.00	12.6	2.89	11.7	2.68
	-3.0	-3.7	15.2	3.36	14.4	3.15	13.5	2.94	13.0	2.84	12.6	2.74	11.7	2.55
	0.0	-0.7	15.2	3.08	14.4	2.89	13.5	2.71	13.0	2.62	12.6	2.53	11.7	2.35
	3.0	2.2	15.2	2.84	14.4	2.67	13.5	2.50	13.0	2.42	12.6	2.33	11.7	2.18
	5.0	4.1	15.2	2.69	14.4	2.53	13.5	2.37	13.0	2.30	12.6	2.22	11.7	2.07
	7.0	6.0	15.2	2.55	14.4	2.40	13.5	2.26	13.0	2.18	12.6	2.12	11.7	1.98
9.0	7.9	15.2	2.42	14.4	2.28	13.5	2.15	13.0	2.08	12.6	2.02	11.7	1.88	
11.0	9.8	15.2	2.30	14.4	2.17	13.5	2.05	13.0	1.98	12.6	1.92	11.7	1.80	
13.0	11.8	15.2	2.19	14.4	2.07	13.5	1.95	13.0	1.89	12.6	1.83	11.7	1.72	
15.0	13.7	15.2	2.08	14.4	1.97	13.5	1.86	13.0	1.80	12.6	1.75	11.7	1.64	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.



Table 2-8.10: TMVV5X280HT3I<sup>4.5</sup>O4ATW3T heating capacity

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
			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	-20.0	20.4	4.20	20.3	4.49	20.2	4.79	20.2	4.94	20.1	5.08	20.1	5.38
	-18.8	-19.0	20.7	4.29	20.6	4.58	20.6	4.88	20.5	5.02	20.5	5.16	20.4	5.45
	-16.7	-17.0	21.5	4.49	21.4	4.77	21.3	5.05	21.3	5.19	21.3	5.33	21.2	5.61
	-13.7	-15.0	22.4	4.70	22.3	4.97	22.2	5.24	22.2	5.37	22.1	5.51	22.1	5.78
	-11.8	-13.0	23.3	4.91	23.3	5.17	23.2	5.42	23.1	5.55	23.1	5.69	23.0	5.94
	-9.8	-11.0	24.4	5.12	24.3	5.37	24.2	5.62	24.2	5.74	24.2	5.86	24.1	6.11
	-9.5	-10.0	25.0	5.23	24.9	5.47	24.8	5.71	24.8	5.83	24.7	5.95	24.7	6.19
	-8.5	-9.1	25.5	5.32	25.4	5.55	25.4	5.79	25.3	5.91	25.3	6.02	25.2	6.26
	-7.0	-7.6	26.4	5.48	26.4	5.71	26.3	5.93	26.3	6.05	26.2	6.16	26.1	6.39
	-5.0	-5.6	27.8	5.69	27.7	5.90	27.6	6.12	27.6	6.23	27.5	6.33	27.5	6.54
	-3.0	-3.7	29.1	5.87	29.0	6.08	29.0	6.28	28.9	6.39	28.9	6.49	28.8	6.69
	0.0	-0.7	31.4	6.16	31.4	6.35	31.3	6.53	31.3	6.60	31.2	6.73	31.2	6.91
	3.0	2.2	33.9	6.41	33.8	6.59	33.7	6.77	33.7	6.85	33.7	6.94	33.6	7.11
	5.0	4.1	35.6	6.57	35.5	6.74	35.5	6.90	35.4	6.99	35.4	7.07	35.3	7.24
	7.0	6.0	37.4	6.73	37.3	6.88	37.3	7.04	37.2	7.12	37.2	7.20	35.7	6.91
9.0	7.9	39.3	6.87	39.2	7.02	39.2	7.17	39.1	7.24	38.3	7.09	35.7	6.50	
11.0	9.8	41.3	7.00	41.2	7.14	41.0	7.24	39.6	6.95	38.3	6.66	35.7	6.12	
13.0	11.8	43.5	7.14	43.4	7.27	41.0	6.78	39.6	6.51	38.3	6.26	35.7	5.74	
15.0	13.7	45.6	7.26	43.6	6.89	41.0	6.39	39.6	6.14	38.3	5.89	35.7	5.42	
120%	-19.8	-20.0	20.3	4.60	20.2	4.87	20.1	5.15	20.1	5.28	20.1	5.42	20.0	5.69
	-18.8	-19.0	20.6	4.68	20.5	4.95	20.5	5.22	20.4	5.35	20.4	5.49	20.3	5.76
	-16.7	-17.0	21.4	4.87	21.3	5.13	21.2	5.38	21.2	5.52	21.2	5.65	21.1	5.90
	-13.7	-15.0	22.3	5.06	22.2	5.31	22.1	5.55	22.1	5.69	22.1	5.81	22.0	6.06
	-11.8	-13.0	23.2	5.25	23.2	5.49	23.1	5.73	23.1	5.85	23.0	5.97	23.0	6.21
	-9.8	-11.0	24.3	5.45	24.2	5.68	24.2	5.91	24.1	6.02	24.1	6.13	24.0	6.36
	-9.5	-10.0	24.9	5.55	24.8	5.78	24.7	5.99	24.7	6.11	24.7	6.22	24.6	6.44
	-8.5	-9.1	25.4	5.64	25.3	5.85	25.3	6.07	25.2	6.18	25.2	6.30	25.1	6.51
	-7.0	-7.6	26.3	5.79	26.3	5.99	26.2	6.20	26.2	6.31	26.1	6.41	26.1	6.62
	-5.0	-5.6	27.7	5.97	27.6	6.17	27.5	6.37	27.5	6.47	27.5	6.57	27.4	6.77
	-3.0	-3.7	29.0	6.15	29.0	6.34	28.9	6.53	28.9	6.62	28.8	6.72	28.8	6.90
	0.0	-0.7	31.3	6.41	31.3	6.59	31.2	6.76	31.2	6.85	31.1	6.93	31.1	7.11
	3.0	2.2	33.8	6.65	33.7	6.81	33.7	6.97	33.6	7.06	33.6	7.14	32.9	7.10
	5.0	4.1	35.5	6.80	35.4	6.95	35.4	7.10	35.3	7.18	35.3	7.26	32.9	6.67
	7.0	6.0	37.3	6.93	37.3	7.08	37.2	7.23	36.6	7.13	35.4	6.84	32.9	6.27
9.0	7.9	39.2	7.07	39.1	7.21	37.8	6.97	36.6	6.70	35.4	6.43	32.9	5.90	
11.0	9.8	41.2	7.20	40.2	7.07	37.8	6.56	36.6	6.30	35.4	6.05	32.9	5.56	
13.0	11.8	42.7	7.13	40.2	6.63	37.8	6.15	36.6	5.92	35.4	5.69	32.9	5.23	
15.0	13.7	42.7	6.71	40.2	6.25	37.8	5.80	36.6	5.58	35.4	5.36	32.9	4.94	
110%	-19.8	-20.0	20.2	5.00	20.1	5.25	20.0	5.50	20.0	5.62	20.0	5.75	19.9	6.00
	-18.8	-19.0	20.5	5.08	20.4	5.32	20.4	5.57	20.4	5.69	20.3	5.82	20.3	6.06
	-16.7	-17.0	21.3	5.25	21.2	5.48	21.5	5.72	21.1	5.84	21.1	5.96	21.0	6.19
	-13.7	-15.0	22.2	5.42	22.1	5.65	22.0	5.88	22.0	5.99	22.0	6.11	21.9	6.33
	-11.8	-13.0	23.1	5.61	23.1	5.82	23.0	6.04	23.0	6.15	22.9	6.26	22.9	6.48
	-9.8	-11.0	24.2	5.79	24.1	5.99	24.1	6.20	24.0	6.31	24.0	6.41	24.0	6.62
	-9.5	-10.0	24.8	5.88	24.7	6.08	24.6	6.29	24.6	6.39	24.6	6.49	24.5	6.69
	-8.5	-9.1	25.3	5.96	25.2	6.16	25.2	6.36	25.1	6.46	25.1	6.56	25.1	5.98
	-7.0	-7.6	26.2	6.09	26.2	6.28	26.1	6.47	26.1	6.57	26.1	6.67	26.0	6.86
	-5.0	-5.6	27.6	6.26	27.5	6.45	27.4	6.63	27.4	6.72	27.4	6.81	27.3	7.00
	-3.0	-3.7	28.9	6.43	28.9	6.60	28.8	6.77	28.8	6.86	28.7	6.94	28.7	7.12
	0.0	-0.7	31.2	6.67	31.2	6.83	31.1	6.99	31.1	7.07	31.1	7.15	30.2	7.01
	3.0	2.2	33.7	6.89	33.6	7.04	33.6	7.18	33.5	7.25	32.4	6.96	30.2	6.38
	5.0	4.1	35.4	7.02	35.4	7.17	34.7	7.10	33.5	6.81	32.4	6.54	30.2	6.00
	7.0	6.0	37.2	7.15	36.9	7.20	34.7	6.67	33.5	6.40	32.4	6.15	30.2	5.65
9.0	7.9	39.1	7.27	36.9	6.77	34.7	6.27	33.5	6.02	32.4	5.79	30.2	5.32	
11.0	9.8	39.1	6.84	36.9	6.36	34.7	5.90	33.5	5.68	32.4	5.45	30.2	5.02	
13.0	11.8	39.1	6.41	36.9	5.97	34.7	5.55	33.5	5.34	32.4	5.13	30.2	4.73	
15.0	13.7	39.1	5.69	36.9	5.63	34.7	5.24	33.5	5.04	32.4	4.85	30.2	4.47	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...



Table 2-8.10: TMVV5X280HT3I<sup>4.5</sup>O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	19.8	6.60	19.7	6.76	19.7	6.92	19.7	7.00	19.7	7.08	19.2	7.00
	-18.8	-19.0	20.1	6.66	20.1	6.81	20.0	6.97	20.0	7.04	20.0	7.13	19.2	6.86
	-16.7	-17.0	20.9	6.77	20.9	6.92	20.8	7.07	20.8	7.14	20.6	6.36	19.2	6.54
	-13.7	-15.0	21.8	6.88	21.7	7.03	21.7	7.17	21.3	7.07	20.6	6.78	19.2	6.22
	-11.8	-13.0	22.6	7.00	22.6	7.14	22.1	6.97	21.3	6.70	20.6	6.43	19.2	5.89
	-9.8	-11.0	23.7	7.11	23.4	7.10	22.1	6.58	21.3	6.33	20.6	6.07	19.2	5.58
	-9.5	-10.0	24.3	7.17	23.4	6.90	22.1	6.39	21.3	6.14	20.6	5.90	19.2	5.42
	-8.5	-9.1	24.8	7.21	23.4	6.71	22.1	6.22	21.3	5.98	20.6	5.75	19.2	5.28
	-7.0	-7.6	24.8	6.89	23.4	6.41	22.1	5.95	21.3	5.72	20.6	5.50	19.2	5.06
	-5.0	-5.6	24.8	6.47	23.4	6.03	22.1	5.60	21.3	5.38	20.6	6.36	19.2	4.77
	-3.0	-3.7	24.8	6.09	23.4	5.69	22.1	5.28	21.3	5.08	20.6	4.89	19.2	4.51
	0.0	-0.7	24.8	5.55	23.4	5.18	22.1	4.82	21.3	4.64	20.6	4.47	19.2	4.13
	3.0	2.2	24.8	5.07	23.4	4.74	22.1	4.42	21.3	4.26	20.6	4.10	19.2	3.80
	5.0	4.1	24.8	4.78	23.4	4.47	22.1	4.18	21.3	4.03	20.6	3.88	19.2	3.59
	7.0	6.0	24.8	4.52	23.4	4.24	22.1	3.95	21.3	3.81	20.6	3.68	19.2	3.41
	9.0	7.9	24.8	4.27	23.4	4.00	22.1	3.74	21.3	3.61	20.6	3.49	19.2	3.23
11.0	9.8	24.8	4.04	23.4	3.79	22.1	3.55	21.3	3.43	20.6	3.31	19.2	3.07	
13.0	11.8	24.8	3.82	23.4	3.59	22.1	3.36	21.3	3.25	20.6	3.13	19.2	2.92	
15.0	13.7	24.8	3.62	23.4	3.40	22.1	3.19	21.3	3.09	20.6	2.98	19.2	2.78	
60%	-19.8	-20.0	19.7	7.00	19.6	7.14	18.9	6.87	18.3	6.60	17.7	6.33	16.5	5.81
	-18.8	-19.0	20.0	7.05	20.0	7.18	18.9	6.72	18.3	6.46	17.7	6.19	16.5	5.69
	-16.7	-17.0	20.8	7.14	20.1	6.92	18.9	6.41	18.3	6.16	17.7	5.92	16.5	5.44
	-13.7	-15.0	21.3	7.07	20.1	6.57	18.9	6.09	18.3	5.86	17.7	5.63	16.5	5.18
	-11.8	-13.0	21.3	6.69	20.1	6.22	18.9	5.78	18.3	5.56	17.7	5.35	16.5	4.94
	-9.8	-11.0	21.3	6.32	20.1	5.89	18.9	5.47	18.3	5.26	17.7	5.06	16.5	4.67
	-9.5	-10.0	21.3	6.14	20.1	5.72	18.9	5.31	18.3	5.12	17.7	4.92	16.5	4.54
	-8.5	-9.1	21.3	5.98	20.1	5.58	18.9	5.18	18.3	4.99	17.7	4.80	16.5	4.43
	-7.0	-7.6	21.3	5.72	20.1	5.34	18.9	4.96	18.3	4.78	17.7	4.60	16.5	4.25
	-5.0	-5.6	21.3	5.38	20.1	5.03	18.9	4.68	18.3	4.51	17.7	4.34	16.5	4.02
	-3.0	-3.7	21.3	5.08	20.1	4.75	18.9	4.43	18.3	4.27	17.7	4.11	16.5	3.80
	0.0	-0.7	21.3	4.64	20.1	4.35	18.9	4.06	18.3	3.92	17.7	3.77	16.5	3.49
	3.0	2.2	21.3	4.26	20.1	4.00	18.9	3.73	18.3	3.60	17.7	3.48	16.5	3.22
	5.0	4.1	21.3	4.03	20.1	3.78	18.9	3.53	18.3	3.42	17.7	3.29	16.5	3.06
	7.0	6.0	21.3	3.81	20.1	3.58	18.9	3.35	18.3	3.24	17.7	3.13	16.5	2.91
	9.0	7.9	21.3	3.61	20.1	3.39	18.9	3.18	18.3	3.08	17.7	2.97	16.5	2.77
11.0	9.8	21.3	3.42	20.1	3.22	18.9	3.02	18.3	2.92	17.7	2.82	16.5	2.64	
13.0	11.8	21.3	3.24	20.1	3.05	18.9	2.87	18.3	2.78	17.7	2.68	16.5	2.51	
15.0	13.7	21.3	3.09	20.1	2.90	18.9	2.73	18.3	2.65	17.7	2.56	16.5	2.39	
50%	-19.8	-20.0	17.7	6.37	16.7	5.93	15.8	5.51	15.2	5.31	14.7	5.10	13.7	4.70
	-18.8	-19.0	17.7	6.23	16.7	5.81	15.8	5.40	15.2	5.19	14.7	4.99	13.7	4.61
	-16.7	-17.0	17.7	5.95	16.7	5.55	15.8	5.16	15.2	4.97	14.7	4.78	13.7	4.41
	-13.7	-15.0	17.7	5.66	16.7	5.28	15.8	4.91	15.2	4.74	14.7	4.56	13.7	4.21
	-11.8	-13.0	17.7	5.38	16.7	5.02	15.8	4.67	15.2	4.50	14.7	4.34	13.7	4.01
	-9.8	-11.0	17.7	5.09	16.7	4.76	15.8	4.44	15.2	4.27	14.7	4.12	13.7	3.81
	-9.5	-10.0	17.7	4.95	16.7	4.63	15.8	4.32	15.2	4.17	14.7	4.01	13.7	3.71
	-8.5	-9.1	17.7	4.83	16.7	4.52	15.8	4.21	15.2	4.07	14.7	3.92	13.7	3.63
	-7.0	-7.6	17.7	4.63	16.7	4.34	15.8	4.04	15.2	3.90	14.7	3.76	13.7	3.49
	-5.0	-5.6	17.7	4.37	16.7	4.10	15.8	3.83	15.2	3.69	14.7	3.56	13.7	3.30
	-3.0	-3.7	17.7	4.13	16.7	3.88	15.8	3.63	15.2	3.50	14.7	3.38	13.7	3.14
	0.0	-0.7	17.7	3.80	16.7	3.56	15.8	3.34	15.2	3.22	14.7	3.12	13.7	2.90
	3.0	2.2	17.7	3.49	16.7	3.29	15.8	3.08	15.2	2.98	14.7	2.88	13.7	2.68
	5.0	4.1	17.7	3.32	16.7	3.12	15.8	2.92	15.2	2.83	14.7	2.74	13.7	2.55
	7.0	6.0	17.7	3.15	16.7	2.96	15.8	2.78	15.2	2.69	14.7	2.61	13.7	2.44
	9.0	7.9	17.7	2.99	16.7	2.82	15.8	2.65	15.2	2.57	14.7	2.48	13.7	2.32
11.0	9.8	17.7	2.84	16.7	2.68	15.8	2.52	15.2	2.45	14.7	2.37	13.7	2.21	
13.0	11.8	17.7	2.70	16.7	2.55	15.8	2.40	15.2	2.33	14.7	2.25	13.7	2.11	
15.0	13.7	17.7	2.57	16.7	2.43	15.8	2.29	15.2	2.22	14.7	2.15	13.7	2.02	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table 2-8.11: TMVV5X335HT3<sup>1/2</sup>04ATW3T heating capacity

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
			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	-20.0	24.3	5.40	24.2	5.78	24.0	6.17	24.0	6.36	23.9	6.55	23.9	6.93
	-18.8	-19.0	24.6	5.52	24.5	5.90	24.5	6.28	24.4	6.47	24.4	6.65	24.3	7.02
	-16.7	-17.0	25.6	5.78	25.5	6.14	25.4	6.51	25.4	6.69	25.4	6.86	25.2	7.22
	-13.7	-15.0	26.7	6.05	26.5	6.40	26.4	6.75	26.4	6.91	26.3	7.09	26.3	7.44
	-11.8	-13.0	27.7	6.32	27.7	6.66	27.6	6.98	27.5	7.15	27.5	7.32	27.4	7.65
	-9.8	-11.0	29.0	6.60	28.9	6.91	28.8	7.23	28.8	7.39	28.8	7.55	28.7	7.87
	-9.5	-10.0	29.8	6.74	29.6	7.04	29.5	7.35	29.5	7.51	29.4	7.66	29.4	7.97
	-8.5	-9.1	30.4	6.86	30.2	7.15	30.2	7.46	30.1	7.61	30.1	7.76	30.0	8.07
	-7.0	-7.6	31.4	7.05	31.4	7.35	31.3	7.64	31.3	7.79	31.2	7.93	31.1	8.23
	-5.0	-5.6	33.1	7.32	33.0	7.60	32.9	7.88	32.9	8.02	32.7	8.15	32.7	8.42
	-3.0	-3.7	34.6	7.56	34.5	7.83	34.5	8.09	34.4	8.23	34.4	8.35	34.3	8.61
	0.0	-0.7	37.4	7.93	37.4	8.18	37.3	8.41	37.3	8.50	37.1	8.66	37.1	8.90
	3.0	2.2	40.4	8.26	40.2	8.48	40.1	8.71	40.1	8.82	40.1	8.94	40.0	9.16
	5.0	4.1	42.4	8.46	42.3	8.68	42.3	8.89	42.1	9.00	42.1	9.11	42.0	9.32
	7.0	6.0	44.5	8.66	44.4	8.86	44.4	9.07	44.3	9.17	44.3	9.27	42.5	8.90
9.0	7.9	46.8	8.84	46.7	9.04	46.7	9.23	46.5	9.33	45.6	9.13	42.5	8.36	
11.0	9.8	49.2	9.02	49.0	9.20	48.8	9.32	47.1	8.95	45.6	8.58	42.5	7.88	
13.0	11.8	51.8	9.19	51.7	9.37	48.8	8.73	47.1	8.38	45.6	8.06	42.5	7.39	
15.0	13.7	54.3	9.35	51.9	8.87	48.8	8.23	47.1	7.91	45.6	7.59	42.5	6.97	
120%	-19.8	-20.0	24.2	5.92	24.0	6.27	23.9	6.63	23.9	6.80	23.9	6.97	23.8	7.33
	-18.8	-19.0	24.5	6.03	24.4	6.38	24.4	6.73	24.3	6.90	24.3	7.07	24.2	7.42
	-16.7	-17.0	25.5	6.27	25.4	6.61	25.2	6.93	25.2	7.10	25.2	7.27	25.1	7.60
	-13.7	-15.0	26.6	6.52	26.4	6.84	26.3	7.15	26.3	7.32	26.3	7.48	26.2	7.80
	-11.8	-13.0	27.6	6.77	27.6	7.07	27.5	7.38	27.5	7.54	27.4	7.69	27.4	8.00
	-9.8	-11.0	28.9	7.02	28.8	7.31	28.8	7.61	28.7	7.76	28.7	7.90	28.6	8.20
	-9.5	-10.0	29.6	7.15	29.5	7.44	29.4	7.72	29.4	7.87	29.4	8.01	29.3	8.30
	-8.5	-9.1	30.2	7.26	30.1	7.54	30.1	7.82	30.0	7.96	30.0	8.11	29.9	8.38
	-7.0	-7.6	31.3	7.45	31.3	7.72	31.2	7.99	31.2	8.13	31.1	8.26	31.1	8.52
	-5.0	-5.6	33.0	7.69	32.9	7.95	32.7	8.21	32.7	8.34	32.7	8.46	32.6	8.71
	-3.0	-3.7	34.5	7.92	34.5	8.17	34.4	8.41	34.4	8.52	34.3	8.65	34.3	8.89
	0.0	-0.7	37.3	8.26	37.3	8.48	37.1	8.70	37.1	8.82	37.0	8.93	37.0	9.16
	3.0	2.2	40.2	8.56	40.1	8.77	40.1	8.98	40.0	9.09	40.0	9.19	39.2	9.14
	5.0	4.1	42.3	8.75	42.1	8.95	42.1	9.15	42.0	9.25	42.0	9.35	39.2	8.58
	7.0	6.0	44.4	8.93	44.4	9.12	44.3	9.31	43.6	9.18	42.1	8.80	39.2	8.08
9.0	7.9	46.7	9.11	46.6	9.29	45.0	8.98	43.6	8.63	42.1	8.28	39.2	7.60	
11.0	9.8	49.0	9.27	47.9	9.11	45.0	8.45	43.6	8.12	42.1	7.79	39.2	7.16	
13.0	11.8	50.8	9.18	47.9	8.54	45.0	7.92	43.6	7.62	42.1	7.32	39.2	6.74	
15.0	13.7	50.8	8.64	47.9	8.05	45.0	7.47	43.6	7.18	42.1	6.90	39.2	6.36	
110%	-19.8	-20.0	24.0	6.44	23.9	6.76	23.8	7.08	23.8	7.24	23.8	7.40	23.7	7.73
	-18.8	-19.0	24.4	6.54	24.3	6.86	24.3	7.17	24.3	7.33	24.2	7.49	24.2	7.81
	-16.7	-17.0	25.4	6.76	25.2	7.06	25.6	7.37	25.1	7.52	25.1	7.68	25.0	7.98
	-13.7	-15.0	26.4	6.98	26.3	7.28	26.2	7.57	26.2	7.72	26.2	7.87	26.1	8.16
	-11.8	-13.0	27.5	7.22	27.5	7.50	27.4	7.78	27.4	7.92	27.3	8.06	27.3	8.35
	-9.8	-11.0	28.8	7.45	28.7	7.72	28.7	7.99	28.6	8.13	28.6	8.26	28.6	8.52
	-9.5	-10.0	29.5	7.57	29.4	7.83	29.3	8.10	29.3	8.23	29.3	8.36	29.2	8.61
	-8.5	-9.1	30.1	7.67	30.0	7.93	30.0	8.19	29.9	8.32	29.9	8.45	29.9	7.70
	-7.0	-7.6	31.2	7.85	31.2	8.09	31.1	8.34	31.1	8.46	31.1	8.58	31.0	8.83
	-5.0	-5.6	32.9	8.07	32.7	8.31	32.6	8.53	32.6	8.65	32.6	8.77	32.5	9.01
	-3.0	-3.7	34.4	8.28	34.4	8.49	34.3	8.72	34.3	8.83	34.2	8.94	34.2	9.17
	0.0	-0.7	37.1	8.58	37.1	8.79	37.0	9.00	37.0	9.10	37.0	9.21	36.0	9.03
	3.0	2.2	40.1	8.87	40.0	9.06	40.0	9.25	39.9	9.34	38.6	8.96	36.0	8.22
	5.0	4.1	42.1	9.04	42.1	9.23	41.3	9.14	39.9	8.77	38.6	8.43	36.0	7.73
	7.0	6.0	44.3	9.21	43.9	9.27	41.3	8.58	39.9	8.25	38.6	7.92	36.0	7.27
9.0	7.9	46.5	9.36	43.9	8.71	41.3	8.08	39.9	7.76	38.6	7.45	36.0	6.86	
11.0	9.8	46.5	8.80	43.9	8.20	41.3	7.60	39.9	7.31	38.6	7.02	36.0	6.47	
13.0	11.8	46.5	8.26	43.9	7.69	41.3	7.14	39.9	6.87	38.6	6.61	36.0	6.09	
15.0	13.7	46.5	7.33	43.9	7.25	41.3	6.75	39.9	6.49	38.6	6.25	36.0	5.76	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.11: TMVV5X335HT3<sup>1</sup>.3O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
			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	-20.0	23.9	6.95	23.8	7.24	23.8	7.54	23.7	7.69	23.7	7.83	23.6	8.13
	-18.8	-19.0	24.3	7.04	24.3	7.33	24.2	7.62	24.2	7.77	24.0	7.92	24.0	8.21
	-16.7	-17.0	25.2	7.24	25.1	7.52	25.1	7.80	25.0	7.94	25.0	8.08	25.0	8.36
	-13.7	-15.0	26.3	7.45	26.2	7.72	26.1	7.99	26.1	8.13	26.1	8.26	26.0	8.52
	-11.8	-13.0	27.4	7.67	27.4	7.92	27.3	8.18	27.3	8.31	27.3	8.43	27.1	8.69
	-9.8	-11.0	28.7	7.88	28.6	8.13	28.6	8.37	28.6	8.49	28.5	8.61	28.5	8.85
	-9.5	-10.0	29.4	7.99	29.3	8.23	29.3	8.46	29.2	8.58	29.2	8.70	29.0	8.94
	-8.5	-9.1	30.0	8.08	29.9	8.32	29.9	8.54	29.9	8.66	29.8	8.78	29.8	9.01
	-7.0	-7.6	31.1	8.24	31.1	8.46	31.0	8.68	31.0	8.80	31.0	8.91	30.8	9.14
	-5.0	-5.6	32.7	8.44	32.6	8.65	32.6	8.87	32.5	8.97	32.5	9.08	32.4	9.30
	-3.0	-3.7	34.3	8.63	34.3	7.84	34.2	9.04	34.2	9.14	34.2	9.24	32.7	8.85
	0.0	-0.7	37.0	8.91	37.0	9.10	36.9	9.29	36.3	9.14	35.1	8.76	32.7	8.04
	3.0	2.2	40.0	9.17	39.9	9.34	37.5	8.64	36.3	8.31	35.1	7.98	32.7	7.32
	5.0	4.1	42.0	9.34	39.9	8.77	37.5	8.13	36.3	7.82	35.1	7.51	32.7	6.90
	7.0	6.0	42.3	8.86	39.9	8.25	<b>37.5</b>	<b>7.65</b>	36.3	7.36	35.1	7.07	32.7	6.51
9.0	7.9	42.3	8.33	39.9	7.76	37.5	7.20	36.3	6.85	35.1	6.67	32.7	6.14	
11.0	9.8	42.3	7.84	39.9	7.31	37.5	6.80	36.3	6.54	35.1	6.29	32.7	5.80	
13.0	11.8	42.3	7.36	39.9	6.88	37.5	6.40	36.3	6.16	35.1	5.93	32.7	5.47	
15.0	13.7	42.3	6.94	39.9	6.49	37.5	6.04	36.3	5.82	35.1	5.60	32.7	5.19	
90%	-19.8	-20.0	23.8	7.47	23.6	7.73	23.6	8.00	23.5	8.13	23.5	8.27	23.5	8.52
	-18.8	-19.0	24.1	7.55	24.1	7.82	24.0	8.08	24.0	8.21	24.0	8.34	23.9	8.59
	-16.7	-17.0	25.1	7.74	25.0	7.99	25.0	8.24	25.0	8.36	24.8	8.48	24.8	8.73
	-13.7	-15.0	26.1	7.93	26.0	8.17	26.0	8.40	25.9	8.52	25.9	8.64	25.9	8.88
	-11.8	-13.0	27.2	8.12	27.2	8.35	27.1	8.57	27.1	8.69	27.1	8.80	27.0	9.03
	-9.8	-11.0	28.5	8.31	28.5	8.52	28.4	8.74	28.4	8.85	28.4	8.97	28.3	9.19
	-9.5	-10.0	29.2	8.40	29.1	8.62	29.1	8.83	29.0	8.94	29.0	9.05	29.0	9.26
	-8.5	-9.1	29.8	8.49	29.8	8.70	29.7	8.91	29.7	9.01	29.7	9.12	29.4	9.21
	-7.0	-7.6	30.9	8.63	30.9	8.83	30.8	9.04	30.8	9.14	30.8	9.24	29.4	8.79
	-5.0	-5.6	32.6	8.82	32.4	9.01	32.4	9.20	32.3	9.30	31.5	9.01	29.4	8.27
	-3.0	-3.7	34.1	8.99	34.1	9.17	33.8	9.21	32.6	8.84	31.5	8.48	29.4	7.79
	0.0	-0.7	37.0	9.25	35.9	9.02	33.8	8.36	32.6	8.03	31.5	7.71	29.4	7.08
	3.0	2.2	38.0	8.81	35.9	8.21	33.8	7.61	32.6	7.32	31.5	7.03	29.4	6.48
	5.0	4.1	38.0	8.29	35.9	7.72	33.8	7.17	32.6	6.89	31.5	6.64	29.4	6.11
	7.0	6.0	38.0	7.79	35.9	7.27	33.8	6.76	32.6	6.51	31.5	6.26	29.4	5.77
9.0	7.9	38.0	7.34	35.9	6.84	33.8	6.37	32.6	6.14	31.5	5.91	29.4	5.45	
11.0	9.8	38.0	6.91	35.9	6.46	33.8	6.02	32.6	5.80	31.5	5.58	29.4	5.17	
13.0	11.8	38.0	6.51	35.9	6.09	33.8	5.67	32.6	5.47	31.5	5.28	29.4	4.88	
15.0	13.7	38.0	6.15	35.9	5.75	33.8	5.37	32.6	5.19	31.5	5.00	29.4	4.63	
80%	-19.8	-20.0	23.7	7.99	23.6	8.22	23.6	8.45	23.6	8.57	23.5	8.69	23.5	8.92
	-18.8	-19.0	24.0	8.06	24.0	8.30	23.9	8.52	23.9	8.64	23.9	8.75	23.8	8.99
	-16.7	-17.0	25.0	8.23	24.9	8.44	24.9	8.67	24.9	8.78	24.9	8.89	24.8	9.11
	-13.7	-15.0	26.1	8.40	26.0	8.60	26.0	8.82	26.0	8.92	25.8	9.03	25.8	9.25
	-11.8	-13.0	27.1	8.56	27.1	8.77	27.0	8.97	27.0	9.07	27.0	9.18	26.2	8.93
	-9.8	-11.0	28.5	8.73	28.5	8.93	28.3	9.13	28.3	9.22	28.1	9.20	26.2	8.43
	-9.5	-10.0	29.2	8.82	29.0	9.01	29.0	9.20	29.0	9.30	28.1	8.93	26.2	8.19
	-8.5	-9.1	29.8	8.90	27.7	9.09	29.6	9.27	29.0	9.06	28.1	8.69	26.2	7.97
	-7.0	-7.6	30.8	9.03	30.8	9.21	30.0	9.01	29.0	8.65	28.1	8.31	26.2	7.62
	-5.0	-5.6	32.5	9.19	31.9	9.14	30.0	8.46	29.0	8.14	28.1	7.81	26.2	7.17
	-3.0	-3.7	33.8	9.24	31.9	8.60	30.0	7.97	29.0	7.67	28.1	7.36	26.2	6.78
	0.0	-0.7	33.8	8.39	31.9	7.81	30.0	7.25	29.0	6.98	28.1	6.71	26.2	6.18
	3.0	2.2	33.8	7.64	31.9	7.12	30.0	6.63	29.0	6.38	28.1	6.14	26.2	5.66
	5.0	4.1	33.8	7.19	31.9	6.72	30.0	6.25	29.0	6.02	28.1	5.80	26.2	5.35
	7.0	6.0	33.8	6.78	31.9	6.34	30.0	5.90	29.0	5.69	28.1	5.48	26.2	5.07
9.0	7.9	33.8	6.40	31.9	5.98	30.0	5.57	29.0	5.37	28.1	5.19	26.2	4.80	
11.0	9.8	33.8	6.04	31.9	5.65	30.0	5.28	29.0	5.09	28.1	4.91	26.2	4.55	
13.0	11.8	33.8	5.69	31.9	5.33	30.0	4.99	29.0	4.81	28.1	4.64	26.2	4.30	
15.0	13.7	33.8	5.38	31.9	5.06	30.0	4.73	29.0	4.56	28.1	4.40	26.2	4.09	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.11: TMVV5X335HT3<sup>A</sup>-3O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
			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	-20.0	23.5	8.50	23.4	8.70	23.4	8.91	23.4	9.01	23.4	9.12	22.8	9.02
	-18.8	-19.0	23.9	8.57	23.9	8.77	23.8	8.97	23.8	9.07	23.8	9.18	22.8	8.83
	-16.7	-17.0	24.8	8.71	24.8	8.91	24.7	9.10	24.7	9.20	24.5	8.20	22.8	8.42
	-13.7	-15.0	25.9	8.86	25.8	9.05	25.8	9.24	25.3	9.10	24.5	8.73	22.8	8.01
	-11.8	-13.0	27.0	9.01	27.0	9.19	26.3	8.97	25.3	8.62	24.5	8.28	22.8	7.59
	-9.8	-11.0	28.3	9.16	27.9	9.15	26.3	8.47	25.3	8.15	24.5	7.82	22.8	7.18
	-9.5	-10.0	29.0	9.24	27.9	8.88	26.3	8.23	25.3	7.91	24.5	7.60	22.8	6.98
	-8.5	-9.1	29.6	9.29	27.9	8.64	26.3	8.01	25.3	7.70	24.5	7.40	22.8	6.81
	-7.0	-7.6	29.6	8.87	27.9	8.26	26.3	7.66	25.3	7.37	24.5	7.08	22.8	6.52
	-5.0	-5.6	29.6	8.34	27.9	7.77	26.3	7.21	25.3	6.93	24.5	8.19	22.8	6.15
	-3.0	-3.7	29.6	7.85	27.9	7.32	26.3	6.81	25.3	6.55	24.5	6.30	22.8	5.81
	0.0	-0.7	29.6	7.14	27.9	6.68	26.3	6.21	25.3	5.98	24.5	5.76	22.8	5.33
	3.0	2.2	29.6	6.53	27.9	6.11	26.3	5.69	25.3	5.48	24.5	5.28	22.8	4.89
	5.0	4.1	29.6	6.16	27.9	5.76	26.3	5.38	25.3	5.19	24.5	5.00	22.8	4.63
	7.0	6.0	29.6	5.82	27.9	5.45	26.3	5.09	25.3	4.91	24.5	4.74	22.8	4.39
9.0	7.9	29.6	5.50	27.9	5.16	26.3	4.82	25.3	4.65	24.5	4.49	22.8	4.16	
11.0	9.8	29.6	5.21	27.9	4.88	26.3	4.57	25.3	4.41	24.5	4.26	22.8	3.95	
13.0	11.8	29.6	4.92	27.9	4.62	26.3	4.32	25.3	4.18	24.5	4.03	22.8	3.76	
15.0	13.7	29.6	4.66	27.9	4.38	26.3	4.10	25.3	3.97	24.5	3.83	22.8	3.58	
60%	-19.8	-20.0	23.5	9.02	23.3	9.19	22.5	8.84	21.8	8.49	21.1	8.16	19.6	7.48
	-18.8	-19.0	23.8	9.08	23.8	9.25	22.5	8.65	21.8	8.32	21.1	7.98	19.6	7.32
	-16.7	-17.0	24.8	9.20	23.9	8.91	22.5	8.26	21.8	7.94	21.1	7.62	19.6	7.00
	-13.7	-15.0	25.4	9.10	23.9	8.46	22.5	7.85	21.8	7.55	21.1	7.25	19.6	6.67
	-11.8	-13.0	25.4	8.61	23.9	8.02	22.5	7.44	21.8	7.16	21.1	6.88	19.6	6.37
	-9.8	-11.0	25.4	8.14	23.9	7.58	22.5	7.04	21.8	6.78	21.1	6.52	19.6	6.01
	-9.5	-10.0	25.4	7.91	23.9	7.37	22.5	6.85	21.8	6.60	21.1	6.34	19.6	5.84
	-8.5	-9.1	25.4	7.70	23.9	7.18	22.5	6.68	21.8	6.43	21.1	6.18	19.6	5.70
	-7.0	-7.6	25.4	7.36	23.9	6.87	22.5	6.39	21.8	6.16	21.1	5.92	19.6	5.47
	-5.0	-5.6	25.4	6.93	23.9	6.48	22.5	6.03	21.8	5.81	21.1	5.59	19.6	5.18
	-3.0	-3.7	25.4	6.55	23.9	6.12	22.5	5.70	21.8	5.50	21.1	5.30	19.6	4.90
	0.0	-0.7	25.4	5.98	23.9	5.60	22.5	5.23	21.8	5.05	21.1	4.86	19.6	4.50
	3.0	2.2	25.4	5.48	23.9	5.15	22.5	4.81	21.8	4.64	21.1	4.48	19.6	4.15
	5.0	4.1	25.4	5.19	23.9	4.87	22.5	4.55	21.8	4.40	21.1	4.24	19.6	3.94
	7.0	6.0	25.4	4.91	23.9	4.61	22.5	4.31	21.8	4.17	21.1	4.03	19.6	3.75
9.0	7.9	25.4	4.65	23.9	4.37	22.5	4.09	21.8	3.96	21.1	3.82	19.6	3.57	
11.0	9.8	25.4	4.41	23.9	4.15	22.5	3.89	21.8	3.77	21.1	3.64	19.6	3.40	
13.0	11.8	25.4	4.17	23.9	3.93	22.5	3.70	21.8	3.58	21.1	3.46	19.6	3.23	
15.0	13.7	25.4	3.97	23.9	3.74	22.5	3.52	21.8	3.41	21.1	3.30	19.6	3.08	
50%	-19.8	-20.0	21.1	8.21	19.9	7.64	18.8	7.09	18.0	6.83	17.4	6.57	16.3	6.05
	-18.8	-19.0	21.1	8.03	19.9	7.48	18.8	6.95	18.0	6.69	17.4	6.43	16.3	5.93
	-16.7	-17.0	21.1	7.66	19.9	7.14	18.8	6.65	18.0	6.40	17.4	6.16	16.3	5.68
	-13.7	-15.0	21.1	7.29	19.9	6.81	18.8	6.33	18.0	6.10	17.4	5.87	16.3	5.42
	-11.8	-13.0	21.1	6.92	19.9	6.47	18.8	6.02	18.0	5.80	17.4	5.58	16.3	5.17
	-9.8	-11.0	21.1	6.56	19.9	6.13	18.8	5.71	18.0	5.50	17.4	5.30	16.3	4.91
	-9.5	-10.0	21.1	6.38	19.9	5.96	18.8	5.56	18.0	5.36	17.4	5.17	16.3	4.78
	-8.5	-9.1	21.1	6.22	19.9	5.82	18.8	5.42	18.0	5.24	17.4	5.05	16.3	4.67
	-7.0	-7.6	21.1	5.96	19.9	5.58	18.8	5.21	18.0	5.03	17.4	4.85	16.3	4.49
	-5.0	-5.6	21.1	5.62	19.9	5.28	18.8	4.93	18.0	4.76	17.4	4.59	16.3	4.25
	-3.0	-3.7	21.1	5.32	19.9	5.00	18.8	4.67	18.0	4.51	17.4	4.35	16.3	4.04
	0.0	-0.7	21.1	4.89	19.9	4.59	18.8	4.30	18.0	4.15	17.4	4.01	16.3	3.74
	3.0	2.2	21.1	4.50	19.9	4.23	18.8	3.96	18.0	3.83	17.4	3.71	16.3	3.46
	5.0	4.1	21.1	4.27	19.9	4.01	18.8	3.77	18.0	3.65	17.4	3.53	16.3	3.29
	7.0	6.0	21.1	4.05	19.9	3.81	18.8	3.59	18.0	3.47	17.4	3.36	16.3	3.14
9.0	7.9	21.1	3.84	19.9	3.63	18.8	3.41	18.0	3.31	17.4	3.20	16.3	2.99	
11.0	9.8	21.1	3.66	19.9	3.45	18.8	3.25	18.0	3.15	17.4	3.05	16.3	2.85	
13.0	11.8	21.1	3.48	19.9	3.28	18.8	3.09	18.0	3.00	17.4	2.90	16.3	2.72	
15.0	13.7	21.1	3.31	19.9	3.13	18.8	2.95	18.0	2.86	17.4	2.77	16.3	2.60	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table 2-8.12: TMVV5X400HT3<sup>1</sup>.3<sup>2</sup>O4ATW3T heating capacity

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-19.8	-20.0	29.1	6.63	29.0	7.09	28.9	7.57	28.9	7.80	28.7	8.03	28.7	8.50
	-18.8	-19.0	29.6	6.77	29.4	7.24	29.4	7.70	29.3	7.93	29.3	8.15	29.1	8.61
	-16.7	-17.0	30.7	7.09	30.6	7.53	30.4	7.98	30.4	8.20	30.4	8.42	30.3	8.86
	-13.7	-15.0	32.0	7.42	31.9	7.85	31.7	8.27	31.7	8.48	31.6	8.70	31.6	9.12
	-11.8	-13.0	33.3	7.75	33.3	8.16	33.1	8.56	33.0	8.77	33.0	8.98	32.9	9.38
	-9.8	-11.0	34.9	8.09	34.7	8.48	34.6	8.87	34.6	9.06	34.6	9.26	34.4	9.65
	-9.5	-10.0	35.7	8.26	35.6	8.64	35.4	9.01	35.4	9.21	35.3	9.39	35.3	9.77
	-8.5	-9.1	36.4	8.41	36.3	8.77	36.3	9.15	36.1	9.33	36.1	9.51	36.0	9.89
	-7.0	-7.6	37.7	8.65	37.7	9.01	37.6	9.37	37.6	9.55	37.4	9.72	37.3	10.09
	-5.0	-5.6	39.7	8.98	39.6	9.32	39.4	9.66	39.4	9.83	39.3	9.99	39.3	10.33
	-3.0	-3.7	41.6	9.27	41.4	9.60	41.4	9.92	41.3	10.09	41.3	10.24	41.1	10.56
	0.0	-0.7	44.9	9.72	44.9	10.03	44.7	10.32	44.7	10.43	44.6	10.62	44.6	10.91
	3.0	2.2	48.4	10.12	48.3	10.40	48.1	10.68	48.1	10.82	48.1	10.96	48.0	11.23
	5.0	4.1	50.9	10.38	50.7	10.65	50.7	10.90	50.6	11.04	50.6	11.17	50.4	11.43
	7.0	6.0	53.4	10.62	53.3	10.87	53.3	11.12	53.1	11.24	53.1	11.37	51.0	10.91
	9.0	7.9	56.1	10.84	56.0	11.09	56.0	11.32	55.9	11.44	54.7	11.20	51.0	10.26
11.0	9.8	59.0	11.06	58.9	11.28	58.6	11.43	56.6	10.98	54.7	10.52	51.0	9.66	
13.0	11.8	62.1	11.27	62.0	11.49	58.6	10.71	56.6	10.28	54.7	9.88	51.0	9.06	
15.0	13.7	65.1	11.46	62.3	10.88	58.6	10.09	56.6	9.70	54.7	9.31	51.0	8.55	
120%	-19.8	-20.0	29.0	7.26	28.9	7.69	28.7	8.12	28.7	8.33	28.7	8.55	28.6	8.99
	-18.8	-19.0	29.4	7.39	29.3	7.82	29.3	8.25	29.1	8.45	29.1	8.67	29.0	9.10
	-16.7	-17.0	30.6	7.69	30.4	8.10	30.2	8.50	30.3	8.71	30.3	8.92	30.1	9.32
	-13.7	-15.0	31.9	7.99	31.7	8.38	31.6	8.77	31.6	8.98	31.6	9.17	31.4	9.56
	-11.8	-13.0	33.1	8.30	33.1	8.67	33.0	9.05	33.0	9.25	32.9	9.43	32.9	9.81
	-9.8	-11.0	34.7	8.61	34.6	8.97	34.6	9.33	34.4	9.51	34.4	9.69	34.3	10.05
	-9.5	-10.0	35.6	8.77	35.4	9.12	35.3	9.46	35.3	9.65	35.3	9.82	35.1	10.17
	-8.5	-9.1	36.3	8.90	36.1	9.25	36.1	9.59	36.0	9.76	36.0	9.94	35.9	10.28
	-7.0	-7.6	37.6	9.14	37.6	9.46	37.4	9.79	37.4	9.96	37.3	10.12	37.3	10.45
	-5.0	-5.6	39.6	9.43	39.4	9.75	39.3	10.06	39.3	10.22	39.3	10.38	39.1	10.68
	-3.0	-3.7	41.4	9.71	41.4	10.01	41.3	10.31	41.3	10.45	41.1	10.61	41.1	10.90
	0.0	-0.7	44.7	10.12	44.7	10.40	44.6	10.67	44.6	10.82	44.4	10.95	44.4	11.23
	3.0	2.2	48.3	10.50	48.1	10.76	48.1	11.01	48.0	11.15	48.0	11.27	47.0	11.21
	5.0	4.1	50.7	10.73	50.6	10.98	50.6	11.22	50.4	11.34	50.4	11.46	47.0	10.53
	7.0	6.0	53.3	10.95	53.3	11.18	53.1	11.41	52.3	11.26	50.6	10.79	47.0	9.90
	9.0	7.9	56.0	11.17	55.9	11.39	54.0	11.01	52.3	10.58	50.6	10.15	47.0	9.32
11.0	9.8	58.9	11.37	57.4	11.17	54.0	10.36	52.3	9.95	50.6	9.55	47.0	8.78	
13.0	11.8	61.0	11.26	57.4	10.48	54.0	9.71	52.3	9.34	50.6	8.98	47.0	8.26	
15.0	13.7	61.0	10.60	57.4	9.87	54.0	9.16	52.3	8.81	50.6	8.47	47.0	7.80	
110%	-19.8	-20.0	28.9	7.89	28.7	8.28	28.6	8.69	28.6	8.88	28.6	9.08	28.4	9.48
	-18.8	-19.0	29.3	8.02	29.1	8.41	29.1	8.79	29.1	8.99	29.0	9.19	29.0	9.57
	-16.7	-17.0	30.4	8.28	30.3	8.66	30.7	9.04	30.1	9.22	30.1	9.42	30.0	9.78
	-13.7	-15.0	31.7	8.56	31.6	8.93	31.4	9.28	31.4	9.47	31.4	9.65	31.3	10.00
	-11.8	-13.0	33.0	8.86	33.0	9.20	32.9	9.54	32.9	9.71	32.7	9.88	32.7	10.23
	-9.8	-11.0	34.6	9.14	34.4	9.47	34.4	9.79	34.3	9.97	34.3	10.12	34.3	10.45
	-9.5	-10.0	35.4	9.28	35.3	9.60	35.1	9.93	35.1	10.09	35.1	10.25	35.0	10.56
	-8.5	-9.1	36.1	9.40	36.0	9.72	36.0	10.04	35.9	10.20	35.9	10.35	35.9	9.44
	-7.0	-7.6	37.4	9.62	37.4	9.92	37.3	10.22	37.3	10.38	37.3	10.53	37.1	10.83
	-5.0	-5.6	39.4	9.89	39.3	10.18	39.1	10.46	39.1	10.61	39.1	10.76	39.0	11.05
	-3.0	-3.7	41.3	10.15	41.3	10.42	41.1	10.70	41.1	10.83	41.0	10.96	41.0	11.24
	0.0	-0.7	44.6	10.53	44.6	10.78	44.4	11.04	44.4	11.16	44.4	11.29	43.1	11.07
	3.0	2.2	48.1	10.88	48.0	11.11	48.0	11.34	47.9	11.45	46.3	10.99	43.1	10.07
	5.0	4.1	50.6	11.09	50.6	11.32	49.6	11.21	47.9	10.76	46.3	10.33	43.1	9.48
	7.0	6.0	53.1	11.29	52.7	11.37	49.6	10.53	47.9	10.11	46.3	9.71	43.1	8.92
	9.0	7.9	55.9	11.48	52.7	10.68	49.6	9.90	47.9	9.51	46.3	9.14	43.1	8.41
11.0	9.8	55.9	10.79	52.7	10.05	49.6	9.32	47.9	8.97	46.3	8.61	43.1	7.93	
13.0	11.8	55.9	10.12	52.7	9.43	49.6	8.76	47.9	8.43	46.3	8.10	43.1	7.47	
15.0	13.7	55.9	8.99	52.7	8.89	49.6	8.27	47.9	7.96	46.3	7.66	43.1	7.07	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

- Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.12: TMVV5X400HT3<sup>A-3</sup>O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-19.8	-20.0	28.7	8.53	28.6	8.88	28.6	9.25	28.4	9.43	28.4	9.60	28.3	9.96
	-18.8	-19.0	29.1	8.64	29.1	8.99	29.0	9.34	29.0	9.53	28.9	9.71	28.9	10.06
	-16.7	-17.0	30.3	8.88	30.1	9.22	30.1	9.56	30.0	9.73	30.0	9.90	30.0	10.24
	-13.7	-15.0	31.6	9.14	31.4	9.47	31.3	9.79	31.3	9.96	31.3	10.12	31.1	10.45
	-11.8	-13.0	32.9	9.40	32.9	9.71	32.7	10.03	32.7	10.18	32.7	10.34	32.6	10.66
	-9.8	-11.0	34.4	9.66	34.3	9.96	34.3	10.26	34.3	10.42	34.1	10.56	34.1	10.85
	-9.5	-10.0	35.3	9.79	35.1	10.09	35.1	10.38	35.0	10.53	35.0	10.67	34.9	10.96
	-8.5	-9.1	36.0	9.90	35.9	10.20	35.9	10.48	35.9	10.62	35.7	10.77	35.7	11.05
	-7.0	-7.6	37.3	10.10	37.3	10.38	37.1	10.65	37.1	10.79	37.1	10.93	37.0	11.21
	-5.0	-5.6	39.3	10.35	39.1	10.61	39.1	10.88	39.0	11.00	39.0	11.13	38.9	11.40
	-3.0	-3.7	41.1	10.59	41.1	9.61	41.0	11.09	41.0	11.21	41.0	11.33	39.3	10.85
	0.0	-0.7	44.4	10.93	44.4	11.16	44.3	11.39	43.6	11.21	42.1	10.74	39.3	9.85
	3.0	2.2	48.0	11.24	47.9	11.45	45.0	10.60	43.6	10.18	42.1	9.78	39.3	8.98
	5.0	4.1	50.4	11.45	47.9	10.76	45.0	9.96	43.6	9.59	42.1	9.21	39.3	8.47
	7.0	6.0	50.7	10.87	47.9	10.11	<b>45.0</b>	<b>9.38</b>	43.6	9.03	42.1	8.67	39.3	7.98
	9.0	7.9	50.7	10.21	47.9	9.51	45.0	8.83	43.6	8.39	42.1	8.17	39.3	7.53
	11.0	9.8	50.7	9.61	47.9	8.97	45.0	8.33	43.6	8.02	42.1	7.71	39.3	7.11
13.0	11.8	50.7	9.03	47.9	8.43	45.0	7.85	43.6	7.55	42.1	7.27	39.3	6.71	
15.0	13.7	50.7	8.52	47.9	7.96	45.0	7.41	43.6	7.14	42.1	6.87	39.3	6.36	
90%	-19.8	-20.0	28.5	9.16	28.4	9.48	28.4	9.81	28.2	9.96	28.2	10.13	28.2	10.45
	-18.8	-19.0	28.9	9.26	28.9	9.59	28.8	9.90	28.8	10.06	28.8	10.22	28.7	10.54
	-16.7	-17.0	30.1	9.49	29.9	9.79	29.9	10.10	29.9	10.26	29.8	10.40	29.8	10.71
	-13.7	-15.0	31.4	9.72	31.2	10.01	31.2	10.31	31.1	10.45	31.1	10.60	31.1	10.89
	-11.8	-13.0	32.7	9.95	32.7	10.23	32.5	10.51	32.5	10.66	32.5	10.79	32.4	11.07
	-9.8	-11.0	34.2	10.18	34.2	10.45	34.1	10.72	34.1	10.85	34.1	11.00	33.9	11.27
	-9.5	-10.0	35.1	10.31	34.9	10.57	34.9	10.83	34.8	10.96	34.8	11.10	34.8	11.35
	-8.5	-9.1	35.8	10.42	35.8	10.67	35.7	10.93	35.7	11.05	35.7	11.18	35.2	11.29
	-7.0	-7.6	37.1	10.59	37.1	10.83	36.9	11.08	36.9	11.21	36.9	11.33	35.2	10.78
	-5.0	-5.6	39.1	10.82	38.9	11.05	38.9	11.28	38.8	11.40	37.8	11.05	35.2	10.13
	-3.0	-3.7	40.9	11.02	40.9	11.24	40.5	11.29	39.1	10.84	37.8	10.40	35.2	9.55
	0.0	-0.7	44.4	11.34	43.1	11.06	40.5	10.25	39.1	9.84	37.8	9.45	35.2	8.69
	3.0	2.2	45.6	10.80	43.1	10.06	40.5	9.33	39.1	8.98	37.8	8.62	35.2	7.94
	5.0	4.1	45.6	10.16	43.1	9.46	40.5	8.80	39.1	8.45	37.8	8.14	35.2	7.49
	7.0	6.0	45.6	9.55	43.1	8.92	40.5	8.28	39.1	7.98	37.8	7.67	35.2	7.08
	9.0	7.9	45.6	9.00	43.1	8.39	40.5	7.81	39.1	7.53	37.8	7.25	35.2	6.69
	11.0	9.8	45.6	8.48	43.1	7.92	40.5	7.38	39.1	7.11	37.8	6.85	35.2	6.33
13.0	11.8	45.6	7.98	43.1	7.47	40.5	6.96	39.1	6.71	37.8	6.47	35.2	5.98	
15.0	13.7	45.6	7.54	43.1	7.05	40.5	6.59	39.1	6.36	37.8	6.13	35.2	5.68	
80%	-19.8	-20.0	28.4	9.79	28.3	10.07	28.3	10.37	28.3	10.51	28.1	10.66	28.1	10.94
	-18.8	-19.0	28.9	9.88	28.9	10.17	28.7	10.45	28.7	10.60	28.7	10.73	28.6	11.02
	-16.7	-17.0	30.0	10.09	29.9	10.35	29.9	10.63	29.9	10.77	29.9	10.90	29.7	11.17
	-13.7	-15.0	31.3	10.29	31.1	10.55	31.1	10.82	31.1	10.94	31.0	11.07	31.0	11.34
	-11.8	-13.0	32.6	10.50	32.6	10.76	32.4	11.00	32.4	11.12	32.4	11.26	31.4	10.95
	-9.8	-11.0	34.1	10.71	34.1	10.95	34.0	11.19	34.0	11.30	33.7	11.28	31.4	10.34
	-9.5	-10.0	35.0	10.82	34.9	11.05	34.9	11.28	34.9	11.40	33.7	10.95	31.4	10.04
	-8.5	-9.1	35.7	10.91	33.2	11.15	35.6	11.37	34.9	11.11	33.7	10.66	31.4	9.77
	-7.0	-7.6	37.0	11.07	37.0	11.29	36.0	11.05	34.9	10.61	33.7	10.18	31.4	9.34
	-5.0	-5.6	39.0	11.27	38.3	11.21	36.0	10.38	34.9	9.98	33.7	9.57	31.4	8.80
	-3.0	-3.7	40.6	11.33	38.3	10.55	36.0	9.77	34.9	9.40	33.7	9.03	31.4	8.31
	0.0	-0.7	40.6	10.28	38.3	9.57	36.0	8.89	34.9	8.56	33.7	8.22	31.4	7.58
	3.0	2.2	40.6	9.37	38.3	8.73	36.0	8.13	34.9	7.82	33.7	7.53	31.4	6.94
	5.0	4.1	40.6	8.82	38.3	8.23	36.0	7.66	34.9	7.38	33.7	7.11	31.4	6.57
	7.0	6.0	40.6	8.31	38.3	7.77	36.0	7.24	34.9	6.98	33.7	6.72	31.4	6.21
	9.0	7.9	40.6	7.84	38.3	7.33	36.0	6.83	34.9	6.59	33.7	6.36	31.4	5.88
	11.0	9.8	40.6	7.41	38.3	6.93	36.0	6.47	34.9	6.24	33.7	6.02	31.4	5.58
13.0	11.8	40.6	6.98	38.3	6.54	36.0	6.11	34.9	5.90	33.7	5.69	31.4	5.27	
15.0	13.7	40.6	6.60	38.3	6.20	36.0	5.80	34.9	5.59	33.7	5.40	31.4	5.02	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

- 1. Shaded cells indicate rating condition.

Table continued on next page ...





Table 2-8.13: TMVV5X450HT3<sup>1</sup>04ATW3T heating capacity

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-19.8	-20.0	32.4	7.68	32.2	8.22	32.1	8.77	32.1	9.03	31.9	9.30	31.9	9.85
	-18.8	-19.0	32.9	7.85	32.7	8.39	32.7	8.92	32.5	9.19	32.5	9.44	32.4	9.98
	-16.7	-17.0	34.1	8.22	34.0	8.72	33.8	9.25	33.8	9.50	33.8	9.75	33.7	10.26
	-13.7	-15.0	35.6	8.60	35.4	9.09	35.2	9.59	35.2	9.82	35.1	10.08	35.1	10.57
	-11.8	-13.0	37.0	8.98	37.0	9.46	36.8	9.92	36.7	10.16	36.7	10.40	36.5	10.87
	-9.8	-11.0	38.7	9.37	38.6	9.82	38.4	10.28	38.4	10.50	38.4	10.73	38.3	11.18
	-9.5	-10.0	39.7	9.57	39.5	10.01	39.4	10.45	39.4	10.67	39.2	10.88	39.2	11.32
	-8.5	-9.1	40.5	9.74	40.3	10.16	40.3	10.60	40.2	10.81	40.2	11.02	40.0	11.46
	-7.0	-7.6	41.9	10.02	41.9	10.45	41.7	10.86	41.7	11.07	41.6	11.26	41.4	11.69
	-5.0	-5.6	44.1	10.40	44.0	10.80	43.8	11.20	43.8	11.39	43.7	11.58	43.7	11.97
	-3.0	-3.7	46.2	10.74	46.0	11.12	46.0	11.49	45.9	11.69	45.9	11.87	45.7	12.24
	0.0	-0.7	49.8	11.26	49.8	11.62	49.7	11.96	49.7	12.08	49.5	12.31	49.5	12.65
	3.0	2.2	53.8	11.73	53.7	12.06	53.5	12.38	53.5	12.54	53.5	12.71	53.3	13.02
	5.0	4.1	56.5	12.03	56.3	12.34	56.3	12.63	56.2	12.79	56.2	12.95	56.0	13.24
	7.0	6.0	59.4	12.31	59.2	12.59	59.2	12.89	59.0	13.03	59.0	13.17	56.7	12.65
9.0	7.9	62.4	12.56	62.2	12.85	62.2	13.11	62.1	13.26	60.8	12.97	56.7	11.89	
11.0	9.8	65.6	12.82	65.4	13.07	65.1	13.24	62.9	12.72	60.8	12.20	56.7	11.20	
13.0	11.8	69.0	13.06	68.9	13.31	65.1	12.41	62.9	11.91	60.8	11.45	56.7	10.50	
15.0	13.7	72.4	13.28	69.2	12.61	65.1	11.69	62.9	11.24	60.8	10.79	56.7	9.91	
120%	-19.8	-20.0	32.2	8.41	32.1	8.91	31.9	9.42	31.9	9.66	31.9	9.91	31.7	10.42
	-18.8	-19.0	32.7	8.57	32.5	9.06	32.5	9.56	32.4	9.80	32.4	10.05	32.2	10.55
	-16.7	-17.0	34.0	8.91	33.8	9.39	33.6	9.85	33.7	10.09	33.7	10.33	33.5	10.80
	-13.7	-15.0	35.4	9.26	35.2	9.71	35.1	10.16	35.1	10.40	35.1	10.63	34.9	11.08
	-11.8	-13.0	36.8	9.61	36.8	10.05	36.7	10.49	36.7	10.71	36.5	10.93	36.5	11.36
	-9.8	-11.0	38.6	9.98	38.4	10.39	38.4	10.81	38.3	11.03	38.3	11.22	38.1	11.65
	-9.5	-10.0	39.5	10.16	39.4	10.57	39.2	10.97	39.2	11.18	39.2	11.38	39.0	11.79
	-8.5	-9.1	40.3	10.32	40.2	10.71	40.2	11.11	40.0	11.31	40.0	11.52	39.8	11.91
	-7.0	-7.6	41.7	10.59	41.7	10.97	41.6	11.35	41.6	11.55	41.4	11.73	41.4	12.11
	-5.0	-5.6	44.0	10.93	43.8	11.29	43.6	11.66	43.6	11.84	43.6	12.03	43.5	12.38
	-3.0	-3.7	46.0	11.25	46.0	11.60	45.9	11.94	45.9	12.11	45.7	12.30	45.7	12.64
	0.0	-0.7	49.7	11.73	49.7	12.06	49.5	12.37	49.5	12.54	49.4	12.69	49.4	13.02
	3.0	2.2	53.7	12.17	53.5	12.47	53.5	12.76	53.3	12.92	53.3	13.06	52.2	12.99
	5.0	4.1	56.4	12.44	56.2	12.72	56.2	13.00	56.0	13.14	56.0	13.28	52.2	12.20
	7.0	6.0	59.2	12.69	59.2	12.96	59.1	13.23	58.1	13.04	56.2	12.51	52.2	11.48
9.0	7.9	62.2	12.95	62.1	13.20	60.0	12.76	58.1	12.26	56.2	11.76	52.2	10.80	
11.0	9.8	65.4	13.17	63.8	12.95	60.0	12.00	58.1	11.53	56.2	11.07	52.2	10.18	
13.0	11.8	67.8	13.04	63.8	12.14	60.0	11.25	58.1	10.83	56.2	10.40	52.2	9.57	
15.0	13.7	67.8	12.28	63.8	11.44	60.0	10.62	58.1	10.21	56.2	9.81	52.2	9.03	
110%	-19.8	-20.0	32.1	9.15	31.9	9.60	31.7	10.07	31.7	10.29	31.8	10.52	31.6	10.98
	-18.8	-19.0	32.5	9.29	32.4	9.74	32.4	10.19	32.4	10.42	32.2	10.64	32.2	11.10
	-16.7	-17.0	33.8	9.60	33.7	10.04	34.1	10.47	33.5	10.69	33.5	10.91	33.3	11.34
	-13.7	-15.0	35.2	9.92	35.1	10.35	34.9	10.76	34.9	10.97	34.9	11.18	34.8	11.59
	-11.8	-13.0	36.7	10.26	36.7	10.66	36.5	11.05	36.5	11.25	36.3	11.45	36.3	11.86
	-9.8	-11.0	38.4	10.59	38.3	10.97	38.3	11.35	38.1	11.55	38.1	11.73	38.1	12.11
	-9.5	-10.0	39.4	10.76	39.2	11.12	39.0	11.51	39.0	11.69	39.0	11.87	38.9	12.24
	-8.5	-9.1	40.2	10.90	40.0	11.27	40.0	11.63	39.8	11.82	39.8	12.00	39.8	10.94
	-7.0	-7.6	41.6	11.15	41.6	11.49	41.4	11.84	41.4	12.03	41.4	12.20	41.3	12.55
	-5.0	-5.6	43.8	11.46	43.7	11.80	43.5	12.13	43.5	12.30	43.5	12.47	43.3	12.81
	-3.0	-3.7	45.9	11.76	45.9	12.07	45.7	12.39	45.7	12.55	45.6	12.71	45.6	13.03
	0.0	-0.7	49.5	12.20	49.5	12.49	49.4	12.79	49.4	12.93	49.4	13.09	47.9	12.83
	3.0	2.2	53.5	12.61	53.3	12.88	53.3	13.14	53.2	13.27	51.4	12.73	47.9	11.68
	5.0	4.1	56.2	12.85	56.2	13.11	55.1	12.99	53.2	12.47	51.4	11.97	47.9	10.98
	7.0	6.0	59.0	13.09	58.6	13.17	55.1	12.20	53.2	11.72	51.4	11.25	47.9	10.33
9.0	7.9	62.1	13.30	58.6	12.38	55.1	11.48	53.2	11.03	51.4	10.59	47.9	9.74	
11.0	9.8	62.1	12.51	58.6	11.65	55.1	10.80	53.2	10.39	51.4	9.98	47.9	9.19	
13.0	11.8	62.1	11.73	58.6	10.93	55.1	10.15	53.2	9.77	51.4	9.39	47.9	8.65	
15.0	13.7	62.1	10.42	58.6	10.31	55.1	9.59	53.2	9.22	51.4	8.88	47.9	8.19	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...



Table 2-8.13: TMVV5X450HT3<sup>1</sup>.04ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	31.4	12.08	31.2	12.37	31.2	12.66	31.2	12.80	31.2	12.96	30.4	12.82
	-18.8	-19.0	31.8	12.18	31.8	12.46	31.7	12.75	31.7	12.89	31.7	13.04	30.4	12.55
	-16.7	-17.0	33.1	12.38	33.1	12.66	32.9	12.93	32.9	13.07	32.6	11.65	30.4	11.97
	-13.7	-15.0	34.5	12.59	34.4	12.86	34.4	13.13	33.7	12.93	32.6	12.41	30.4	11.38
	-11.8	-13.0	35.9	12.80	35.9	13.06	35.0	12.75	33.7	12.25	32.6	11.76	30.4	10.78
	-9.8	-11.0	37.7	13.02	37.2	13.00	35.0	12.04	33.7	11.58	32.6	11.11	30.4	10.21
	-9.5	-10.0	38.6	13.13	37.2	12.62	35.0	11.69	33.7	11.24	32.6	10.80	30.4	9.92
	-8.5	-9.1	39.4	13.20	37.2	12.28	35.0	11.38	33.7	10.94	32.6	10.52	30.4	9.67
	-7.0	-7.6	39.4	12.61	37.2	11.73	35.0	10.88	33.7	10.47	32.6	10.06	30.4	9.26
	-5.0	-5.6	39.4	11.84	37.2	11.04	35.0	10.25	33.7	9.85	32.6	11.64	30.4	8.74
	-3.0	-3.7	39.4	11.15	37.2	10.40	35.0	9.67	33.7	9.30	32.6	8.95	30.4	8.26
	0.0	-0.7	39.4	10.15	37.2	9.49	35.0	8.82	33.7	8.50	32.6	8.19	30.4	7.57
	3.0	2.2	39.4	9.27	37.2	8.68	35.0	8.09	33.7	7.79	32.6	7.51	30.4	6.94
	5.0	4.1	39.4	8.75	37.2	8.19	35.0	7.65	33.7	7.37	32.6	7.10	30.4	6.58
	7.0	6.0	39.4	8.27	37.2	7.75	35.0	7.23	33.7	6.97	32.6	6.73	30.4	6.24
9.0	7.9	39.4	7.82	37.2	7.33	35.0	6.85	33.7	6.61	32.6	6.38	30.4	5.91	
11.0	9.8	39.4	7.40	37.2	6.93	35.0	6.49	33.7	6.27	32.6	6.06	30.4	5.62	
13.0	11.8	39.4	6.99	37.2	6.56	35.0	6.14	33.7	5.94	32.6	5.73	30.4	5.34	
15.0	13.7	39.4	6.62	37.2	6.23	35.0	5.83	33.7	5.65	32.6	5.45	30.4	5.08	
60%	-19.8	-20.0	31.3	12.82	31.1	13.06	30.0	12.56	29.0	12.07	28.1	11.59	26.2	10.63
	-18.8	-19.0	31.7	12.90	31.7	13.14	30.0	12.29	29.0	11.82	28.1	11.33	26.2	10.40
	-16.7	-17.0	33.0	13.07	31.9	12.66	30.0	11.73	29.0	11.28	28.1	10.83	26.2	9.95
	-13.7	-15.0	33.8	12.93	31.9	12.03	30.0	11.15	29.0	10.73	28.1	10.30	26.2	9.47
	-11.8	-13.0	33.8	12.24	31.9	11.39	30.0	10.57	29.0	10.18	28.1	9.78	26.2	9.05
	-9.8	-11.0	33.8	11.56	31.9	10.77	30.0	10.01	29.0	9.63	28.1	9.26	26.2	8.54
	-9.5	-10.0	33.8	11.24	31.9	10.47	30.0	9.73	29.0	9.37	28.1	9.01	26.2	8.30
	-8.5	-9.1	33.8	10.94	31.9	10.21	30.0	9.49	29.0	9.13	28.1	8.78	26.2	8.10
	-7.0	-7.6	33.8	10.46	31.9	9.77	30.0	9.08	29.0	8.75	28.1	8.41	26.2	7.78
	-5.0	-5.6	33.8	9.85	31.9	9.20	30.0	8.57	29.0	8.26	28.1	7.95	26.2	7.35
	-3.0	-3.7	33.8	9.30	31.9	8.70	30.0	8.10	29.0	7.82	28.1	7.52	26.2	6.96
	0.0	-0.7	33.8	8.50	31.9	7.96	30.0	7.43	29.0	7.17	28.1	6.90	26.2	6.39
	3.0	2.2	33.8	7.79	31.9	7.31	30.0	6.83	29.0	6.59	28.1	6.37	26.2	5.90
	5.0	4.1	33.8	7.37	31.9	6.92	30.0	6.47	29.0	6.25	28.1	6.03	26.2	5.60
	7.0	6.0	33.8	6.97	31.9	6.55	30.0	6.13	29.0	5.93	28.1	5.73	26.2	5.32
9.0	7.9	33.8	6.61	31.9	6.21	30.0	5.82	29.0	5.63	28.1	5.43	26.2	5.07	
11.0	9.8	33.8	6.27	31.9	5.90	30.0	5.53	29.0	5.35	28.1	5.17	26.2	4.83	
13.0	11.8	33.8	5.93	31.9	5.59	30.0	5.25	29.0	5.08	28.1	4.91	26.2	4.59	
15.0	13.7	33.8	5.65	31.9	5.31	30.0	5.00	29.0	4.84	28.1	4.69	26.2	4.38	
50%	-19.8	-20.0	28.2	11.66	26.6	10.86	25.0	10.08	24.1	9.71	23.3	9.33	21.7	8.60
	-18.8	-19.0	28.2	11.41	26.6	10.63	25.0	9.88	24.1	9.50	23.3	9.13	21.7	8.43
	-16.7	-17.0	28.2	10.88	26.6	10.15	25.0	9.44	24.1	9.09	23.3	8.75	21.7	8.07
	-13.7	-15.0	28.2	10.36	26.6	9.67	25.0	8.99	24.1	8.67	23.3	8.34	21.7	7.71
	-11.8	-13.0	28.2	9.84	26.6	9.19	25.0	8.55	24.1	8.24	23.3	7.93	21.7	7.34
	-9.8	-11.0	28.2	9.32	26.6	8.71	25.0	8.12	24.1	7.82	23.3	7.54	21.7	6.97
	-9.5	-10.0	28.2	9.06	26.6	8.47	25.0	7.90	24.1	7.62	23.3	7.34	21.7	6.79
	-8.5	-9.1	28.2	8.84	26.6	8.27	25.0	7.71	24.1	7.44	23.3	7.17	21.7	6.63
	-7.0	-7.6	28.2	8.47	26.6	7.93	25.0	7.40	24.1	7.14	23.3	6.89	21.7	6.38
	-5.0	-5.6	28.2	7.99	26.6	7.50	25.0	7.00	24.1	6.76	23.3	6.52	21.7	6.04
	-3.0	-3.7	28.2	7.57	26.6	7.10	25.0	6.63	24.1	6.41	23.3	6.18	21.7	5.75
	0.0	-0.7	28.2	6.95	26.6	6.52	25.0	6.11	24.1	5.90	23.3	5.70	21.7	5.31
	3.0	2.2	28.2	6.39	26.6	6.01	25.0	5.63	24.1	5.45	23.3	5.27	21.7	4.91
	5.0	4.1	28.2	6.07	26.6	5.70	25.0	5.35	24.1	5.18	23.3	5.01	21.7	4.67
	7.0	6.0	28.2	5.76	26.6	5.42	25.0	5.10	24.1	4.93	23.3	4.77	21.7	4.46
9.0	7.9	28.2	5.46	26.6	5.15	25.0	4.84	24.1	4.70	23.3	4.55	21.7	4.25	
11.0	9.8	28.2	5.19	26.6	4.90	25.0	4.62	24.1	4.47	23.3	4.33	21.7	4.05	
13.0	11.8	28.2	4.94	26.6	4.66	25.0	4.39	24.1	4.26	23.3	4.12	21.7	3.87	
15.0	13.7	28.2	4.70	26.6	4.45	25.0	4.19	24.1	4.07	23.3	3.94	21.7	3.70	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

- Shaded cells indicate rating condition.

Table 2-8.14: TMVV5X500HT3<sup>1</sup>9O4ATW3T heating capacity

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
130%	-19.8	-20.0	36.3	9.31	36.1	9.96	35.9	10.63	35.9	10.95	35.7	11.28	35.7	11.95
	-18.8	-19.0	36.8	9.52	36.6	10.17	36.6	10.82	36.4	11.14	36.4	11.45	36.3	12.10
	-16.7	-17.0	38.2	9.96	38.0	10.58	37.9	11.21	37.9	11.52	37.9	11.83	37.7	12.44
	-13.7	-15.0	39.8	10.42	39.6	11.02	39.5	11.62	39.5	11.91	39.3	12.22	39.3	12.82
	-11.8	-13.0	41.4	10.89	41.4	11.47	41.2	12.03	41.1	12.32	41.1	12.61	40.9	13.18
	-9.8	-11.0	43.4	11.37	43.2	11.91	43.0	12.46	43.0	12.73	43.0	13.01	42.8	13.56
	-9.5	-10.0	44.4	11.61	44.3	12.14	44.1	12.67	44.1	12.94	43.9	13.20	43.9	13.73
	-8.5	-9.1	45.3	11.81	45.2	12.32	45.2	12.86	45.0	13.11	45.0	13.37	44.8	13.90
	-7.0	-7.6	46.9	12.15	46.9	12.67	46.8	13.16	46.8	13.42	46.6	13.66	46.4	14.17
	-5.0	-5.6	49.4	12.61	49.2	13.09	49.1	13.57	49.1	13.81	48.9	14.04	48.9	14.51
	-3.0	-3.7	51.7	13.03	51.6	13.49	51.6	13.93	51.4	14.17	51.4	14.39	51.2	14.84
	0.0	-0.7	55.8	13.66	55.8	14.09	55.6	14.50	55.6	14.65	55.5	14.93	55.5	15.34
	3.0	2.2	60.3	14.22	60.1	14.62	59.9	15.01	59.9	15.20	59.9	15.41	59.7	15.78
	5.0	4.1	63.3	14.58	63.1	14.96	63.1	15.32	62.9	15.51	62.9	15.70	62.8	16.06
	7.0	6.0	66.5	14.93	66.3	15.27	66.3	15.63	66.1	15.80	66.1	15.97	63.5	15.34
9.0	7.9	69.9	15.23	69.7	15.58	69.7	15.90	69.5	16.07	68.1	15.73	63.5	14.41	
11.0	9.8	73.4	15.54	73.2	15.85	72.9	16.06	70.4	15.42	68.1	14.79	63.5	13.57	
13.0	11.8	77.3	15.83	77.2	16.14	72.9	15.05	70.4	14.45	68.1	13.88	63.5	12.73	
15.0	13.7	81.1	16.11	77.5	15.29	72.9	14.17	70.4	13.63	68.1	13.08	63.5	12.02	
120%	-19.8	-20.0	36.1	10.20	35.9	10.80	35.7	11.42	35.7	11.71	35.7	12.02	35.6	12.63
	-18.8	-19.0	36.6	10.39	36.4	10.99	36.4	11.59	36.3	11.88	36.3	12.19	36.1	12.79
	-16.7	-17.0	38.0	10.80	37.9	11.38	37.6	11.95	37.7	12.24	37.7	12.53	37.5	13.09
	-13.7	-15.0	39.6	11.23	39.5	11.78	39.3	12.32	39.3	12.62	39.3	12.89	39.1	13.44
	-11.8	-13.0	41.2	11.66	41.2	12.19	41.1	12.72	41.1	12.99	40.9	13.25	40.9	13.78
	-9.8	-11.0	43.2	12.10	43.0	12.60	43.0	13.11	42.8	13.37	42.8	13.61	42.7	14.12
	-9.5	-10.0	44.3	12.32	44.1	12.82	43.9	13.30	43.9	13.56	43.9	13.80	43.7	14.29
	-8.5	-9.1	45.2	12.51	45.0	12.99	45.0	13.47	44.8	13.71	44.8	13.97	44.6	14.45
	-7.0	-7.6	46.8	12.84	46.8	13.30	46.6	13.76	46.6	14.00	46.4	14.22	46.4	14.69
	-5.0	-5.6	49.2	13.25	49.1	13.69	48.9	14.14	48.9	14.36	48.9	14.58	48.7	15.01
	-3.0	-3.7	51.6	13.64	51.6	14.07	51.4	14.48	51.4	14.69	51.2	14.91	51.2	15.32
	0.0	-0.7	55.6	14.22	55.6	14.62	55.5	14.99	55.5	15.20	55.3	15.39	55.3	15.78
	3.0	2.2	60.1	14.76	59.9	15.11	59.9	15.47	59.7	15.66	59.7	15.83	58.5	15.75
	5.0	4.1	63.1	15.08	62.9	15.42	62.9	15.76	62.8	15.94	62.8	16.11	58.5	14.79
	7.0	6.0	66.3	15.39	66.3	15.71	66.1	16.04	65.1	15.82	62.9	15.17	58.5	13.92
9.0	7.9	69.7	15.70	69.5	16.01	67.2	15.47	65.1	14.86	62.9	14.26	58.5	13.09	
11.0	9.8	73.2	15.97	71.5	15.70	67.2	14.55	65.1	13.98	62.9	13.42	58.5	12.34	
13.0	11.8	75.9	15.82	71.5	14.72	67.2	13.64	65.1	13.13	62.9	12.62	58.5	11.61	
15.0	13.7	75.9	14.89	71.5	13.87	67.2	12.87	65.1	12.38	62.9	11.90	58.5	10.95	
110%	-19.8	-20.0	35.9	11.09	35.7	11.64	35.6	12.20	35.6	12.48	35.6	12.75	35.4	13.32
	-18.8	-19.0	36.4	11.26	36.3	11.81	36.3	12.36	36.3	12.63	36.1	12.91	36.1	13.45
	-16.7	-17.0	37.9	11.64	37.7	12.17	38.2	12.70	37.5	12.96	37.5	13.23	37.3	13.75
	-13.7	-15.0	39.5	12.03	39.3	12.55	39.1	13.04	39.1	13.30	39.1	13.56	38.9	14.05
	-11.8	-13.0	41.1	12.44	41.1	12.92	40.9	13.40	40.9	13.64	40.7	13.88	40.7	14.38
	-9.8	-11.0	43.0	12.84	42.8	13.30	42.8	13.76	42.7	14.00	42.7	14.22	42.7	14.69
	-9.5	-10.0	44.1	13.04	43.9	13.49	43.7	13.95	43.7	14.17	43.7	14.40	43.6	14.84
	-8.5	-9.1	45.0	13.21	44.8	13.66	44.8	14.10	44.6	14.33	44.6	14.55	44.6	13.27
	-7.0	-7.6	46.6	13.52	46.6	13.93	46.4	14.36	46.4	14.58	46.4	14.79	46.2	15.22
	-5.0	-5.6	49.1	13.90	48.9	14.31	48.7	14.70	48.7	14.91	48.7	15.11	48.5	15.53
	-3.0	-3.7	51.4	14.26	51.4	14.64	51.2	15.03	51.2	15.22	51.0	15.41	51.0	15.80
	0.0	-0.7	55.5	14.79	55.5	15.15	55.3	15.51	55.3	15.68	55.3	15.87	53.7	15.56
	3.0	2.2	59.9	15.29	59.7	15.61	59.7	15.94	59.6	16.09	57.6	15.44	53.7	14.16
	5.0	4.1	62.9	15.58	62.9	15.90	61.7	15.75	59.6	15.11	57.6	14.52	53.7	13.32
	7.0	6.0	66.1	15.87	65.6	15.97	61.7	14.79	59.6	14.21	57.6	13.64	53.7	12.53
9.0	7.9	69.5	16.12	65.6	15.01	61.7	13.92	59.6	13.37	57.6	12.84	53.7	11.81	
11.0	9.8	69.5	15.17	65.6	14.12	61.7	13.09	59.6	12.60	57.6	12.10	53.7	11.14	
13.0	11.8	69.5	14.22	65.6	13.25	61.7	12.31	59.6	11.84	57.6	11.38	53.7	10.49	
15.0	13.7	69.5	12.63	65.6	12.50	61.7	11.62	59.6	11.18	57.6	10.77	53.7	9.93	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...



Table 2-8.14: TMVV5X500HT3<sup>3.9</sup>O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	35.1	14.65	34.9	14.99	34.9	15.35	34.9	15.52	34.9	15.71	34.1	15.54
	-18.8	-19.0	35.7	14.77	35.7	15.11	35.5	15.46	35.5	15.63	35.5	15.82	34.1	15.22
	-16.7	-17.0	37.1	15.01	37.1	15.35	36.9	15.68	36.9	15.85	36.5	14.12	34.1	14.51
	-13.7	-15.0	38.7	15.27	38.5	15.59	38.5	15.92	37.8	15.68	36.5	15.04	34.1	13.80
	-11.8	-13.0	40.3	15.52	40.3	15.83	39.2	15.46	37.8	14.86	36.5	14.26	34.1	13.08
	-9.8	-11.0	42.2	15.78	41.7	15.76	39.2	14.60	37.8	14.04	36.5	13.47	34.1	12.37
	-9.5	-10.0	43.3	15.92	41.7	15.30	39.2	14.17	37.8	13.62	36.5	13.09	34.1	12.03
	-8.5	-9.1	44.2	16.00	41.7	14.89	39.2	13.80	37.8	13.27	36.5	12.75	34.1	11.72
	-7.0	-7.6	44.2	15.28	41.7	14.22	39.2	13.20	37.8	12.70	36.5	12.20	34.1	11.23
	-5.0	-5.6	44.2	14.36	41.7	13.38	39.2	12.43	37.8	11.95	36.5	14.11	34.1	10.59
	-3.0	-3.7	44.2	13.52	41.7	12.61	39.2	11.72	37.8	11.28	36.5	10.85	34.1	10.01
	0.0	-0.7	44.2	12.31	41.7	11.50	39.2	10.70	37.8	10.30	36.5	9.93	34.1	9.17
	3.0	2.2	44.2	11.25	41.7	10.53	39.2	9.81	37.8	9.45	36.5	9.11	34.1	8.42
	5.0	4.1	44.2	10.61	41.7	9.93	39.2	9.28	37.8	8.93	36.5	8.61	34.1	7.98
	7.0	6.0	44.2	10.03	41.7	9.40	39.2	8.76	37.8	8.45	36.5	8.16	34.1	7.57
	9.0	7.9	44.2	9.48	41.7	8.88	39.2	8.30	37.8	8.01	36.5	7.74	34.1	7.17
11.0	9.8	44.2	8.97	41.7	8.40	39.2	7.87	37.8	7.60	36.5	7.34	34.1	6.81	
13.0	11.8	44.2	8.47	41.7	7.96	39.2	7.45	37.8	7.21	36.5	6.95	34.1	6.47	
15.0	13.7	44.2	8.03	41.7	7.55	39.2	7.07	37.8	6.85	36.5	6.61	34.1	6.16	
60%	-19.8	-20.0	35.0	15.54	34.8	15.83	33.6	15.23	32.5	14.63	31.5	14.05	29.3	12.89
	-18.8	-19.0	35.6	15.64	35.6	15.94	33.6	14.91	32.5	14.33	31.5	13.74	29.3	12.61
	-16.7	-17.0	37.0	15.85	35.7	15.35	33.6	14.22	32.5	13.68	31.5	13.13	29.3	12.07
	-13.7	-15.0	37.9	15.68	35.7	14.58	33.6	13.52	32.5	13.01	31.5	12.49	29.3	11.48
	-11.8	-13.0	37.9	14.84	35.7	13.81	33.6	12.82	32.5	12.34	31.5	11.86	29.3	10.97
	-9.8	-11.0	37.9	14.02	35.7	13.06	33.6	12.13	32.5	11.67	31.5	11.23	29.3	10.35
	-9.5	-10.0	37.9	13.62	35.7	12.70	33.6	11.79	32.5	11.37	31.5	10.92	29.3	10.06
	-8.5	-9.1	37.9	13.26	35.7	12.37	33.6	11.50	32.5	11.07	31.5	10.65	29.3	9.82
	-7.0	-7.6	37.9	12.68	35.7	11.84	33.6	11.01	32.5	10.61	31.5	10.20	29.3	9.43
	-5.0	-5.6	37.9	11.95	35.7	11.16	33.6	10.39	32.5	10.01	31.5	9.64	29.3	8.92
	-3.0	-3.7	37.9	11.28	35.7	10.54	33.6	9.82	32.5	9.48	31.5	9.12	29.3	8.44
	0.0	-0.7	37.9	10.30	35.7	9.65	33.6	9.00	32.5	8.69	31.5	8.37	29.3	7.75
	3.0	2.2	37.9	9.45	35.7	8.87	33.6	8.28	32.5	7.99	31.5	7.72	29.3	7.15
	5.0	4.1	37.9	8.93	35.7	8.39	33.6	7.84	32.5	7.58	31.5	7.31	29.3	6.79
	7.0	6.0	37.9	8.45	35.7	7.94	33.6	7.43	32.5	7.19	31.5	6.95	29.3	6.45
	9.0	7.9	37.9	8.01	35.7	7.53	33.6	7.05	32.5	6.83	31.5	6.59	29.3	6.14
11.0	9.8	37.9	7.60	35.7	7.15	33.6	6.71	32.5	6.49	31.5	6.26	29.3	5.85	
13.0	11.8	37.9	7.19	35.7	6.78	33.6	6.37	32.5	6.16	31.5	5.96	29.3	5.56	
15.0	13.7	37.9	6.85	35.7	6.44	33.6	6.06	32.5	5.87	31.5	5.68	29.3	5.31	
50%	-19.8	-20.0	31.5	14.14	29.8	13.16	28.0	12.22	26.9	11.78	26.1	11.31	24.3	10.42
	-18.8	-19.0	31.5	13.83	29.8	12.89	28.0	11.98	26.9	11.52	26.1	11.07	24.3	10.22
	-16.7	-17.0	31.5	13.20	29.8	12.31	28.0	11.45	26.9	11.02	26.1	10.61	24.3	9.79
	-13.7	-15.0	31.5	12.56	29.8	11.72	28.0	10.90	26.9	10.51	26.1	10.12	24.3	9.35
	-11.8	-13.0	31.5	11.93	29.8	11.14	28.0	10.37	26.9	10.00	26.1	9.62	24.3	8.90
	-9.8	-11.0	31.5	11.30	29.8	10.56	28.0	9.84	26.9	9.48	26.1	9.14	24.3	8.46
	-9.5	-10.0	31.5	10.99	29.8	10.27	28.0	9.58	26.9	9.24	26.1	8.90	24.3	8.23
	-8.5	-9.1	31.5	10.71	29.8	10.03	28.0	9.35	26.9	9.02	26.1	8.69	24.3	8.04
	-7.0	-7.6	31.5	10.27	29.8	9.62	28.0	8.97	26.9	8.66	26.1	8.35	24.3	7.74
	-5.0	-5.6	31.5	9.69	29.8	9.09	28.0	8.49	26.9	8.20	26.1	7.91	24.3	7.33
	-3.0	-3.7	31.5	9.17	29.8	8.61	28.0	8.04	26.9	7.77	26.1	7.50	24.3	6.97
	0.0	-0.7	31.5	8.42	29.8	7.91	28.0	7.41	26.9	7.15	26.1	6.91	24.3	6.44
	3.0	2.2	31.5	7.75	29.8	7.29	28.0	6.83	26.9	6.61	26.1	6.38	24.3	5.96
	5.0	4.1	31.5	7.36	29.8	6.91	28.0	6.49	26.9	6.28	26.1	6.08	24.3	5.67
	7.0	6.0	31.5	6.98	29.8	6.57	28.0	6.18	26.9	5.97	26.1	5.79	24.3	5.41
	9.0	7.9	31.5	6.62	29.8	6.25	28.0	5.87	26.9	5.70	26.1	5.51	24.3	5.15
11.0	9.8	31.5	6.30	29.8	5.94	28.0	5.60	26.9	5.43	26.1	5.25	24.3	4.91	
13.0	11.8	31.5	5.99	29.8	5.65	28.0	5.32	26.9	5.17	26.1	5.00	24.3	4.69	
15.0	13.7	31.5	5.70	29.8	5.39	28.0	5.08	26.9	4.93	26.1	4.78	24.3	4.48	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.





Table 2-8.15: TMVV5X560HT3<sup>1.86</sup>O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-19.8	-20.0	40.2	13.90	40.0	14.48	40.0	15.07	39.8	15.37	39.8	15.65	39.6	16.24
	-18.8	-19.0	40.8	14.08	40.8	14.65	40.6	15.23	40.6	15.53	40.4	15.83	40.4	16.40
	-16.7	-17.0	42.4	14.48	42.2	15.03	42.2	15.59	42.0	15.87	42.0	16.14	42.0	16.70
	-13.7	-15.0	44.2	14.89	44.0	15.43	43.8	15.97	43.8	16.24	43.8	16.50	43.6	17.04
	-11.8	-13.0	46.0	15.33	46.0	15.83	45.8	16.34	45.8	16.60	45.8	16.86	45.6	17.38
	-9.8	-11.0	48.2	15.75	48.0	16.24	48.0	16.72	48.0	16.98	47.8	17.22	47.8	17.69
	-9.5	-10.0	49.4	15.97	49.2	16.44	49.2	16.92	49.0	17.16	49.0	17.40	48.8	17.87
	-8.5	-9.1	50.4	16.14	50.2	16.62	50.2	17.08	50.2	17.32	50.0	17.55	50.0	18.01
	-7.0	-7.6	52.2	16.46	52.2	16.92	52.0	17.36	52.0	17.59	52.0	17.81	51.8	18.27
	-5.0	-5.6	55.0	16.88	54.8	17.30	54.8	17.73	54.6	17.93	54.6	18.15	54.4	18.59
	-3.0	-3.7	57.6	17.26	57.6	15.67	57.4	18.07	57.4	18.27	57.4	18.47	55.0	17.69
	0.0	-0.7	62.2	17.81	62.2	18.19	62.0	18.57	61.0	18.27	59.0	17.51	55.0	16.06
	3.0	2.2	67.2	18.33	67.0	18.67	63.0	17.28	61.0	16.60	59.0	15.95	55.0	14.63
	5.0	4.1	70.6	18.67	67.0	17.53	63.0	16.24	61.0	15.63	59.0	15.01	55.0	13.80
	7.0	6.0	71.0	17.71	67.0	16.48	63.0	15.29	61.0	14.71	59.0	14.14	55.0	13.01
	9.0	7.9	71.0	16.64	67.0	15.51	63.0	14.40	61.0	13.68	59.0	13.32	55.0	12.27
11.0	9.8	71.0	15.67	67.0	14.61	63.0	13.58	61.0	13.07	59.0	12.57	55.0	11.60	
13.0	11.8	71.0	14.71	67.0	13.74	63.0	12.79	61.0	12.31	59.0	11.85	55.0	10.94	
15.0	13.7	71.0	13.88	67.0	12.97	63.0	12.07	61.0	11.64	59.0	11.20	55.0	10.37	
90%	-19.8	-20.0	39.9	14.93	39.7	15.45	39.7	15.98	39.5	16.24	39.5	16.52	39.5	17.04
	-18.8	-19.0	40.5	15.09	40.5	15.63	40.3	16.14	40.3	16.40	40.3	16.66	40.1	17.18
	-16.7	-17.0	42.1	15.47	41.9	15.97	41.9	16.46	41.9	16.72	41.7	16.96	41.7	17.45
	-13.7	-15.0	43.9	15.85	43.7	16.32	43.7	16.80	43.5	17.04	43.5	17.28	43.5	17.75
	-11.8	-13.0	45.7	16.22	45.7	16.68	45.5	17.14	45.5	17.38	45.5	17.59	45.3	18.05
	-9.8	-11.0	47.9	16.60	47.9	17.04	47.7	17.47	47.7	17.69	47.7	17.93	47.5	18.37
	-9.5	-10.0	49.1	16.80	48.9	17.24	48.9	17.65	48.7	17.87	48.7	18.09	48.7	18.51
	-8.5	-9.1	50.1	16.98	50.1	17.39	49.9	17.81	49.9	18.01	49.9	18.23	49.3	18.41
	-7.0	-7.6	51.9	17.26	51.9	17.65	51.7	18.07	51.7	18.27	51.7	18.47	49.3	17.57
	-5.0	-5.6	54.7	17.63	54.5	18.01	54.5	18.39	54.3	18.59	52.9	18.01	49.3	16.52
	-3.0	-3.7	57.3	17.97	57.3	18.33	56.7	18.41	54.7	17.67	52.9	16.96	49.3	15.57
	0.0	-0.7	62.1	18.49	60.3	18.03	56.7	16.70	54.7	16.04	52.9	15.41	49.3	14.16
	3.0	2.2	63.9	17.61	60.3	16.40	56.7	15.21	54.7	14.63	52.9	14.06	49.3	12.95
	5.0	4.1	63.9	16.56	60.3	15.43	56.7	14.34	54.7	13.78	52.9	13.26	49.3	12.21
	7.0	6.0	63.9	15.57	60.3	14.54	56.7	13.50	54.7	13.01	52.9	12.51	49.3	11.54
	9.0	7.9	63.9	14.67	60.3	13.68	56.7	12.73	54.7	12.27	52.9	11.81	49.3	10.90
11.0	9.8	63.9	13.82	60.3	12.91	56.7	12.03	54.7	11.60	52.9	11.16	49.3	10.33	
13.0	11.8	63.9	13.01	60.3	12.17	56.7	11.34	54.7	10.94	52.9	10.54	49.3	9.75	
15.0	13.7	63.9	12.29	60.3	11.50	56.7	10.74	54.7	10.36	52.9	9.99	49.3	9.25	
80%	-19.8	-20.0	39.8	15.96	39.6	16.42	39.6	16.90	39.6	17.14	39.4	17.37	39.4	17.83
	-18.8	-19.0	40.4	16.10	40.4	16.58	40.2	17.04	40.2	17.27	40.2	17.49	40.0	17.97
	-16.7	-17.0	42.0	16.44	41.8	16.88	41.8	17.33	41.8	17.55	41.8	17.77	41.6	18.21
	-13.7	-15.0	43.8	16.78	43.6	17.20	43.6	17.63	43.6	17.83	43.4	18.05	43.4	18.49
	-11.8	-13.0	45.6	17.12	45.6	17.53	45.4	17.93	45.4	18.13	45.4	18.35	44.0	17.85
	-9.8	-11.0	47.8	17.45	47.8	17.85	47.6	18.25	47.6	18.43	47.2	18.39	44.0	16.86
	-9.5	-10.0	49.0	17.63	48.8	18.01	48.8	18.39	48.8	18.59	47.2	17.85	44.0	16.36
	-8.5	-9.1	50.0	17.79	46.5	18.17	49.8	18.53	48.8	18.11	47.2	17.37	44.0	15.93
	-7.0	-7.6	51.8	18.05	51.8	18.41	50.4	18.01	48.8	17.29	47.2	16.60	44.0	15.23
	-5.0	-5.6	54.6	18.37	53.6	18.27	50.4	16.92	48.8	16.26	47.2	15.61	44.0	14.34
	-3.0	-3.7	56.8	18.47	53.6	17.20	50.4	15.93	48.8	15.33	47.2	14.71	44.0	13.54
	0.0	-0.7	56.8	16.76	53.6	15.61	50.4	14.50	48.8	13.96	47.2	13.40	44.0	12.35
	3.0	2.2	56.8	15.27	53.6	14.24	50.4	13.24	48.8	12.75	47.2	12.27	44.0	11.32
	5.0	4.1	56.8	14.38	53.6	13.42	50.4	12.49	48.8	12.03	47.2	11.60	44.0	10.70
	7.0	6.0	56.8	13.54	53.6	12.67	50.4	11.79	48.8	11.38	47.2	10.96	44.0	10.13
	9.0	7.9	56.8	12.79	53.6	11.95	50.4	11.14	48.8	10.74	47.2	10.37	44.0	9.59
11.0	9.8	56.8	12.07	53.6	11.30	50.4	10.54	48.8	10.17	47.2	9.81	44.0	9.09	
13.0	11.8	56.8	11.38	53.6	10.66	50.4	9.97	48.8	9.61	47.2	9.27	44.0	8.60	
15.0	13.7	56.8	10.76	53.6	10.11	50.4	9.45	48.8	9.11	47.2	8.80	44.0	8.18	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.15: TMVV5X560HT3<sup>1.86</sup>O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
70%	-19.8	-20.0	39.5	17.00	39.3	17.39	39.3	17.81	39.3	18.01	39.3	18.23	38.3	18.03
	-18.8	-19.0	40.1	17.14	40.1	17.53	39.9	17.93	39.9	18.13	39.9	18.35	38.3	17.65
	-16.7	-17.0	41.7	17.41	41.7	17.81	41.5	18.19	41.5	18.39	41.1	16.38	38.3	16.84
	-13.7	-15.0	43.5	17.71	43.3	18.09	43.3	18.47	42.5	18.19	41.1	17.45	38.3	16.00
	-11.8	-13.0	45.3	18.01	45.3	18.37	44.1	17.93	42.5	17.23	41.1	16.54	38.3	15.17
	-9.8	-11.0	47.5	18.31	46.9	18.29	44.1	16.94	42.5	16.28	41.1	15.63	38.3	14.36
	-9.5	-10.0	48.7	18.47	46.9	17.75	44.1	16.44	42.5	15.81	41.1	15.19	38.3	13.96
	-8.5	-9.1	49.7	18.57	46.9	17.27	44.1	16.00	42.5	15.39	41.1	14.79	38.3	13.60
	-7.0	-7.6	49.7	17.73	46.9	16.50	44.1	15.31	42.5	14.73	41.1	14.16	38.3	13.03
	-5.0	-5.6	49.7	16.66	46.9	15.53	44.1	14.42	42.5	13.86	41.1	16.37	38.3	12.29
	-3.0	-3.7	49.7	15.69	46.9	14.63	44.1	13.60	42.5	13.09	41.1	12.59	38.3	11.62
	0.0	-0.7	49.7	14.28	46.9	13.34	44.1	12.41	42.5	11.95	41.1	11.52	38.3	10.64
	3.0	2.2	49.7	13.05	46.9	12.21	44.1	11.38	42.5	10.96	41.1	10.56	38.3	9.77
	5.0	4.1	49.7	12.31	46.9	11.52	44.1	10.76	42.5	10.36	41.1	9.99	38.3	9.25
	7.0	6.0	49.7	11.64	46.9	10.90	44.1	10.17	42.5	9.81	41.1	9.47	38.3	8.78
	9.0	7.9	49.7	11.00	46.9	10.31	44.1	9.63	42.5	9.29	41.1	8.97	38.3	8.32
11.0	9.8	49.7	10.40	46.9	9.75	44.1	9.13	42.5	8.82	41.1	8.52	38.3	7.90	
13.0	11.8	49.7	9.83	46.9	9.23	44.1	8.64	42.5	8.36	41.1	8.06	38.3	7.51	
15.0	13.7	49.7	9.31	46.9	8.76	44.1	8.20	42.5	7.94	41.1	7.66	38.3	7.15	
60%	-19.8	-20.0	39.4	18.03	39.2	18.37	37.8	17.67	36.6	16.98	35.4	16.30	33.0	14.95
	-18.8	-19.0	40.0	18.15	40.0	18.49	37.8	17.29	36.6	16.62	35.4	15.94	33.0	14.63
	-16.7	-17.0	41.6	18.39	40.2	17.81	37.8	16.50	36.6	15.86	35.4	15.23	33.0	14.00
	-13.7	-15.0	42.6	18.19	40.2	16.92	37.8	15.69	36.6	15.09	35.4	14.49	33.0	13.32
	-11.8	-13.0	42.6	17.22	40.2	16.02	37.8	14.87	36.6	14.32	35.4	13.76	33.0	12.73
	-9.8	-11.0	42.6	16.26	40.2	15.15	37.8	14.08	36.6	13.54	35.4	13.03	33.0	12.01
	-9.5	-10.0	42.6	15.81	40.2	14.73	37.8	13.68	36.6	13.18	35.4	12.67	33.0	11.67
	-8.5	-9.1	42.6	15.39	40.2	14.36	37.8	13.34	36.6	12.85	35.4	12.35	33.0	11.40
	-7.0	-7.6	42.6	14.71	40.2	13.74	37.8	12.77	36.6	12.31	35.4	11.83	33.0	10.94
	-5.0	-5.6	42.6	13.86	40.2	12.95	37.8	12.05	36.6	11.62	35.4	11.18	33.0	10.35
	-3.0	-3.7	42.6	13.08	40.2	12.23	37.8	11.40	36.6	11.00	35.4	10.58	33.0	9.79
	0.0	-0.7	42.6	11.95	40.2	11.20	37.8	10.44	36.6	10.09	35.4	9.71	33.0	8.99
	3.0	2.2	42.6	10.96	40.2	10.28	37.8	9.61	36.6	9.27	35.4	8.96	33.0	8.30
	5.0	4.1	42.6	10.37	40.2	9.73	37.8	9.09	36.6	8.80	35.4	8.48	33.0	7.88
	7.0	6.0	42.6	9.81	40.2	9.21	37.8	8.62	36.6	8.34	35.4	8.06	33.0	7.49
	9.0	7.9	42.6	9.29	40.2	8.74	37.8	8.18	36.6	7.92	35.4	7.64	33.0	7.13
11.0	9.8	42.6	8.82	40.2	8.30	37.8	7.78	36.6	7.53	35.4	7.27	33.0	6.79	
13.0	11.8	42.6	8.34	40.2	7.86	37.8	7.39	36.6	7.15	35.4	6.91	33.0	6.45	
15.0	13.7	42.6	7.94	40.2	7.47	37.8	7.03	36.6	6.81	35.4	6.59	33.0	6.16	
50%	-19.8	-20.0	35.5	16.40	33.5	15.27	31.5	14.18	30.3	13.66	29.3	13.12	27.3	12.09
	-18.8	-19.0	35.5	16.04	33.5	14.95	31.5	13.90	30.3	13.36	29.3	12.85	27.3	11.85
	-16.7	-17.0	35.5	15.31	33.5	14.28	31.5	13.28	30.3	12.79	29.3	12.31	27.3	11.36
	-13.7	-15.0	35.5	14.57	33.5	13.60	31.5	12.65	30.3	12.19	29.3	11.73	27.3	10.84
	-11.8	-13.0	35.5	13.84	33.5	12.93	31.5	12.03	30.3	11.60	29.3	11.16	27.3	10.32
	-9.8	-11.0	35.5	13.11	33.5	12.25	31.5	11.42	30.3	11.00	29.3	10.60	27.3	9.81
	-9.5	-10.0	35.5	12.75	33.5	11.91	31.5	11.12	30.3	10.72	29.3	10.32	27.3	9.55
	-8.5	-9.1	35.5	12.43	33.5	11.64	31.5	10.84	30.3	10.46	29.3	10.09	27.3	9.33
	-7.0	-7.6	35.5	11.91	33.5	11.16	31.5	10.40	30.3	10.05	29.3	9.69	27.3	8.97
	-5.0	-5.6	35.5	11.24	33.5	10.54	31.5	9.85	30.3	9.51	29.3	9.17	27.3	8.50
	-3.0	-3.7	35.5	10.64	33.5	9.99	31.5	9.33	30.3	9.01	29.3	8.70	27.3	8.08
	0.0	-0.7	35.5	9.77	33.5	9.17	31.5	8.60	30.3	8.30	29.3	8.02	27.3	7.47
	3.0	2.2	35.5	8.99	33.5	8.46	31.5	7.92	30.3	7.66	29.3	7.41	27.3	6.91
	5.0	4.1	35.5	8.54	33.5	8.02	31.5	7.53	30.3	7.29	29.3	7.05	27.3	6.57
	7.0	6.0	35.5	8.10	33.5	7.62	31.5	7.17	30.3	6.93	29.3	6.71	27.3	6.27
	9.0	7.9	35.5	7.68	33.5	7.25	31.5	6.81	30.3	6.61	29.3	6.39	27.3	5.98
11.0	9.8	35.5	7.31	33.5	6.89	31.5	6.49	30.3	6.29	29.3	6.10	27.3	5.70	
13.0	11.8	35.5	6.95	33.5	6.55	31.5	6.18	30.3	6.00	29.3	5.80	27.3	5.44	
15.0	13.7	35.5	6.61	33.5	6.25	31.5	5.90	30.3	5.72	29.3	5.54	27.3	5.20	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

Table 2-8.16: TMVV5X615HT3<sup>3.74</sup>O4ATW3T heating capacity

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI	kW	PI
130%	-19.8	-20.0	44.7	12.09	44.5	12.94	44.3	13.81	44.3	14.23	44.0	14.65	44.0	15.52
	-18.8	-19.0	45.3	12.36	45.1	13.21	45.1	14.05	44.9	14.47	44.9	14.87	44.7	15.72
	-16.7	-17.0	47.1	12.94	46.9	13.74	46.7	14.56	46.7	14.96	46.7	15.36	46.4	16.16
	-13.7	-15.0	49.1	13.54	48.9	14.32	48.6	15.10	48.6	15.47	48.4	15.87	48.4	16.65
	-11.8	-13.0	51.0	14.14	51.0	14.90	50.8	15.63	50.6	16.01	50.6	16.39	50.4	17.12
	-9.8	-11.0	53.5	14.76	53.2	15.47	53.0	16.19	53.0	16.54	53.0	16.90	52.8	17.61
	-9.5	-10.0	54.8	15.07	54.5	15.76	54.3	16.45	54.3	16.81	54.1	17.14	54.1	17.83
	-8.5	-9.1	55.9	15.34	55.6	16.01	55.6	16.70	55.4	17.03	55.4	17.36	55.2	18.05
	-7.0	-7.6	57.8	15.79	57.8	16.45	57.6	17.10	57.6	17.43	57.4	17.74	57.2	18.41
	-5.0	-5.6	60.9	16.39	60.7	17.01	60.5	17.63	60.5	17.94	60.2	18.23	60.2	18.85
	-3.0	-3.7	63.7	16.92	63.5	17.52	63.5	18.10	63.3	18.41	63.3	18.70	63.1	19.28
	0.0	-0.7	68.8	17.74	68.8	18.30	68.6	18.83	68.6	19.03	68.3	19.39	68.3	19.92
	3.0	2.2	74.3	18.48	74.0	18.99	73.8	19.50	73.8	19.74	73.8	20.01	73.6	20.50
	5.0	4.1	78.0	18.94	77.8	19.43	77.8	19.90	77.5	20.14	77.5	20.39	77.3	20.86
	7.0	6.0	81.9	19.39	81.7	19.83	81.7	20.30	81.5	20.52	81.5	20.74	81.2	21.16
	9.0	7.9	86.1	19.79	85.9	20.23	85.9	20.65	85.6	20.88	85.6	21.04	85.4	21.46
120%	-19.8	-20.0	44.5	13.25	44.2	14.03	44.0	14.83	44.0	15.21	44.0	15.61	43.8	16.41
	-18.8	-19.0	45.1	13.50	44.9	14.27	44.9	15.05	44.7	15.43	44.7	15.83	44.5	16.61
	-16.7	-17.0	46.9	14.03	46.7	14.79	46.4	15.52	46.4	15.90	46.4	16.27	46.2	17.01
	-13.7	-15.0	48.9	14.59	48.6	15.30	48.4	16.01	48.4	16.39	48.4	16.74	48.2	17.45
	-11.8	-13.0	50.8	15.14	50.8	15.83	50.6	16.52	50.6	16.87	50.4	17.21	50.4	17.90
	-9.8	-11.0	53.2	15.72	53.0	16.36	53.0	17.03	52.8	17.36	52.8	17.68	52.6	18.34
	-9.5	-10.0	54.5	16.01	54.3	16.65	54.1	17.27	54.1	17.61	54.1	17.92	53.9	18.56
	-8.5	-9.1	55.6	16.25	55.4	16.87	55.4	17.50	55.2	17.81	55.2	18.14	55.0	18.76
	-7.0	-7.6	57.6	16.67	57.6	17.27	57.4	17.87	57.4	18.19	57.2	18.48	57.2	19.08
	-5.0	-5.6	60.7	17.21	60.5	17.79	60.2	18.36	60.2	18.65	60.2	18.94	60.0	19.50
	-3.0	-3.7	63.5	17.72	63.5	18.28	63.3	18.81	63.3	19.08	63.1	19.37	63.1	19.90
	0.0	-0.7	68.6	18.48	68.6	18.99	68.3	19.48	68.3	19.75	68.1	19.99	68.1	20.50
	3.0	2.2	74.0	19.17	73.8	19.63	73.8	20.10	73.6	20.34	73.6	20.57	72.1	20.46
	5.0	4.1	77.8	19.59	77.5	20.03	77.5	20.48	77.3	20.70	77.3	20.92	77.1	21.16
	7.0	6.0	81.7	19.99	81.7	20.41	81.5	20.83	80.2	20.54	77.5	19.70	72.1	18.08
	9.0	7.9	85.9	20.39	85.7	20.79	82.8	20.10	80.2	19.30	77.5	18.52	72.1	17.01
110%	-19.8	-20.0	44.2	14.41	44.0	15.12	43.8	15.85	43.8	16.21	43.8	16.57	43.6	17.30
	-18.8	-19.0	44.9	14.63	44.7	15.34	44.7	16.05	44.7	16.41	44.5	16.76	44.5	17.48
	-16.7	-17.0	46.7	15.12	46.4	15.81	47.1	16.50	46.2	16.83	46.2	17.19	46.0	17.85
	-13.7	-15.0	48.6	15.63	48.4	16.30	48.2	16.94	48.2	17.28	48.2	17.61	48.0	18.25
	-11.8	-13.0	50.6	16.16	50.6	16.79	50.4	17.41	50.4	17.72	50.2	18.03	50.2	18.68
	-9.8	-11.0	53.0	16.68	52.8	17.28	52.8	17.88	52.6	18.19	52.6	18.48	52.6	19.08
	-9.5	-10.0	54.3	16.94	54.1	17.52	53.9	18.12	53.9	18.41	53.9	18.70	53.7	19.28
	-8.5	-9.1	55.4	17.16	55.2	17.74	55.2	18.32	55.0	18.61	55.0	18.90	55.0	19.73
	-7.0	-7.6	57.4	17.57	57.4	18.10	57.2	18.66	57.2	18.94	57.2	19.21	57.0	19.77
	-5.0	-5.6	60.5	18.05	60.2	18.59	60.0	19.10	60.0	19.37	60.0	19.63	59.8	20.17
	-3.0	-3.7	63.3	18.52	63.3	19.01	63.1	19.52	63.1	19.77	62.9	20.01	62.9	20.52
	0.0	-0.7	68.3	19.21	68.3	19.68	68.1	20.14	68.1	20.37	68.1	20.61	66.2	20.21
	3.0	2.2	73.8	19.86	73.6	20.28	73.6	20.70	73.4	20.90	71.0	20.06	66.2	18.39
	5.0	4.1	77.5	20.23	77.5	20.65	76.0	20.46	73.4	19.63	71.0	18.85	66.2	17.30
	7.0	6.0	81.5	20.61	80.8	20.75	76.0	19.21	73.4	18.45	71.0	17.72	66.2	16.28
	9.0	7.9	85.6	20.95	80.8	19.50	76.0	18.08	73.4	17.36	71.0	16.68	66.2	15.34
11.0	9.8	85.6	19.70	80.8	18.34	76.0	17.01	73.4	16.37	71.0	15.72	66.2	14.48	
13.0	11.8	85.6	18.48	80.8	17.21	76.0	15.99	73.4	15.39	71.0	14.79	66.2	13.63	
15.0	13.7	85.6	16.41	80.8	16.23	76.0	15.10	73.4	14.52	71.0	13.99	66.2	12.90	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

- 1. Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.16: TMVV5X615HT3<sup>1</sup>74 O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
	°C DB	°C WB	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%	-19.8	-20.0	44.0	15.56	43.8	16.21	43.8	16.88	43.6	17.21	43.6	17.52	43.4	18.19
	-18.8	-19.0	44.7	15.76	44.7	16.41	44.5	17.05	44.5	17.39	44.2	17.72	44.2	18.36
	-16.7	-17.0	46.4	16.21	46.2	16.83	46.2	17.45	46.0	17.77	46.0	18.08	46.0	18.70
	-13.7	-15.0	48.4	16.67	48.2	17.28	48.0	17.88	48.0	18.19	48.0	18.48	47.8	19.08
	-11.8	-13.0	50.4	17.16	50.4	17.72	50.2	18.30	50.2	18.59	50.2	18.88	49.9	19.46
	-9.8	-11.0	52.8	17.63	52.6	18.19	52.6	18.72	52.6	19.01	52.4	19.28	52.4	19.81
	-9.5	-10.0	54.1	17.88	53.9	18.41	53.9	18.94	53.7	19.21	53.7	19.48	53.4	20.01
	-8.5	-9.1	55.2	18.08	55.0	18.61	55.0	19.12	55.0	19.39	54.8	19.66	54.8	20.17
	-7.0	-7.6	57.2	18.43	57.2	18.94	57.0	19.43	57.0	19.70	57.0	19.94	56.7	20.45
	-5.0	-5.6	60.2	18.90	60.0	19.37	60.0	19.85	59.8	20.08	59.8	20.32	59.6	20.81
	-3.0	-3.7	63.1	19.32	63.1	17.54	62.9	20.23	62.9	20.45	62.9	20.68	60.2	19.81
	0.0	-0.7	68.1	19.94	68.1	20.37	67.9	20.79	66.8	20.45	64.6	19.61	60.2	17.99
	3.0	2.2	73.6	20.52	73.4	20.90	69.0	19.34	66.8	18.59	64.6	17.85	60.2	16.39
	5.0	4.1	77.3	20.90	73.4	19.63	69.0	18.19	66.8	17.50	64.6	16.81	60.2	15.45
	7.0	6.0	77.8	19.83	73.4	18.45	69.0	17.12	66.8	16.47	64.6	15.83	60.2	14.56
9.0	7.9	77.8	18.63	73.4	17.36	69.0	16.12	66.8	15.32	64.6	14.92	60.2	13.74	
11.0	9.8	77.8	17.54	73.4	16.36	69.0	15.21	66.8	14.63	64.6	14.07	60.2	12.98	
13.0	11.8	77.8	16.47	73.4	15.39	69.0	14.32	66.8	13.79	64.6	13.27	60.2	12.25	
15.0	13.7	77.8	15.54	73.4	14.52	69.0	13.52	66.8	13.03	64.6	12.54	60.2	11.61	
90%	-19.8	-20.0	43.7	16.72	43.5	17.30	43.5	17.90	43.3	18.19	43.3	18.50	43.3	19.08
	-18.8	-19.0	44.4	16.90	44.4	17.50	44.2	18.08	44.2	18.36	44.2	18.65	43.9	19.23
	-16.7	-17.0	46.1	17.32	45.9	17.88	45.9	18.43	45.9	18.72	45.7	18.99	45.7	19.54
	-13.7	-15.0	48.1	17.74	47.9	18.28	47.9	18.81	47.7	19.08	47.7	19.34	47.7	19.88
	-11.8	-13.0	50.1	18.17	50.1	18.68	49.9	19.19	49.9	19.45	49.9	19.70	49.6	20.21
	-9.8	-11.0	52.5	18.59	52.5	19.08	52.3	19.57	52.3	19.81	52.3	20.08	52.0	20.57
	-9.5	-10.0	53.8	18.81	53.6	19.30	53.6	19.77	53.4	20.01	53.4	20.25	53.4	20.72
	-8.5	-9.1	54.9	19.01	54.9	19.48	54.7	19.94	54.7	20.17	54.7	20.41	54.0	20.61
	-7.0	-7.6	56.9	19.32	56.9	19.77	56.6	20.23	56.6	20.45	56.6	20.68	54.0	19.68
	-5.0	-5.6	59.9	19.74	59.7	20.17	59.7	20.59	59.5	20.81	57.9	20.17	54.0	18.50
	-3.0	-3.7	62.8	20.12	62.8	20.52	62.1	20.61	59.9	19.79	57.9	18.99	54.0	17.43
	0.0	-0.7	68.0	20.70	66.0	20.19	62.1	18.70	59.9	17.96	57.9	17.25	54.0	15.85
	3.0	2.2	70.0	19.72	66.0	18.36	62.1	17.03	59.9	16.39	57.9	15.74	54.0	14.50
	5.0	4.1	70.0	18.54	66.0	17.27	62.1	16.05	59.9	15.43	57.9	14.85	54.0	13.67
	7.0	6.0	70.0	17.43	66.0	16.28	62.1	15.12	59.9	14.56	57.9	14.01	54.0	12.92
9.0	7.9	70.0	16.43	66.0	15.32	62.1	14.25	59.9	13.74	57.9	13.23	54.0	12.21	
11.0	9.8	70.0	15.47	66.0	14.45	62.1	13.47	59.9	12.98	57.9	12.50	54.0	11.56	
13.0	11.8	70.0	14.56	66.0	13.63	62.1	12.70	59.9	12.25	57.9	11.81	54.0	10.92	
15.0	13.7	70.0	13.76	66.0	12.87	62.1	12.03	59.9	11.61	57.9	11.18	54.0	10.36	
80%	-19.8	-20.0	43.6	17.87	43.4	18.39	43.4	18.92	43.4	19.19	43.1	19.45	43.1	19.97
	-18.8	-19.0	44.2	18.03	44.2	18.56	44.0	19.08	44.0	19.34	44.0	19.59	43.8	20.12
	-16.7	-17.0	46.0	18.41	45.8	18.90	45.8	19.41	45.8	19.65	45.8	19.90	45.6	20.39
	-13.7	-15.0	48.0	18.79	47.8	19.25	47.8	19.74	47.8	19.97	47.5	20.21	47.5	20.70
	-11.8	-13.0	49.9	19.17	49.9	19.63	49.7	20.08	49.7	20.30	49.7	20.54	48.2	19.99
	-9.8	-11.0	52.4	19.54	52.4	19.99	52.1	20.43	52.1	20.63	51.7	20.59	48.2	18.88
	-9.5	-10.0	53.7	19.74	53.4	20.16	53.5	20.59	53.5	20.81	51.7	19.99	48.2	18.32
	-8.5	-9.1	54.8	19.92	50.9	20.34	54.5	20.74	53.5	20.28	51.7	19.45	48.2	17.83
	-7.0	-7.6	56.7	20.21	56.7	20.61	55.2	20.16	53.5	19.36	51.7	18.59	48.2	17.05
	-5.0	-5.6	59.8	20.56	58.7	20.45	55.2	18.94	53.5	18.21	51.7	17.47	48.2	16.05
	-3.0	-3.7	62.2	20.68	58.7	19.25	55.2	17.83	53.5	17.16	51.7	16.47	48.2	15.16
	0.0	-0.7	62.2	18.76	58.7	17.47	55.2	16.23	53.5	15.63	51.7	15.01	48.2	13.83
	3.0	2.2	62.2	17.10	58.7	15.94	55.2	14.83	53.5	14.27	51.7	13.74	48.2	12.67
	5.0	4.1	62.2	16.10	58.7	15.03	55.2	13.98	53.5	13.47	51.7	12.98	48.2	11.98
	7.0	6.0	62.2	15.16	58.7	14.18	55.2	13.21	53.5	12.74	51.7	12.27	48.2	11.34
9.0	7.9	62.2	14.32	58.7	13.38	55.2	12.47	53.5	12.03	51.7	11.61	48.2	10.74	
11.0	9.8	62.2	13.52	58.7	12.65	55.2	11.81	53.5	11.38	51.7	10.98	48.2	10.18	
13.0	11.8	62.2	12.74	58.7	11.94	55.2	11.16	53.5	10.76	51.7	10.38	48.2	9.63	
15.0	13.7	62.2	12.05	58.7	11.32	55.2	10.58	53.5	10.20	51.7	9.85	48.2	9.16	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

- 1. Shaded cells indicate rating condition.

Table continued on next page ...

Table 2-8.16: TMVV5X615HT3<sup>3.74</sup>O4ATW3T heating capacity (continued)

CR	Outdoor air temp.		Indoor air temp. °C DB											
			16.0		18.0		20.0		21.0		22.0		24.0	
			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	-20.0	43.3	19.03	43.1	19.48	43.1	19.94	43.1	20.17	43.1	20.41	42.0	20.19
	-18.8	-19.0	43.9	19.19	43.9	19.63	43.7	20.08	43.7	20.30	43.7	20.54	42.0	19.76
	-16.7	-17.0	45.7	19.50	45.7	19.94	45.5	20.37	45.5	20.59	45.0	18.34	42.0	18.85
	-13.7	-15.0	47.6	19.83	47.4	20.25	47.4	20.68	46.6	20.37	45.0	19.54	42.0	17.92
	-11.8	-13.0	49.6	20.17	49.6	20.56	48.3	20.08	46.6	19.30	45.0	18.52	42.0	16.99
	-9.8	-11.0	52.0	20.50	51.4	20.48	48.3	18.96	46.6	18.23	45.0	17.50	42.0	16.07
	-9.5	-10.0	53.3	20.68	51.4	19.88	48.3	18.41	46.6	17.70	45.0	17.01	42.0	15.63
	-8.5	-9.1	54.4	20.79	51.4	19.34	48.3	17.92	46.6	17.23	45.0	16.56	42.0	15.23
	-7.0	-7.6	54.4	19.85	51.4	18.47	48.3	17.14	46.6	16.50	45.0	15.85	42.0	14.59
	-5.0	-5.6	54.4	18.65	51.4	17.39	48.3	16.14	46.6	15.52	45.0	18.33	42.0	13.76
	-3.0	-3.7	54.4	17.56	51.4	16.39	48.3	15.23	46.6	14.65	45.0	14.10	42.0	13.01
	0.0	-0.7	54.4	15.99	51.4	14.94	48.3	13.90	46.6	13.38	45.0	12.89	42.0	11.92
	3.0	2.2	54.4	14.61	51.4	13.67	48.3	12.74	46.6	12.27	45.0	11.83	42.0	10.94
	5.0	4.1	54.4	13.78	51.4	12.89	48.3	12.05	46.6	11.61	45.0	11.18	42.0	10.36
	7.0	6.0	54.4	13.03	51.4	12.21	48.3	11.38	46.6	10.98	45.0	10.60	42.0	9.83
	9.0	7.9	54.4	12.32	51.4	11.54	48.3	10.78	46.6	10.41	45.0	10.05	42.0	9.32
11.0	9.8	54.4	11.65	51.4	10.92	48.3	10.23	46.6	9.87	45.0	9.54	42.0	8.85	
13.0	11.8	54.4	11.01	51.4	10.34	48.3	9.67	46.6	9.36	45.0	9.03	42.0	8.40	
15.0	13.7	54.4	10.43	51.4	9.80	48.3	9.18	46.6	8.89	45.0	8.58	42.0	8.00	
60%	-19.8	-20.0	43.2	20.19	42.9	20.56	41.4	19.79	40.1	19.01	38.8	18.25	36.1	16.74
	-18.8	-19.0	43.8	20.32	43.8	20.70	41.4	19.36	40.1	18.61	38.8	17.85	36.1	16.39
	-16.7	-17.0	45.6	20.59	44.0	19.94	41.4	18.47	40.1	17.76	38.8	17.05	36.1	15.67
	-13.7	-15.0	46.7	20.36	44.0	18.94	41.4	17.56	40.1	16.90	38.8	16.23	36.1	14.92
	-11.8	-13.0	46.7	19.28	44.0	17.94	41.4	16.65	40.1	16.03	38.8	15.41	36.1	14.25
	-9.8	-11.0	46.7	18.21	44.0	16.96	41.4	15.76	40.1	15.16	38.8	14.58	36.1	13.45
	-9.5	-10.0	46.7	17.70	44.0	16.50	41.4	15.32	40.1	14.76	38.8	14.18	36.1	13.07
	-8.5	-9.1	46.7	17.23	44.0	16.07	41.4	14.94	40.1	14.38	38.8	13.83	36.1	12.76
	-7.0	-7.6	46.7	16.47	44.0	15.39	41.4	14.30	40.1	13.78	38.8	13.25	36.1	12.25
	-5.0	-5.6	46.7	15.52	44.0	14.50	41.4	13.49	40.1	13.01	38.8	12.52	36.1	11.58
	-3.0	-3.7	46.7	14.65	44.0	13.70	41.4	12.76	40.1	12.32	38.8	11.85	36.1	10.96
	0.0	-0.7	46.7	13.38	44.0	12.54	41.4	11.69	40.1	11.29	38.8	10.87	36.1	10.07
	3.0	2.2	46.7	12.27	44.0	11.52	41.4	10.76	40.1	10.38	38.8	10.03	36.1	9.29
	5.0	4.1	46.7	11.61	44.0	10.89	41.4	10.18	40.1	9.85	38.8	9.49	36.1	8.83
	7.0	6.0	46.7	10.98	44.0	10.32	41.4	9.65	40.1	9.34	38.8	9.03	36.1	8.38
	9.0	7.9	46.7	10.40	44.0	9.78	41.4	9.16	40.1	8.87	38.8	8.56	36.1	7.98
11.0	9.8	46.7	9.87	44.0	9.29	41.4	8.71	40.1	8.43	38.8	8.14	36.1	7.60	
13.0	11.8	46.7	9.34	44.0	8.80	41.4	8.27	40.1	8.00	38.8	7.74	36.1	7.23	
15.0	13.7	46.7	8.89	44.0	8.36	41.4	7.87	40.1	7.63	38.8	7.38	36.1	6.89	
50%	-19.8	-20.0	38.9	18.36	36.7	17.10	34.5	15.87	33.2	15.30	32.1	14.70	29.9	13.54
	-18.8	-19.0	38.9	17.96	36.7	16.74	34.5	15.56	33.2	14.96	32.1	14.38	29.9	13.27
	-16.7	-17.0	38.9	17.14	36.7	15.99	34.5	14.87	33.2	14.32	32.1	13.78	29.9	12.72
	-13.7	-15.0	38.9	16.32	36.7	15.23	34.5	14.16	33.2	13.65	32.1	13.14	29.9	12.14
	-11.8	-13.0	38.9	15.50	36.7	14.47	34.5	13.47	33.2	12.98	32.1	12.49	29.9	11.56
	-9.8	-11.0	38.9	14.67	36.7	13.72	34.5	12.78	33.2	12.32	32.1	11.87	29.9	10.98
	-9.5	-10.0	38.9	14.27	36.7	13.34	34.5	12.45	33.2	12.01	32.1	11.56	29.9	10.69
	-8.5	-9.1	38.9	13.92	36.7	13.03	34.5	12.14	33.2	11.72	32.1	11.29	29.9	10.45
	-7.0	-7.6	38.9	13.34	36.7	12.49	34.5	11.65	33.2	11.25	32.1	10.85	29.9	10.05
	-5.0	-5.6	38.9	12.58	36.7	11.81	34.5	11.03	33.2	10.65	32.1	10.27	29.9	9.52
	-3.0	-3.7	38.9	11.92	36.7	11.18	34.5	10.45	33.2	10.09	32.1	9.74	29.9	9.05
	0.0	-0.7	38.9	10.94	36.7	10.27	34.5	9.63	33.2	9.29	32.1	8.98	29.9	8.36
	3.0	2.2	38.9	10.07	36.7	9.47	34.5	8.87	33.2	8.58	32.1	8.29	29.9	7.74
	5.0	4.1	38.9	9.56	36.7	8.98	34.5	8.43	33.2	8.16	32.1	7.89	29.9	7.36
	7.0	6.0	38.9	9.07	36.7	8.54	34.5	8.03	33.2	7.76	32.1	7.51	29.9	7.03
	9.0	7.9	38.9	8.60	36.7	8.11	34.5	7.63	33.2	7.40	32.1	7.16	29.9	6.69
11.0	9.8	38.9	8.18	36.7	7.71	34.5	7.27	33.2	7.05	32.1	6.83	29.9	6.38	
13.0	11.8	38.9	7.78	36.7	7.34	34.5	6.91	33.2	6.71	32.1	6.49	29.9	6.09	
15.0	13.7	38.9	7.40	36.7	7.00	34.5	6.60	33.2	6.40	32.1	6.20	29.9	5.83	

Abbreviations:

CR: Combination ratio

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Notes:

1. Shaded cells indicate rating condition.

### 8.3 Capacity Correction Factors for Piping Length and Level Difference

TMVV5X252HT3I<sup>4.7</sup>O4ATW3T, TMVV5X280HT3I<sup>4.5</sup>O4ATW3T, TMVV5X335HT3I<sup>4.3</sup>O4ATW3T

Figure 2-8.1: rate of change in cooling capacity

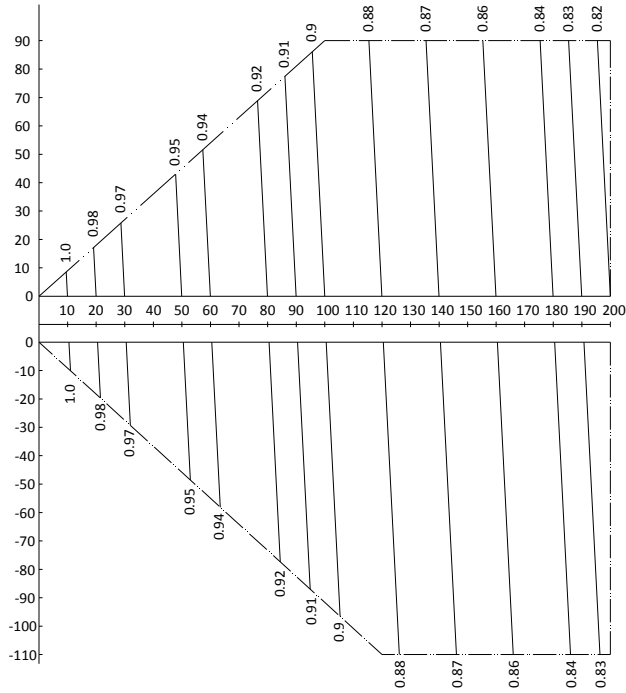
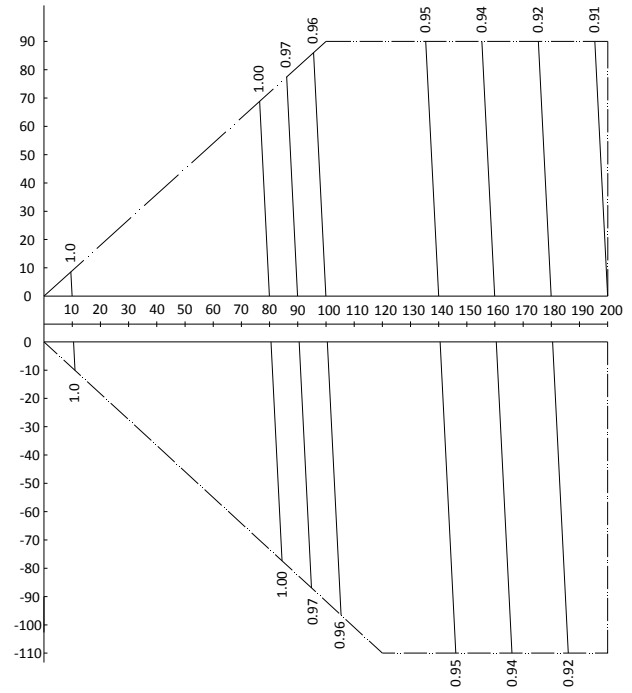


Figure 2-8.2: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.3: rate of change in cooling capacity

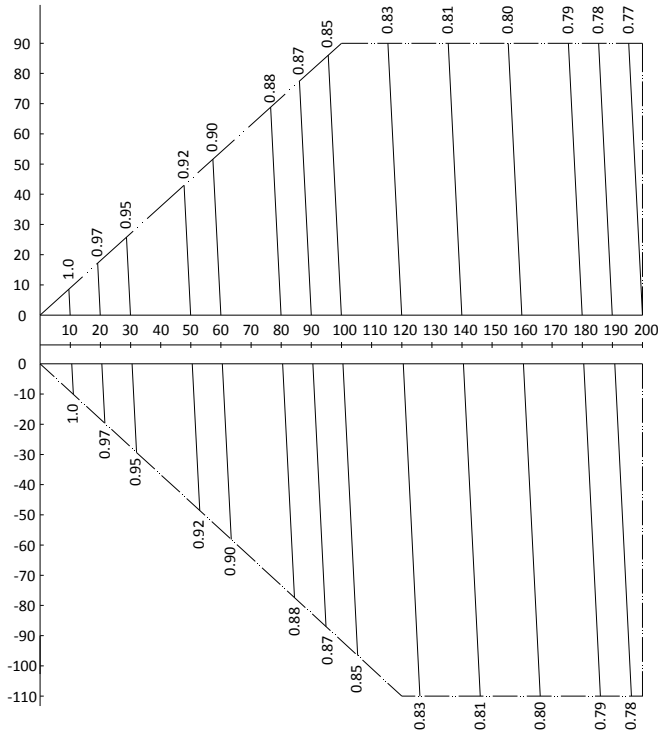
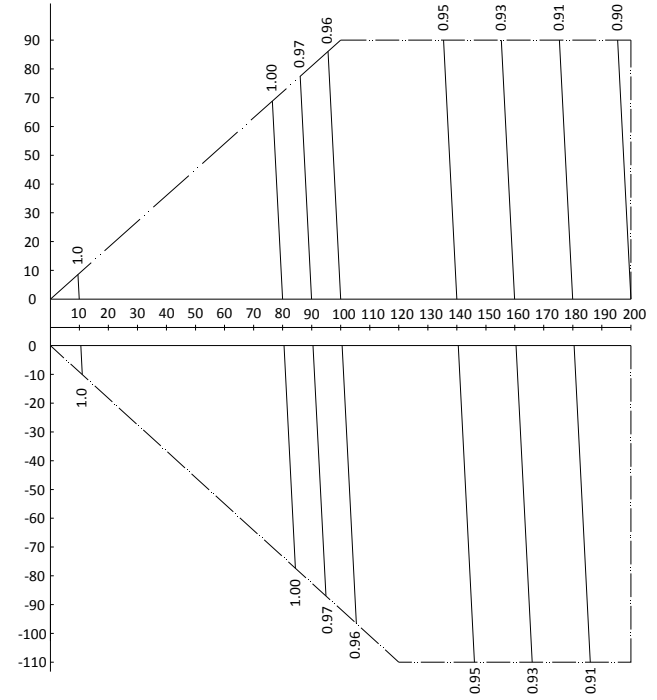


Figure 2-8.4: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.5 rate of change in cooling capacity

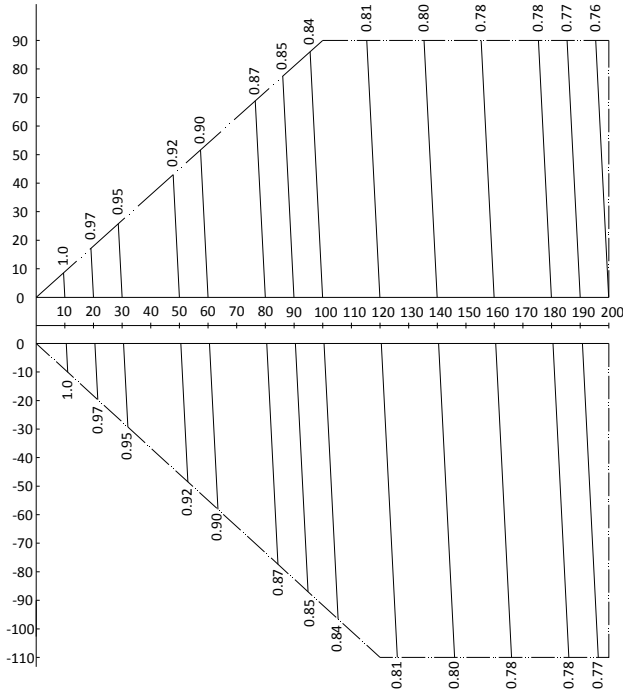
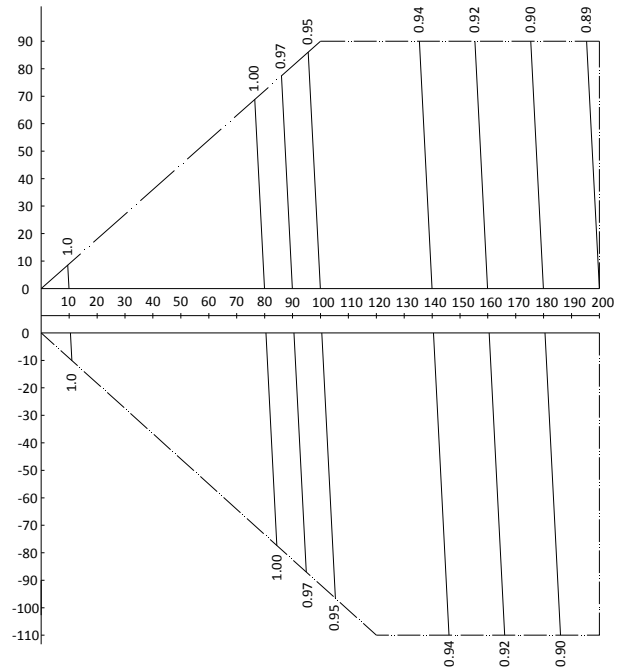


Figure 2-8.6 rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.7: rate of change in cooling capacity

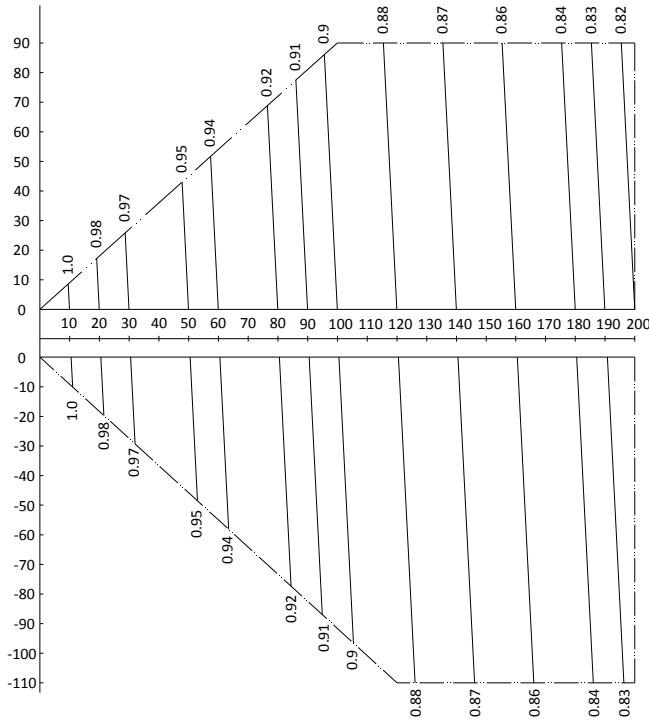
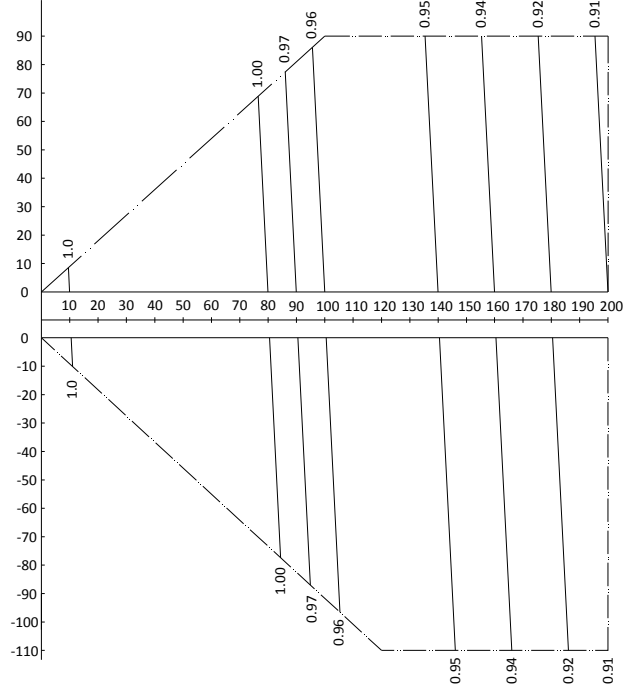


Figure 2-8.8: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.9 rate of change in cooling capacity

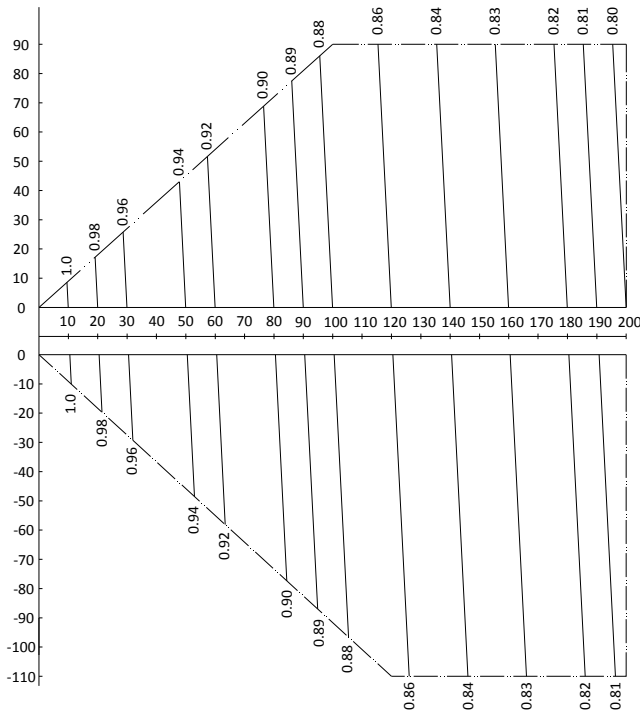
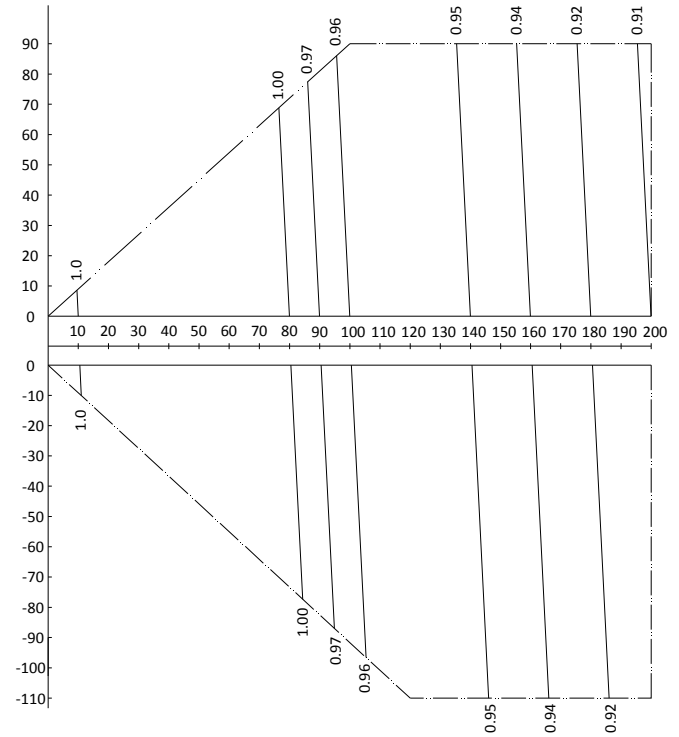


Figure 2-8.10: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.11: rate of change in cooling capacity

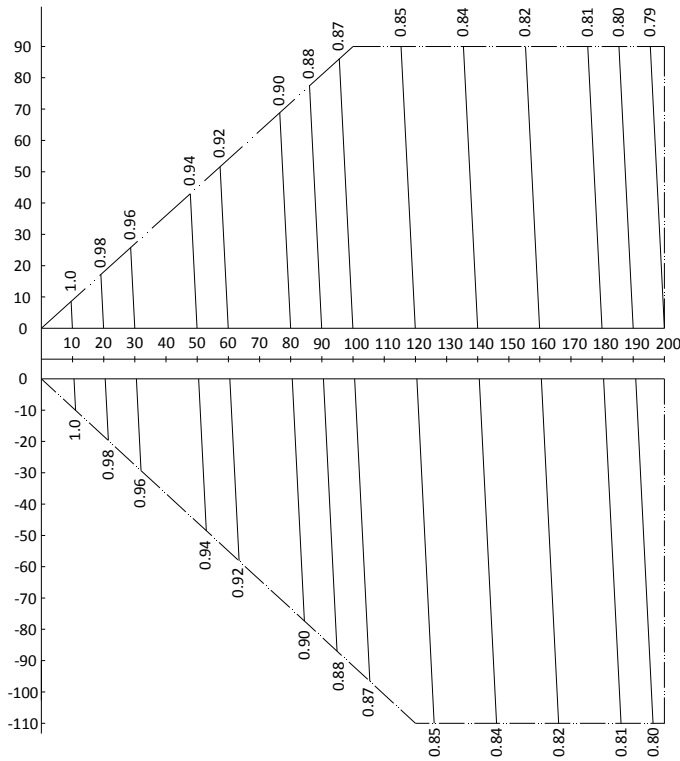
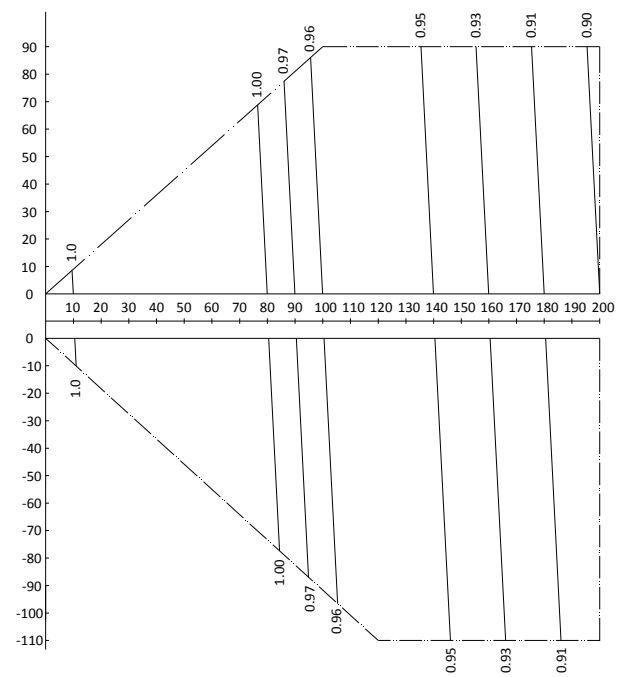


Figure 2-8.12: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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**TMVV5X100HT3i<sup>3.9</sup>O4ATW3T**

Figure 2-8.13: TMVV5X100HT3i<sup>3.9</sup>O4ATW3T rate of change in cooling capacity

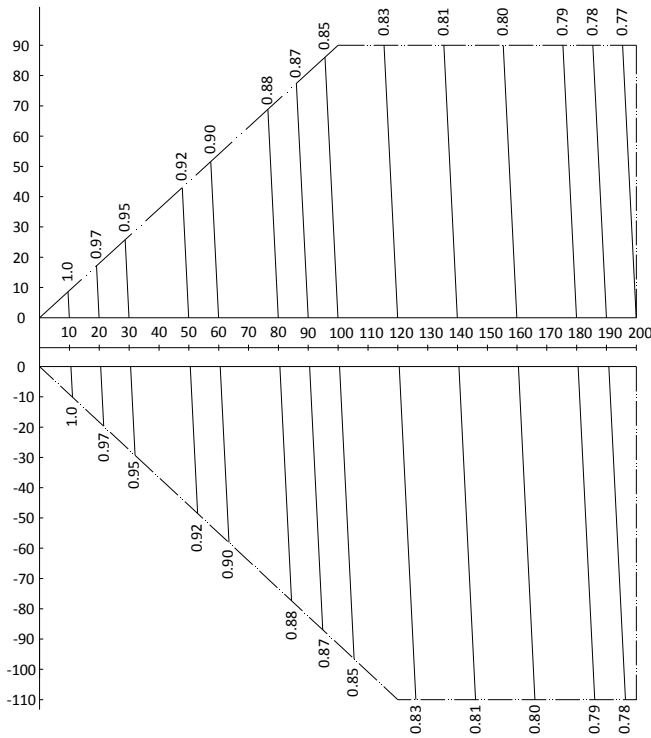
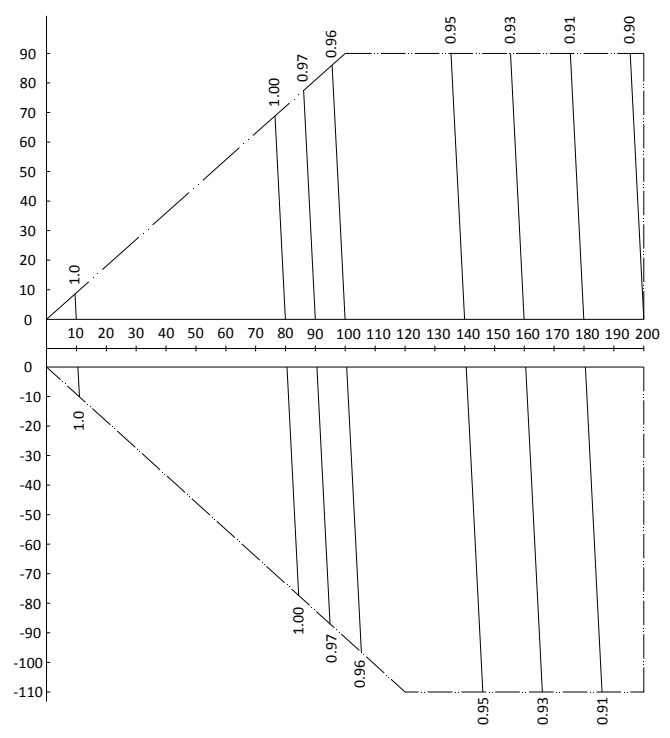


Figure 2-8.14: TMVV5X100HT3i<sup>3.9</sup>O4ATW3T rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.15: rate of change in cooling capacity

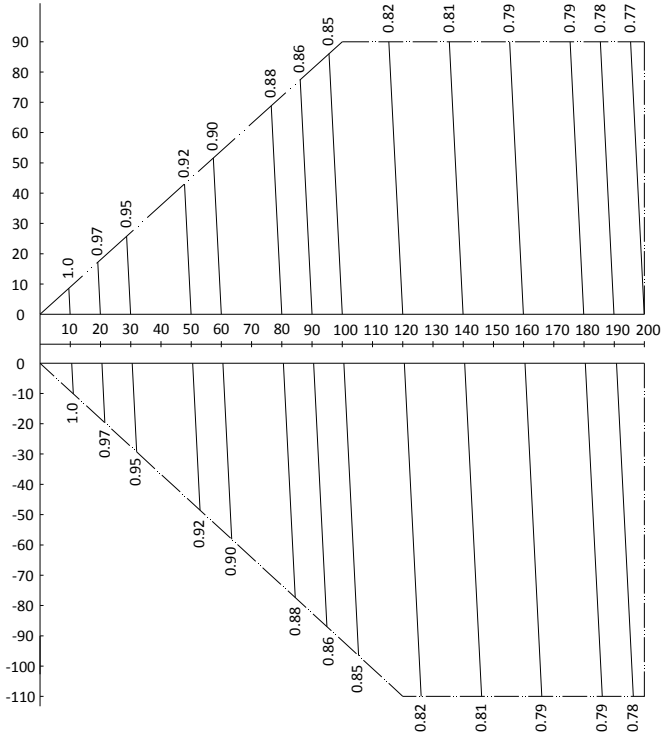
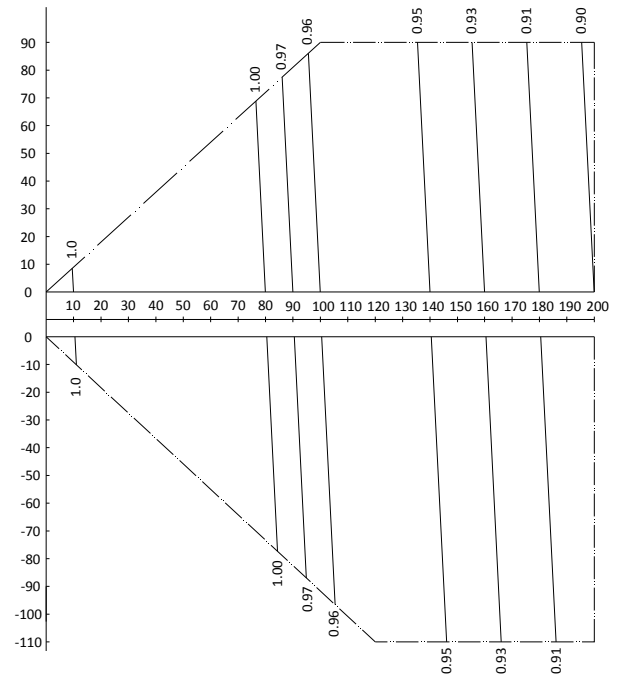


Figure 2-8.16: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.17: rate of change in cooling capacity

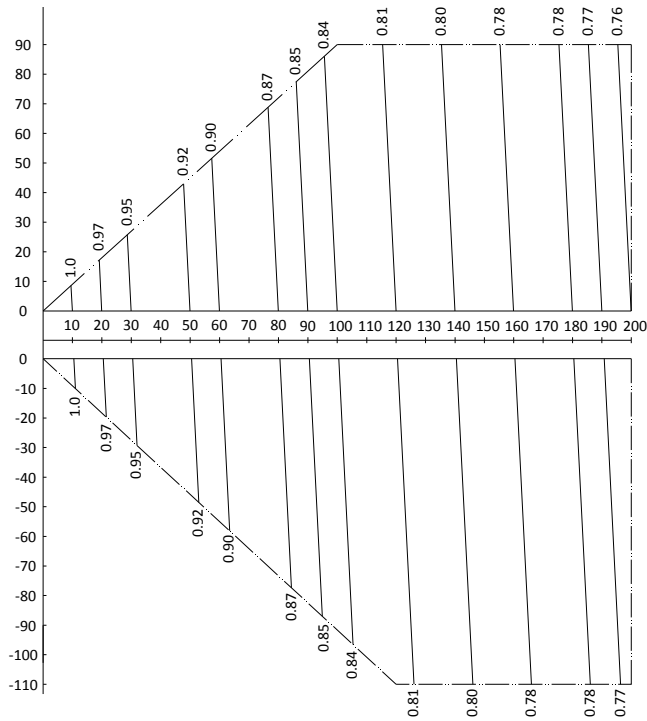
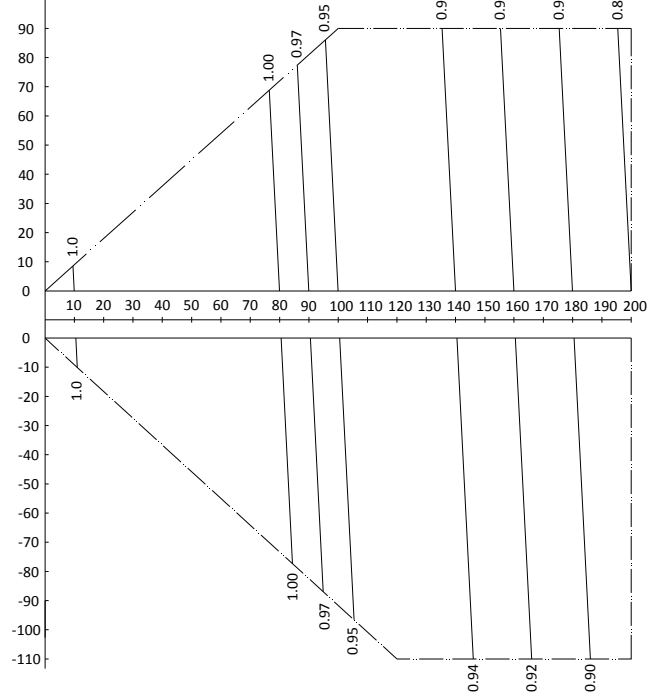


Figure 2-8.18: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.19: rate of change in cooling capacity

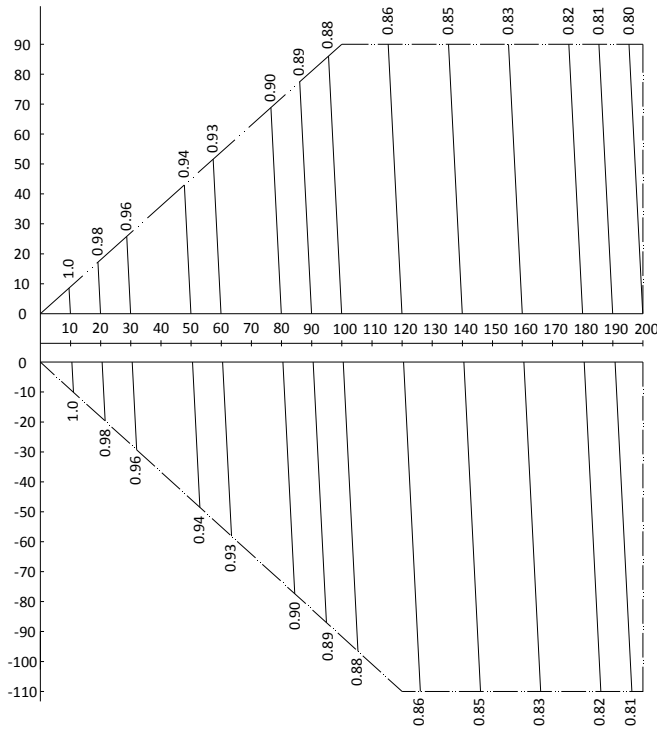
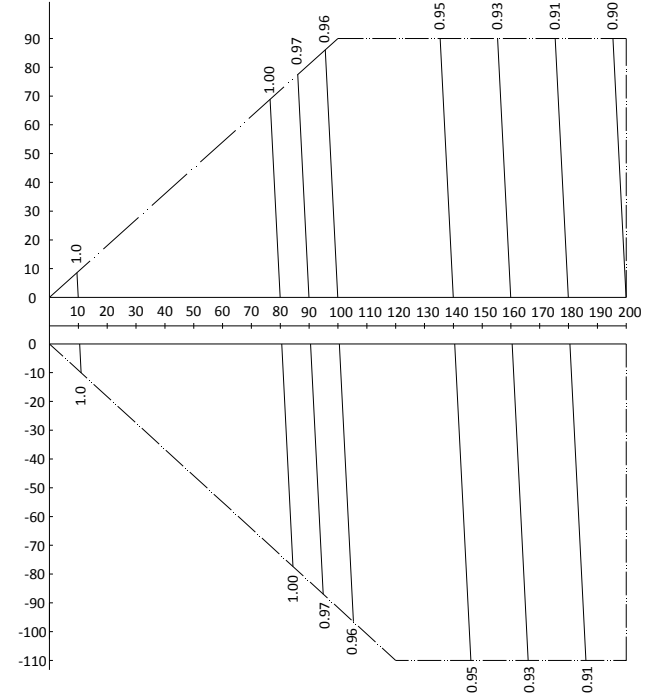


Figure 2-8.20: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.21: rate of change in cooling capacity

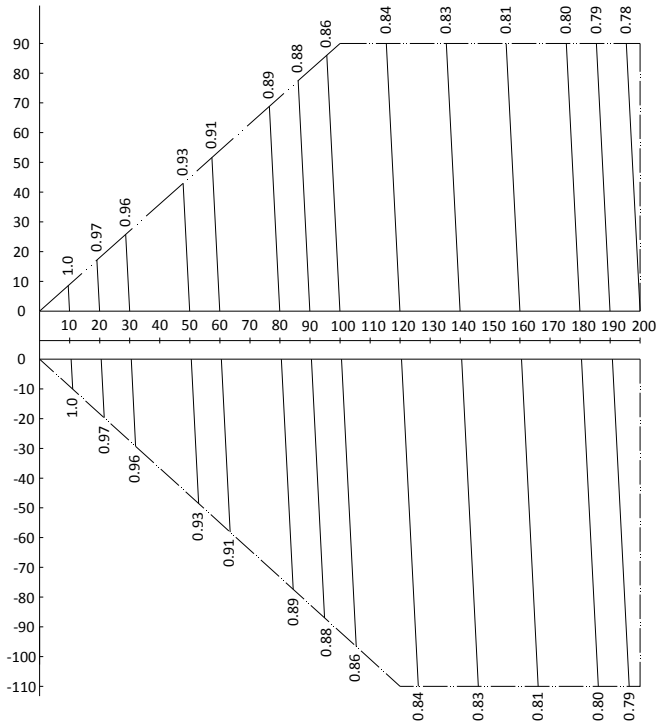
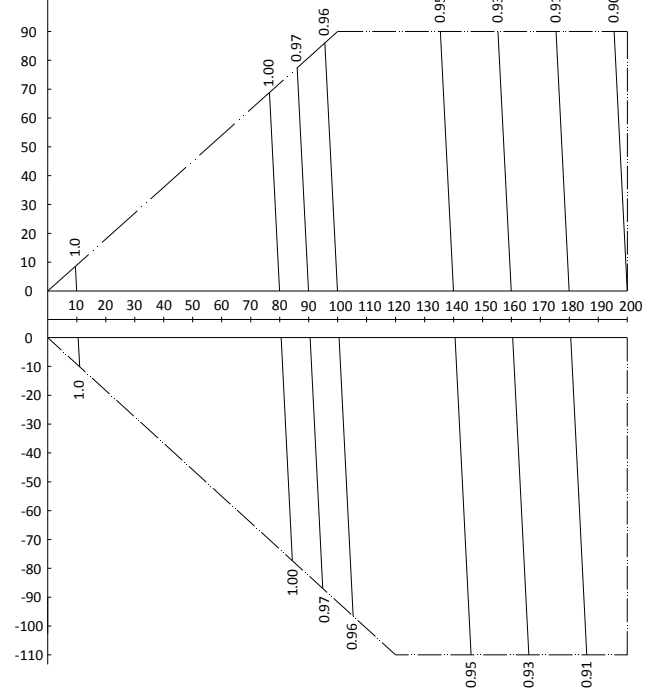


Figure 2-8.22: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.23: rate of change in cooling capacity

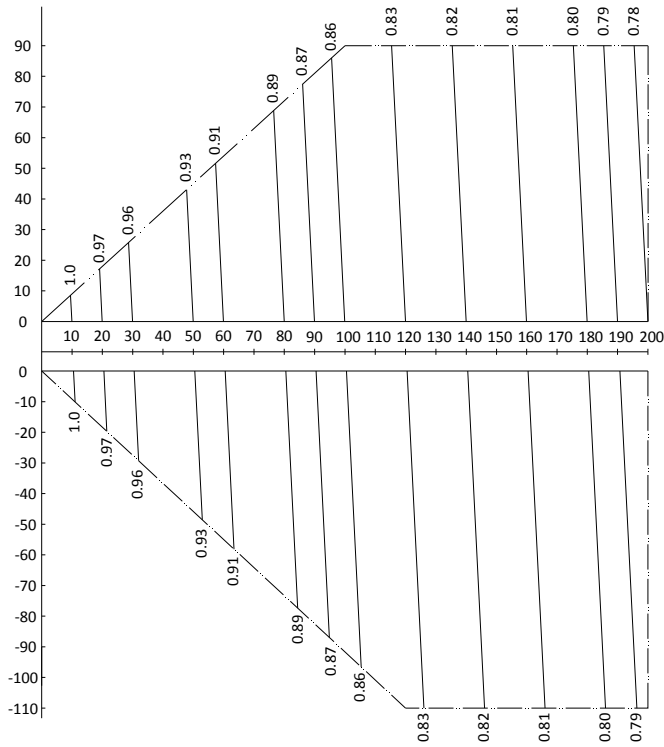
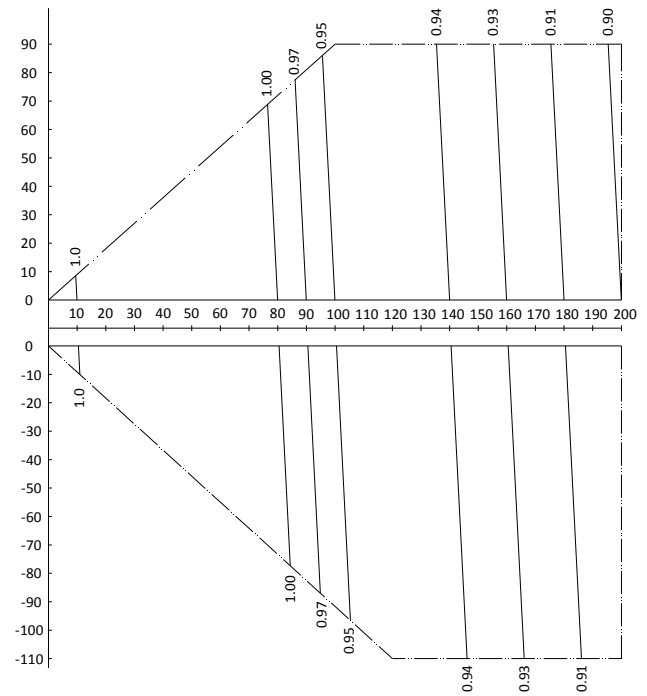


Figure 2-8.24: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.25: rate of change in cooling capacity

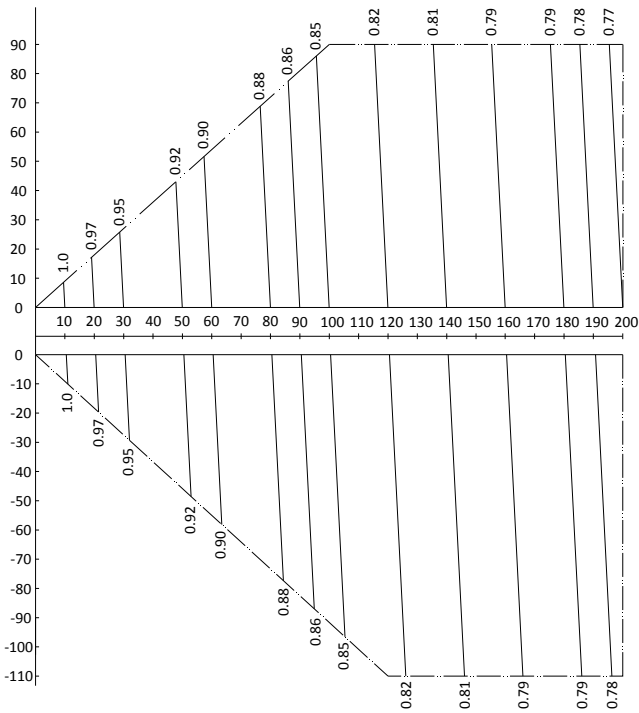
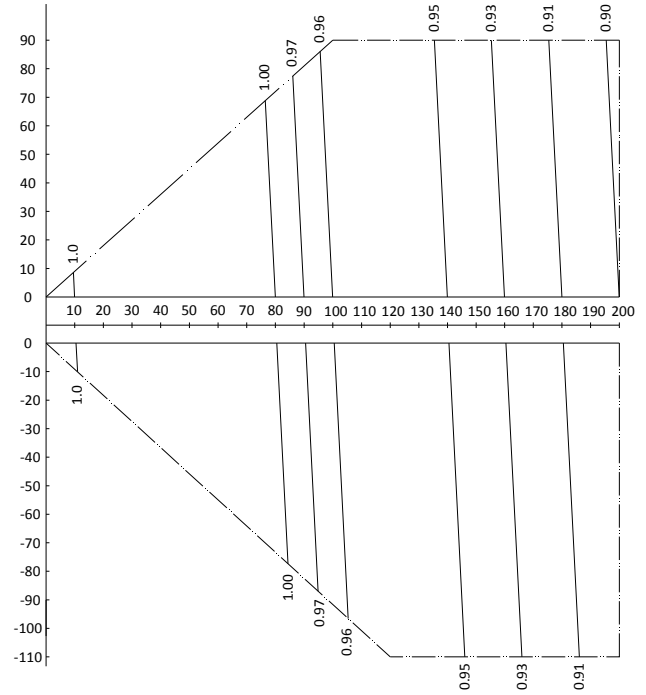


Figure 2-8.26: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.27: rate of change in cooling capacity

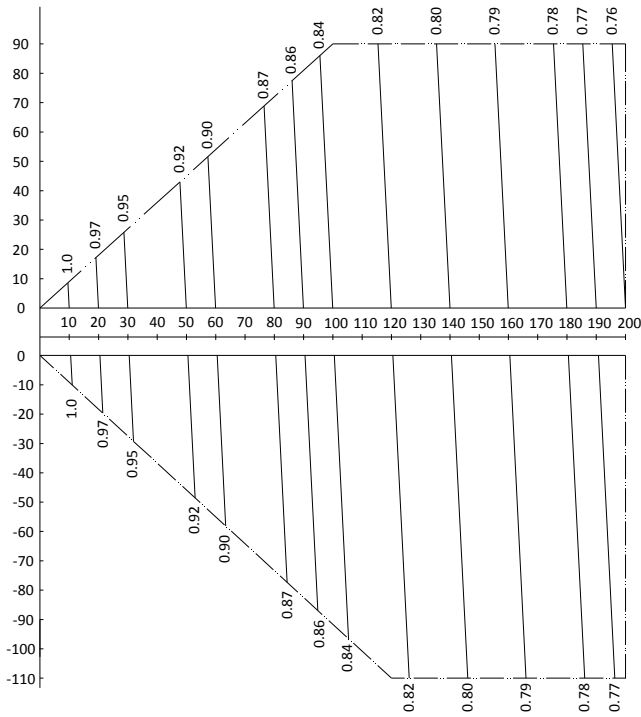
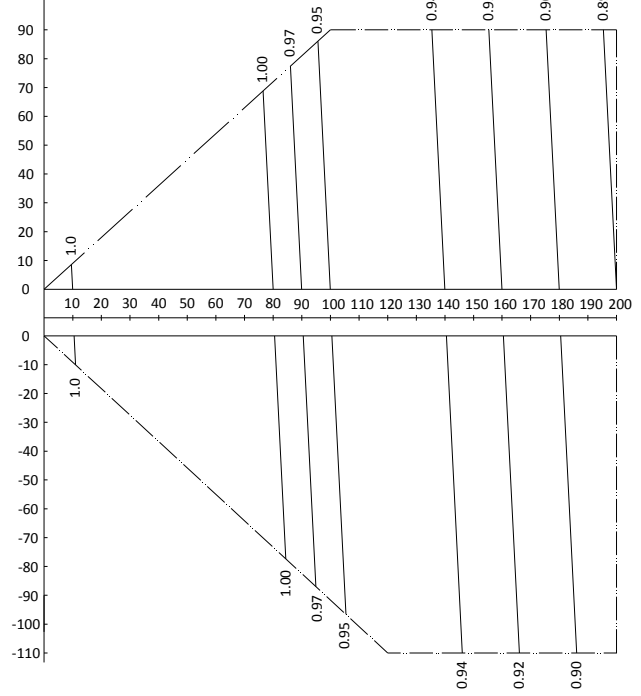


Figure 2-8.28: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.29: rate of change in cooling capacity

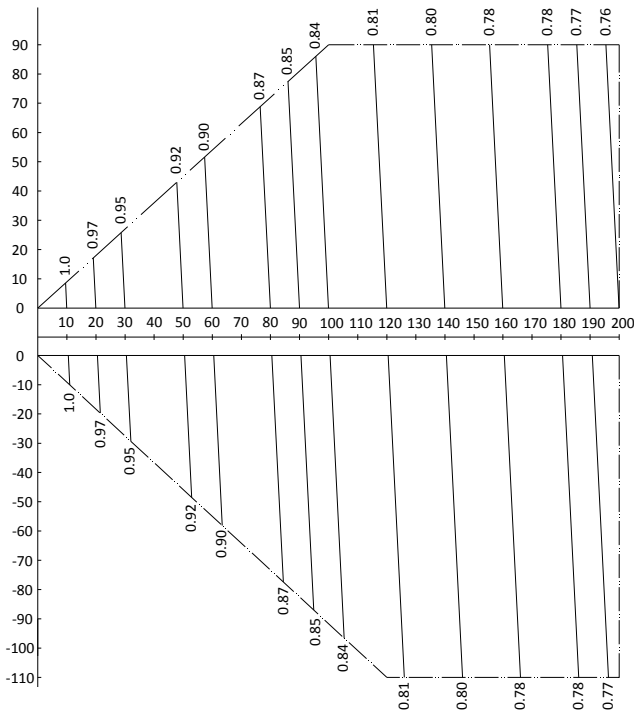
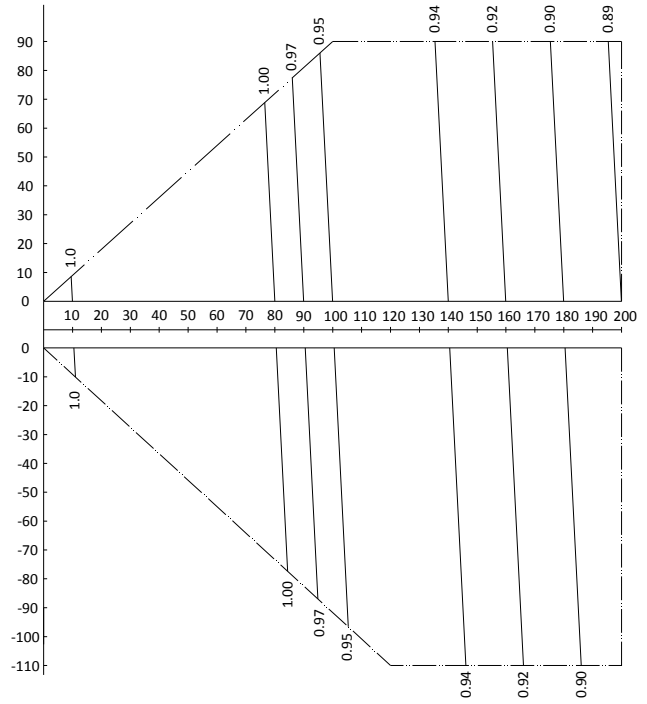


Figure 2-8.30: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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**TMVV5X1900HT3I<sup>3.92</sup>O4ATW3T**

Figure 2-8.31: rate of change in cooling capacity

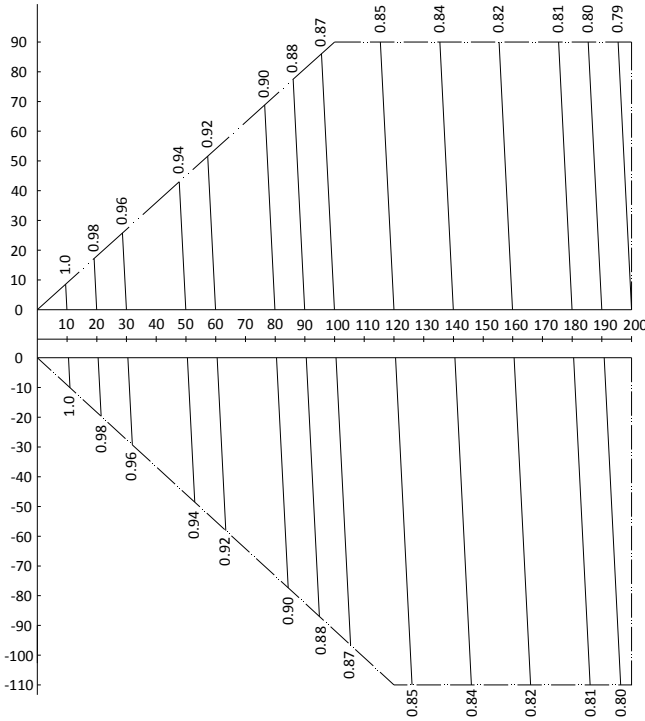
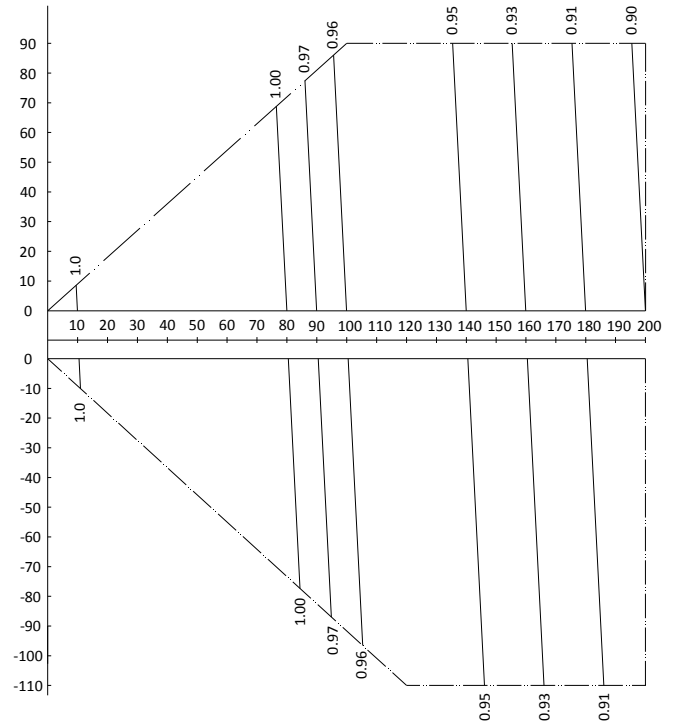


Figure 2-8.32: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.33: rate of change in cooling capacity

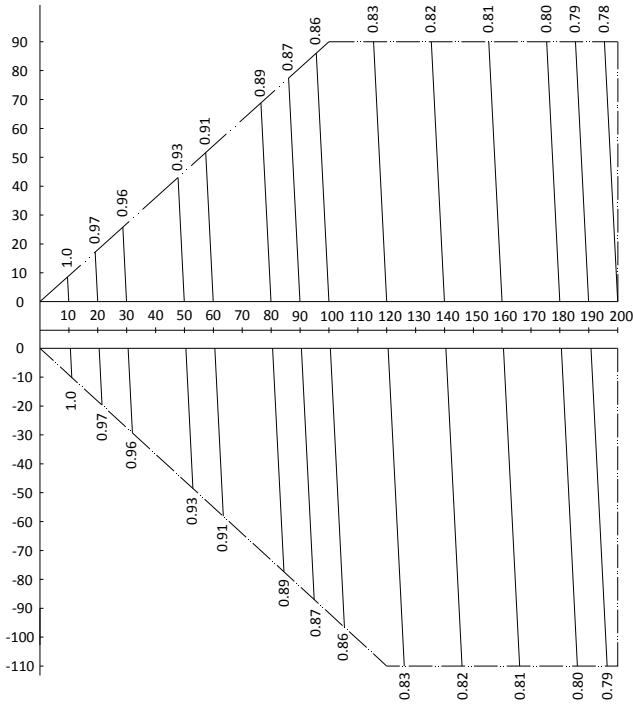
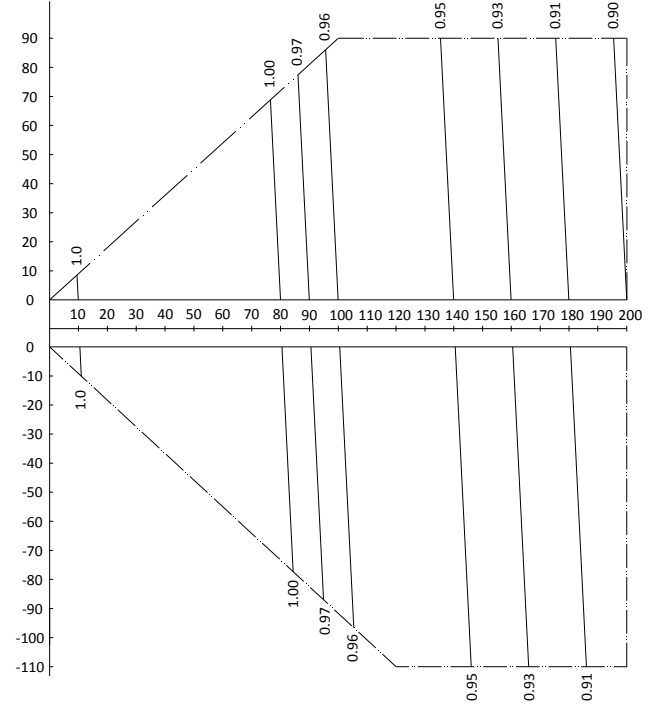


Figure 2-8.34: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.35: rate of change in cooling capacity

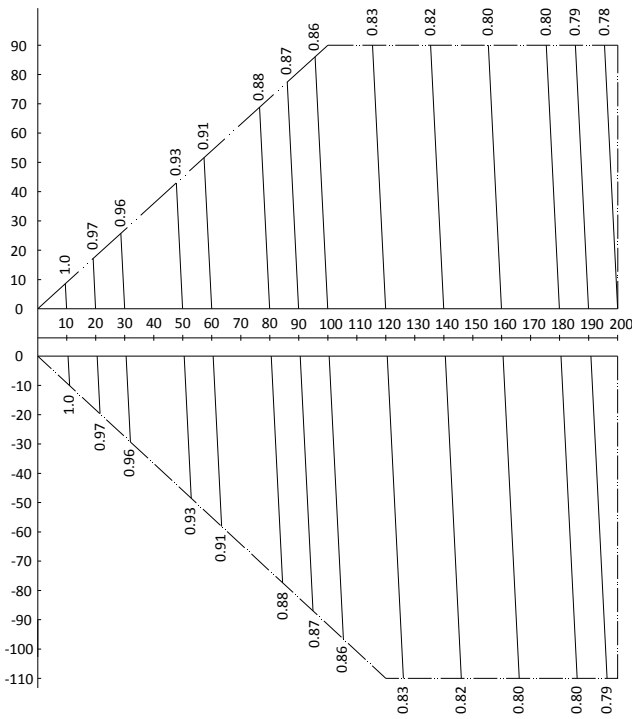
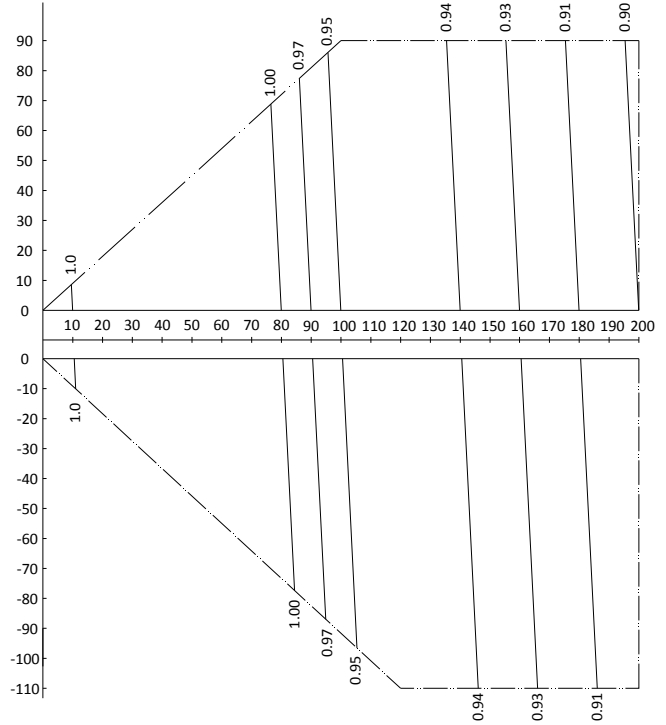


Figure 2-8.36: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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**TMVV5X2230HT3I<sup>3.81</sup>O4ATW3T**

Figure 2-8.37: rate of change in cooling capacity

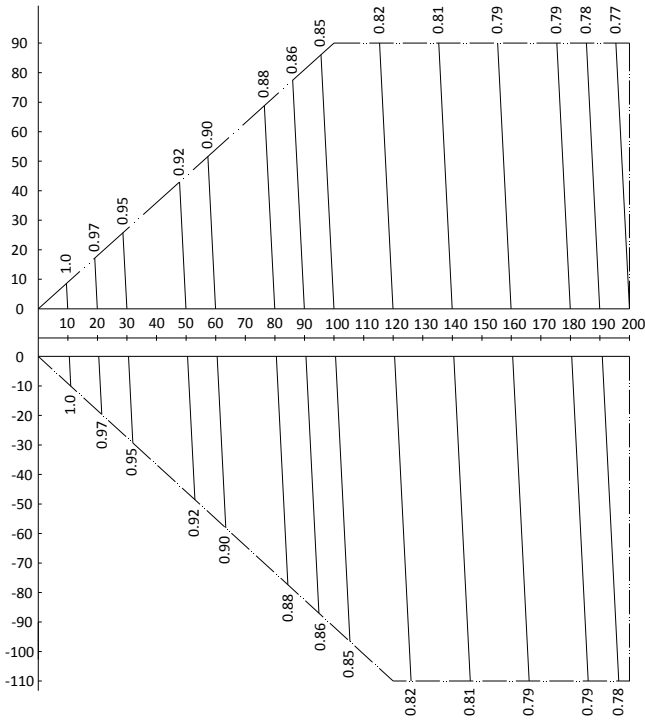
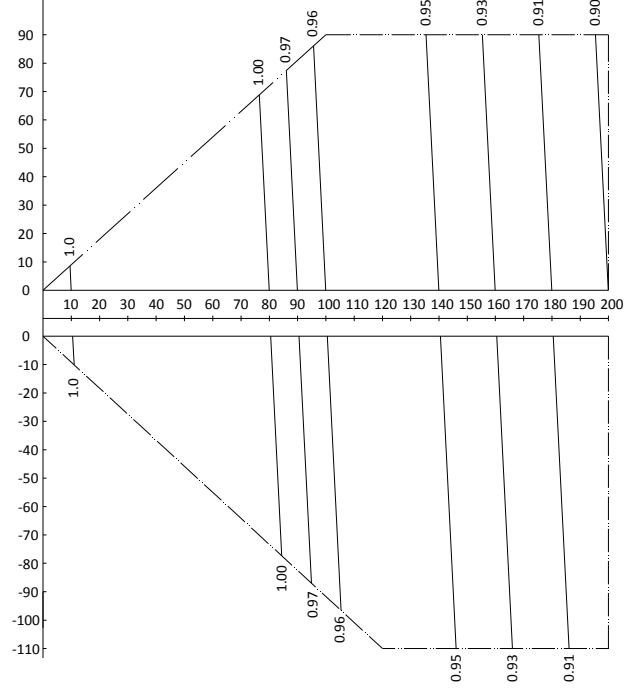


Figure 2-8.38: rate of change in heating capacity



Notes:

1. The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
2. These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
3. The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.

- Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.39: rate of change in cooling capacity

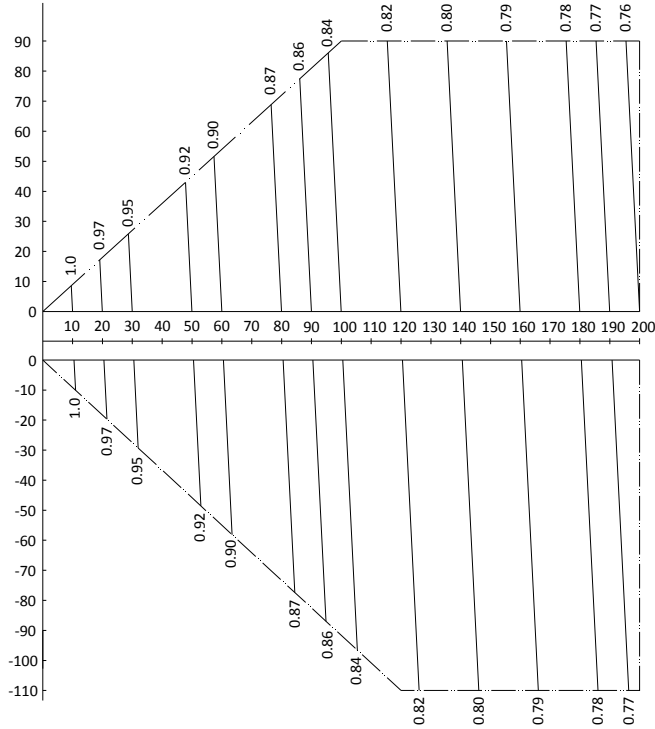
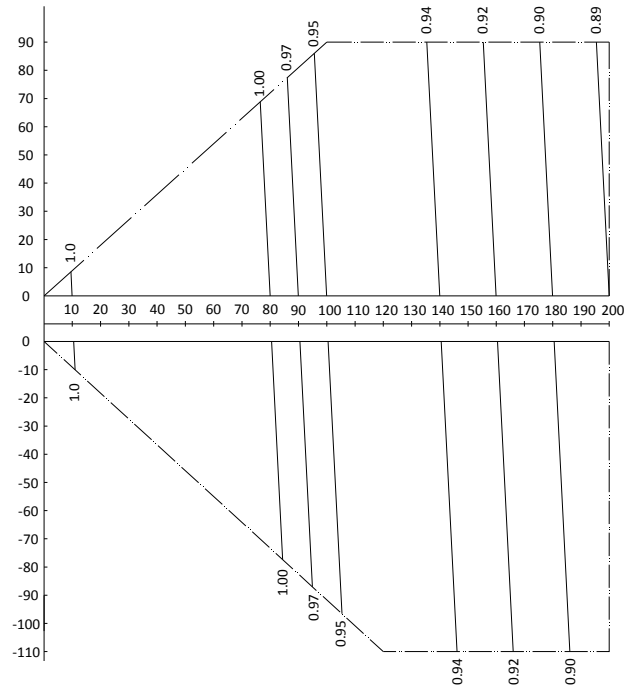


Figure 2-8.40: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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Figure 2-8.41: rate of change in cooling capacity

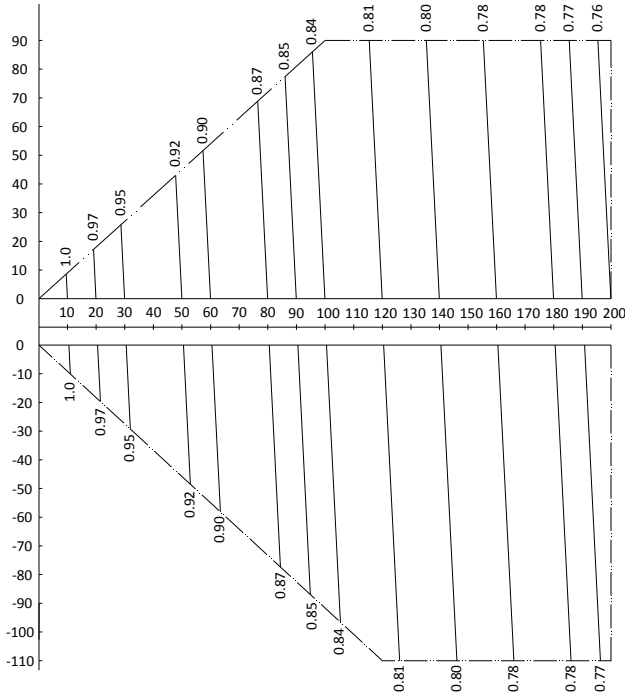
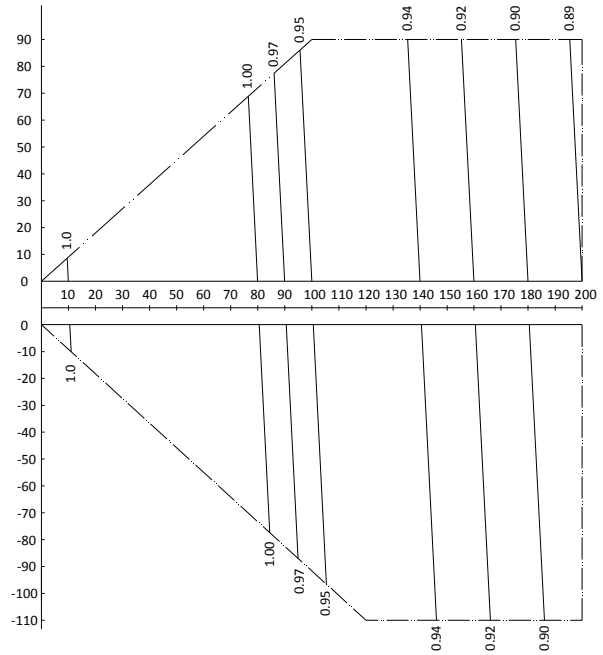


Figure 2-8.42: rate of change in heating capacity



Notes:

- The horizontal axis shows equivalent length of piping between farthest indoor unit and first outdoor branch joint; the vertical axis shows the largest level difference between indoor unit and outdoor unit. For level differences, positive values indicate that the outdoor unit is above the indoor unit, negative values indicate that the outdoor unit is below the indoor unit.
- These figures illustrate the rate of change in capacity of a system with only standard indoor units at maximum load (with the thermostat set to maximum) under standard conditions. Under partial load conditions there is only a minor deviation from the rate of change in capacity shown in these figures.
- The capacity of the system is either the total capacity of the indoor units obtained from indoor unit capacity tables or the corrected capacity of the outdoor units as per the calculations below, whichever is smaller.
  - Situation A: Combination ratio does not exceed 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at 100% combination ratio	x	Capacity correction factor
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- Situation B: Combination ratio exceeds 100%.

Corrected capacity of outdoor units	=	Capacity of outdoor units obtained from outdoor unit capacity tables at the combination ratio	x	Capacity correction factor
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### 8.4 Capacity Correction Factors for Frost Accumulation

The heating capacity tables do not take account of the reduction in capacity when frost has accumulated or while the defrosting operation is in progress. If snow has accumulated against the outside surface of the outdoor unit heat exchanger heating capacity is reduced. The reduction in heating capacity is dependent on a number of factors including the outdoor temperature, the relative humidity and the amount of frosting which has occurred.

Corrected heating capacity values, which take these factors into account, can be calculated as follows, using the correction factors for frost accumulation given in Table 2-8.17:

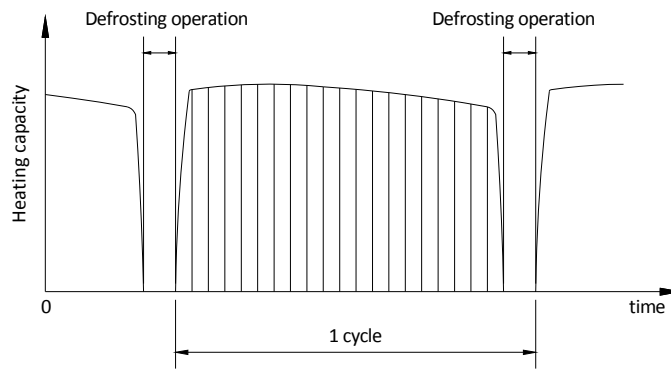
$$\text{Corrected heating capacity} = \text{Value given in outdoor heating capacity table} \times \text{Correction factor for frost accumulation}$$

Table 2-8.17: Correction factor for frost accumulation

Heat exchanger inlet port temperature (°C / RH 85%)	-7	-5	-2	0	2	5	7
Correction factor for frost accumulation	0.94	0.93	0.89	0.84	0.83	0.91	1.00

Corrected heating capacities express the heating capacity over the heating/defrosting cycle shown in Figure 2-8.43.

Figure 2-8.43: Defrosting cycle



## 8.5 Cooling Part Load Performance at 100% Combination Ratio

Table 2-8.18: TMVV5X252HT3<sup>A-7</sup>O4ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	17.0	1.85	20.3	2.24	23.6	2.65	25.2	2.87	26.8	3.08	30.1	3.53	31.9	3.65
	12	17.0	1.88	20.3	2.28	23.6	2.70	25.2	2.92	26.8	3.14	30.1	3.59	31.4	3.68
	14	17.0	1.91	20.3	2.33	23.6	2.75	25.2	2.98	26.8	3.20	30.1	3.66	31.0	3.72
	16	17.0	1.95	20.3	2.37	23.6	2.81	25.2	3.03	26.8	3.27	30.0	3.71	30.6	3.76
	18	17.0	1.99	20.3	2.41	23.6	2.86	25.2	3.09	26.8	3.33	29.6	3.83	30.2	3.86
	20	17.0	2.02	20.3	2.46	23.6	2.95	25.2	3.25	26.8	3.57	29.2	4.01	29.8	4.05
	21	17.0	2.04	20.3	2.48	23.6	3.06	25.2	3.37	26.8	3.69	29.0	4.10	29.6	4.14
	23	17.0	2.09	20.3	2.65	23.6	3.27	25.2	3.60	26.8	3.96	28.6	4.29	29.2	4.33
	25	17.0	2.23	20.3	2.83	23.6	3.50	25.2	3.86	26.8	4.24	28.2	4.48	28.8	4.51
	27	17.0	2.38	20.3	3.02	23.6	3.74	25.2	4.13	26.8	4.54	27.7	4.67	28.4	4.71
	29	17.0	2.54	20.3	3.22	23.6	3.99	25.2	4.41	26.7	4.82	27.4	4.86	28.0	4.90
	31	17.0	2.70	20.3	3.44	23.6	4.26	25.2	4.71	26.4	5.01	26.9	5.05	27.5	5.09
	33	17.0	2.87	20.3	3.66	23.6	4.54	25.2	5.03	25.9	5.19	26.6	5.24	27.2	5.29
	35	17.0	3.05	20.3	3.89	23.6	4.85	25.2	5.36	25.5	5.38	26.1	5.43	26.7	5.48
37	17.0	3.24	20.3	4.15	23.6	5.16	24.7	5.55	25.1	5.58	25.7	5.63	26.3	5.67	
39	17.0	3.45	20.3	4.41	23.6	5.50	24.4	5.74	24.7	5.76	25.3	5.82	25.9	5.87	
75%	10	12.7	1.36	15.1	1.65	17.6	1.91	18.8	2.02	20.1	2.13	22.5	2.32	25.0	2.47
	12	12.7	1.39	15.1	1.68	17.6	1.93	18.8	2.05	20.1	2.16	22.5	2.34	25.0	2.50
	14	12.7	1.42	15.1	1.71	17.6	1.96	18.8	2.08	20.1	2.18	22.5	2.37	25.0	2.52
	16	12.7	1.44	15.1	1.74	17.6	1.99	18.8	2.11	20.1	2.21	22.5	2.39	25.0	2.54
	18	12.7	1.47	15.1	1.76	17.6	2.02	18.8	2.13	20.1	2.24	22.5	2.42	25.0	2.56
	20	12.7	1.50	15.1	1.80	17.6	2.05	18.8	2.16	20.1	2.26	22.5	2.45	25.0	2.66
	21	12.7	1.52	15.1	1.81	17.6	2.07	18.8	2.18	20.1	2.28	22.5	2.51	25.0	2.73
	23	12.7	1.54	15.1	1.84	17.6	2.13	18.8	2.27	20.1	2.41	22.5	2.66	25.0	2.90
	25	12.7	1.58	15.1	1.93	17.6	2.26	18.8	2.41	20.1	2.55	22.5	2.82	25.0	3.06
	27	12.7	1.68	15.1	2.05	17.6	2.39	18.8	2.55	20.1	2.70	22.5	2.98	25.0	3.23
	29	12.7	1.78	15.1	2.18	17.6	2.53	18.8	2.70	20.1	2.85	22.5	3.15	25.0	3.40
	31	12.7	1.90	15.1	2.30	17.6	2.68	18.8	2.85	20.1	3.01	22.5	3.32	25.0	3.59
	33	12.7	2.01	15.1	2.43	17.6	2.82	18.8	3.00	20.1	3.17	22.5	3.49	25.0	3.76
	35	12.7	2.13	15.1	2.57	17.6	2.98	18.8	3.16	20.1	3.34	22.5	3.67	25.0	3.95
37	12.7	2.25	15.1	2.71	17.6	3.13	18.8	3.33	20.1	3.51	22.5	3.85	24.7	4.14	
39	12.7	2.38	15.1	2.86	17.6	3.30	18.8	3.50	20.1	3.69	22.5	4.04	24.3	4.33	
50%	10	9.1	1.00	10.1	1.00	11.8	1.02	12.5	1.14	13.3	1.26	15.0	1.48	16.6	1.67
	12	8.9	1.00	10.1	1.00	11.8	1.05	12.5	1.17	13.3	1.29	15.0	1.50	16.6	1.69
	14	8.8	1.00	10.1	1.00	11.8	1.08	12.5	1.20	13.3	1.32	15.0	1.54	16.6	1.72
	16	8.7	1.00	10.1	1.00	11.8	1.11	12.5	1.23	13.3	1.35	15.0	1.57	16.6	1.75
	18	8.5	1.00	10.1	1.00	11.8	1.14	12.5	1.27	13.3	1.38	15.0	1.59	16.6	1.78
	20	8.4	1.00	10.1	1.00	11.8	1.17	12.5	1.30	13.3	1.42	15.0	1.63	16.6	1.81
	21	8.4	1.00	10.1	1.00	11.8	1.19	12.5	1.31	13.3	1.43	15.0	1.65	16.6	1.82
	23	8.4	1.00	10.1	1.00	11.8	1.22	12.5	1.35	13.3	1.46	15.0	1.67	16.6	1.86
	25	8.4	1.00	10.1	1.00	11.8	1.25	12.5	1.38	13.3	1.52	15.0	1.76	16.6	1.97
	27	8.4	1.00	10.1	1.03	11.8	1.34	12.5	1.48	13.3	1.62	15.0	1.87	16.6	2.10
	29	8.4	1.04	10.1	1.11	11.8	1.43	12.5	1.58	13.3	1.73	15.0	1.99	16.6	2.22
	31	8.4	1.08	10.1	1.19	11.8	1.53	12.5	1.69	13.3	1.84	15.0	2.11	16.6	2.35
	33	8.4	1.12	10.1	1.28	11.8	1.63	12.5	1.80	13.3	1.95	15.0	2.23	16.6	2.48
	35	8.4	1.16	10.1	1.37	11.8	1.74	12.5	1.91	13.3	2.07	15.0	2.36	16.6	2.61
37	8.4	1.21	10.1	1.47	11.8	1.85	12.5	2.03	13.3	2.19	15.0	2.49	16.6	2.75	
39	8.4	1.25	10.1	1.57	11.8	1.97	12.5	2.15	13.3	2.32	15.0	2.63	16.6	2.89	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.19: TMVV5X280HT3<sup>1/4</sup>5O4ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	18.9	2.15	22.5	2.60	26.2	3.08	28.0	3.33	29.8	3.58	33.5	4.09	35.4	4.23
	12	18.9	2.18	22.5	2.65	26.2	3.13	28.0	3.39	29.8	3.65	33.5	4.17	34.9	4.27
	14	18.9	2.22	22.5	2.70	26.2	3.19	28.0	3.45	29.8	3.71	33.5	4.25	34.5	4.32
	16	18.9	2.26	22.5	2.75	26.2	3.26	28.0	3.52	29.8	3.79	33.3	4.30	34.0	4.37
	18	18.9	2.31	22.5	2.80	26.2	3.32	28.0	3.59	29.8	3.86	32.9	4.44	33.6	4.48
	20	18.9	2.35	22.5	2.86	26.2	3.42	28.0	3.77	29.8	4.14	32.4	4.65	33.1	4.69
	21	18.9	2.37	22.5	2.88	26.2	3.55	28.0	3.91	29.8	4.28	32.2	4.76	32.9	4.80
	23	18.9	2.43	22.5	3.08	26.2	3.80	28.0	4.18	29.8	4.59	31.8	4.98	32.4	5.02
	25	18.9	2.59	22.5	3.29	26.2	4.07	28.0	4.48	29.8	4.92	31.3	5.20	32.0	5.24
	27	18.9	2.77	22.5	3.50	26.2	4.34	28.0	4.79	29.8	5.26	30.8	5.42	31.5	5.47
	29	18.9	2.94	22.5	3.74	26.2	4.64	28.0	5.12	29.7	5.59	30.4	5.64	31.1	5.68
	31	18.9	3.13	22.5	3.99	26.2	4.95	28.0	5.47	29.3	5.81	29.9	5.86	30.6	5.91
	33	18.9	3.33	22.5	4.25	26.2	5.27	28.0	5.83	28.8	6.03	29.5	6.08	30.2	6.14
	35	18.9	3.54	22.5	4.52	26.2	5.62	28.0	6.22	28.3	6.24	29.0	6.30	29.7	6.35
37	18.9	3.76	22.5	4.81	26.2	5.99	27.5	6.44	27.9	6.47	28.6	6.53	29.2	6.58	
39	18.9	4.00	22.5	5.11	26.2	6.38	27.1	6.66	27.4	6.69	28.1	6.75	28.8	6.82	
75%	10	14.2	1.67	16.8	2.02	19.6	2.34	20.8	2.47	22.3	2.61	25.0	2.83	27.8	3.03
	12	14.2	1.70	16.8	2.06	19.6	2.37	20.8	2.51	22.3	2.64	25.0	2.87	27.8	3.06
	14	14.2	1.74	16.8	2.10	19.6	2.40	20.8	2.55	22.3	2.67	25.0	2.90	27.8	3.08
	16	14.2	1.77	16.8	2.13	19.6	2.44	20.8	2.58	22.3	2.71	25.0	2.93	27.8	3.11
	18	14.2	1.80	16.8	2.16	19.6	2.47	20.8	2.61	22.3	2.74	25.0	2.96	27.8	3.14
	20	14.2	1.84	16.8	2.20	19.6	2.51	20.8	2.65	22.3	2.77	25.0	2.99	27.8	3.25
	21	14.2	1.86	16.8	2.22	19.6	2.53	20.8	2.67	22.3	2.79	25.0	3.08	27.8	3.35
	23	14.2	1.89	16.8	2.26	19.6	2.60	20.8	2.78	22.3	2.95	25.0	3.26	27.8	3.55
	25	14.2	1.94	16.8	2.37	19.6	2.76	20.8	2.95	22.3	3.12	25.0	3.45	27.8	3.75
	27	14.2	2.06	16.8	2.51	19.6	2.93	20.8	3.12	22.3	3.31	25.0	3.65	27.8	3.96
	29	14.2	2.18	16.8	2.67	19.6	3.10	20.8	3.30	22.3	3.49	25.0	3.85	27.8	4.17
	31	14.2	2.32	16.8	2.82	19.6	3.28	20.8	3.48	22.3	3.69	25.0	4.06	27.8	4.39
	33	14.2	2.46	16.8	2.98	19.6	3.45	20.8	3.68	22.3	3.89	25.0	4.27	27.8	4.61
	35	14.2	2.60	16.8	3.15	19.6	3.64	20.8	3.87	22.3	4.09	25.0	4.49	27.8	4.84
37	14.2	2.75	16.8	3.32	19.6	3.84	20.8	4.08	22.3	4.30	25.0	4.71	27.4	5.07	
39	14.2	2.91	16.8	3.50	19.6	4.04	20.8	4.29	22.3	4.52	25.0	4.95	27.0	5.31	
50%	10	10.1	1.23	11.2	1.22	13.1	1.25	13.9	1.40	14.8	1.54	16.7	1.81	18.5	2.04
	12	9.9	1.23	11.2	1.22	13.1	1.29	13.9	1.44	14.8	1.58	16.7	1.84	18.5	2.07
	14	9.7	1.23	11.2	1.22	13.1	1.32	13.9	1.47	14.8	1.61	16.7	1.88	18.5	2.10
	16	9.6	1.23	11.2	1.22	13.1	1.36	13.9	1.51	14.8	1.65	16.7	1.92	18.5	2.14
	18	9.5	1.23	11.2	1.22	13.1	1.40	13.9	1.55	14.8	1.69	16.7	1.95	18.5	2.18
	20	9.4	1.23	11.2	1.22	13.1	1.44	13.9	1.59	14.8	1.74	16.7	1.99	18.5	2.22
	21	9.4	1.23	11.2	1.22	13.1	1.45	13.9	1.61	14.8	1.75	16.7	2.02	18.5	2.23
	23	9.4	1.23	11.2	1.22	13.1	1.49	13.9	1.65	14.8	1.79	16.7	2.05	18.5	2.27
	25	9.4	1.23	11.2	1.22	13.1	1.53	13.9	1.69	14.8	1.86	16.7	2.15	18.5	2.42
	27	9.4	1.23	11.2	1.26	13.1	1.64	13.9	1.82	14.8	1.98	16.7	2.29	18.5	2.57
	29	9.4	1.28	11.2	1.36	13.1	1.75	13.9	1.94	14.8	2.11	16.7	2.43	18.5	2.71
	31	9.4	1.33	11.2	1.46	13.1	1.87	13.9	2.06	14.8	2.25	16.7	2.58	18.5	2.87
	33	9.4	1.37	11.2	1.57	13.1	2.00	13.9	2.20	14.8	2.39	16.7	2.73	18.5	3.04
	35	9.4	1.42	11.2	1.68	13.1	2.13	13.9	2.34	14.8	2.53	16.7	2.89	18.5	3.20
37	9.4	1.48	11.2	1.80	13.1	2.26	13.9	2.48	14.8	2.68	16.7	3.05	18.5	3.37	
39	9.4	1.53	11.2	1.92	13.1	2.41	13.9	2.63	14.8	2.84	16.7	3.22	18.5	3.54	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.20: TMVV5X335HT3<sup>A</sup>·04ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	22.6	2.69	26.9	3.25	31.3	3.85	33.5	4.17	35.7	4.48	40.1	5.12	42.4	5.30
	12	22.6	2.73	26.9	3.32	31.3	3.93	33.5	4.24	35.7	4.57	40.1	5.22	41.8	5.34
	14	22.6	2.78	26.9	3.38	31.3	4.00	33.5	4.33	35.7	4.65	40.1	5.32	41.3	5.41
	16	22.6	2.83	26.9	3.44	31.3	4.08	33.5	4.41	35.7	4.75	39.8	5.39	40.7	5.47
	18	22.6	2.89	26.9	3.51	31.3	4.16	33.5	4.49	35.7	4.84	39.4	5.56	40.2	5.61
	20	22.6	2.94	26.9	3.58	31.3	4.28	33.5	4.72	35.7	5.19	38.8	5.83	39.6	5.88
	21	22.6	2.97	26.9	3.61	31.3	4.44	33.5	4.89	35.7	5.36	38.5	5.96	39.4	6.02
	23	22.6	3.04	26.9	3.85	31.3	4.76	33.5	5.24	35.7	5.75	38.0	6.24	38.8	6.29
	25	22.6	3.24	26.9	4.12	31.3	5.09	33.5	5.62	35.7	6.16	37.4	6.51	38.3	6.56
	27	22.6	3.46	26.9	4.39	31.3	5.44	33.5	6.01	35.7	6.59	36.9	6.78	37.7	6.85
	29	22.6	3.68	26.9	4.68	31.3	5.81	33.5	6.42	35.5	7.00	36.4	7.07	37.2	7.12
	31	22.6	3.93	26.9	5.00	31.3	6.19	33.5	6.85	35.1	7.28	35.8	7.34	36.6	7.40
	33	22.6	4.17	26.9	5.32	31.3	6.60	33.5	7.31	34.5	7.55	35.3	7.61	36.1	7.68
	35	22.6	4.43	26.9	5.66	31.3	7.04	33.5	7.79	33.9	7.82	34.7	7.89	35.5	7.96
37	22.6	4.71	26.9	6.03	31.3	7.51	32.9	8.06	33.4	8.10	34.2	8.18	34.9	8.24	
39	22.6	5.01	26.9	6.40	31.3	7.99	32.4	8.34	32.8	8.38	33.6	8.45	34.5	8.54	
75%	10	16.9	2.07	20.1	2.51	23.4	2.90	24.9	3.07	26.7	3.24	29.9	3.52	33.2	3.76
	12	16.9	2.11	20.1	2.55	23.4	2.94	24.9	3.12	26.7	3.28	29.9	3.56	33.2	3.80
	14	16.9	2.15	20.1	2.60	23.4	2.98	24.9	3.16	26.7	3.32	29.9	3.60	33.2	3.83
	16	16.9	2.19	20.1	2.64	23.4	3.03	24.9	3.20	26.7	3.36	29.9	3.64	33.2	3.86
	18	16.9	2.23	20.1	2.68	23.4	3.07	24.9	3.24	26.7	3.40	29.9	3.68	33.2	3.90
	20	16.9	2.28	20.1	2.73	23.4	3.12	24.9	3.29	26.7	3.44	29.9	3.72	33.2	4.03
	21	16.9	2.30	20.1	2.75	23.4	3.14	24.9	3.31	26.7	3.47	29.9	3.82	33.2	4.15
	23	16.9	2.34	20.1	2.80	23.4	3.23	24.9	3.45	26.7	3.66	29.9	4.04	33.2	4.40
	25	16.9	2.40	20.1	2.94	23.4	3.43	24.9	3.66	26.7	3.88	29.9	4.28	33.2	4.65
	27	16.9	2.55	20.1	3.12	23.4	3.64	24.9	3.88	26.7	4.10	29.9	4.53	33.2	4.91
	29	16.9	2.71	20.1	3.31	23.4	3.85	24.9	4.09	26.7	4.33	29.9	4.78	33.2	5.17
	31	16.9	2.88	20.1	3.50	23.4	4.06	24.9	4.32	26.7	4.57	29.9	5.04	33.2	5.45
	33	16.9	3.05	20.1	3.70	23.4	4.28	24.9	4.56	26.7	4.82	29.9	5.30	33.2	5.72
	35	16.9	3.23	20.1	3.91	23.4	4.52	24.9	4.80	26.7	5.08	29.9	5.57	33.2	6.01
37	16.9	3.42	20.1	4.12	23.4	4.76	24.9	5.06	26.7	5.34	29.9	5.85	32.8	6.29	
39	16.9	3.62	20.1	4.34	23.4	5.01	24.9	5.32	26.7	5.61	29.9	6.14	32.3	6.58	
50%	10	12.0	1.53	13.4	1.52	15.6	1.55	16.6	1.73	17.7	1.91	19.9	2.24	22.1	2.53
	12	11.8	1.53	13.4	1.52	15.6	1.60	16.6	1.78	17.7	1.96	19.9	2.28	22.1	2.57
	14	11.6	1.53	13.4	1.52	15.6	1.63	16.6	1.82	17.7	2.00	19.9	2.33	22.1	2.61
	16	11.5	1.53	13.4	1.52	15.6	1.68	16.6	1.87	17.7	2.05	19.9	2.38	22.1	2.66
	18	11.3	1.53	13.4	1.52	15.6	1.73	16.6	1.92	17.7	2.10	19.9	2.42	22.1	2.70
	20	11.2	1.53	13.4	1.52	15.6	1.78	16.6	1.97	17.7	2.15	19.9	2.47	22.1	2.75
	21	11.2	1.53	13.4	1.52	15.6	1.80	16.6	1.99	17.7	2.17	19.9	2.50	22.1	2.77
	23	11.2	1.53	13.4	1.52	15.6	1.85	16.6	2.04	17.7	2.22	19.9	2.54	22.1	2.82
	25	11.2	1.53	13.4	1.52	15.6	1.90	16.6	2.10	17.7	2.30	19.9	2.67	22.1	3.00
	27	11.2	1.53	13.4	1.57	15.6	2.03	16.6	2.25	17.7	2.46	19.9	2.84	22.1	3.19
	29	11.2	1.59	13.4	1.68	15.6	2.17	16.6	2.40	17.7	2.62	19.9	3.02	22.1	3.37
	31	11.2	1.64	13.4	1.81	15.6	2.32	16.6	2.56	17.7	2.79	19.9	3.20	22.1	3.57
	33	11.2	1.70	13.4	1.94	15.6	2.48	16.6	2.73	17.7	2.96	19.9	3.39	22.1	3.77
	35	11.2	1.76	13.4	2.08	15.6	2.64	16.6	2.90	17.7	3.14	19.9	3.59	22.1	3.96
37	11.2	1.83	13.4	2.23	15.6	2.81	16.6	3.08	17.7	3.33	19.9	3.79	22.1	4.18	
39	11.2	1.89	13.4	2.38	15.6	2.99	16.6	3.27	17.7	3.53	19.9	3.99	22.1	4.39	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.21: TMV5X400HT3<sup>1/4</sup>3O4ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	27.0	3.21	32.1	3.89	37.4	4.60	40.0	4.98	42.6	5.35	47.9	6.12	50.6	6.33
	12	27.0	3.26	32.1	3.96	37.4	4.69	40.0	5.06	42.6	5.45	47.9	6.23	49.9	6.38
	14	27.0	3.32	32.1	4.04	37.4	4.78	40.0	5.16	42.6	5.55	47.9	6.35	49.3	6.46
	16	27.0	3.38	32.1	4.11	37.4	4.88	40.0	5.26	42.6	5.67	47.6	6.43	48.6	6.53
	18	27.0	3.45	32.1	4.19	37.4	4.96	40.0	5.36	42.6	5.78	47.0	6.64	48.0	6.69
	20	27.0	3.51	32.1	4.27	37.4	5.11	40.0	5.64	42.6	6.19	46.3	6.96	47.3	7.02
	21	27.0	3.55	32.1	4.31	37.4	5.30	40.0	5.84	42.6	6.40	46.0	7.12	47.0	7.18
	23	27.0	3.63	32.1	4.60	37.4	5.68	40.0	6.25	42.6	6.87	45.4	7.44	46.3	7.51
	25	27.0	3.87	32.1	4.91	37.4	6.08	40.0	6.71	42.6	7.36	44.7	7.77	45.7	7.83
	27	27.0	4.14	32.1	5.24	37.4	6.49	40.0	7.17	42.6	7.87	44.0	8.10	45.0	8.17
	29	27.0	4.40	32.1	5.59	37.4	6.93	40.0	7.66	42.4	8.36	43.4	8.44	44.4	8.50
	31	27.0	4.69	32.1	5.97	37.4	7.39	40.0	8.17	41.9	8.69	42.7	8.76	43.7	8.84
	33	27.0	4.98	32.1	6.35	37.4	7.88	40.0	8.72	41.1	9.01	42.1	9.09	43.1	9.17
	35	27.0	5.29	32.1	6.76	37.4	8.41	40.0	9.30	40.4	9.34	41.4	9.42	42.4	9.50
	37	27.0	5.63	32.1	7.19	37.4	8.96	39.3	9.63	39.9	9.68	40.9	9.76	41.7	9.84
39	27.0	5.98	32.1	7.65	37.4	9.54	38.7	9.95	39.1	10.00	40.1	10.09	41.1	10.19	
75%	10	20.2	2.54	24.1	3.08	28.0	3.55	29.8	3.76	31.8	3.95	35.7	4.30	39.7	4.59
	12	20.2	2.59	24.1	3.13	28.0	3.60	29.8	3.81	31.8	4.00	35.7	4.35	39.7	4.64
	14	20.2	2.64	24.1	3.18	28.0	3.65	29.8	3.86	31.8	4.05	35.7	4.40	39.7	4.68
	16	20.2	2.69	24.1	3.23	28.0	3.70	29.8	3.91	31.8	4.11	35.7	4.44	39.7	4.72
	18	20.2	2.74	24.1	3.29	28.0	3.76	29.8	3.96	31.8	4.16	35.7	4.49	39.7	4.76
	20	20.2	2.79	24.1	3.34	28.0	3.81	29.8	4.02	31.8	4.21	35.7	4.54	39.7	4.94
	21	20.2	2.81	24.1	3.36	28.0	3.84	29.8	4.05	31.8	4.23	35.7	4.67	39.7	5.08
	23	20.2	2.86	24.1	3.42	28.0	3.94	29.8	4.21	31.8	4.48	35.7	4.95	39.7	5.39
	25	20.2	2.94	24.1	3.59	28.0	4.19	29.8	4.48	31.8	4.74	35.7	5.24	39.7	5.69
	27	20.2	3.13	24.1	3.81	28.0	4.44	29.8	4.74	31.8	5.02	35.7	5.54	39.7	6.00
	29	20.2	3.32	24.1	4.04	28.0	4.70	29.8	5.01	31.8	5.30	35.7	5.84	39.7	6.33
	31	20.2	3.52	24.1	4.27	28.0	4.97	29.8	5.29	31.8	5.60	35.7	6.16	39.7	6.66
	33	20.2	3.73	24.1	4.53	28.0	5.24	29.8	5.58	31.8	5.89	35.7	6.48	39.7	7.00
	35	20.2	3.95	24.1	4.78	28.0	5.53	29.8	5.88	31.8	6.21	35.7	6.81	39.7	7.34
	37	20.2	4.18	24.1	5.04	28.0	5.83	29.8	6.19	31.8	6.53	35.7	7.15	39.2	7.69
39	20.2	4.42	24.1	5.32	28.0	6.13	29.8	6.50	31.8	6.86	35.7	7.50	38.6	8.06	
50%	10	13.4	1.81	16.0	1.80	18.6	1.78	19.8	1.95	21.3	2.17	23.8	2.57	26.4	2.92
	12	13.4	1.81	16.0	1.80	18.6	1.78	19.8	2.00	21.3	2.22	23.8	2.63	26.4	2.97
	14	13.4	1.81	16.0	1.81	18.6	1.83	19.8	2.06	21.3	2.28	23.8	2.69	26.4	3.03
	16	13.4	1.81	16.0	1.80	18.6	1.89	19.8	2.12	21.3	2.34	23.8	2.74	26.4	3.08
	18	13.4	1.81	16.0	1.86	18.6	1.94	19.8	2.18	21.3	2.40	23.8	2.80	26.4	3.14
	20	13.4	1.81	16.0	1.86	18.6	2.00	19.8	2.24	21.3	2.46	23.8	2.86	26.4	3.19
	21	13.4	1.81	16.0	1.86	18.6	2.04	19.8	2.27	21.3	2.49	23.8	2.89	26.4	3.23
	23	13.4	1.81	16.0	1.86	18.6	2.10	19.8	2.33	21.3	2.55	23.8	2.95	26.4	3.29
	25	13.4	1.81	16.0	1.86	18.6	2.16	19.8	2.40	21.3	2.65	23.8	3.10	26.4	3.50
	27	13.4	1.81	16.0	1.82	18.6	2.31	19.8	2.58	21.3	2.83	23.8	3.30	26.4	3.72
	29	13.4	1.88	16.0	1.89	18.6	2.48	19.8	2.75	21.3	3.02	23.8	3.51	26.4	3.94
	31	13.4	1.95	16.0	2.02	18.6	2.65	19.8	2.94	21.3	3.22	23.8	3.73	26.4	4.17
	33	13.4	2.03	16.0	2.18	18.6	2.83	19.8	3.13	21.3	3.42	23.8	3.94	26.4	4.41
	35	13.4	2.10	16.0	2.34	18.6	3.02	19.8	3.34	21.3	3.64	23.8	4.18	26.4	4.65
	37	13.4	2.17	16.0	2.52	18.6	3.23	19.8	3.55	21.3	3.86	23.8	4.42	26.4	4.90
39	13.4	2.25	16.0	2.70	18.6	3.44	19.8	3.78	21.3	4.09	23.8	4.66	26.4	5.16	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.22: TMVV5X450HT3<sup>1</sup>.1O4ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	30.4	3.79	36.2	4.59	42.1	5.43	45.0	5.87	47.9	6.32	53.8	7.22	56.9	7.47
	12	30.4	3.85	36.2	4.68	42.1	5.53	45.0	5.98	47.9	6.44	53.8	7.35	56.1	7.53
	14	30.4	3.92	36.2	4.77	42.1	5.64	45.0	6.10	47.9	6.56	53.8	7.50	55.4	7.62
	16	30.4	4.00	36.2	4.85	42.1	5.76	45.0	6.21	47.9	6.69	53.5	7.59	54.6	7.71
	18	30.4	4.07	36.2	4.94	42.1	5.86	45.0	6.33	47.9	6.82	52.9	7.84	54.0	7.90
	20	30.4	4.14	36.2	5.05	42.1	6.04	45.0	6.66	47.9	7.31	52.1	8.21	53.2	8.29
	21	30.4	4.19	36.2	5.09	42.1	6.26	45.0	6.90	47.9	7.56	51.8	8.41	52.9	8.48
	23	30.4	4.29	36.2	5.43	42.1	6.70	45.0	7.38	47.9	8.11	51.1	8.79	52.1	8.86
	25	30.4	4.57	36.2	5.80	42.1	7.18	45.0	7.92	47.9	8.69	50.3	9.17	51.4	9.25
	27	30.4	4.88	36.2	6.19	42.1	7.67	45.0	8.46	47.9	9.29	49.5	9.56	50.6	9.65
	29	30.4	5.19	36.2	6.60	42.1	8.18	45.0	9.04	47.7	9.87	48.9	9.96	50.0	10.03
	31	30.4	5.53	36.2	7.04	42.1	8.73	45.0	9.65	47.1	10.26	48.1	10.34	49.2	10.43
	33	30.4	5.87	36.2	7.50	42.1	9.31	45.0	10.30	46.3	10.64	47.4	10.73	48.5	10.83
	35	30.4	6.24	36.2	7.98	42.1	9.93	45.0	10.98	45.5	11.02	46.6	11.13	47.7	11.22
37	30.4	6.64	36.2	8.49	42.1	10.58	44.2	11.36	44.8	11.42	46.0	11.53	46.9	11.62	
39	30.4	7.06	36.2	9.03	42.1	11.26	43.6	11.75	44.0	11.81	45.2	11.91	46.3	12.03	
75%	10	22.7	2.94	27.1	3.57	31.5	4.12	33.6	4.36	35.8	4.59	40.2	4.99	44.6	5.33
	12	22.7	3.00	27.1	3.63	31.5	4.17	33.6	4.42	35.8	4.64	40.2	5.05	44.6	5.38
	14	22.7	3.06	27.1	3.68	31.5	4.23	33.6	4.48	35.8	4.70	40.2	5.10	44.6	5.43
	16	22.7	3.12	27.1	3.74	31.5	4.29	33.6	4.54	35.8	4.76	40.2	5.15	44.6	5.48
	18	22.7	3.18	27.1	3.81	31.5	4.36	33.6	4.60	35.8	4.82	40.2	5.21	44.6	5.53
	20	22.7	3.23	27.1	3.87	31.5	4.42	33.6	4.66	35.8	4.88	40.2	5.26	44.6	5.73
	21	22.7	3.26	27.1	3.90	31.5	4.45	33.6	4.69	35.8	4.91	40.2	5.42	44.6	5.90
	23	22.7	3.32	27.1	3.97	31.5	4.58	33.6	4.89	35.8	5.19	40.2	5.74	44.6	6.25
	25	22.7	3.41	27.1	4.16	31.5	4.86	33.6	5.19	35.8	5.50	40.2	6.08	44.6	6.60
	27	22.7	3.63	27.1	4.42	31.5	5.15	33.6	5.50	35.8	5.82	40.2	6.43	44.6	6.96
	29	22.7	3.85	27.1	4.68	31.5	5.46	33.6	5.81	35.8	6.15	40.2	6.78	44.6	7.34
	31	22.7	4.09	27.1	4.96	31.5	5.76	33.6	6.13	35.8	6.49	40.2	7.14	44.6	7.73
	33	22.7	4.33	27.1	5.25	31.5	6.08	33.6	6.48	35.8	6.84	40.2	7.51	44.6	8.12
	35	22.7	4.59	27.1	5.55	31.5	6.42	33.6	6.82	35.8	7.20	40.2	7.90	44.6	8.51
37	22.7	4.85	27.1	5.85	31.5	6.76	33.6	7.18	35.8	7.57	40.2	8.30	44.1	8.92	
39	22.7	5.12	27.1	6.17	31.5	7.11	33.6	7.54	35.8	7.95	40.2	8.70	43.4	9.34	
50%	10	15.1	2.10	18.0	2.09	20.9	2.07	22.3	2.27	23.9	2.52	26.8	2.98	29.7	3.39
	12	15.1	2.10	18.0	2.09	20.9	2.07	22.3	2.32	23.9	2.58	26.8	3.05	29.7	3.45
	14	15.1	2.10	18.0	2.10	20.9	2.12	22.3	2.39	23.9	2.65	26.8	3.12	29.7	3.52
	16	15.1	2.10	18.0	2.09	20.9	2.19	22.3	2.46	23.9	2.72	26.8	3.18	29.7	3.58
	18	15.1	2.10	18.0	2.16	20.9	2.26	22.3	2.53	23.9	2.78	26.8	3.24	29.7	3.65
	20	15.1	2.10	18.0	2.16	20.9	2.32	22.3	2.60	23.9	2.85	26.8	3.31	29.7	3.70
	21	15.1	2.10	18.0	2.16	20.9	2.36	22.3	2.64	23.9	2.89	26.8	3.35	29.7	3.74
	23	15.1	2.10	18.0	2.16	20.9	2.43	22.3	2.71	23.9	2.96	26.8	3.42	29.7	3.81
	25	15.1	2.10	18.0	2.16	20.9	2.51	22.3	2.78	23.9	3.07	26.8	3.60	29.7	4.06
	27	15.1	2.10	18.0	2.11	20.9	2.68	22.3	2.99	23.9	3.28	26.8	3.82	29.7	4.31
	29	15.1	2.18	18.0	2.19	20.9	2.87	22.3	3.20	23.9	3.50	26.8	4.07	29.7	4.57
	31	15.1	2.27	18.0	2.34	20.9	3.08	22.3	3.41	23.9	3.73	26.8	4.32	29.7	4.84
	33	15.1	2.35	18.0	2.53	20.9	3.28	22.3	3.64	23.9	3.97	26.8	4.58	29.7	5.11
	35	15.1	2.44	18.0	2.72	20.9	3.51	22.3	3.87	23.9	4.22	26.8	4.85	29.7	5.39
37	15.1	2.52	18.0	2.92	20.9	3.74	22.3	4.12	23.9	4.48	26.8	5.12	29.7	5.68	
39	15.1	2.61	18.0	3.13	20.9	3.99	22.3	4.38	23.9	4.74	26.8	5.41	29.7	5.99	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)



Table 2-8.23: TMVV5X500HT3I<sup>3</sup>.9O4ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	33.8	4.42	40.2	5.36	46.8	6.34	50.0	6.86	53.2	7.38	59.8	8.43	63.2	8.73
	12	33.8	4.49	40.2	5.46	46.8	6.46	50.0	6.98	53.2	7.52	59.8	8.59	62.3	8.79
	14	33.8	4.58	40.2	5.56	46.8	6.58	50.0	7.12	53.2	7.65	59.8	8.76	61.6	8.90
	16	33.8	4.67	40.2	5.67	46.8	6.72	50.0	7.26	53.2	7.81	59.5	8.86	60.7	9.00
	18	33.8	4.75	40.2	5.77	46.8	6.84	50.0	7.39	53.2	7.97	58.8	9.16	60.0	9.23
	20	33.8	4.84	40.2	5.89	46.8	7.05	50.0	7.77	53.2	8.54	57.9	9.59	59.1	9.68
	21	33.8	4.89	40.2	5.94	46.8	7.31	50.0	8.05	53.2	8.83	57.5	9.81	58.8	9.90
	23	33.8	5.01	40.2	6.34	46.8	7.83	50.0	8.62	53.2	9.47	56.8	10.26	57.9	10.35
	25	33.8	5.34	40.2	6.77	46.8	8.38	50.0	9.24	53.2	10.14	55.9	10.71	57.1	10.80
	27	33.8	5.70	40.2	7.22	46.8	8.95	50.0	9.88	53.2	10.85	55.0	11.16	56.3	11.26
	29	33.8	6.06	40.2	7.71	46.8	9.55	50.0	10.56	53.0	11.52	54.3	11.63	55.5	11.71
	31	33.8	6.46	40.2	8.22	46.8	10.19	50.0	11.26	52.3	11.97	53.4	12.08	54.6	12.18
	33	33.8	6.86	40.2	8.76	46.8	10.87	50.0	12.03	51.4	12.42	52.7	12.53	53.9	12.65
	35	33.8	7.29	40.2	9.31	46.8	11.59	50.0	12.82	50.5	12.87	51.8	12.99	53.0	13.10
	37	33.8	7.76	40.2	9.92	46.8	12.35	49.1	13.27	49.8	13.34	51.1	13.46	52.1	13.56
39	33.8	8.24	40.2	10.54	46.8	13.15	48.4	13.72	48.9	13.79	50.2	13.91	51.4	14.05	
75%	10	25.2	3.41	30.1	4.14	35.0	4.77	37.3	5.06	39.8	5.32	44.7	5.78	49.6	6.18
	12	25.2	3.48	30.1	4.21	35.0	4.84	37.3	5.12	39.8	5.39	44.7	5.85	49.6	6.24
	14	25.2	3.55	30.1	4.27	35.0	4.91	37.3	5.19	39.8	5.45	44.7	5.92	49.6	6.29
	16	25.2	3.61	30.1	4.34	35.0	4.98	37.3	5.26	39.8	5.52	44.7	5.98	49.6	6.35
	18	25.2	3.68	30.1	4.42	35.0	5.06	37.3	5.33	39.8	5.59	44.7	6.04	49.6	6.41
	20	25.2	3.75	30.1	4.49	35.0	5.12	37.3	5.41	39.8	5.66	44.7	6.10	49.6	6.65
	21	25.2	3.79	30.1	4.52	35.0	5.16	37.3	5.44	39.8	5.69	44.7	6.28	49.6	6.84
	23	25.2	3.85	30.1	4.60	35.0	5.31	37.3	5.67	39.8	6.02	44.7	6.66	49.6	7.25
	25	25.2	3.96	30.1	4.83	35.0	5.64	37.3	6.02	39.8	6.37	44.7	7.05	49.6	7.66
	27	25.2	4.21	30.1	5.12	35.0	5.98	37.3	6.37	39.8	6.75	44.7	7.45	49.6	8.08
	29	25.2	4.47	30.1	5.43	35.0	6.33	37.3	6.74	39.8	7.13	44.7	7.86	49.6	8.51
	31	25.2	4.74	30.1	5.75	35.0	6.68	37.3	7.11	39.8	7.53	44.7	8.28	49.6	8.96
	33	25.2	5.02	30.1	6.09	35.0	7.05	37.3	7.51	39.8	7.93	44.7	8.71	49.6	9.42
	35	25.2	5.32	30.1	6.43	35.0	7.44	37.3	7.91	39.8	8.35	44.7	9.17	49.6	9.87
	37	25.2	5.62	30.1	6.78	35.0	7.84	37.3	8.33	39.8	8.78	44.7	9.62	49.0	10.35
39	25.2	5.94	30.1	7.16	35.0	8.25	37.3	8.75	39.8	9.22	44.7	10.09	48.2	10.84	
50%	10	16.8	2.43	20.0	2.42	23.2	2.40	24.8	2.63	26.6	2.92	29.8	3.46	33.0	3.93
	12	16.8	2.43	20.0	2.42	23.2	2.40	24.8	2.70	26.6	2.99	29.8	3.54	33.0	4.00
	14	16.8	2.43	20.0	2.43	23.2	2.46	24.8	2.77	26.6	3.07	29.8	3.61	33.0	4.08
	16	16.8	2.43	20.0	2.42	23.2	2.54	24.8	2.85	26.6	3.15	29.8	3.68	33.0	4.15
	18	16.8	2.43	20.0	2.50	23.2	2.62	24.8	2.93	26.6	3.23	29.8	3.76	33.0	4.23
	20	16.8	2.43	20.0	2.50	23.2	2.70	24.8	3.01	26.6	3.31	29.8	3.84	33.0	4.30
	21	16.8	2.43	20.0	2.50	23.2	2.74	24.8	3.06	26.6	3.35	29.8	3.89	33.0	4.34
	23	16.8	2.43	20.0	2.50	23.2	2.82	24.8	3.14	26.6	3.43	29.8	3.97	33.0	4.42
	25	16.8	2.43	20.0	2.50	23.2	2.91	24.8	3.23	26.6	3.56	29.8	4.17	33.0	4.70
	27	16.8	2.43	20.0	2.45	23.2	3.10	24.8	3.47	26.6	3.81	29.8	4.43	33.0	5.00
	29	16.8	2.52	20.0	2.54	23.2	3.33	24.8	3.71	26.6	4.06	29.8	4.72	33.0	5.30
	31	16.8	2.63	20.0	2.72	23.2	3.57	24.8	3.96	26.6	4.33	29.8	5.01	33.0	5.61
	33	16.8	2.73	20.0	2.93	23.2	3.81	24.8	4.22	26.6	4.60	29.8	5.31	33.0	5.93
	35	16.8	2.83	20.0	3.15	23.2	4.07	24.8	4.49	26.6	4.90	29.8	5.62	33.0	6.25
	37	16.8	2.92	20.0	3.39	23.2	4.34	24.8	4.77	26.6	5.19	29.8	5.94	33.0	6.59
39	16.8	3.02	20.0	3.63	23.2	4.63	24.8	5.08	26.6	5.50	29.8	6.27	33.0	6.94	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.24: TMVV5X560HT3I<sup>3.86</sup>O4ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	37.8	5.01	45.0	6.06	52.4	7.18	56.0	7.76	59.6	8.35	67.0	9.54	70.8	9.88
	12	37.8	5.08	45.0	6.18	52.4	7.31	56.0	7.90	59.6	8.51	67.0	9.72	69.8	9.95
	14	37.8	5.18	45.0	6.30	52.4	7.45	56.0	8.06	59.6	8.66	67.0	9.91	69.0	10.07
	16	37.8	5.28	45.0	6.41	52.4	7.61	56.0	8.21	59.6	8.84	66.6	10.03	68.0	10.19
	18	37.8	5.38	45.0	6.53	52.4	7.74	56.0	8.37	59.6	9.02	65.8	10.36	67.2	10.44
	20	37.8	5.48	45.0	6.67	52.4	7.98	56.0	8.80	59.6	9.66	64.8	10.85	66.2	10.95
	21	37.8	5.53	45.0	6.73	52.4	8.27	56.0	9.11	59.6	9.99	64.4	11.11	65.8	11.20
	23	37.8	5.67	45.0	7.18	52.4	8.86	56.0	9.76	59.6	10.72	63.6	11.62	64.8	11.71
	25	37.8	6.04	45.0	7.67	52.4	9.48	56.0	10.46	59.6	11.48	62.6	12.12	64.0	12.22
	27	37.8	6.45	45.0	8.17	52.4	10.13	56.0	11.19	59.6	12.28	61.6	12.63	63.0	12.75
	29	37.8	6.86	45.0	8.72	52.4	10.81	56.0	11.95	59.4	13.04	60.8	13.16	62.2	13.26
	31	37.8	7.31	45.0	9.31	52.4	11.54	56.0	12.75	58.6	13.55	59.8	13.67	61.2	13.79
	33	37.8	7.76	45.0	9.91	52.4	12.30	56.0	13.61	57.6	14.06	59.0	14.18	60.4	14.31
	35	37.8	8.25	45.0	10.54	52.4	13.12	56.0	14.51	56.6	14.57	58.0	14.70	59.4	14.82
	37	37.8	8.78	45.0	11.22	52.4	13.98	55.0	15.02	55.8	15.10	57.2	15.23	58.4	15.35
39	37.8	9.33	45.0	11.93	52.4	14.88	54.2	15.53	54.8	15.61	56.2	15.74	57.6	15.90	
75%	10	28.3	3.93	33.7	4.77	39.2	5.50	41.8	5.83	44.6	6.13	50.0	6.66	55.5	7.12
	12	28.3	4.01	33.7	4.84	39.2	5.58	41.8	5.90	44.6	6.20	50.0	6.74	55.5	7.19
	14	28.3	4.09	33.7	4.92	39.2	5.66	41.8	5.98	44.6	6.28	50.0	6.82	55.5	7.25
	16	28.3	4.16	33.7	5.00	39.2	5.73	41.8	6.06	44.6	6.36	50.0	6.89	55.5	7.32
	18	28.3	4.24	33.7	5.09	39.2	5.83	41.8	6.14	44.6	6.44	50.0	6.96	55.5	7.38
	20	28.3	4.32	33.7	5.17	39.2	5.90	41.8	6.23	44.6	6.52	50.0	7.03	55.5	7.66
	21	28.3	4.36	33.7	5.21	39.2	5.94	41.8	6.27	44.6	6.56	50.0	7.24	55.5	7.88
	23	28.3	4.44	33.7	5.30	39.2	6.11	41.8	6.53	44.6	6.94	50.0	7.67	55.5	8.35
	25	28.3	4.56	33.7	5.56	39.2	6.49	41.8	6.94	44.6	7.34	50.0	8.13	55.5	8.82
	27	28.3	4.84	33.7	5.90	39.2	6.89	41.8	7.34	44.6	7.77	50.0	8.59	55.5	9.30
	29	28.3	5.15	33.7	6.26	39.2	7.29	41.8	7.76	44.6	8.22	50.0	9.06	55.5	9.80
	31	28.3	5.46	33.7	6.62	39.2	7.70	41.8	8.19	44.6	8.68	50.0	9.54	55.5	10.32
	33	28.3	5.79	33.7	7.02	39.2	8.13	41.8	8.65	44.6	9.13	50.0	10.04	55.5	10.85
	35	28.3	6.13	33.7	7.41	39.2	8.57	41.8	9.11	44.6	9.62	50.0	10.56	55.5	11.37
	37	28.3	6.48	33.7	7.81	39.2	9.03	41.8	9.59	44.6	10.12	50.0	11.08	54.9	11.92
39	28.3	6.85	33.7	8.25	39.2	9.50	41.8	10.08	44.6	10.63	50.0	11.62	54.0	12.48	
50%	10	18.8	2.80	22.4	2.79	26.0	2.77	27.7	3.03	29.8	3.37	33.4	3.98	37.0	4.53
	12	18.8	2.80	22.4	2.79	26.0	2.77	27.7	3.11	29.8	3.45	33.4	4.07	37.0	4.61
	14	18.8	2.80	22.4	2.80	26.0	2.83	27.7	3.20	29.8	3.54	33.4	4.16	37.0	4.70
	16	18.8	2.80	22.4	2.79	26.0	2.92	27.7	3.29	29.8	3.63	33.4	4.24	37.0	4.78
	18	18.8	2.80	22.4	2.88	26.0	3.01	27.7	3.38	29.8	3.72	33.4	4.33	37.0	4.87
	20	18.8	2.80	22.4	2.88	26.0	3.11	27.7	3.47	29.8	3.81	33.4	4.43	37.0	4.95
	21	18.8	2.80	22.4	2.88	26.0	3.16	27.7	3.52	29.8	3.86	33.4	4.48	37.0	5.00
	23	18.8	2.80	22.4	2.88	26.0	3.25	27.7	3.62	29.8	3.96	33.4	4.57	37.0	5.09
	25	18.8	2.80	22.4	2.88	26.0	3.35	27.7	3.72	29.8	4.10	33.4	4.81	37.0	5.42
	27	18.8	2.80	22.4	2.82	26.0	3.58	27.7	3.99	29.8	4.39	33.4	5.11	37.0	5.76
	29	18.8	2.91	22.4	2.92	26.0	3.84	27.7	4.27	29.8	4.67	33.4	5.43	37.0	6.10
	31	18.8	3.03	22.4	3.13	26.0	4.11	27.7	4.56	29.8	4.99	33.4	5.77	37.0	6.47
	33	18.8	3.14	22.4	3.38	26.0	4.39	27.7	4.86	29.8	5.30	33.4	6.11	37.0	6.83
	35	18.8	3.26	22.4	3.63	26.0	4.69	27.7	5.17	29.8	5.64	33.4	6.48	37.0	7.20
	37	18.8	3.37	22.4	3.90	26.0	5.00	27.7	5.50	29.8	5.98	33.4	6.85	37.0	7.59
39	18.8	3.48	22.4	4.18	26.0	5.33	27.7	5.85	29.8	6.34	33.4	7.23	37.0	8.00	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.25: TMVV5X615HT3I<sup>3,74</sup>O4ATW3T cooling part load performance

Part load	Outdoor air temp. (°C DB)	Indoor air temp. (°C WB)													
		14.0		16.0		18.0		19.0		20.0		22.0		24.0	
		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%	10	41.5	5.67	49.4	6.87	57.5	8.13	61.5	8.80	65.5	9.46	73.6	10.81	77.8	11.19
	12	41.5	5.76	49.4	7.00	57.5	8.29	61.5	8.95	65.5	9.64	73.6	11.01	76.7	11.28
	14	41.5	5.87	49.4	7.13	57.5	8.44	61.5	9.13	65.5	9.81	73.6	11.23	75.8	11.41
	16	41.5	5.98	49.4	7.27	57.5	8.62	61.5	9.31	65.5	10.02	73.1	11.37	74.7	11.54
	18	41.5	6.09	49.4	7.40	57.5	8.77	61.5	9.48	65.5	10.21	72.3	11.74	73.8	11.83
	20	41.5	6.20	49.4	7.56	57.5	9.04	61.5	9.97	65.5	10.95	71.2	12.30	72.7	12.41
	21	41.5	6.27	49.4	7.62	57.5	9.37	61.5	10.32	65.5	11.32	70.7	12.58	72.3	12.69
	23	41.5	6.42	49.4	8.13	57.5	10.04	61.5	11.06	65.5	12.14	69.8	13.16	71.2	13.27
	25	41.5	6.85	49.4	8.69	57.5	10.75	61.5	11.85	65.5	13.01	68.8	13.74	70.3	13.85
	27	41.5	7.31	49.4	9.26	57.5	11.48	61.5	12.67	65.5	13.91	67.7	14.31	69.2	14.45
	29	41.5	7.78	49.4	9.88	57.5	12.25	61.5	13.54	65.2	14.78	66.8	14.91	68.3	15.02
	31	41.5	8.29	49.4	10.55	57.5	13.07	61.5	14.45	64.4	15.35	65.7	15.49	67.2	15.62
	33	41.5	8.80	49.4	11.23	57.5	13.94	61.5	15.42	63.3	15.93	64.8	16.06	66.3	16.22
	35	41.5	9.35	49.4	11.94	57.5	14.87	61.5	16.44	62.2	16.51	63.7	16.66	65.2	16.80
	37	41.5	9.95	49.4	12.72	57.5	15.84	60.4	17.02	61.3	17.10	62.8	17.26	64.1	17.39
39	41.5	10.57	49.4	13.52	57.5	16.86	59.5	17.59	60.2	17.68	61.7	17.84	63.3	18.01	
75%	10	31.0	4.47	37.1	5.42	43.1	6.25	45.9	6.62	48.9	6.97	55.0	7.58	61.0	8.10
	12	31.0	4.56	37.1	5.51	43.1	6.34	45.9	6.71	48.9	7.06	55.0	7.66	61.0	8.17
	14	31.0	4.65	37.1	5.60	43.1	6.43	45.9	6.80	48.9	7.14	55.0	7.75	61.0	8.24
	16	31.0	4.74	37.1	5.69	43.1	6.52	45.9	6.89	48.9	7.23	55.0	7.83	61.0	8.32
	18	31.0	4.82	37.1	5.79	43.1	6.62	45.9	6.98	48.9	7.32	55.0	7.92	61.0	8.39
	20	31.0	4.91	37.1	5.88	43.1	6.71	45.9	7.08	48.9	7.41	55.0	7.99	61.0	8.71
	21	31.0	4.96	37.1	5.92	43.1	6.76	45.9	7.13	48.9	7.46	55.0	8.23	61.0	8.96
	23	31.0	5.05	37.1	6.03	43.1	6.95	45.9	7.43	48.9	7.89	55.0	8.72	61.0	9.49
	25	31.0	5.18	37.1	6.33	43.1	7.38	45.9	7.89	48.9	8.35	55.0	9.24	61.0	10.03
	27	31.0	5.51	37.1	6.71	43.1	7.83	45.9	8.35	48.9	8.84	55.0	9.76	61.0	10.58
	29	31.0	5.85	37.1	7.11	43.1	8.29	45.9	8.82	48.9	9.35	55.0	10.30	61.0	11.14
	31	31.0	6.21	37.1	7.53	43.1	8.75	45.9	9.32	48.9	9.87	55.0	10.85	61.0	11.74
	33	31.0	6.58	37.1	7.98	43.1	9.24	45.9	9.84	48.9	10.39	55.0	11.41	61.0	12.33
	35	31.0	6.97	37.1	8.42	43.1	9.75	45.9	10.36	48.9	10.94	55.0	12.01	61.0	12.93
	37	31.0	7.37	37.1	8.88	43.1	10.27	45.9	10.91	48.9	11.50	55.0	12.60	60.3	13.55
39	31.0	7.78	37.1	9.38	43.1	10.80	45.9	11.46	48.9	12.08	55.0	13.21	59.3	14.19	
50%	10	20.7	3.19	24.6	3.17	28.6	3.14	30.4	3.44	32.7	3.83	36.6	4.53	40.6	5.15
	12	20.7	3.19	24.6	3.17	28.6	3.14	30.4	3.53	32.7	3.92	36.6	4.63	40.6	5.24
	14	20.7	3.19	24.6	3.19	28.6	3.22	30.4	3.63	32.7	4.02	36.6	4.74	40.6	5.34
	16	20.7	3.19	24.6	3.17	28.6	3.32	30.4	3.74	32.7	4.13	36.6	4.82	40.6	5.43
	18	20.7	3.19	24.6	3.28	28.6	3.43	30.4	3.84	32.7	4.23	36.6	4.93	40.6	5.54
	20	20.7	3.19	24.6	3.28	28.6	3.53	30.4	3.95	32.7	4.33	36.6	5.03	40.6	5.63
	21	20.7	3.19	24.6	3.28	28.6	3.59	30.4	4.01	32.7	4.39	36.6	5.09	40.6	5.69
	23	20.7	3.19	24.6	3.28	28.6	3.69	30.4	4.11	32.7	4.50	36.6	5.20	40.6	5.79
	25	20.7	3.19	24.6	3.28	28.6	3.81	30.4	4.23	32.7	4.66	36.6	5.46	40.6	6.16
	27	20.7	3.19	24.6	3.20	28.6	4.07	30.4	4.54	32.7	4.99	36.6	5.81	40.6	6.55
	29	20.7	3.31	24.6	3.32	28.6	4.36	30.4	4.85	32.7	5.32	36.6	6.18	40.6	6.94
	31	20.7	3.44	24.6	3.56	28.6	4.68	30.4	5.18	32.7	5.67	36.6	6.56	40.6	7.35
	33	20.7	3.58	24.6	3.84	28.6	4.99	30.4	5.52	32.7	6.03	36.6	6.95	40.6	7.77
	35	20.7	3.71	24.6	4.13	28.6	5.33	30.4	5.88	32.7	6.42	36.6	7.37	40.6	8.19
	37	20.7	3.83	24.6	4.44	28.6	5.69	30.4	6.25	32.7	6.80	36.6	7.78	40.6	8.63
39	20.7	3.96	24.6	4.75	28.6	6.06	30.4	6.65	32.7	7.20	36.6	8.22	40.6	9.09	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

## 8.6 Heating Part Load Performance at 100% Combination Ratio

Table 2-8.26: TMVV5X252HT3<sup>14</sup>-7O4ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
	(°C DB)	(°C WB)	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%	-19.8	-20.0	17.2	4.38	17.1	4.56	17.1	4.75	17.1	4.85	17.1	4.93	17.0	5.12
	-18.8	-19.0	17.5	4.44	17.5	4.62	17.4	4.80	17.4	4.90	17.3	4.99	17.3	5.17
	-16.7	-17.0	18.2	4.56	18.1	4.74	18.1	4.91	18.0	5.00	18.0	5.09	18.0	5.26
	-13.7	-15.0	18.9	4.69	18.9	4.86	18.8	5.03	18.8	5.12	18.8	5.20	18.7	5.37
	-11.8	-13.0	19.7	4.83	19.7	4.99	19.6	5.15	19.6	5.23	19.6	5.31	19.5	5.48
	-9.8	-11.0	20.7	4.96	20.6	5.12	20.6	5.27	20.6	5.35	20.5	5.43	20.5	5.58
	-9.5	-10.0	21.2	5.03	21.1	5.18	21.1	5.33	21.0	5.41	21.0	5.48	20.9	5.63
	-8.5	-9.1	21.6	5.09	21.5	5.24	21.5	5.38	21.5	5.46	21.4	5.53	21.4	5.68
	-7.0	-7.6	22.4	5.19	22.4	5.33	22.3	5.47	22.3	5.55	22.3	5.61	22.2	5.76
	-5.0	-5.6	23.6	5.32	23.5	5.45	23.5	5.59	23.4	5.65	23.4	5.72	23.3	5.86
	-3.0	-3.7	24.7	5.44	24.7	4.94	24.6	5.70	24.6	5.76	24.6	5.82	23.6	5.58
	0.0	-0.7	26.7	5.61	26.7	5.73	26.6	5.85	26.1	5.76	25.3	5.52	23.6	5.06
	3.0	2.2	28.8	5.78	28.7	5.88	27.0	5.45	26.1	5.23	25.3	5.03	23.6	4.61
	5.0	4.1	30.3	5.88	28.7	5.53	27.0	5.12	26.1	4.93	25.3	4.73	23.6	4.35
	7.0	6.0	30.4	5.58	28.7	5.20	27.0	4.82	26.1	4.64	25.3	4.46	23.6	4.10
	9.0	7.9	30.4	5.25	28.7	4.89	27.0	4.54	26.1	4.31	25.3	4.20	23.6	3.87
11.0	9.8	30.4	4.94	28.7	4.61	27.0	4.28	26.1	4.12	25.3	3.96	23.6	3.66	
13.0	11.8	30.4	4.64	28.7	4.33	27.0	4.03	26.1	3.88	25.3	3.74	23.6	3.45	
15.0	13.7	30.4	4.38	28.7	4.09	27.0	3.81	26.1	3.67	25.3	3.53	23.6	3.27	
75%	-19.8	-20.0	16.6	6.10	16.5	6.27	16.5	6.44	16.5	6.51	16.4	6.64	16.4	6.77
	-18.8	-19.0	16.9	6.15	16.9	6.32	16.8	6.49	16.8	6.57	16.8	6.64	16.7	6.83
	-16.7	-17.0	17.5	6.27	17.5	6.44	17.4	6.57	17.4	6.70	17.4	6.77	17.4	6.90
	-13.7	-15.0	18.3	6.40	18.2	6.57	18.2	6.70	18.2	6.77	18.2	6.83	17.6	6.70
	-11.8	-13.0	19.1	6.51	19.1	6.64	19.0	6.83	19.0	6.90	18.9	6.90	17.6	6.32
	-9.8	-11.0	20.0	6.64	20.0	6.77	20.0	6.90	19.5	6.77	18.9	6.51	17.6	5.97
	-9.5	-10.0	20.5	6.70	20.5	6.83	20.2	6.83	19.5	6.57	18.9	6.32	17.6	5.80
	-8.5	-9.1	20.9	6.77	20.9	6.90	20.2	6.70	19.5	6.41	18.9	6.15	17.6	5.65
	-7.0	-7.6	21.7	6.83	21.5	6.90	20.2	6.38	19.5	6.13	18.9	5.88	17.6	5.41
	-5.0	-5.6	22.8	6.96	21.5	6.47	20.2	6.00	19.5	5.76	18.9	5.54	17.6	5.10
	-3.0	-3.7	22.8	6.57	21.5	6.10	20.2	5.66	19.5	5.44	18.9	5.23	17.6	4.17
	0.0	-0.7	22.8	5.95	21.5	5.56	20.2	5.16	19.5	4.82	18.9	4.13	17.6	3.80
	3.0	2.2	22.8	5.44	21.5	5.08	20.2	4.09	19.5	3.94	18.9	3.78	17.6	3.49
	5.0	4.1	22.8	5.13	21.5	4.15	20.2	3.86	19.5	3.72	18.9	3.57	17.6	3.29
	7.0	6.0	22.8	4.19	21.5	3.91	20.2	3.65	19.5	3.51	18.9	3.38	17.6	3.12
	9.0	7.9	22.8	3.96	21.5	3.70	20.2	3.44	19.5	3.32	18.9	3.20	17.6	2.85
11.0	9.8	22.8	3.74	21.5	3.50	20.2	3.25	19.5	3.14	18.9	2.97	17.6	2.60	
13.0	11.8	22.8	3.52	21.5	3.30	20.2	3.05	19.5	2.88	18.9	2.70	17.6	2.35	
15.0	13.7	22.8	3.33	21.5	3.12	20.2	2.79	19.5	2.62	18.9	2.46	17.6	2.22	
50%	-19.8	-20.0	15.2	6.32	14.3	5.89	13.5	5.47	13.0	5.26	12.5	5.06	11.7	4.03
	-18.8	-19.0	15.2	6.18	14.3	5.76	13.5	5.35	13.0	5.15	12.5	4.77	11.7	3.94
	-16.7	-17.0	15.2	5.89	14.3	5.49	13.5	5.11	13.0	4.59	12.5	4.09	11.7	3.76
	-13.7	-15.0	15.2	5.59	14.3	5.22	13.5	4.30	13.0	4.04	12.5	3.89	11.7	3.58
	-11.8	-13.0	15.2	5.31	14.3	4.77	13.5	3.98	13.0	3.83	12.5	3.69	11.7	3.40
	-9.8	-11.0	15.2	5.02	14.3	4.06	13.5	3.78	13.0	3.63	12.5	3.50	11.7	3.23
	-9.5	-10.0	15.2	4.41	14.3	3.94	13.5	3.67	13.0	3.53	12.5	3.40	11.7	3.14
	-8.5	-9.1	15.2	4.12	14.3	3.85	13.5	3.58	13.0	3.45	12.5	3.32	11.7	3.04
	-7.0	-7.6	15.2	3.94	14.3	3.68	13.5	3.43	13.0	3.31	12.5	3.18	11.7	2.84
	-5.0	-5.6	15.2	3.72	14.3	3.48	13.5	3.24	13.0	3.12	12.5	2.95	11.7	2.58
	-3.0	-3.7	15.2	3.51	14.3	3.29	13.5	3.04	13.0	2.86	12.5	2.69	11.7	2.35
	0.0	-0.7	15.2	3.21	14.3	2.95	13.5	2.63	13.0	2.47	12.5	2.33	11.7	2.13
	3.0	2.2	15.2	2.86	14.3	2.56	13.5	2.30	13.0	2.21	12.5	2.12	11.7	1.94
	5.0	4.1	15.2	2.61	14.3	2.33	13.5	2.17	13.0	2.08	12.5	2.00	11.7	1.83
	7.0	6.0	15.2	2.36	14.3	2.20	13.5	2.04	13.0	1.96	12.5	1.88	11.7	1.73
	9.0	7.9	15.2	2.22	14.3	2.07	13.5	1.92	13.0	1.85	12.5	1.77	11.7	1.62
11.0	9.8	15.2	2.09	14.3	1.95	13.5	1.81	13.0	1.74	12.5	1.67	11.7	1.53	
13.0	11.8	15.2	1.97	14.3	1.83	13.5	1.70	13.0	1.64	12.5	1.57	11.7	1.44	
15.0	13.7	15.2	1.85	14.3	1.73	13.5	1.60	13.0	1.55	12.5	1.48	11.7	1.36	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.27: TMV5X280HT3<sup>A-5</sup>O4ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
	(°C DB)	(°C WB)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-19.8	-20.0	20.1	5.40	20.0	5.62	20.0	5.86	19.9	5.97	19.9	6.08	19.8	6.31
	-18.8	-19.0	20.4	5.47	20.4	5.69	20.3	5.92	20.3	6.03	20.2	6.15	20.2	6.37
	-16.7	-17.0	21.2	5.62	21.1	5.84	21.1	6.06	21.0	6.16	21.0	6.27	21.0	6.49
	-13.7	-15.0	22.1	5.79	22.0	5.99	21.9	6.20	21.9	6.31	21.9	6.41	21.8	6.62
	-11.8	-13.0	23.0	5.96	23.0	6.15	22.9	6.35	22.9	6.45	22.9	6.55	22.8	6.75
	-9.8	-11.0	24.1	6.12	24.0	6.31	24.0	6.50	24.0	6.60	23.9	6.69	23.9	6.87
	-9.5	-10.0	24.7	6.20	24.6	6.39	24.6	6.57	24.5	6.67	24.5	6.76	24.4	6.94
	-8.5	-9.1	25.2	6.27	25.1	6.46	25.1	6.63	25.1	6.73	25.0	6.82	25.0	7.00
	-7.0	-7.6	26.1	6.40	26.1	6.57	26.0	6.74	26.0	6.83	26.0	6.92	25.9	7.10
	-5.0	-5.6	27.5	6.56	27.4	6.72	27.4	6.89	27.3	6.97	27.3	7.05	27.2	7.22
	-3.0	-3.7	28.8	6.70	28.8	6.09	28.7	7.02	28.7	7.10	28.7	7.17	27.5	6.87
	0.0	-0.7	31.1	6.92	31.1	7.07	31.0	7.21	30.5	7.10	29.5	6.80	27.5	6.24
	3.0	2.2	33.6	7.12	33.5	7.25	31.5	6.71	30.5	6.45	29.5	6.19	27.5	5.69
	5.0	4.1	35.3	7.25	33.5	6.81	31.5	6.31	30.5	6.07	29.5	5.83	27.5	5.36
	7.0	6.0	35.5	6.88	33.5	6.40	31.5	5.94	30.5	5.72	29.5	5.49	27.5	5.05
9.0	7.9	35.5	6.46	33.5	6.02	31.5	5.59	30.5	5.32	29.5	5.18	27.5	4.77	
11.0	9.8	35.5	6.09	33.5	5.68	31.5	5.28	30.5	5.08	29.5	4.88	27.5	4.50	
13.0	11.8	35.5	5.72	33.5	5.34	31.5	4.97	30.5	4.78	29.5	4.61	27.5	4.25	
15.0	13.7	35.5	5.39	33.5	5.04	31.5	4.69	30.5	4.52	29.5	4.35	27.5	4.03	
75%	-19.8	-20.0	19.3	7.50	19.3	7.71	19.3	7.92	19.3	8.00	19.2	8.16	19.2	8.32
	-18.8	-19.0	19.7	7.57	19.7	7.78	19.6	7.98	19.6	8.08	19.6	8.16	19.5	8.40
	-16.7	-17.0	20.4	7.71	20.4	7.91	20.3	8.08	20.3	8.24	20.3	8.32	20.3	8.48
	-13.7	-15.0	21.4	7.86	21.3	8.08	21.3	8.24	21.2	8.32	21.2	8.40	20.5	8.24
	-11.8	-13.0	22.3	8.00	22.3	8.16	22.2	8.40	22.2	8.48	22.0	8.48	20.5	7.78
	-9.8	-11.0	23.4	8.16	23.3	8.32	23.3	8.48	22.8	8.32	22.0	8.00	20.5	7.34
	-9.5	-10.0	23.9	8.24	23.9	8.40	23.5	8.40	22.8	8.08	22.0	7.77	20.5	7.14
	-8.5	-9.1	24.4	8.32	24.4	8.48	23.5	8.24	22.8	7.88	22.0	7.57	20.5	6.95
	-7.0	-7.6	25.3	8.40	25.1	8.48	23.5	7.84	22.8	7.54	22.0	7.23	20.5	6.65
	-5.0	-5.6	26.6	8.56	25.1	7.95	23.5	7.38	22.8	7.09	22.0	6.81	20.5	6.27
	-3.0	-3.7	26.6	8.08	25.1	7.50	23.5	6.96	22.8	6.69	22.0	6.43	20.5	5.12
	0.0	-0.7	26.6	7.32	25.1	6.83	23.5	6.35	22.8	5.92	22.0	5.08	20.5	4.67
	3.0	2.2	26.6	6.69	25.1	6.25	23.5	5.03	22.8	4.84	22.0	4.65	20.5	4.29
	5.0	4.1	26.6	6.31	25.1	5.11	23.5	4.75	22.8	4.57	22.0	4.39	20.5	4.05
	7.0	6.0	26.6	5.16	25.1	4.81	23.5	4.48	22.8	4.31	22.0	4.15	20.5	3.83
9.0	7.9	26.6	4.87	25.1	4.55	23.5	4.23	22.8	4.08	22.0	3.93	20.5	3.50	
11.0	9.8	26.6	4.59	25.1	4.30	23.5	4.00	22.8	3.86	22.0	3.65	20.5	3.19	
13.0	11.8	26.6	4.33	25.1	4.06	23.5	3.74	22.8	3.54	22.0	3.32	20.5	2.90	
15.0	13.7	26.6	4.10	25.1	3.84	23.5	3.43	22.8	3.22	22.0	3.02	20.5	2.73	
50%	-19.8	-20.0	17.7	7.78	16.7	7.24	15.7	6.73	15.1	6.47	14.6	6.22	13.6	4.95
	-18.8	-19.0	17.7	7.60	16.7	7.08	15.7	6.57	15.1	6.33	14.6	5.87	13.6	4.85
	-16.7	-17.0	17.7	7.24	16.7	6.75	15.7	6.28	15.1	5.64	14.6	5.03	13.6	4.63
	-13.7	-15.0	17.7	6.88	16.7	6.42	15.7	5.29	15.1	4.97	14.6	4.78	13.6	4.40
	-11.8	-13.0	17.7	6.53	16.7	5.87	15.7	4.90	15.1	4.71	14.6	4.54	13.6	4.19
	-9.8	-11.0	17.7	6.17	16.7	4.99	15.7	4.64	15.1	4.47	14.6	4.30	13.6	3.97
	-9.5	-10.0	17.7	5.43	16.7	4.85	15.7	4.51	15.1	4.35	14.6	4.19	13.6	3.86
	-8.5	-9.1	17.7	5.07	16.7	4.73	15.7	4.40	15.1	4.24	14.6	4.08	13.6	3.74
	-7.0	-7.6	17.7	4.85	16.7	4.53	15.7	4.22	15.1	4.07	14.6	3.91	13.6	3.49
	-5.0	-5.6	17.7	4.57	16.7	4.27	15.7	3.99	15.1	3.84	14.6	3.62	13.6	3.17
	-3.0	-3.7	17.7	4.32	16.7	4.04	15.7	3.74	15.1	3.52	14.6	3.30	13.6	2.89
	0.0	-0.7	17.7	3.95	16.7	3.63	15.7	3.23	15.1	3.04	14.6	2.86	13.6	2.62
	3.0	2.2	17.7	3.52	16.7	3.15	15.7	2.83	15.1	2.72	14.6	2.61	13.6	2.39
	5.0	4.1	17.7	3.21	16.7	2.87	15.7	2.66	15.1	2.56	14.6	2.45	13.6	2.25
	7.0	6.0	17.7	2.90	16.7	2.70	15.7	2.50	15.1	2.41	14.6	2.31	13.6	2.13
9.0	7.9	17.7	2.73	16.7	2.54	15.7	2.36	15.1	2.27	14.6	2.18	13.6	2.00	
11.0	9.8	17.7	2.57	16.7	2.40	15.7	2.22	15.1	2.14	14.6	2.05	13.6	1.89	
13.0	11.8	17.7	2.42	16.7	2.25	15.7	2.09	15.1	2.01	14.6	1.93	13.6	1.77	
15.0	13.7	17.7	2.28	16.7	2.13	15.7	1.97	15.1	1.90	14.6	1.82	13.6	1.68	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.28: TMV5X335HT3<sup>A</sup>:3O4ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
	(°C DB)	(°C WB)	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%	-19.8	-20.0	23.9	6.95	23.8	7.24	23.8	7.54	23.7	7.69	23.7	7.83	23.6	8.13
	-18.8	-19.0	24.3	7.04	24.3	7.33	24.2	7.62	24.2	7.77	24.0	7.92	24.0	8.21
	-16.7	-17.0	25.2	7.24	25.1	7.52	25.1	7.80	25.0	7.94	25.0	8.08	25.0	8.36
	-13.7	-15.0	26.3	7.45	26.2	7.72	26.1	7.99	26.1	8.13	26.1	8.26	26.0	8.52
	-11.8	-13.0	27.4	7.67	27.4	7.92	27.3	8.18	27.3	8.31	27.3	8.43	27.1	8.69
	-9.8	-11.0	28.7	7.88	28.6	8.13	28.6	8.37	28.6	8.49	28.5	8.61	28.5	8.85
	-9.5	-10.0	29.4	7.99	29.3	8.23	29.3	8.46	29.2	8.58	29.2	8.70	29.0	8.94
	-8.5	-9.1	30.0	8.08	29.9	8.32	29.9	8.54	29.9	8.66	29.8	8.78	29.8	9.01
	-7.0	-7.6	31.1	8.24	31.1	8.46	31.0	8.68	31.0	8.80	31.0	8.91	30.8	9.14
	-5.0	-5.6	32.7	8.44	32.6	8.65	32.6	8.87	32.5	8.97	32.5	9.08	32.4	9.30
	-3.0	-3.7	34.3	8.63	34.3	7.84	34.2	9.04	34.2	9.14	34.2	9.24	32.7	8.85
	0.0	-0.7	37.0	8.91	37.0	9.10	36.9	9.29	36.3	9.14	35.1	8.76	32.7	8.04
	3.0	2.2	40.0	9.17	39.9	9.34	37.5	8.64	36.3	8.31	35.1	7.98	32.7	7.32
	5.0	4.1	42.0	9.34	39.9	8.77	37.5	8.13	36.3	7.82	35.1	7.51	32.7	6.90
	7.0	6.0	42.3	8.86	39.9	8.25	37.5	7.65	36.3	7.36	35.1	7.07	32.7	6.51
	9.0	7.9	42.3	8.33	39.9	7.76	37.5	7.20	36.3	6.85	35.1	6.67	32.7	6.14
	11.0	9.8	42.3	7.84	39.9	7.31	37.5	6.80	36.3	6.54	35.1	6.29	32.7	5.80
13.0	11.8	42.3	7.36	39.9	6.88	37.5	6.40	36.3	6.16	35.1	5.93	32.7	5.47	
15.0	13.7	42.3	6.94	39.9	6.49	37.5	6.04	36.3	5.82	35.1	5.60	32.7	5.19	
75%	-19.8	-20.0	23.0	9.29	22.9	9.55	22.9	9.81	22.9	9.91	22.8	10.11	22.8	10.31
	-18.8	-19.0	23.4	9.38	23.4	9.63	23.3	9.89	23.3	10.01	23.3	10.11	23.2	10.41
	-16.7	-17.0	24.3	9.55	24.3	9.80	24.2	10.01	24.2	10.21	24.2	10.31	24.1	10.51
	-13.7	-15.0	25.4	9.74	25.3	10.01	25.3	10.21	25.2	10.31	25.2	10.41	24.4	10.21
	-11.8	-13.0	26.5	9.91	26.5	10.11	26.4	10.41	26.4	10.51	26.2	10.51	24.4	9.63
	-9.8	-11.0	27.8	10.11	27.7	10.31	27.7	10.51	27.1	10.31	26.2	9.91	24.4	9.10
	-9.5	-10.0	28.4	10.21	28.4	10.41	28.0	10.41	27.1	10.01	26.2	9.62	24.4	8.84
	-8.5	-9.1	29.0	10.31	29.0	10.51	28.0	10.21	27.1	9.76	26.2	9.38	24.4	8.61
	-7.0	-7.6	30.1	10.41	29.8	10.51	28.0	9.71	27.1	9.34	26.2	8.96	24.4	8.23
	-5.0	-5.6	31.6	10.61	29.8	9.85	28.0	9.14	27.1	8.78	26.2	8.44	24.4	7.77
	-3.0	-3.7	31.6	10.01	29.8	9.29	28.0	8.62	27.1	8.29	26.2	7.97	24.4	6.35
	0.0	-0.7	31.6	9.07	29.8	8.46	28.0	7.87	27.1	7.34	26.2	6.30	24.4	5.79
	3.0	2.2	31.6	8.28	29.8	7.74	28.0	6.23	27.1	6.00	26.2	5.76	24.4	5.31
	5.0	4.1	31.6	7.82	29.8	6.33	28.0	5.88	27.1	5.66	26.2	5.44	24.4	5.02
	7.0	6.0	31.6	6.39	29.8	5.96	28.0	5.55	27.1	5.34	26.2	5.15	24.4	4.75
	9.0	7.9	31.6	6.03	29.8	5.63	28.0	5.24	27.1	5.06	26.2	4.87	24.4	4.34
	11.0	9.8	31.6	5.69	29.8	5.32	28.0	4.96	27.1	4.78	26.2	4.52	24.4	3.95
13.0	11.8	31.6	5.36	29.8	5.03	28.0	4.64	27.1	4.38	26.2	4.11	24.4	3.59	
15.0	13.7	31.6	5.08	29.8	4.76	28.0	4.25	27.1	3.99	26.2	3.75	24.4	3.38	
50%	-19.8	-20.0	21.1	9.63	19.9	8.97	18.7	8.33	18.0	8.02	17.4	7.71	16.2	6.14
	-18.8	-19.0	21.1	9.42	19.9	8.77	18.7	8.14	18.0	7.85	17.4	7.27	16.2	6.01
	-16.7	-17.0	21.1	8.97	19.9	8.36	18.7	7.78	18.0	6.99	17.4	6.23	16.2	5.73
	-13.7	-15.0	21.1	8.52	19.9	7.96	18.7	6.56	18.0	6.16	17.4	5.92	16.2	5.45
	-11.8	-13.0	21.1	8.08	19.9	7.27	18.7	6.07	18.0	5.84	17.4	5.62	16.2	5.19
	-9.8	-11.0	21.1	7.65	19.9	6.18	18.7	5.75	18.0	5.53	17.4	5.32	16.2	4.92
	-9.5	-10.0	21.1	6.72	19.9	6.01	18.7	5.59	18.0	5.38	17.4	5.19	16.2	4.79
	-8.5	-9.1	21.1	6.28	19.9	5.86	18.7	5.45	18.0	5.25	17.4	5.06	16.2	4.63
	-7.0	-7.6	21.1	6.01	19.9	5.61	18.7	5.22	18.0	5.04	17.4	4.85	16.2	4.32
	-5.0	-5.6	21.1	5.66	19.9	5.29	18.7	4.94	18.0	4.76	17.4	4.49	16.2	3.92
	-3.0	-3.7	21.1	5.35	19.9	5.01	18.7	4.63	18.0	4.36	17.4	4.09	16.2	3.58
	0.0	-0.7	21.1	4.90	19.9	4.50	18.7	4.00	18.0	3.77	17.4	3.55	16.2	3.25
	3.0	2.2	21.1	4.36	19.9	3.90	18.7	3.51	18.0	3.37	17.4	3.23	16.2	2.96
	5.0	4.1	21.1	3.97	19.9	3.56	18.7	3.30	18.0	3.17	17.4	3.04	16.2	2.79
	7.0	6.0	21.1	3.60	19.9	3.35	18.7	3.10	18.0	2.98	17.4	2.86	16.2	2.63
	9.0	7.9	21.1	3.39	19.9	3.15	18.7	2.92	18.0	2.81	17.4	2.70	16.2	2.47
	11.0	9.8	21.1	3.19	19.9	2.97	18.7	2.75	18.0	2.65	17.4	2.54	16.2	2.34
13.0	11.8	21.1	3.00	19.9	2.79	18.7	2.59	18.0	2.49	17.4	2.39	16.2	2.20	
15.0	13.7	21.1	2.82	19.9	2.63	18.7	2.44	18.0	2.36	17.4	2.26	16.2	2.08	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.29: TMVV5X400HT3<sup>1</sup>04ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
	(°C DB)	(°C WB)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
100%	-19.8	-20.0	28.7	8.53	28.6	8.88	28.6	9.25	28.4	9.43	28.4	9.60	28.3	9.96
	-18.8	-19.0	29.1	8.64	29.1	8.99	29.0	9.34	29.0	9.53	28.9	9.71	28.9	10.06
	-16.7	-17.0	30.3	8.88	30.1	9.22	30.1	9.56	30.0	9.73	30.0	9.90	30.0	10.24
	-13.7	-15.0	31.6	9.14	31.4	9.47	31.3	9.79	31.3	9.96	31.3	10.12	31.1	10.45
	-11.8	-13.0	32.9	9.40	32.9	9.71	32.7	10.03	32.7	10.18	32.7	10.34	32.6	10.66
	-9.8	-11.0	34.4	9.66	34.3	9.96	34.3	10.26	34.3	10.42	34.1	10.56	34.1	10.85
	-9.5	-10.0	35.3	9.79	35.1	10.09	35.1	10.38	35.0	10.53	35.0	10.67	34.9	10.96
	-8.5	-9.1	36.0	9.90	35.9	10.20	35.9	10.48	35.9	10.62	35.7	10.77	35.7	11.05
	-7.0	-7.6	37.3	10.10	37.3	10.38	37.1	10.65	37.1	10.79	37.1	10.93	37.0	11.21
	-5.0	-5.6	39.3	10.35	39.1	10.61	39.1	10.88	39.0	11.00	39.0	11.13	38.9	11.40
	-3.0	-3.7	41.1	10.59	41.1	9.61	41.0	11.09	41.0	11.21	41.0	11.33	39.3	10.85
	0.0	-0.7	44.4	10.93	44.4	11.16	44.3	11.39	43.6	11.21	42.1	10.74	39.3	9.85
	3.0	2.2	48.0	11.24	47.9	11.45	45.0	10.60	43.6	10.18	42.1	9.78	39.3	8.98
	5.0	4.1	50.4	11.45	47.9	10.76	45.0	9.96	43.6	9.59	42.1	9.21	39.3	8.47
	7.0	6.0	50.7	10.87	47.9	10.11	45.0	9.38	43.6	9.03	42.1	8.67	39.3	7.98
9.0	7.9	50.7	10.21	47.9	9.51	45.0	8.83	43.6	8.39	42.1	8.17	39.3	7.53	
11.0	9.8	50.7	9.61	47.9	8.97	45.0	8.33	43.6	8.02	42.1	7.71	39.3	7.11	
13.0	11.8	50.7	9.03	47.9	8.43	45.0	7.85	43.6	7.55	42.1	7.27	39.3	6.71	
15.0	13.7	50.7	8.52	47.9	7.96	45.0	7.41	43.6	7.14	42.1	6.87	39.3	6.36	
75%	-19.8	-20.0	26.7	10.78	26.7	11.12	26.6	11.38	26.6	11.56	26.6	11.73	26.6	12.07
	-18.8	-19.0	27.3	10.86	27.2	11.21	27.1	11.56	27.1	11.64	27.1	11.82	27.0	12.16
	-16.7	-17.0	28.4	11.12	28.3	11.38	28.2	11.73	28.2	11.90	28.2	11.99	28.1	12.33
	-13.7	-15.0	29.5	11.30	29.4	11.64	29.4	11.90	29.3	12.07	29.3	12.16	29.3	12.51
	-11.8	-13.0	30.9	11.56	30.8	11.82	30.8	12.07	30.7	12.25	30.7	12.42	29.3	11.82
	-9.8	-11.0	32.3	11.82	32.2	12.07	32.2	12.33	32.1	12.42	31.5	12.16	29.3	11.21
	-9.5	-10.0	33.1	11.90	33.0	12.16	32.9	12.42	32.6	12.33	31.5	11.82	29.3	10.86
	-8.5	-9.1	33.8	11.99	33.8	12.25	33.7	12.51	32.6	11.99	31.5	11.56	29.3	10.61
	-7.0	-7.6	35.0	12.16	35.0	12.42	33.7	11.90	32.6	11.47	31.5	11.04	29.3	10.09
	-5.0	-5.6	36.8	12.42	35.8	12.07	33.7	11.21	32.6	10.78	31.5	10.35	29.3	9.57
	-3.0	-3.7	38.0	12.25	35.8	11.38	33.7	10.61	32.6	10.17	31.5	9.83	29.3	7.81
	0.0	-0.7	38.0	11.12	35.8	10.43	33.7	9.65	32.6	9.05	31.5	7.75	29.3	7.12
	3.0	2.2	38.0	10.17	35.8	9.48	33.7	7.66	32.6	7.37	31.5	7.09	29.3	6.53
	5.0	4.1	38.0	9.65	35.8	7.77	33.7	7.23	32.6	6.96	31.5	6.69	29.3	6.17
	7.0	6.0	38.0	7.86	35.8	7.33	33.7	6.82	32.6	6.57	31.5	6.32	29.3	5.84
9.0	7.9	38.0	7.41	35.8	6.92	33.7	6.45	32.6	6.21	31.5	5.98	29.3	5.33	
11.0	9.8	38.0	6.99	35.8	6.54	33.7	6.10	32.6	5.88	31.5	5.56	29.3	4.87	
13.0	11.8	38.0	6.60	35.8	6.17	33.7	5.71	32.6	5.38	31.5	5.05	29.3	4.41	
15.0	13.7	38.0	6.24	35.8	5.84	33.7	5.22	32.6	4.91	31.5	4.60	29.3	4.15	
50%	-19.8	-20.0	25.3	11.82	23.9	11.04	22.4	10.26	21.7	9.83	21.0	9.48	19.5	7.55
	-18.8	-19.0	25.3	11.56	23.9	10.78	22.4	10.00	21.7	9.65	21.0	9.36	19.5	7.38
	-16.7	-17.0	25.3	11.04	23.9	10.26	22.4	9.57	21.7	9.59	21.0	9.21	19.5	7.05
	-13.7	-15.0	25.3	10.43	23.9	9.74	22.4	8.06	21.7	7.57	21.0	7.28	19.5	6.71
	-11.8	-13.0	25.3	9.91	23.9	8.96	22.4	7.47	21.7	7.18	21.0	6.91	19.5	6.37
	-9.8	-11.0	25.3	9.40	23.9	7.60	22.4	7.06	21.7	6.80	21.0	6.54	19.5	6.04
	-9.5	-10.0	25.3	8.26	23.9	7.39	22.4	6.87	21.7	6.62	21.0	6.37	19.5	5.88
	-8.5	-9.1	25.3	7.71	23.9	7.20	22.4	6.70	21.7	6.46	21.0	6.22	19.5	5.69
	-7.0	-7.6	25.3	7.38	23.9	6.90	22.4	6.42	21.7	6.19	21.0	5.96	19.5	5.31
	-5.0	-5.6	25.3	6.96	23.9	6.51	22.4	6.06	21.7	5.84	21.0	5.52	19.5	4.83
	-3.0	-3.7	25.3	6.58	23.9	6.16	22.4	5.69	21.7	5.36	21.0	5.03	19.5	4.39
	0.0	-0.7	25.3	6.03	23.9	5.53	22.4	4.93	21.7	4.63	21.0	4.36	19.5	4.00
	3.0	2.2	25.3	5.36	23.9	4.80	22.4	4.31	21.7	4.14	21.0	3.97	19.5	3.64
	5.0	4.1	25.3	4.88	23.9	4.38	22.4	4.06	21.7	3.89	21.0	3.74	19.5	3.43
	7.0	6.0	25.3	4.43	23.9	4.12	22.4	3.81	21.7	3.67	21.0	3.52	19.5	3.24
9.0	7.9	25.3	4.16	23.9	3.87	22.4	3.60	21.7	3.45	21.0	3.32	19.5	3.05	
11.0	9.8	25.3	3.92	23.9	3.65	22.4	3.39	21.7	3.26	21.0	3.13	19.5	2.87	
13.0	11.8	25.3	3.68	23.9	3.43	22.4	3.18	21.7	3.06	21.0	2.94	19.5	2.71	
15.0	13.7	25.3	3.48	23.9	3.24	22.4	3.01	21.7	2.89	21.0	2.78	19.5	2.55	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.30: TMV5X450HT3<sup>1</sup>1O4ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
	(°C DB)	(°C WB)	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%	-19.8	-20.0	31.9	9.88	31.7	10.29	31.7	10.71	31.6	10.93	31.6	11.12	31.4	11.55
	-18.8	-19.0	32.4	10.01	32.4	10.42	32.2	10.83	32.2	11.04	32.1	11.25	32.1	11.66
	-16.7	-17.0	33.7	10.29	33.5	10.69	33.5	11.08	33.3	11.28	33.3	11.48	33.3	11.87
	-13.7	-15.0	35.1	10.59	34.9	10.97	34.8	11.35	34.8	11.55	34.8	11.73	34.6	12.11
	-11.8	-13.0	36.5	10.90	36.5	11.25	36.4	11.62	36.4	11.80	36.4	11.99	36.2	12.35
	-9.8	-11.0	38.3	11.20	38.1	11.55	38.1	11.89	38.1	12.07	37.9	12.24	37.9	12.58
	-9.5	-10.0	39.2	11.35	39.1	11.69	39.1	12.03	38.9	12.20	38.9	12.37	38.7	12.70
	-8.5	-9.1	40.0	11.48	39.8	11.82	39.8	12.14	39.8	12.31	39.7	12.48	39.7	12.80
	-7.0	-7.6	41.4	11.70	41.4	12.03	41.3	12.34	41.3	12.51	41.3	12.66	41.1	12.99
	-5.0	-5.6	43.7	12.00	43.5	12.30	43.5	12.61	43.3	12.75	43.3	12.90	43.2	13.21
	-3.0	-3.7	45.7	12.27	45.7	11.14	45.6	12.85	45.6	12.99	45.6	13.13	43.7	12.58
	0.0	-0.7	49.4	12.66	49.4	12.93	49.2	13.20	48.4	12.99	46.8	12.45	43.7	11.42
	3.0	2.2	53.3	13.03	53.2	13.27	50.0	12.28	48.4	11.80	46.8	11.34	43.7	10.40
	5.0	4.1	56.0	13.27	53.2	12.47	50.0	11.55	48.4	11.11	46.8	10.67	43.7	9.81
	7.0	6.0	56.4	12.59	53.2	11.72	50.0	10.87	48.4	10.46	46.8	10.05	43.7	9.25
9.0	7.9	56.4	11.83	53.2	11.03	50.0	10.24	48.4	9.73	46.8	9.47	43.7	8.72	
11.0	9.8	56.4	11.14	53.2	10.39	50.0	9.66	48.4	9.29	46.8	8.94	43.7	8.24	
13.0	11.8	56.4	10.46	53.2	9.77	50.0	9.09	48.4	8.75	46.8	8.43	43.7	7.78	
15.0	13.7	56.4	9.87	53.2	9.22	50.0	8.58	48.4	8.27	46.8	7.96	43.7	7.37	
75%	-19.8	-20.0	29.7	12.52	29.7	12.92	29.6	13.22	29.6	13.42	29.5	13.62	29.5	14.02
	-18.8	-19.0	30.3	12.62	30.2	13.02	30.1	13.42	30.1	13.52	30.1	13.72	30.0	14.12
	-16.7	-17.0	31.5	12.92	31.4	13.22	31.3	13.62	31.3	13.82	31.3	13.92	31.2	14.32
	-13.7	-15.0	32.8	13.12	32.7	13.52	32.7	13.82	32.6	14.02	32.6	14.12	32.5	14.52
	-11.8	-13.0	34.3	13.42	34.2	13.72	34.2	14.02	34.1	14.22	34.1	14.42	32.6	13.72
	-9.8	-11.0	35.9	13.72	35.8	14.02	35.8	14.32	35.7	14.42	35.0	14.12	32.6	13.02
	-9.5	-10.0	36.8	13.82	36.7	14.12	36.6	14.42	36.2	14.32	35.0	13.72	32.6	12.62
	-8.5	-9.1	37.5	13.92	37.5	14.22	37.4	14.52	36.2	13.92	35.0	13.42	32.6	12.32
	-7.0	-7.6	38.9	14.12	38.9	14.42	37.4	13.82	36.2	13.32	35.0	12.82	32.6	11.71
	-5.0	-5.6	40.9	14.42	39.8	14.02	37.4	13.02	36.2	12.52	35.0	12.02	32.6	11.11
	-3.0	-3.7	42.2	14.22	39.8	13.22	37.4	12.32	36.2	11.81	35.0	11.41	32.6	9.07
	0.0	-0.7	42.2	12.92	39.8	12.12	37.4	11.21	36.2	10.51	35.0	9.00	32.6	8.27
	3.0	2.2	42.2	11.81	39.8	11.01	37.4	8.89	36.2	8.56	35.0	8.23	32.6	7.58
	5.0	4.1	42.2	11.21	39.8	9.03	37.4	8.39	36.2	8.08	35.0	7.77	32.6	7.17
	7.0	6.0	42.2	9.13	39.8	8.51	37.4	7.92	36.2	7.63	35.0	7.34	32.6	6.78
9.0	7.9	42.2	8.60	39.8	8.04	37.4	7.49	36.2	7.21	35.0	6.95	32.6	6.20	
11.0	9.8	42.2	8.12	39.8	7.60	37.4	7.08	36.2	6.83	35.0	6.46	32.6	5.65	
13.0	11.8	42.2	7.66	39.8	7.17	37.4	6.63	36.2	6.25	35.0	5.86	32.6	5.12	
15.0	13.7	42.2	7.25	39.8	6.79	37.4	6.07	36.2	5.70	35.0	5.34	32.6	4.82	
50%	-19.8	-20.0	28.1	13.72	26.5	12.82	24.9	11.92	24.1	11.41	23.3	11.01	21.7	8.76
	-18.8	-19.0	28.1	13.42	26.5	12.52	24.9	11.61	24.1	11.21	23.3	10.41	21.7	8.57
	-16.7	-17.0	28.1	12.82	26.5	11.92	24.9	11.11	24.1	9.98	23.3	8.89	21.7	8.18
	-13.7	-15.0	28.1	12.12	26.5	11.31	24.9	9.36	24.1	8.79	23.3	8.45	21.7	7.79
	-11.8	-13.0	28.1	11.51	26.5	10.41	24.9	8.67	24.1	8.34	23.3	8.02	21.7	7.40
	-9.8	-11.0	28.1	10.91	26.5	8.82	24.9	8.20	24.1	7.90	23.3	7.60	21.7	7.02
	-9.5	-10.0	28.1	9.60	26.5	8.58	24.9	7.98	24.1	7.69	23.3	7.40	21.7	6.83
	-8.5	-9.1	28.1	8.96	26.5	8.36	24.9	7.78	24.1	7.50	23.3	7.22	21.7	6.61
	-7.0	-7.6	28.1	8.57	26.5	8.01	24.9	7.46	24.1	7.19	23.3	6.92	21.7	6.17
	-5.0	-5.6	28.1	8.08	26.5	7.56	24.9	7.04	24.1	6.79	23.3	6.41	21.7	5.60
	-3.0	-3.7	28.1	7.64	26.5	7.15	24.9	6.61	24.1	6.23	23.3	5.84	21.7	5.10
	0.0	-0.7	28.1	7.00	26.5	6.43	24.9	5.72	24.1	5.37	23.3	5.06	21.7	4.64
	3.0	2.2	28.1	6.23	26.5	5.57	24.9	5.00	24.1	4.81	23.3	4.61	21.7	4.23
	5.0	4.1	28.1	5.66	26.5	5.08	24.9	4.71	24.1	4.52	23.3	4.34	21.7	3.99
	7.0	6.0	28.1	5.14	26.5	4.78	24.9	4.43	24.1	4.26	23.3	4.09	21.7	3.76
9.0	7.9	28.1	4.83	26.5	4.50	24.9	4.18	24.1	4.01	23.3	3.86	21.7	3.54	
11.0	9.8	28.1	4.55	26.5	4.24	24.9	3.94	24.1	3.79	23.3	3.64	21.7	3.34	
13.0	11.8	28.1	4.28	26.5	3.99	24.9	3.70	24.1	3.56	23.3	3.42	21.7	3.15	
15.0	13.7	28.1	4.04	26.5	3.76	24.9	3.50	24.1	3.36	23.3	3.23	21.7	2.96	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)



Table 2-8.31: TMVV5X500HT3I<sup>3.9</sup>O4ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
	(°C DB)	(°C WB)	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI	TC	PI
			kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW	kW
100%	-19.8	-20.0	35.7	11.98	35.6	12.48	35.6	12.99	35.4	13.25	35.4	13.49	35.2	14.00
	-18.8	-19.0	36.3	12.14	36.3	12.63	36.1	13.13	36.1	13.39	35.9	13.64	35.9	14.14
	-16.7	-17.0	37.7	12.48	37.5	12.96	37.5	13.44	37.3	13.68	37.3	13.92	37.3	14.40
	-13.7	-15.0	39.3	12.84	39.1	13.30	38.9	13.76	38.9	14.00	38.9	14.22	38.8	14.69
	-11.8	-13.0	40.9	13.21	40.9	13.64	40.7	14.09	40.7	14.31	40.7	14.53	40.5	14.98
	-9.8	-11.0	42.8	13.57	42.7	14.00	42.7	14.41	42.7	14.64	42.5	14.84	42.5	15.25
	-9.5	-10.0	43.9	13.76	43.7	14.17	43.7	14.58	43.6	14.79	43.6	14.99	43.4	15.40
	-8.5	-9.1	44.8	13.92	44.6	14.33	44.6	14.72	44.6	14.93	44.4	15.13	44.4	15.52
	-7.0	-7.6	46.4	14.19	46.4	14.58	46.2	14.96	46.2	15.16	46.2	15.35	46.0	15.75
	-5.0	-5.6	48.9	14.55	48.7	14.91	48.7	15.28	48.5	15.46	48.5	15.64	48.4	16.02
	-3.0	-3.7	51.2	14.87	51.2	13.51	51.0	15.58	51.0	15.75	51.0	15.92	48.9	15.25
	0.0	-0.7	55.3	15.35	55.3	15.68	55.1	16.00	54.2	15.75	52.4	15.10	48.9	13.85
	3.0	2.2	59.7	15.80	59.6	16.09	56.0	14.89	54.2	14.31	52.4	13.75	48.9	12.61
	5.0	4.1	62.8	16.09	59.6	15.11	56.0	14.00	54.2	13.47	52.4	12.94	48.9	11.90
	7.0	6.0	63.1	15.27	59.6	14.21	56.0	13.18	54.2	12.68	52.4	12.19	48.9	11.21
	9.0	7.9	63.1	14.34	59.6	13.37	56.0	12.41	54.2	11.79	52.4	11.49	48.9	10.58
	11.0	9.8	63.1	13.51	59.6	12.60	56.0	11.71	54.2	11.26	52.4	10.84	48.9	10.00
13.0	11.8	63.1	12.68	59.6	11.84	56.0	11.02	54.2	10.61	52.4	10.22	48.9	9.43	
15.0	13.7	63.1	11.96	59.6	11.18	56.0	10.41	54.2	10.03	52.4	9.65	48.9	8.93	
75%	-19.8	-20.0	33.3	14.07	33.3	14.52	33.2	14.86	33.2	15.08	33.0	15.31	33.0	15.76
	-18.8	-19.0	33.9	14.18	33.8	14.63	33.7	15.08	33.7	15.19	33.7	15.42	33.6	15.87
	-16.7	-17.0	35.3	14.52	35.2	14.86	35.1	15.31	35.1	15.53	35.1	15.64	34.9	16.10
	-13.7	-15.0	36.7	14.74	36.6	15.19	36.6	15.53	36.5	15.76	36.5	15.87	36.4	16.32
	-11.8	-13.0	38.4	15.08	38.3	15.42	38.3	15.76	38.2	15.98	38.2	16.21	36.5	15.42
	-9.8	-11.0	40.2	15.42	40.1	15.76	40.1	16.10	40.0	16.21	39.2	15.87	36.5	14.63
	-9.5	-10.0	41.2	15.53	41.1	15.87	41.0	16.21	40.5	16.10	39.2	15.42	36.5	14.18
	-8.5	-9.1	42.0	15.64	42.0	15.98	41.9	16.32	40.5	15.64	39.2	15.08	36.5	13.84
	-7.0	-7.6	43.6	15.87	43.6	16.21	41.9	15.53	40.5	14.97	39.2	14.40	36.5	13.16
	-5.0	-5.6	45.8	16.21	44.6	15.76	41.9	14.63	40.5	14.07	39.2	13.50	36.5	12.49
	-3.0	-3.7	47.3	15.98	44.6	14.86	41.9	13.84	40.5	13.28	39.2	12.83	36.5	10.19
	0.0	-0.7	47.3	14.52	44.6	13.61	41.9	12.60	40.5	11.81	39.2	10.11	36.5	9.30
	3.0	2.2	47.3	13.28	44.6	12.37	41.9	10.00	40.5	9.62	39.2	9.25	36.5	8.52
	5.0	4.1	47.3	12.60	44.6	10.14	41.9	9.43	40.5	9.08	39.2	8.73	36.5	8.06
	7.0	6.0	47.3	10.25	44.6	9.57	41.9	8.90	40.5	8.57	39.2	8.25	36.5	7.62
	9.0	7.9	47.3	9.67	44.6	9.04	41.9	8.42	40.5	8.10	39.2	7.81	36.5	6.96
	11.0	9.8	47.3	9.13	44.6	8.54	41.9	7.95	40.5	7.67	39.2	7.26	36.5	6.35
13.0	11.8	47.3	8.61	44.6	8.06	41.9	7.45	40.5	7.02	39.2	6.59	36.5	5.76	
15.0	13.7	47.3	8.15	44.6	7.63	41.9	6.82	40.5	6.41	39.2	6.00	36.5	5.42	
50%	-19.8	-20.0	31.5	15.42	29.7	14.40	27.9	13.39	27.0	12.83	26.1	12.37	24.3	9.85
	-18.8	-19.0	31.5	15.08	29.7	14.07	27.9	13.05	27.0	12.60	26.1	11.70	24.3	9.63
	-16.7	-17.0	31.5	14.40	29.7	13.39	27.9	12.49	27.0	11.21	26.1	10.00	24.3	9.19
	-13.7	-15.0	31.5	13.61	29.7	12.71	27.9	10.51	27.0	9.88	26.1	9.50	24.3	8.75
	-11.8	-13.0	31.5	12.94	29.7	11.70	27.9	9.75	27.0	9.38	26.1	9.01	24.3	8.32
	-9.8	-11.0	31.5	12.26	29.7	9.92	27.9	9.22	27.0	8.88	26.1	8.54	24.3	7.89
	-9.5	-10.0	31.5	10.78	29.7	9.65	27.9	8.97	27.0	8.64	26.1	8.32	24.3	7.67
	-8.5	-9.1	31.5	10.06	29.7	9.40	27.9	8.74	27.0	8.43	26.1	8.11	24.3	7.42
	-7.0	-7.6	31.5	9.63	29.7	9.00	27.9	8.38	27.0	8.08	26.1	7.77	24.3	6.93
	-5.0	-5.6	31.5	9.08	29.7	8.50	27.9	7.91	27.0	7.63	26.1	7.20	24.3	6.30
	-3.0	-3.7	31.5	8.59	29.7	8.03	27.9	7.42	27.0	7.00	26.1	6.57	24.3	5.73
	0.0	-0.7	31.5	7.86	29.7	7.22	27.9	6.43	27.0	6.04	26.1	5.69	24.3	5.21
	3.0	2.2	31.5	7.00	29.7	6.26	27.9	5.62	27.0	5.41	26.1	5.18	24.3	4.75
	5.0	4.1	31.5	6.36	29.7	5.71	27.9	5.29	27.0	5.08	26.1	4.88	24.3	4.48
	7.0	6.0	31.5	5.78	29.7	5.37	27.9	4.98	27.0	4.79	26.1	4.59	24.3	4.22
	9.0	7.9	31.5	5.43	29.7	5.06	27.9	4.70	27.0	4.50	26.1	4.33	24.3	3.97
	11.0	9.8	31.5	5.11	29.7	4.76	27.9	4.43	27.0	4.26	26.1	4.09	24.3	3.75
13.0	11.8	31.5	4.81	29.7	4.48	27.9	4.15	27.0	4.00	26.1	3.84	24.3	3.53	
15.0	13.7	31.5	4.54	29.7	4.22	27.9	3.93	27.0	3.77	26.1	3.62	24.3	3.33	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.32: TMV5X560HT3<sup>1.86</sup>O4ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
	(°C DB)	(°C WB)	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%	-19.8	-20.0	40.2	13.90	40.0	14.48	40.0	15.07	39.8	15.37	39.8	15.65	39.6	16.24
	-18.8	-19.0	40.8	14.08	40.8	14.65	40.6	15.23	40.6	15.53	40.4	15.83	40.4	16.40
	-16.7	-17.0	42.4	14.48	42.2	15.03	42.2	15.59	42.0	15.87	42.0	16.14	42.0	16.70
	-13.7	-15.0	44.2	14.89	44.0	15.43	43.8	15.97	43.8	16.24	43.8	16.50	43.6	17.04
	-11.8	-13.0	46.0	15.33	46.0	15.83	45.8	16.34	45.8	16.60	45.8	16.86	45.6	17.38
	-9.8	-11.0	48.2	15.75	48.0	16.24	48.0	16.72	48.0	16.98	47.8	17.22	47.8	17.69
	-9.5	-10.0	49.4	15.97	49.2	16.44	49.2	16.92	49.0	17.16	49.0	17.40	48.8	17.87
	-8.5	-9.1	50.4	16.14	50.2	16.62	50.2	17.08	50.2	17.32	50.0	17.55	50.0	18.01
	-7.0	-7.6	52.2	16.46	52.2	16.92	52.0	17.36	52.0	17.59	52.0	17.81	51.8	18.27
	-5.0	-5.6	55.0	16.88	54.8	17.30	54.8	17.73	54.6	17.93	54.6	18.15	54.4	18.59
	-3.0	-3.7	57.6	17.26	57.6	15.67	57.4	18.07	57.4	18.27	57.4	18.47	55.0	17.69
	0.0	-0.7	62.2	17.81	62.2	18.19	62.0	18.57	61.0	18.27	59.0	17.51	55.0	16.06
	3.0	2.2	67.2	18.33	67.0	18.67	63.0	17.28	61.0	16.60	59.0	15.95	55.0	14.63
	5.0	4.1	70.6	18.67	67.0	17.53	63.0	16.24	61.0	15.63	59.0	15.01	55.0	13.80
	7.0	6.0	71.0	17.71	67.0	16.48	63.0	15.29	61.0	14.71	59.0	14.14	55.0	13.01
9.0	7.9	71.0	16.64	67.0	15.51	63.0	14.40	61.0	13.68	59.0	13.32	55.0	12.27	
11.0	9.8	71.0	15.67	67.0	14.61	63.0	13.58	61.0	13.07	59.0	12.57	55.0	11.60	
13.0	11.8	71.0	14.71	67.0	13.74	63.0	12.79	61.0	12.31	59.0	11.85	55.0	10.94	
15.0	13.7	71.0	13.88	67.0	12.97	63.0	12.07	61.0	11.64	59.0	11.20	55.0	10.37	
75%	-19.8	-20.0	37.4	15.88	37.4	16.39	37.3	16.78	37.3	17.03	37.2	17.29	37.2	17.80
	-18.8	-19.0	38.2	16.01	38.1	16.52	37.9	17.03	37.9	17.16	37.9	17.41	37.8	17.92
	-16.7	-17.0	39.7	16.39	39.6	16.78	39.4	17.29	39.4	17.54	39.4	17.67	39.3	18.18
	-13.7	-15.0	41.3	16.65	41.2	17.16	41.2	17.54	41.1	17.80	41.1	17.92	41.0	18.43
	-11.8	-13.0	43.2	17.03	43.1	17.41	43.1	17.80	43.0	18.05	43.0	18.30	41.1	17.41
	-9.8	-11.0	45.2	17.41	45.1	17.80	45.1	18.18	45.0	18.30	44.1	17.92	41.1	16.52
	-9.5	-10.0	46.4	17.54	46.2	17.92	46.1	18.30	45.6	18.18	44.1	17.41	41.1	16.01
	-8.5	-9.1	47.3	17.67	47.3	18.05	47.1	18.43	45.6	17.67	44.1	17.03	41.1	15.63
	-7.0	-7.6	49.0	17.92	49.0	18.30	47.1	17.54	45.6	16.90	44.1	16.27	41.1	14.87
	-5.0	-5.6	51.5	18.30	50.1	17.80	47.1	16.52	45.6	15.88	44.1	15.25	41.1	14.10
	-3.0	-3.7	53.2	18.05	50.1	16.78	47.1	15.63	45.6	14.99	44.1	14.48	41.1	11.50
	0.0	-0.7	53.2	16.39	50.1	15.38	47.1	14.23	45.6	13.34	44.1	11.42	41.1	10.50
	3.0	2.2	53.2	14.99	50.1	13.97	47.1	11.29	45.6	10.87	44.1	10.45	41.1	9.62
	5.0	4.1	53.2	14.23	50.1	11.45	47.1	10.65	45.6	10.26	44.1	9.86	41.1	9.10
	7.0	6.0	53.2	11.58	50.1	10.80	47.1	10.05	45.6	9.68	44.1	9.31	41.1	8.60
9.0	7.9	53.2	10.92	50.1	10.21	47.1	9.51	45.6	9.15	44.1	8.82	41.1	7.86	
11.0	9.8	53.2	10.31	50.1	9.65	47.1	8.98	45.6	8.66	44.1	8.19	41.1	7.17	
13.0	11.8	53.2	9.72	50.1	9.10	47.1	8.41	45.6	7.93	44.1	7.44	41.1	6.50	
15.0	13.7	53.2	9.20	50.1	8.61	47.1	7.70	45.6	7.24	44.1	6.78	41.1	6.12	
50%	-19.8	-20.0	35.4	17.41	33.4	16.27	31.4	15.12	30.4	14.48	29.4	13.97	27.3	11.12
	-18.8	-19.0	35.4	17.03	33.4	15.88	31.4	14.74	30.4	14.23	29.4	13.21	27.3	10.88
	-16.7	-17.0	35.4	16.27	33.4	15.12	31.4	14.10	30.4	12.66	29.4	11.29	27.3	10.38
	-13.7	-15.0	35.4	15.38	33.4	14.36	31.4	11.87	30.4	11.16	29.4	10.73	27.3	9.89
	-11.8	-13.0	35.4	14.61	33.4	13.21	31.4	11.01	30.4	10.59	29.4	10.18	27.3	9.39
	-9.8	-11.0	35.4	13.85	33.4	11.20	31.4	10.41	30.4	10.03	29.4	9.65	27.3	8.91
	-9.5	-10.0	35.4	12.18	33.4	10.89	31.4	10.13	30.4	9.76	29.4	9.39	27.3	8.66
	-8.5	-9.1	35.4	11.36	33.4	10.61	31.4	9.87	30.4	9.52	29.4	9.16	27.3	8.38
	-7.0	-7.6	35.4	10.88	33.4	10.17	31.4	9.47	30.4	9.12	29.4	8.78	27.3	7.82
	-5.0	-5.6	35.4	10.26	33.4	9.59	31.4	8.93	30.4	8.61	29.4	8.13	27.3	7.11
	-3.0	-3.7	35.4	9.70	33.4	9.07	31.4	8.38	30.4	7.90	29.4	7.42	27.3	6.47
	0.0	-0.7	35.4	8.88	33.4	8.16	31.4	7.26	30.4	6.82	29.4	6.42	27.3	5.89
	3.0	2.2	35.4	7.90	33.4	7.07	31.4	6.35	30.4	6.11	29.4	5.85	27.3	5.37
	5.0	4.1	35.4	7.19	33.4	6.45	31.4	5.98	30.4	5.74	29.4	5.51	27.3	5.06
	7.0	6.0	35.4	6.53	33.4	6.07	31.4	5.62	30.4	5.40	29.4	5.19	27.3	4.77
9.0	7.9	35.4	6.13	33.4	5.71	31.4	5.30	30.4	5.09	29.4	4.90	27.3	4.49	
11.0	9.8	35.4	5.77	33.4	5.38	31.4	5.00	30.4	4.81	29.4	4.62	27.3	4.23	
13.0	11.8	35.4	5.43	33.4	5.06	31.4	4.69	30.4	4.51	29.4	4.34	27.3	3.99	
15.0	13.7	35.4	5.12	33.4	4.77	31.4	4.44	30.4	4.26	29.4	4.09	27.3	3.76	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

Table 2-8.33: TMVV5X615HT3<sup>13</sup>.74O4ATW3T heating part load performance

Part load	Outdoor air temp.		Indoor air temp. (°C DB)											
			16.0		18.0		20.0		21.0		22.0		24.0	
			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	-20.0	44.0	15.56	43.8	16.21	43.8	16.88	43.6	17.21	43.6	17.52	43.4	18.19
	-18.8	-19.0	44.7	15.76	44.7	16.41	44.5	17.05	44.5	17.39	44.2	17.72	44.2	18.36
	-16.7	-17.0	46.4	16.21	46.2	16.83	46.2	17.45	46.0	17.77	46.0	18.08	46.0	18.70
	-13.7	-15.0	48.4	16.67	48.2	17.28	48.0	17.88	48.0	18.19	48.0	18.48	47.8	19.08
	-11.8	-13.0	50.4	17.16	50.4	17.72	50.2	18.30	50.2	18.59	50.2	18.88	49.9	19.46
	-9.8	-11.0	52.8	17.63	52.6	18.19	52.6	18.72	52.6	19.01	52.4	19.28	52.4	19.81
	-9.5	-10.0	54.1	17.88	53.9	18.41	53.9	18.94	53.7	19.21	53.7	19.48	53.4	20.01
	-8.5	-9.1	55.2	18.08	55.0	18.61	55.0	19.12	55.0	19.39	54.8	19.66	54.8	20.17
	-7.0	-7.6	57.2	18.43	57.2	18.94	57.0	19.43	57.0	19.70	57.0	19.94	56.7	20.45
	-5.0	-5.6	60.2	18.90	60.0	19.37	60.0	19.85	59.8	20.08	59.8	20.32	59.6	20.81
	-3.0	-3.7	63.1	19.32	63.1	17.54	62.9	20.23	62.9	20.45	62.9	20.68	60.2	19.81
	0.0	-0.7	68.1	19.94	68.1	20.37	67.9	20.79	66.8	20.45	64.6	19.61	60.2	17.99
	3.0	2.2	73.6	20.52	73.4	20.90	69.0	19.34	66.8	18.59	64.6	17.85	60.2	16.39
	5.0	4.1	77.3	20.90	73.4	19.63	69.0	18.19	66.8	17.50	64.6	16.81	60.2	15.45
	7.0	6.0	77.8	19.83	73.4	18.45	69.0	17.12	66.8	16.47	64.6	15.83	60.2	14.56
	9.0	7.9	77.8	18.63	73.4	17.36	69.0	16.12	66.8	15.32	64.6	14.92	60.2	13.74
	11.0	9.8	77.8	17.54	73.4	16.36	69.0	15.21	66.8	14.63	64.6	14.07	60.2	12.98
13.0	11.8	77.8	16.47	73.4	15.39	69.0	14.32	66.8	13.79	64.6	13.27	60.2	12.25	
15.0	13.7	77.8	15.54	73.4	14.52	69.0	13.52	66.8	13.03	64.6	12.54	60.2	11.61	
75%	-19.8	-20.0	41.0	17.75	41.0	18.32	40.8	18.75	40.8	19.03	40.7	19.32	40.7	19.89
	-18.8	-19.0	41.8	17.90	41.7	18.47	41.5	19.03	41.5	19.18	41.5	19.46	41.4	20.03
	-16.7	-17.0	43.5	18.32	43.3	18.75	43.2	19.32	43.2	19.60	43.2	19.75	43.1	20.32
	-13.7	-15.0	45.3	18.61	45.1	19.18	45.1	19.60	45.0	19.89	45.0	20.03	44.9	20.60
	-11.8	-13.0	47.3	19.03	47.2	19.46	47.2	19.89	47.1	20.17	47.1	20.46	45.0	19.46
	-9.8	-11.0	49.5	19.46	49.4	19.89	49.4	20.32	49.3	20.46	48.3	20.03	45.0	18.47
	-9.5	-10.0	50.8	19.60	50.6	20.03	50.5	20.46	50.0	20.32	48.3	19.46	45.0	17.90
	-8.5	-9.1	51.8	19.75	51.8	20.17	51.6	20.60	50.0	19.75	48.3	19.03	45.0	17.47
	-7.0	-7.6	53.7	20.03	53.7	20.46	51.6	19.60	50.0	18.89	48.3	18.18	45.0	16.62
	-5.0	-5.6	56.4	20.46	54.9	19.89	51.6	18.47	50.0	17.75	48.3	17.04	45.0	15.76
	-3.0	-3.7	58.2	20.17	54.9	18.75	51.6	17.47	50.0	16.76	48.3	16.19	45.0	12.86
	0.0	-0.7	58.2	18.32	54.9	17.18	51.6	15.90	50.0	14.91	48.3	12.76	45.0	11.73
	3.0	2.2	58.2	16.76	54.9	15.62	51.6	12.62	50.0	12.15	48.3	11.68	45.0	10.75
	5.0	4.1	58.2	15.90	54.9	12.80	51.6	11.90	50.0	11.46	48.3	11.02	45.0	10.17
	7.0	6.0	58.2	12.94	54.9	12.08	51.6	11.24	50.0	10.82	48.3	10.41	45.0	9.61
	9.0	7.9	58.2	12.20	54.9	11.41	51.6	10.62	50.0	10.22	48.3	9.85	45.0	8.79
	11.0	9.8	58.2	11.52	54.9	10.78	51.6	10.04	50.0	9.68	48.3	9.16	45.0	8.02
13.0	11.8	58.2	10.87	54.9	10.17	51.6	9.40	50.0	8.86	48.3	8.32	45.0	7.26	
15.0	13.7	58.2	10.28	54.9	9.63	51.6	8.60	50.0	8.09	48.3	7.58	45.0	6.84	
50%	-19.8	-20.0	38.8	19.46	36.6	18.18	34.4	16.90	33.3	16.19	32.2	15.62	29.9	12.43
	-18.8	-19.0	38.8	19.03	36.6	17.75	34.4	16.47	33.3	15.90	32.2	14.77	29.9	12.16
	-16.7	-17.0	38.8	18.18	36.6	16.90	34.4	15.76	33.3	14.15	32.2	12.62	29.9	11.61
	-13.7	-15.0	38.8	17.18	36.6	16.05	34.4	13.27	33.3	12.47	32.2	11.99	29.9	11.05
	-11.8	-13.0	38.8	16.33	36.6	14.77	34.4	12.30	33.3	11.83	32.2	11.38	29.9	10.50
	-9.8	-11.0	38.8	15.48	36.6	12.52	34.4	11.63	33.3	11.21	32.2	10.78	29.9	9.95
	-9.5	-10.0	38.8	13.61	36.6	12.17	34.4	11.32	33.3	10.91	32.2	10.50	29.9	9.68
	-8.5	-9.1	38.8	12.70	36.6	11.86	34.4	11.04	33.3	10.64	32.2	10.24	29.9	9.37
	-7.0	-7.6	38.8	12.16	36.6	11.36	34.4	10.58	33.3	10.20	32.2	9.81	29.9	8.74
	-5.0	-5.6	38.8	11.46	36.6	10.72	34.4	9.98	33.3	9.63	32.2	9.09	29.9	7.95
	-3.0	-3.7	38.8	10.84	36.6	10.14	34.4	9.37	33.3	8.83	32.2	8.29	29.9	7.24
	0.0	-0.7	38.8	9.93	36.6	9.11	34.4	8.12	33.3	7.62	32.2	7.18	29.9	6.58
	3.0	2.2	38.8	8.83	36.6	7.91	34.4	7.09	33.3	6.82	32.2	6.54	29.9	6.00
	5.0	4.1	38.8	8.03	36.6	7.21	34.4	6.68	33.3	6.41	32.2	6.15	29.9	5.66
	7.0	6.0	38.8	7.29	36.6	6.78	34.4	6.28	33.3	6.04	32.2	5.80	29.9	5.33
	9.0	7.9	38.8	6.85	36.6	6.38	34.4	5.93	33.3	5.68	32.2	5.47	29.9	5.02
	11.0	9.8	38.8	6.45	36.6	6.01	34.4	5.59	33.3	5.37	32.2	5.16	29.9	4.73
13.0	11.8	38.8	6.07	36.6	5.66	34.4	5.24	33.3	5.04	32.2	4.85	29.9	4.46	
15.0	13.7	38.8	5.73	36.6	5.33	34.4	4.96	33.3	4.76	32.2	4.57	29.9	4.20	

Abbreviations:

TC: Total capacity (kW)

PI: Power input (compressor + outdoor fan motor) (kW)

## 9 Operating Limits

Figure 2-9.1: Cooling operating limit

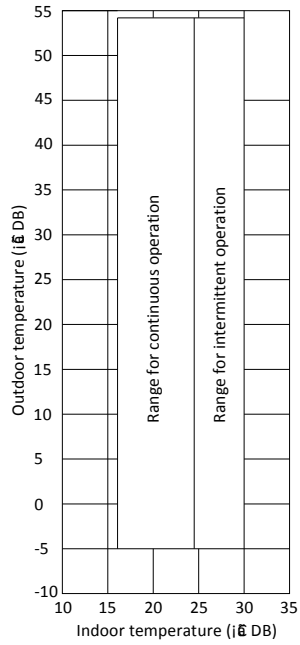
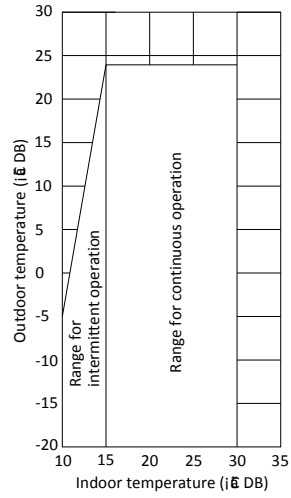


Figure 2-9.2: Heating operating limit



Notes:

- These figures assume the following operating conditions:
  - Equivalent piping length: 7.5m
  - Level difference: 0

## 10 Sound Levels

### 10.1 Overall

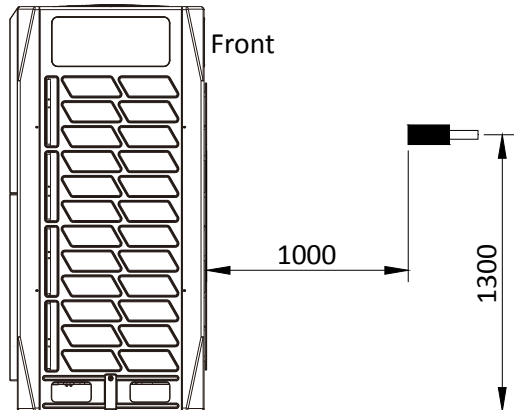
Table 2-10.1: Sound pressure level

Model	dB(A)	Model	dB(A)	Model	dB(A)	Model	dB(A)
8HP	58	28HP	65	48HP	67	68HP	68
10HP	59	30HP	65	50HP	67	70HP	69
12HP	60	32HP	65	52HP	67	72HP	69
14HP	62	34HP	65	54HP	67	74HP	69
16HP	62	36HP	66	56HP	67	76HP	69
18HP	63	38HP	66	58HP	68	78HP	69
20HP	63	40HP	66	60HP	68	80HP	70
22HP	63	42HP	66	62HP	68	82HP	70
24HP	64	44HP	66	64HP	68	84HP	70
26HP	65	46HP	66	66HP	68	86HP	70
						88HP	70

Notes:

1. Sound pressure level is measured at a position 1m in front of the unit and 1.3m above the floor in a semi-anechoic chamber. During in-situ operation, sound pressure levels may be higher as a result of ambient noise.

Figure 2-10.1: Sound pressure level measurement (unit: mm)



### 10.2 Octave Band Level

Figure 2-10.2 TMVV5X252HT3I<sup>4.7</sup>O4ATW3T octave band level

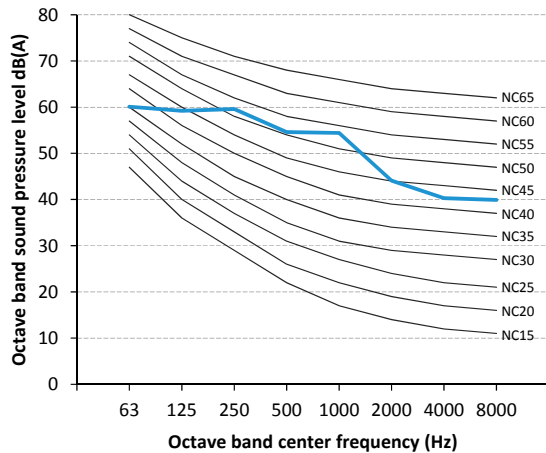


Figure 2-10.3 TMVV5X280HT3I<sup>4.5</sup>O4ATW3T octave band level

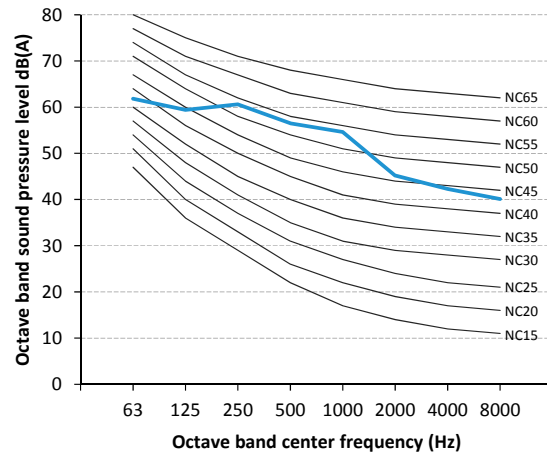


Figure 2-10.4 TMVV5X335HT3I<sup>4.3</sup>O4ATW3T octave band level

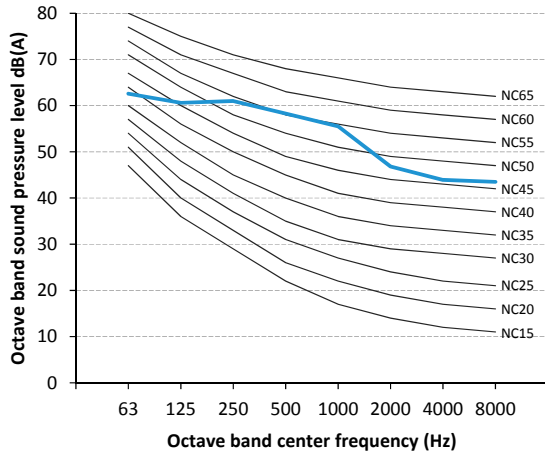


Figure 2-10.5 TMVV5X400HT3I<sup>4.3</sup>O4ATW3T octave band level

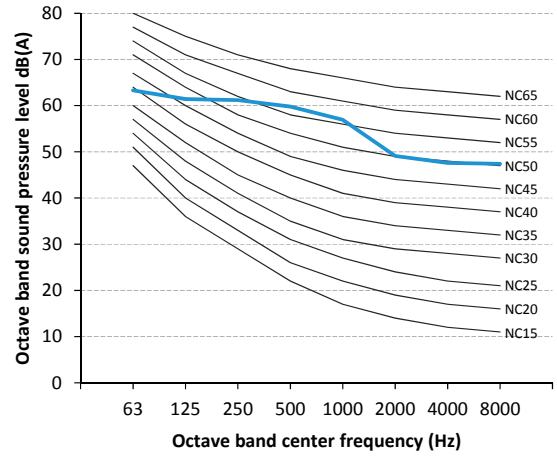


Figure 2-10.6 TMVV5X450HT3I<sup>4.1</sup>O4ATW3T octave band level

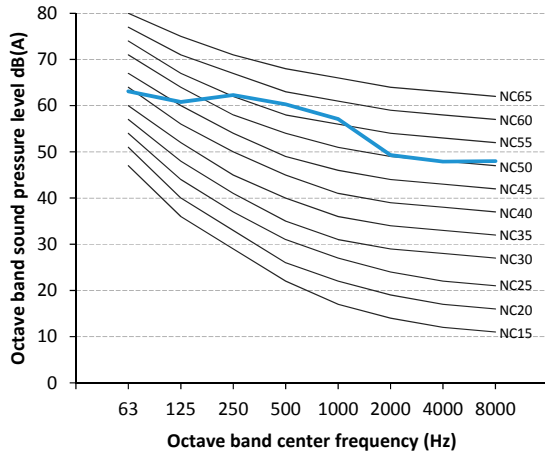


Figure 2-10.7 TMVV5X500HT3I<sup>3.9</sup>O4ATW3T octave band level

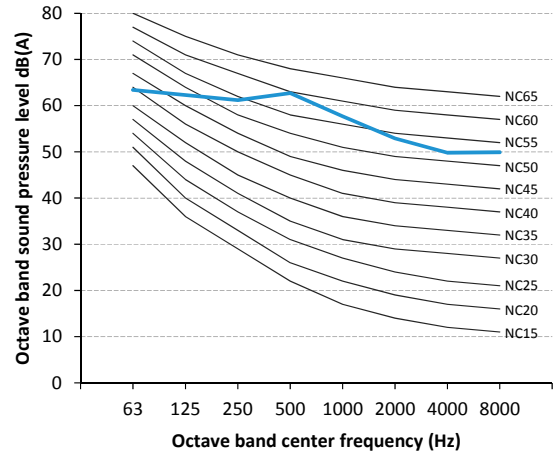


Figure 2-10.8 TMVV5X560HT3I3.86O4ATW3T octave band level

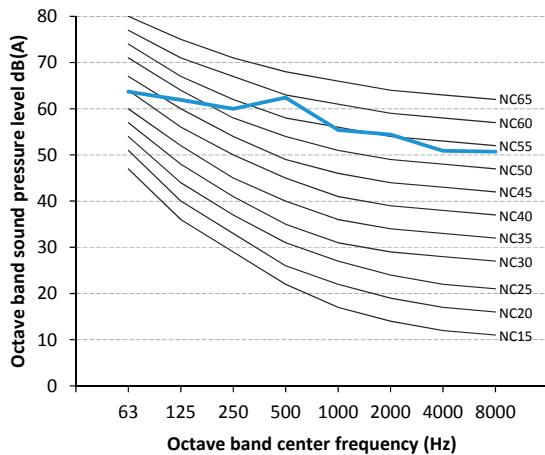
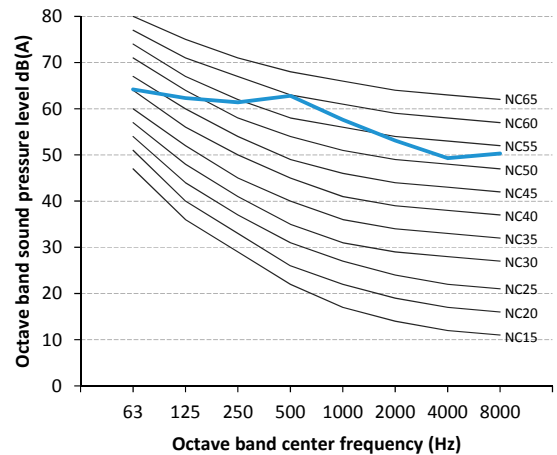







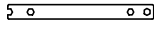
Figure 2-10.9 TMVV5X615HT3I<sup>3.74</sup>O4ATW3T octave band level



## 11 Accessories

### 11.1 Standard Accessories

Table 2-11.1: Standard accessories

Name	Shape	Quantity	Function
Outdoor unit installation manual		1	
Outdoor unit owner's manual		1	
Indoor unit owner's manual		2	
Flat-blade screwdriver	-	1	Adjusting indoor and outdoor unit dial switches
90° elbow		1	Connecting pipes
Seal plug		8	Used in pipe flushing
Connection pipe		3	Connecting pipes
Matched resistor		2	Enhances communication stability
Wrench		1	Removing side plate
Accessory bag	-	1	

### 11.2 Optional Accessories

Table 2-11.2: Optional accessories

Optional accessories	Model	Packed dimensions (mm)	Net/gross weight (kg)	Function
Outdoor branch joint kits	TFQZHW-02N1D	255×150×185	1.2/1.5	Distribute refrigerant to indoor units and balance flow resistance between outdoor units
	TFQZHW-03N1D	345×160×285	2.4/3.4	
	TFQZHW-04N1D	475×165×300	3.6/4.8	
Indoor branch joint kits	TFQZHN-01D	290×105×100	0.3/0.4	
	TFQZHN-02D	290×105×100	0.4/0.6	
	TFQZHN-03D	310×130×125	0.6/0.9	
	TFQZHN-04D	350×170×180	1.1/1.5	
	TFQZHN-05D	365×195×215	1.4/1.9	



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