VECR Series

Round Flow Cassette VRF Indoor Unit
Technical Manual

220~240V/1/50-60Hz

Four-way Cassette

1 Specifications

Table 1.1: VECR010(012,015,019)T0A specifications

Model			VECR010T0A-DWV028	VECR012T0A-DWV036	VECR015T0A-DWV045	VECR019T0A-DWV056
Power supply			1-phase, 220-240V, 50/60Hz			
Cooling[1]	Capacity	kW	2.8	3.6	4.5	5.6
		kBtu/h	9.6	12.3	15.4	19.1
	Power input	W	17	17	36	23
Heating[2]	Capacity	kW	3.2	4.0	5.0	6.3
		kBtu/h	10.9	13.7	17.1	21.5
	Power input	W	17	17	36	23
Fan motor type			DC			
Indoor coil	Number of rows		1	1	1	2
	Tube pitch × row pitch	mm	18×10.72			
	Fin spacing and type	mm	1.2 Hydrophilic aluminum			
	Tube OD and type	mm	Φ5 Inner-groove			
	Dimensions (L×H×W)	mm	2165×144×10.72			
	Number of circuits		4	4	4	8
Air flow rate[3]		m^3/h	790/740/691/641/591/542/492		910/840/770/701/631/561/491	840/791/741/692/642/593/543
Sound pressure level[4]		dB(A)	30/29/28/27.5/27/26/25		37/35/34/32/30/29/27	33/32/31/30/29/28/27
Sound power level		dB(A)	44/43/42/42/41/40/39		52/51/49/47/45/43/40	49/48/47/47/46/45/44
Main body	Net dimensions[5] (W×H×D)	in (mm)	33 x 8 x 33 (840×204×840)			
	Packed dimensions (W×H×D)	in (mm)	37 x 9 7/8 x 37 (940×250×940)			
	Net/Gross weight	lbs (kg)	39.6/45.1 (18/20.5)			42.9/48.4 (19.5/22)
Panel	Net dimensions (W×H×D)	in (mm)	37 1/2 x 2 x 37 1/2 (950×50×950)			
	Packed dimensions (W×H×D)	in (mm)	40 1/4 x 3 1/2 x 40 1/4 (1020×90×1020)			
	Net/Gross weight	lbs (kg)	12.8/16.7 (5.8/7.6)			
Refrigerant type			R410A/R32			
Design pressure (H/L)		MPa	4.4/1.5			
Pipe connections	Liquid/Gas pipe	mm	Φ6.35/Φ12.7			
	Drain pipe	mm	OD Φ25			

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

Table 1.2: VECR024(027,031)T0A specifications

Model			**VECR024T0A-DWV071**	**VECR027T0A-DWV080**	**VECR031T0A-DWV090**
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling[1]	Capacity	kW	7.1	8.0	9.0
		kBtu/h	24.2	27.3	30.7
	Power input	W	32	41	43
Heating[2]	Capacity	kW	8.0	9.0	10.0
		kBtu/h	27.3	30.7	34.1
	Power input	W	32	41	43
Fan motor type			DC		
Indoor coil	Number of rows		2	3	2
	Tube pitch × row pitch	mm	18×10.72		
	Fin spacing and type	mm	1.2 Hydrophilic aluminum		
	Tube OD and type	mm	Φ5 Inner-groove		
	Dimensions (L×H×W)	mm	2165×144×21.44		2165×198×21.44
	Number of circuits		8	8	11
Air flow rate[3]		m^3/h	1000/943/886/829/772/715/658	1100/1019/939/858/777/697/616	1330/1239/1148/1057/965/874/783
Sound pressure level[4]		dB(A)	37/36/34/33/31/30/28	42.5/40/38/36/34/32/30	38/37/35/34/32/31/29
Sound power level		dB(A)	52/51/50/48/47/45/44	57/55/53/51/49/47/45	55/54/52/51/50/48/47
Main body	Net dimensions[5] (W×H×D)	in (mm)	33 x 8 x 33 (840×204×840)		33 x 10 x 33 (840×246×840)
	Packed dimensions (W×H×D)	in (mm)	37 x 9 7/8 x 37 (940×250×940)		37 x 12 x 37 (940×295×940)
	Net/Gross weight	lbs (kg)	42.9/48.4 (19.5/22)		47.3/52.8 (21.5/24)
Panel	Net dimensions (W×H×D)	in (mm)	37 1/2 x 2 x 37 1/2 (950×50×950)		
	Packed dimensions (W×H×D)	in (mm)	40 1/4 x 3 1/2 x 40 1/4 (1020×90×1020)		
	Net/Gross weight	lbs (kg)	12.8/16.7 (5.8/7.6)		
Refrigerant type			R410A/R32		
Design pressure (H/L)		MPa	4.4/1.5		
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9		
	Drain pipe	mm	OD Φ25		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

Table 1.3: VECR035(038,048)T0A specifications

Model			VECR035T0A-DWV100	VECR038T0A-DWV112	VECR048T0A-DWV140
Power supply			1-phase, 220-240V, 50/60Hz		
Cooling[1]	Capacity	kW	10.0	11.2	14.0
		kBtu/h	34.1	38.2	47.8
	Power input	W	74	61	118
Heating[2]	Capacity	kW	11.2	12.5	16.0
		kBtu/h	38.2	42.7	54.6
	Power input	W	74	61	118
Fan motor type			DC		
Indoor coil	Number of rows		2	2	2
	Tube pitch × row pitch	mm	18×10.72		
	Fin spacing and type	mm	1.2 Hydrophilic aluminum		
	Tube OD and type	mm	Φ5 Inner-groove		
	Dimensions (L×H×W)	mm	2165×198×21.44	2165×252×21.44	
	Number of circuits		11	14	14
Air flow rate[3]		m^3/h	1470/1360/1250/1141/1031/921/811	1600/1497/1393/1290/1186/1083/979	1900/1787/1673/1560/1446/1333/1219
Sound pressure level[4]		dB(A)	43/41/40/38/36/35/33	41/40/38/37/36/34/33	47.5/46/44/42/40/38/36.5
Sound power level		dB(A)	58/57/55/53/51/49/47	57/56/55/54/53/52/51	64/63/61/60/58/56/54
Main body	Net dimensions[5] (W×H×D)	in (mm)	33 x 10 x 33 (840×246×840)	33x 11 3/8x 33(840×288×840)	
	Packed dimensions (W×H×D)	in (mm)	37 x 12 x 37 (940×295×940)	37x 13 1/4x 37(940×335×940)	
	Net/Gross weight	lbs (kg)	47.3/52.8 (21.5/24)	52.8/58.3 (24/26.5)	52.8/58.3 (24/26.5)
Panel	Net dimensions (W×H×D)	in (mm)	37 1/2 x 2 x 37 1/2 (950×50×950)		
	Packed dimensions (W×H×D)	in (mm)	40 1/4 x 3 1/2 x 40 1/4 (1020×90×1020)		
	Net/Gross weight	lbs (kg)	12.8/16.7 (5.8/7.6)		
Refrigerant type			R410A/R32		
Design pressure (H/L)		MPa	4.4/1.5		
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9		
	Drain pipe	mm	OD Φ25		

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

Table 1.4: VECR060(062)T0A specifications

Model			VECR060T0A-DWV160	VECR062T0A-DWV180
Power supply			1-phase, 220-240V, 50/60Hz	
Cooling[1]	Capacity	kW	16.0	18.0
		kBtu/h	54.6	61.4
	Power input	W	110.0	145.0
Heating[2]	Capacity	kW	18.0	20.0
		kBtu/h	61.4	68.2
	Power input	W	110.0	145.0
Fan motor type			DC	
Indoor coil	Number of rows		3	3
	Tube pitch × row pitch	mm	18×10.72	
	Fin spacing and type	mm	1.2 Hydrophilic aluminum	
	Tube OD and type	mm	Φ5 Inner-groove	
	Dimensions (L×H×W)	mm	2165×144×10.72	2165×144×10.72
	Number of circuits		14	14
Air flow rate[3]		m^3/h	2100/1900/1760/1630/1500/1380/1270	2300/2140/1960/1770/1600/1430/1270
Sound pressure level[4]		dB(A)	48/46/44/43/41/39/37	52/49/47/45/42/39/38
Sound power level		dB(A)	56/53/51/49/47/46/45	59/56/54/51/49/46/45
Main body	Net dimensions[5] (W×H×D)	in (mm)	37 1/2 x 11 7/8 x 37 1/2 (950×300×950)	
	Packed dimensions (W×H×D)	in (mm)	41 3/8 x 13 3/4 x 41 3/8 (1050×350×1050)	
	Net/Gross weight	lbs (kg)	71.7/81.8 (32.6/37.2)	71.9/82.1 (32.7/37.3)
Panel	Net dimensions (W×H×D)	in (mm)	41 3/8 x 2 1/2 x 41 3/8 (1050×65×1050)	
	Packed dimensions (W×H×D)	in (mm)	43 7/8 x 4 x 43 7/8 (1115×100×1115)	
	Net/Gross weight	lbs (kg)	16.3/21.3 (7.4/9.7)	
Refrigerant type			R410A/R32	
Design pressure (H/L)		MPa	4.4/1.5	
Pipe connections	Liquid/Gas pipe	mm	Φ9.52/Φ15.9	Φ9.52/Φ19.1
	Drain pipe	mm	OD Φ25	

Notes:

1. Indoor temperature 27°C DB, 19°C WB; outdoor temperature 35°C DB; equivalent refrigerant piping length 7.5m with zero level difference.
2. Indoor temperature 20°C DB; outdoor temperature 7°C DB, 6°C WB; equivalent refrigerant piping length 7.5m with zero level difference.
3. Air flow rate are from the highest speed to the lowest speed, total 7 rates for each model.
4. Sound pressure level is from highest level to lowest level, total 7 levels for each model. Sound pressure level is measured 1.5m below the unit in a semi-anechoic chamber.
5. The dimension is only the body size, excluding the size of the installation lug, connecting copper pipe, etc. For detailed dimensions, please refer to the installation manual.

2 Dimensions

2.1 Unit Dimensions

Figure 2.1: VECR010(012,015,019,024,027,031,035,038,048)T0A Four-way Cassette dimensions (unit: mm)

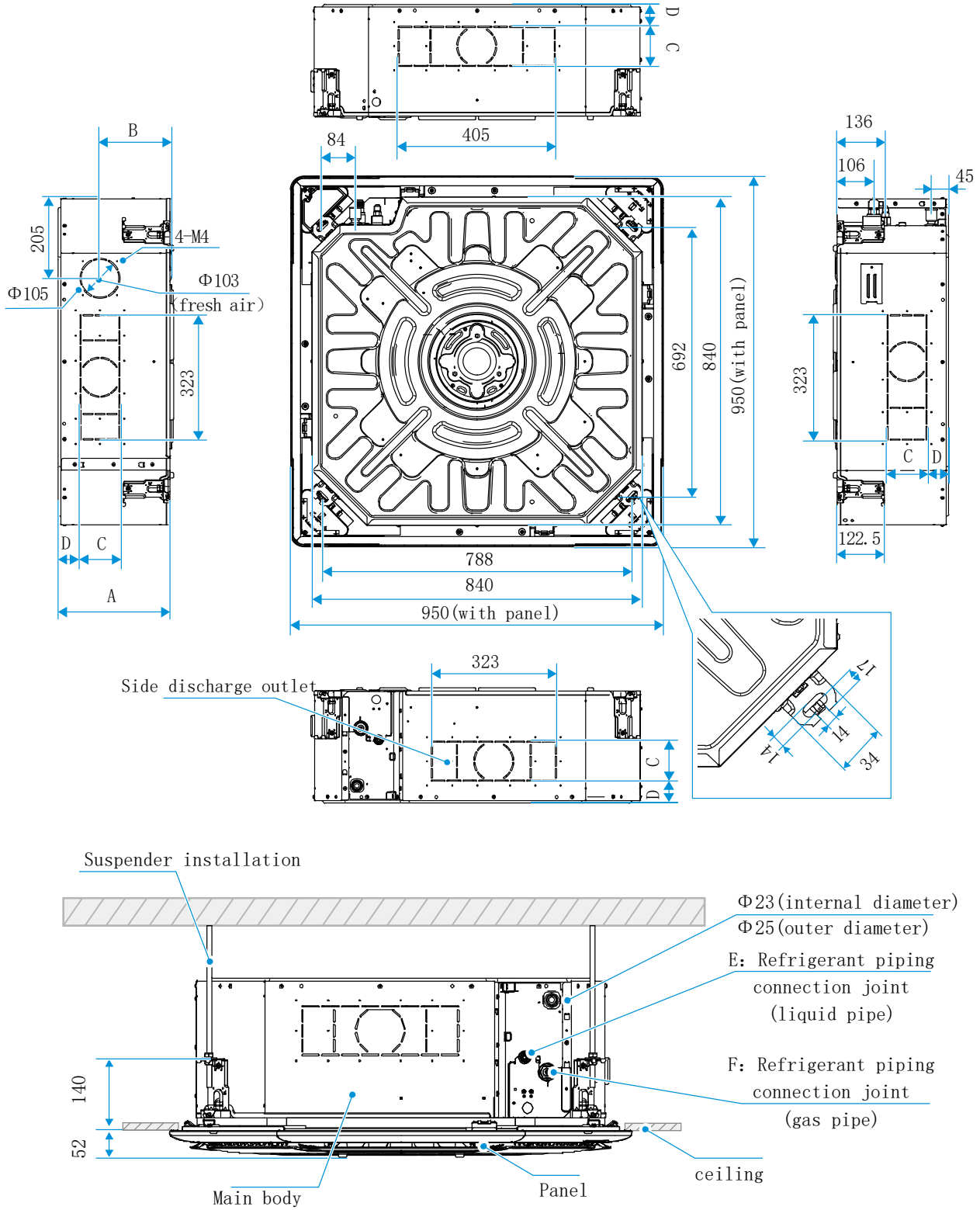
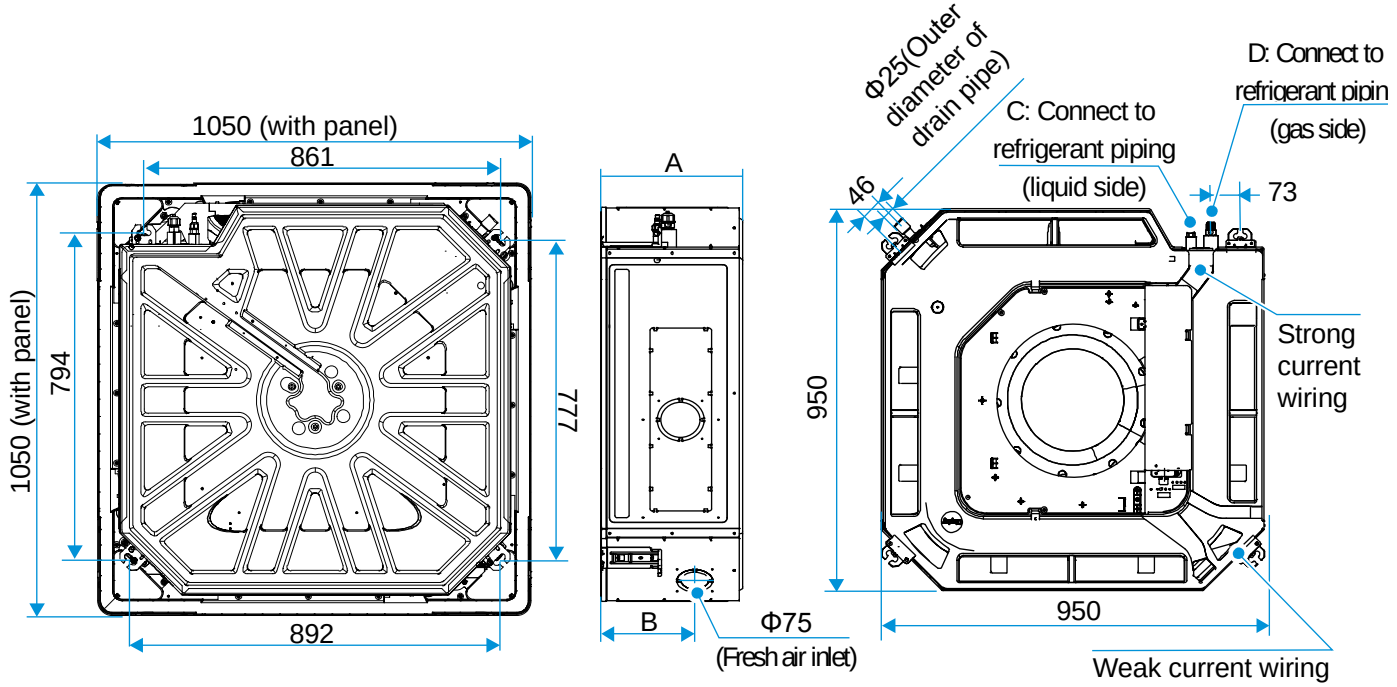


Table 2.1: VECR010(012,015,019,024,027,031,035,038,048)T0A Four-way Cassette dimensions (unit: mm)

Model(kW)	A	B	C	D	E	F
VECR010(012,015,019)T0	204	141	63	41.5	Φ12.7	Φ6.35
VECR024(027)T0A	204	141	63	41.5	Φ15.9	Φ9.52
VECR031(035)T0A	246	163	103	41.5	Φ15.9	Φ9.52
VECR038(048)T0A	288	190	103	56.5	Φ15.9	Φ9.52

2.2 Unit Dimensions

Figure 2.1: VECR060(062)T0A Four-way Cassette dimensions (unit: mm)



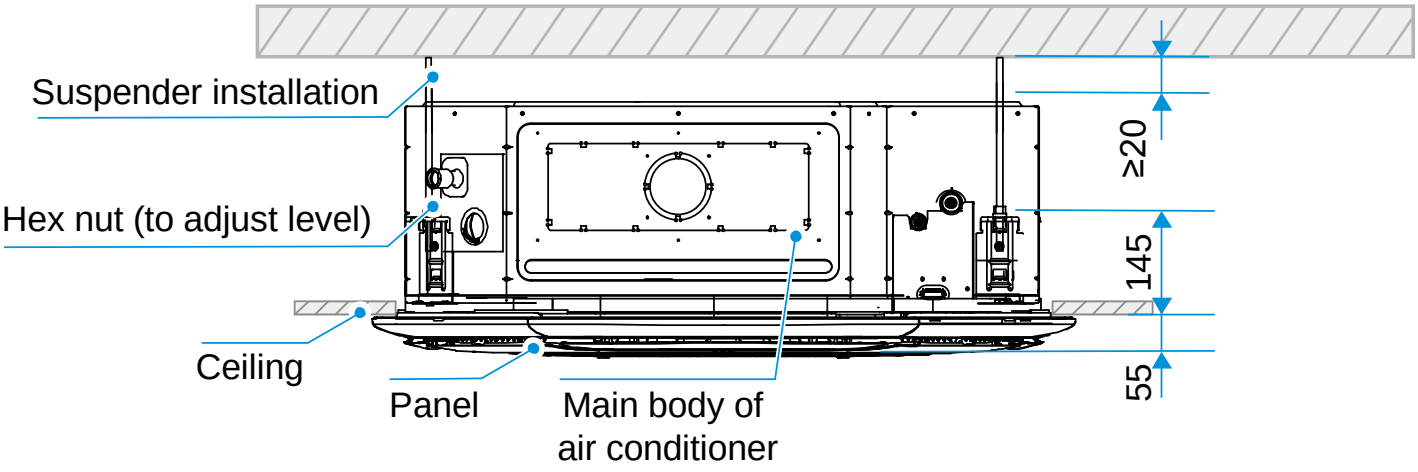


Table 2.1: VECR060(062)T0A Four-way Cassette dimensions (unit: mm)

Model(kW)	A	B	C	D
VECR060T0A-DWV160	300	200	Φ9.52	Φ15.9
VECR062T0A-DWV180	300	200	Φ9.52	Φ19.1

3 Unit Placement

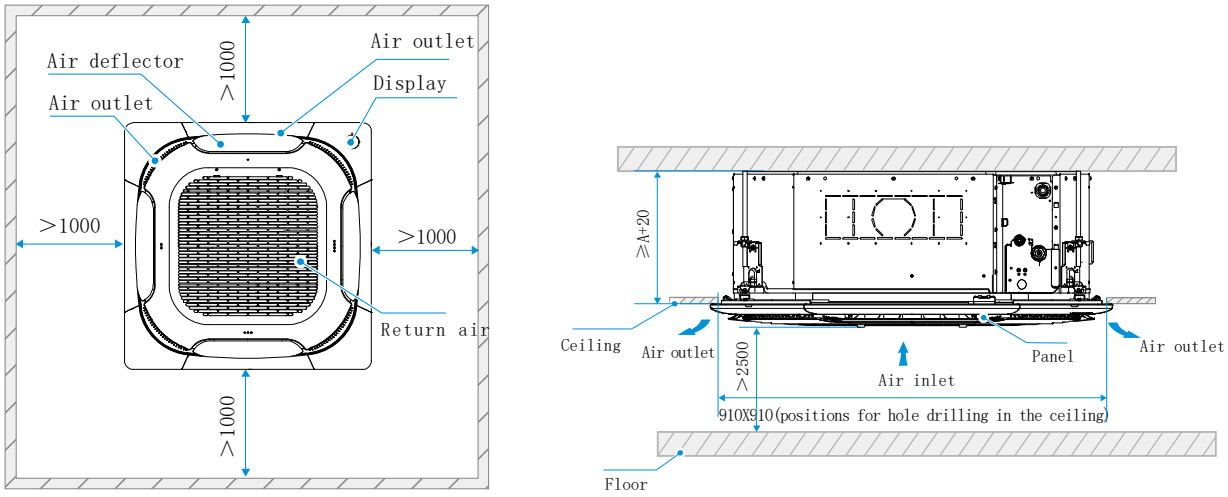
3.1 Placement Considerations

Unit placement should take account of the following considerations:

- Units should not be installed in the following locations:
  - A place filled with mineral oil, fumes or mist, like a kitchen.
  - A place where there are corrosive gases, such as acid or alkaline gases..
  - A place exposed to combustible gases and using volatile combustible gases such as diluent or gasoline.
  - A place where there is equipment emitting electromagnetic radiation.
  - A place where there is a high salt content in the air like a coast.
  - Do not use the air conditioner in an environment where an explosion may occur.
  - Places like in vehicles or cabin rooms.
  - Factories with major voltage fluctuations in the power supplies.
  - Other special environmental conditions.
- Units should be installed in positions where:
  - Ensure that the airflow in and out of the IDU is reasonably organized to form an air circulation in the room.
  - Ensure IDU maintenance space.
  - The nearer the drainage pipe and copper pipe are to the ODU, the lower the pipe cost is.
  - Prevent the air conditioner from blowing directly to the human body.
  - The closer the wiring to the power cabinet, the lower the wiring cost is.
  - Keep the air-conditioning return air away from the setting sun of the room.
  - Be careful not to interfere with the light tank, fire pipe, gas pipe and other facilities.
  - The IDU should not be lifted in the places like load-bearing beam and columns that affect the structural safety of the house.
  - The wired controller and the IDU should be in the same installation space; otherwise, the sampling point setting of the wired controller need to be changed.

3.2 Space Requirements

Figure 3.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette space requirements (unit: mm)

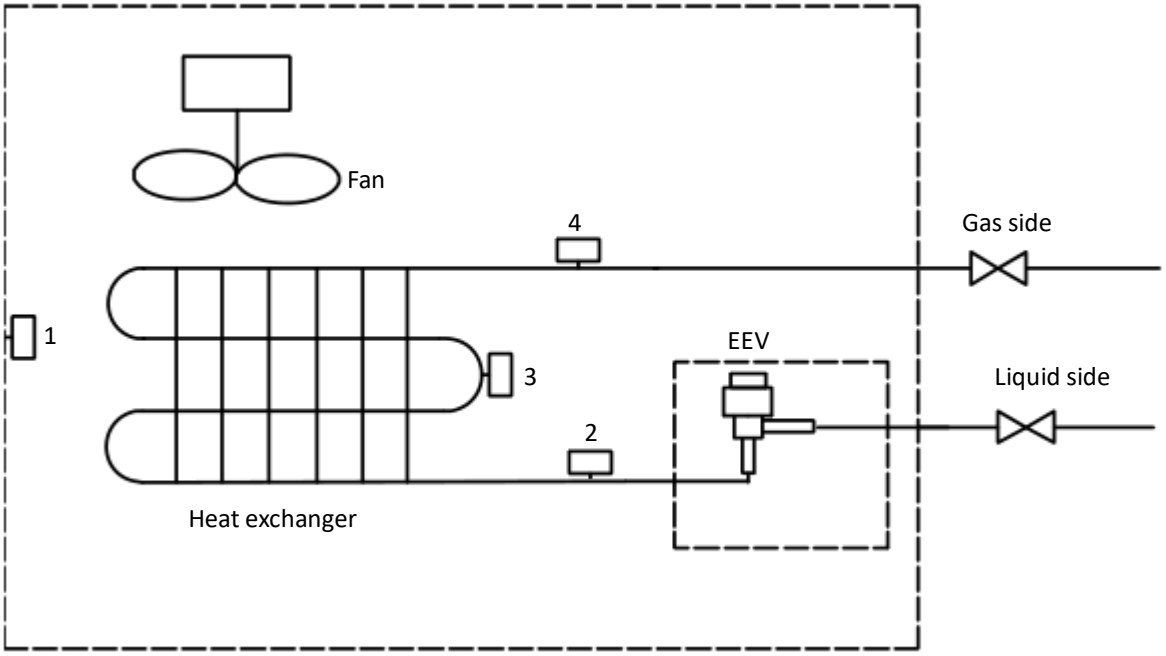


Notes:

1. The centerline of the maintenance hole should be in the same position as the centerline of the indoor unit.
2. The dimensions of A are shown in Table 2,1

4 Piping Diagram

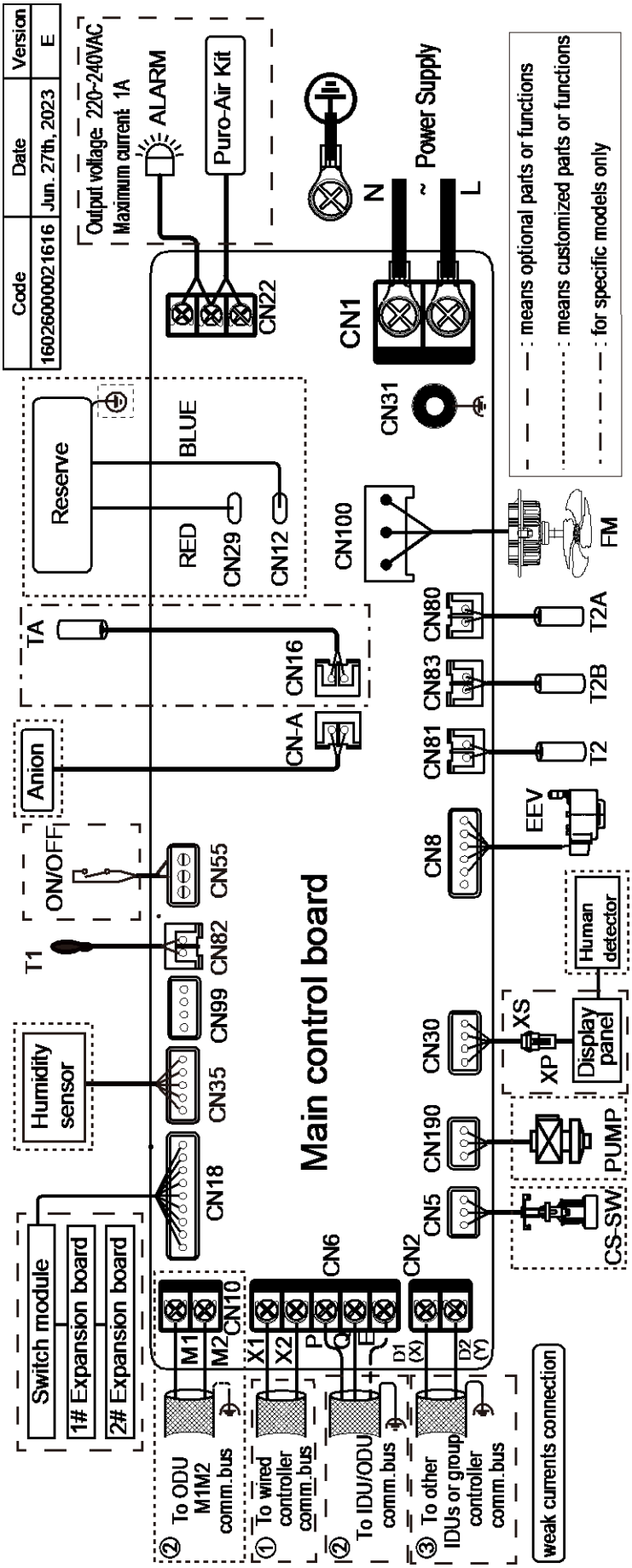
Figure 4.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette piping diagram



Legend		
1	T1	Inlet Air Temp. Sensor
2	T2A	Liquid Pipe Temp. Sensor
3	T2	Middle Pipe Temp. Sensor
4	T2B	Gas Pipe Temp. Sensor

5 Wiring Diagram

Figure 5.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette wiring diagram



Code	Description	Code	Description
ALARM	Alarm Output	T2	Middle Pipe Temp. Sensor
Anion	Ionic Sterilization Module	T2A	Liquid Pipe Temp. Sensor
CS-SW	Water Level Switch	T2B	Gas Pipe Temp. Sensor
EEV	Electronic Expansion Valve	TA	Discharge Air Temp. Sensor*
FM	DC Fan Motor	ON/OFF	Remote ON/OFF
T0	Outdoor Air Temp. Sensor*	XS/XP	Connectors
T1	Inlet Air Temp. Sensor		

*** Indicates that this sensor is only available for Fresh Air Processing Unit.**

Notes for installers and service engineers

Caution

- All installation, servicing and maintenance must be carried out by competent and suitably qualified, certified and accredited professionals and in accordance with all applicable legislation.
- Units should be grounded in accordance with all applicable legislation. Metal and other conductive components should be insulated in accordance with all applicable legislation.
- Power supply wiring should be securely fastened at the power supply terminals – loose power supply wiring would represent a fire risk.
- After installation, servicing or maintenance, the electric control box cover should be closed. Failing to close the electric control box cover risks fire or electric shock.
- The dotted lines indicate the field wiring or optional function.
- PQ and M1M2 communication ports both are used for indoor and outdoor communication, and only one of them can be used at a time. Meanwhile, be sure to connect the same communication ports (PQ to PQ; M1M2 to M1M2) in case of damage of the main control board.
- D1D2 communication ports are used for group control communication. When connecting the group controller, the D1D2 port of the indoor units that are to be group controlled must be connected in daisy chain, and the group controller must be connected to the X1X2 port of one of the indoor units in the group control, and set to group control mode. In addition, D1D2 communication ports can also be connected to the central controller.

6 Capacity Tables

6.1 Cooling Capacity Table

Table 6.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette cooling capacity

Model	Indoor air temperature (°C WB/DB)													
	14/20		16/23		18/26		19/27		20/28		22/30		24/32	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
VECR010T0A-DWV028	2.5	2.4	2.7	2.5	2.8	2.5	2.8	2.4	2.9	2.3	2.9	2.2	3.0	2.1
VECR012T0A-DWV036	3.2	3.1	3.4	3.1	3.6	3.2	3.6	3.0	3.7	3.0	3.8	2.8	3.9	2.7
VECR015T0A-DWV045	4.0	3.6	4.3	3.8	4.5	3.8	4.5	3.7	4.6	3.6	4.7	3.4	4.8	3.3
VECR019T0A-DWV056	5.0	4.5	5.3	4.6	5.6	4.7	5.6	4.6	5.7	4.5	5.8	4.2	6.0	4.1
VECR024T0A-DWV071	6.3	5.7	6.7	5.8	7.0	5.9	7.1	5.8	7.2	5.6	7.4	5.4	7.6	5.2
VECR027T0A-DWV080	7.1	6.6	7.6	6.7	7.9	6.8	8.0	6.6	8.1	6.4	8.3	6.1	8.5	5.8
VECR031T0A-DWV090	8.0	7.2	8.5	7.4	8.9	7.5	9.0	7.3	9.1	7.1	9.4	6.8	9.6	6.5
VECR035T0A-DWV100	8.9	8.1	9.5	8.4	9.9	8.4	10.0	8.2	10.1	7.9	10.4	7.6	10.6	7.2
VECR038T0A-DWV112	9.9	9.1	10.6	9.3	11.1	9.4	11.2	9.2	11.3	8.9	11.6	8.4	11.9	8.1
VECR048T0A-DWV140	12.4	11.0	13.2	11.4	13.8	11.5	14.0	11.3	14.2	11.0	14.5	10.5	14.9	10.1
VECR060T0A-DWV160	14.2	12.6	15.1	13.0	15.8	13.2	16.0	12.9	16.2	12.5	16.6	12.0	17.0	11.5
VECR062T0A-DWV180	15.9	14.1	17.0	14.7	17.8	14.8	18.0	14.5	18.2	14.1	18.7	13.5	19.1	12.9

Abbreviations:
TC: Total capacity (kW)
SC: Sensible capacity(kW)

Notes:
1.Shaded cells indicate rating condition.

6.2 Heating Capacity Table

Table 6.2: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette heating capacity

Model	Indoor air temperature (°C DB)					
	16	18	20	21	22	24
	TC	TC	TC	TC	TC	TC
VECR010T0A-DWV028	3.4	3.4	3.2	3.1	3.0	2.8
VECR012T0A-DWV036	4.2	4.2	4.0	3.8	3.8	3.5
VECR015T0A-DWV045	5.3	5.3	5.0	4.8	4.7	4.4
VECR019T0A-DWV056	6.7	6.6	6.3	6.1	5.9	5.5
VECR024T0A-DWV071	8.5	8.4	8.0	7.8	7.5	7.0
VECR027T0A-DWV080	9.5	9.5	9.0	8.7	8.5	7.8
VECR031T0A-DWV090	10.6	10.5	10.0	9.7	9.4	8.8
VECR035T0A-DWV100	11.9	11.8	11.2	10.9	10.5	9.8
VECR038T0A-DWV112	13.3	13.1	12.5	12.1	11.8	10.9
VECR048T0A-DWV140	17.0	16.8	16.0	15.5	15.0	13.9
VECR060T0A-DWV160	19.1	19.1	18.0	17.4	16.9	15.8
VECR062T0A-DWV180	21.3	21.3	20.0	19.4	18.8	17.5

Abbreviations:
TC: Total capacity (kW)

Notes:
1.Shaded cells indicate rating condition.

7 Electrical Characteristics

Table 7.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette electrical characteristics

Model name	Power supply						Indoor fan motors	
	Hz	Volts	Min. volts	Max. volts	MCA	MFA	Rated motor output (kW)	FLA
VECR010T0A-DWV028	50/60	220-240	198	264	0.27	15	0.045	0.22
VECR012T0A-DWV036	50/60	220-240	198	264	0.27	15	0.045	0.22
VECR015T0A-DWV045	50/60	220-240	198	264	0.52	15	0.045	0.41
VECR019T0A-DWV056	50/60	220-240	198	264	0.33	15	0.045	0.26
VECR024T0A-DWV071	50/60	220-240	198	264	0.42	15	0.045	0.33
VECR027T0A-DWV080	50/60	220-240	198	264	0.63	15	0.045	0.51
VECR031T0A-DWV090	50/60	220-240	198	264	0.58	15	0.045	0.46
VECR035T0A-DWV100	50/60	220-240	198	264	0.91	15	0.045	0.72
VECR038T0A-DWV112	50/60	220-240	198	264	0.78	15	0.125	0.62
VECR048T0A-DWV140	50/60	220-240	198	264	1.42	15	0.125	1.14
VECR060T0A-DWV160	50/60	220-240	198	264	2.30	15	0.125	1.83
VECR062T0A-DWV180	50/60	220-240	198	264	2.73	15	0.125	2.10

Abbreviations:
MCA: Minimum Circuit Amps
MFA: Maximum Fuse Amps
FLA: Full Load Amps

8 Sound Levels

8.1 Overall

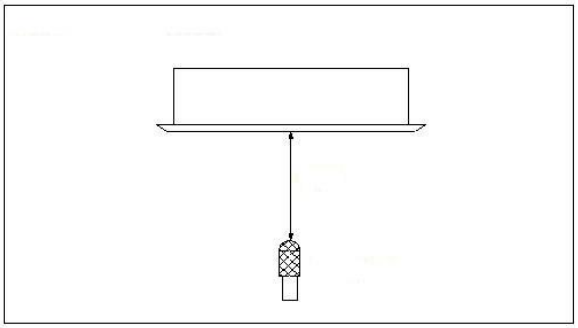
Table 8.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette sound pressure levels[1]

Model name	Sound pressure levels dB						
	SSH	SH	H	M	L	SL	SSL
VECR010T0A-DWV028	30	29	28	27.5	27	26	25
VECR012T0A-DWV036	30	29	28	27.5	27	26	25
VECR015T0A-DWV045	37	35	34	32	30	29	27
VECR019T0A-DWV056	33	32	31	30	29	28	27
VECR024T0A-DWV071	37	36	34	33	31	30	28
VECR027T0A-DWV080	42.5	40	38	36	34	32	30
VECR031T0A-DWV090	38	37	35	34	32	31	29
VECR035T0A-DWV100	43	41	40	38	36	35	33
VECR038T0A-DWV112	41	40	38	37	36	34	33
VECR048T0A-DWV140	47.5	46	44	42	40	38	36.5
VECR060T0A-DWV160	48	46	44	43	41	39	37
VECR062T0A-DWV180	52	49	47	45	42	39	38

Notes:

1. Sound pressure levels are measured 1.5m below the unit in a semi-anechoic chamber. During in-situ operation, sound pressure levels may be higher as a result of ambient noise.

Figure 8.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette sound pressure level measurement



8.2 Octave Band Levels

Figure 8.2: VECR010T0A-DWV028 octave band levels

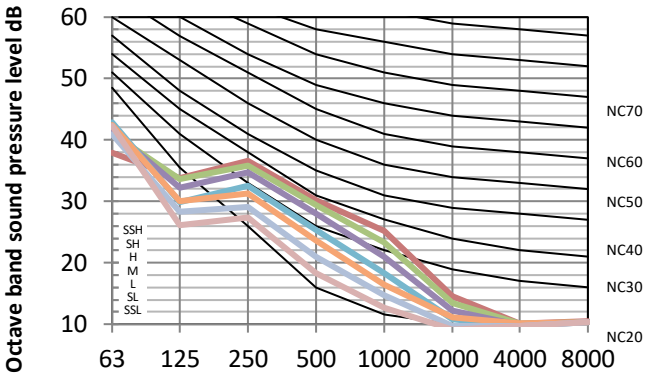


Figure 8.3: VECR012T0A-DWV036 octave band levels

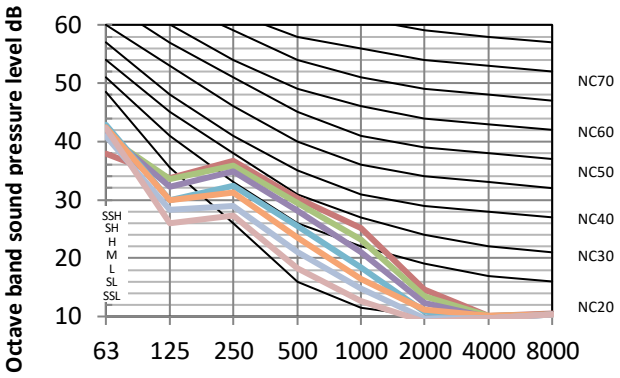


Figure 8.4: VECR015T0A-DWV045 octave band levels

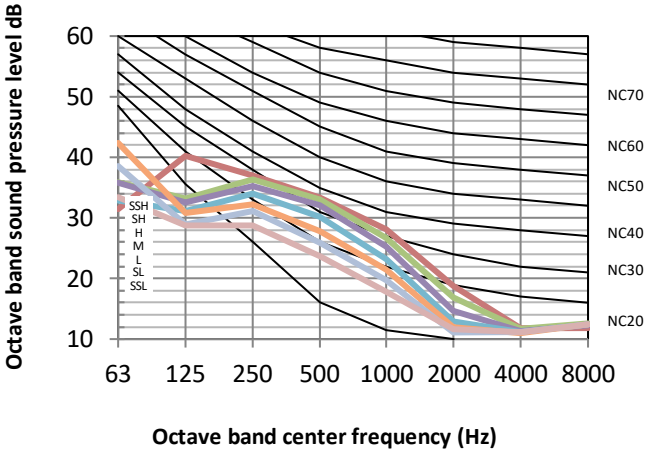


Figure 8.5: VECR019T0A-DWV056 octave band levels

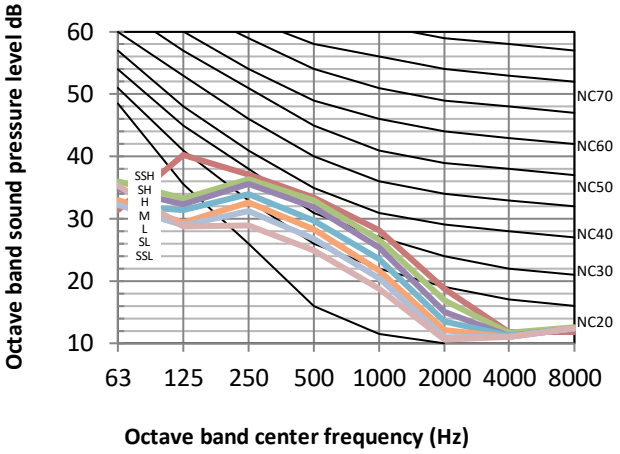


Figure 8.6: VECR024T0A-DWV071 octave band levels

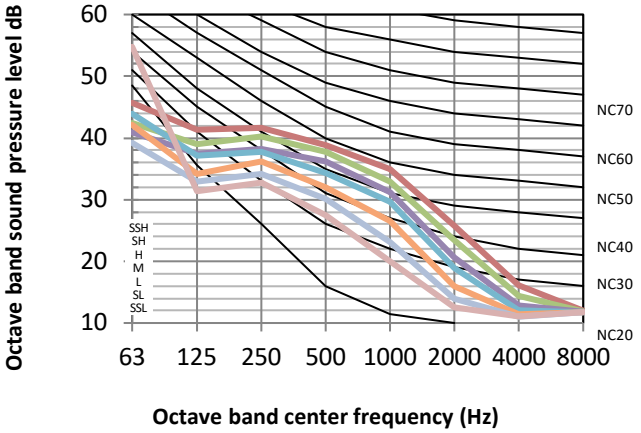


Figure 8.7: VECR027T0A-DWV080 octave band levels

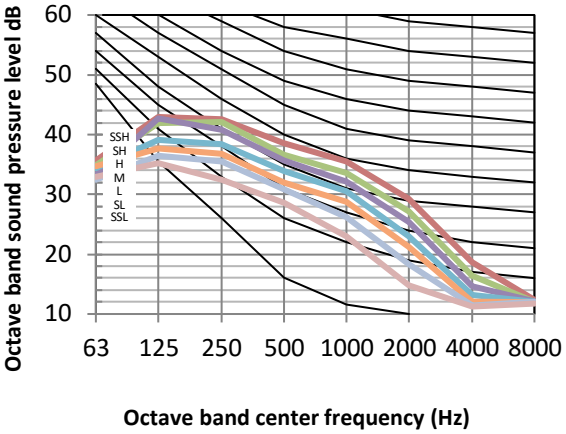


Figure 8.8: VECR031T0A-DWV090 octave band levels

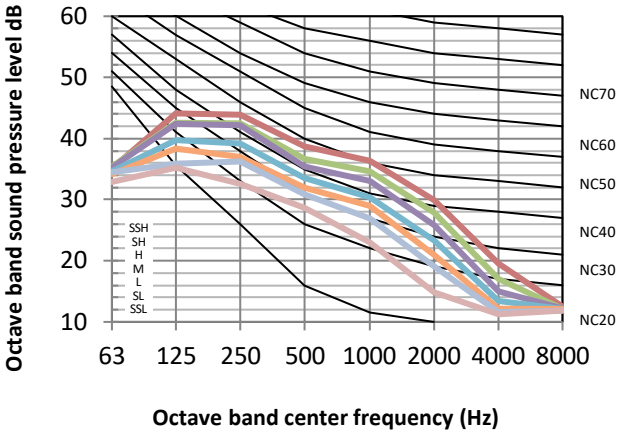


Figure 8.9: VECR035T0A-DWV100 octave band levels

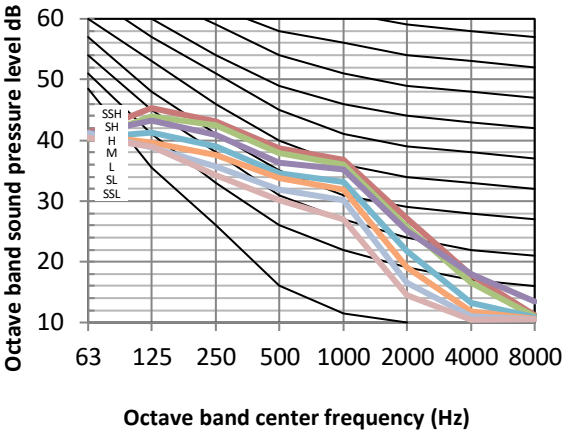


Figure 8.10: VECR038T0A-DWV112 octave band levels

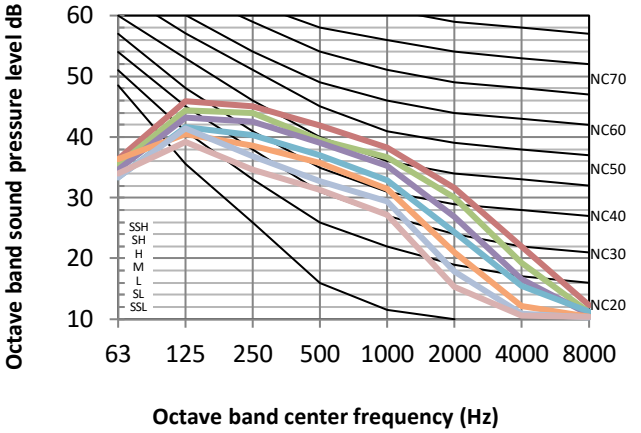


Figure 8.11: VECR048T0A-DWV140 octave band levels

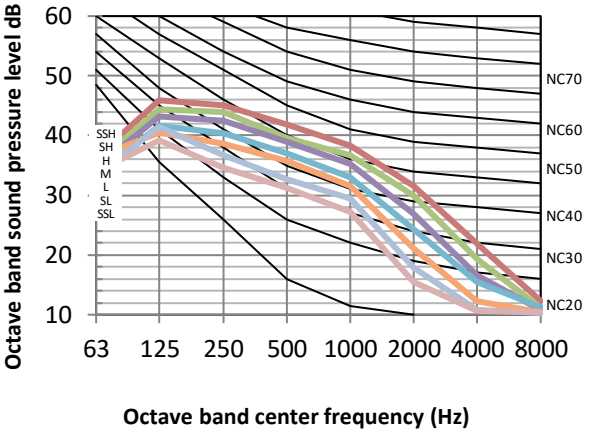


Figure 8.12: VECR060T0A-DWV160 octave band levels

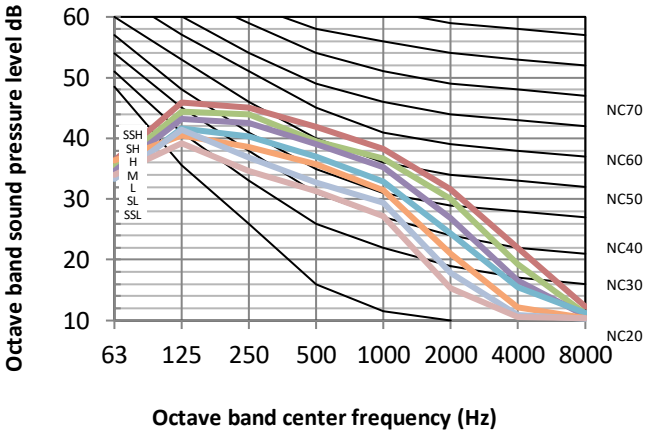
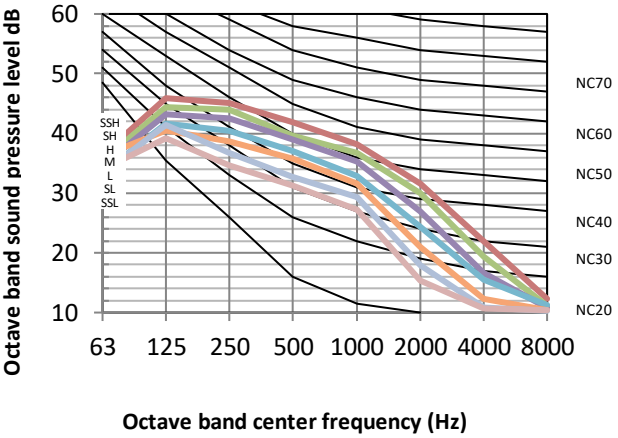


Figure 8.13: VECR062T0A-DWV180 octave band levels



9 Temperature and Airflow Distributions

9.1 Simulate condition

Table 9.1: VECR010(012,015,019,024,027,031,035,038,048,060,062)T0A Four-way Cassette simulate condition

Model name	Room size (m)	Ceiling height (m)	Flow angle (Cooling/Heating)	Placing
VECR010T0A-DWV028	6×6	2.7	30° /65°	Center
VECR012T0A-DWV036	6×6	2.7	30° /65°	Center
VECR015T0A-DWV045	6×6	2.7	30° /65°	Center
VECR019T0A-DWV056	8×8	2.7	30° /65°	Center
VECR024T0A-DWV071	8×8	2.7	30° /65°	Center
VECR027T0A-DWV080	8×8	2.7	30° /65°	Center
VECR031T0A-DWV090	10×10	2.7	30° /65°	Center
VECR035T0A-DWV100	10×10	2.7	30° /65°	Center
VECR038T0A-DWV112	10×10	2.7	30° /65°	Center
VECR048T0A-DWV140	10×10	2.7	30° /65°	Center
VECR060T0A-DWV160	10×10	2.7	30° /65°	Center
VECR062T0A-DWV180	10×10	2.7	30° /65°	Center

Note:

1. These figures and videos are based on software simulation. They show typical temperature and airflow distributions in the conditions above. In the actual installation, they may differ from these figures and videos under the influence of air temperature conditions, ceiling height, cooling/heating load, obstacles, etc.

9.2 Airflow distributions

Figure 9.1: VECR010T0A-DWV028 cooling at 300s

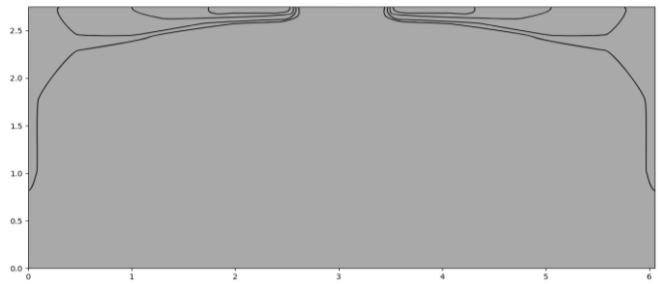


Figure 9.2: VECR010T0A-DWV028 heating at 300s

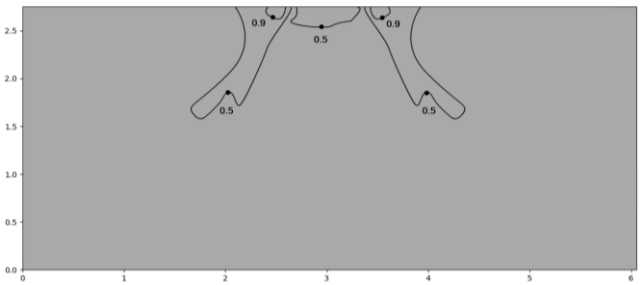


Figure 9.3: VECR012T0A-DWV036 cooling at 300s

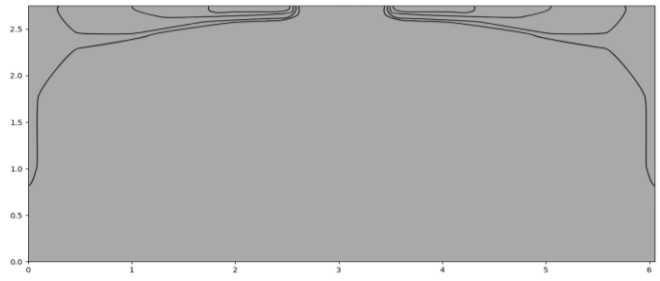


Figure 9.4: VECR012T0A-DWV036 heating at 300s

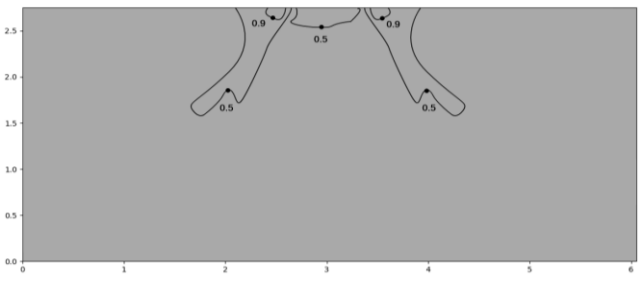


Figure 9.5: VECR015T0A-DWV045 cooling at 300s

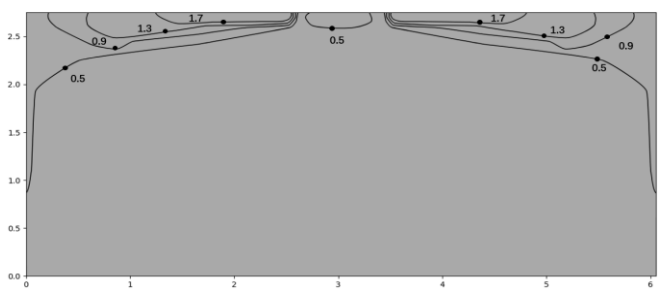


Figure 9.6: VECR015T0A-DWV045 heating at 300s

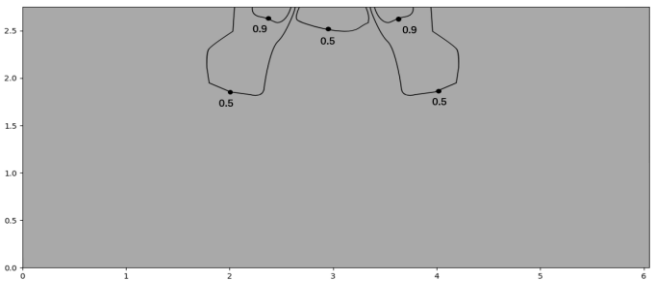


Figure 9.7: VECR019T0A-DWV056 cooling at 300s

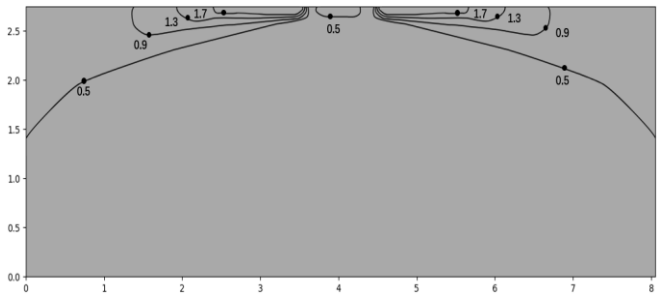


Figure 9.8: VECR019T0A-DWV056 heating at 300s

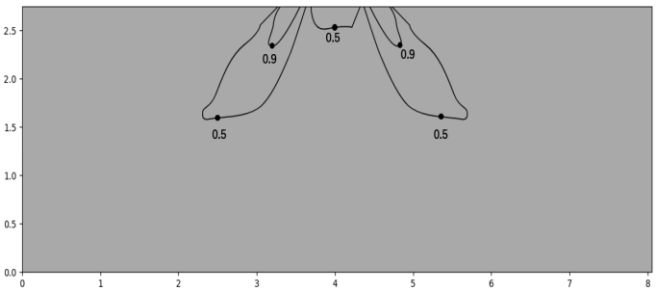


Figure 9.9: VECR024T0A-DWV071 cooling at 300s

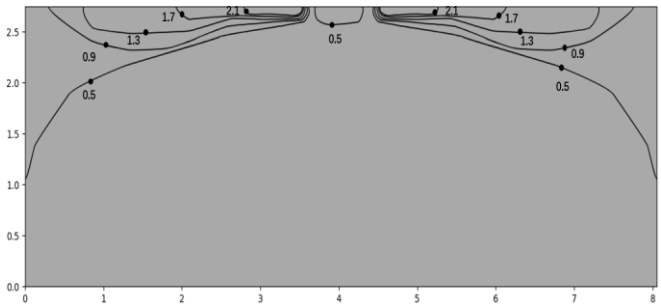


Figure 9.10: VECR024T0A-DWV071 heating at 300s

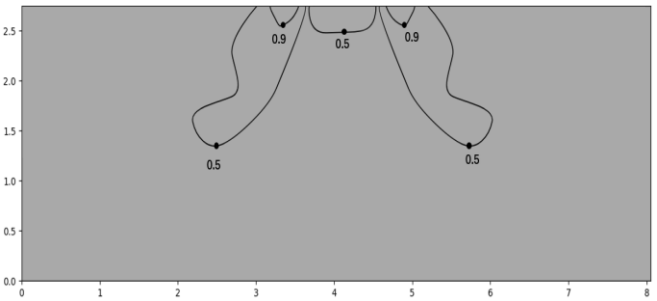


Figure 9.11: VECR027T0A-DWV080 cooling at 300s

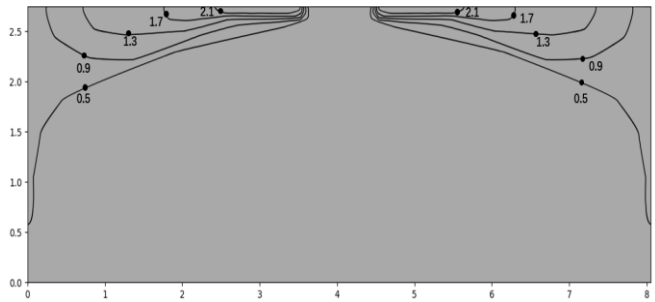


Figure 9.12: VECR027T0A-DWV080 heating at 300s

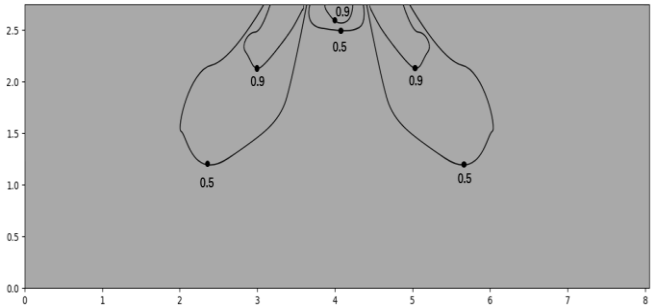


Figure 9.13: VECR031T0A-DWV090 cooling at 300s

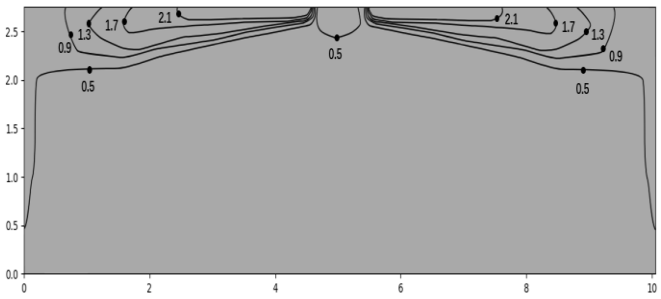


Figure 9.14: VECR031T0A-DWV090 heating at 300s

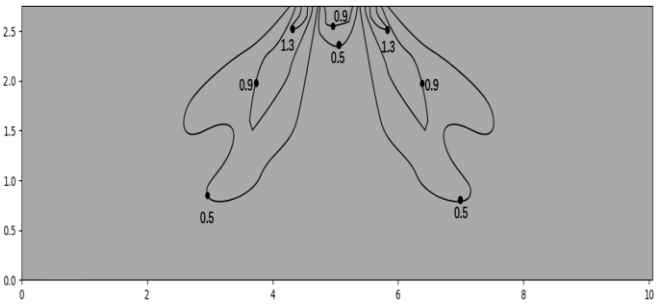


Figure 9.15: VECR035T0A-DWV100 cooling at 300s

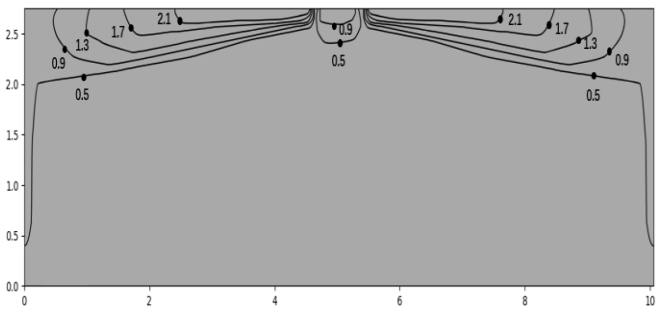


Figure 9.16: VECR035T0A-DWV100 heating at 300s

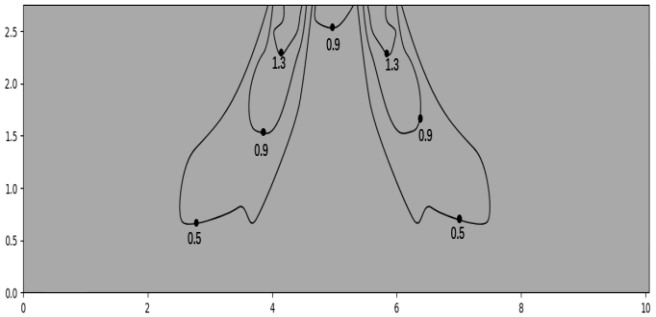


Figure 9.17: VECR038T0A-DWV112 cooling at 300s

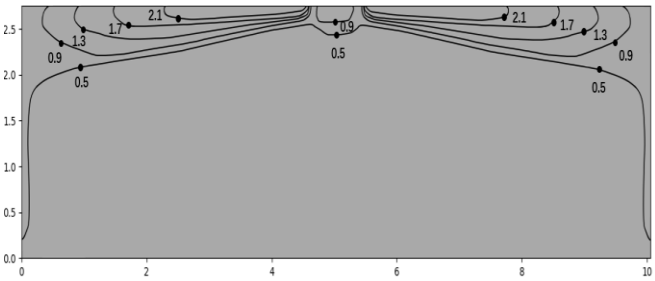


Figure 9.18: VECR038T0A-DWV112 heating at 300s

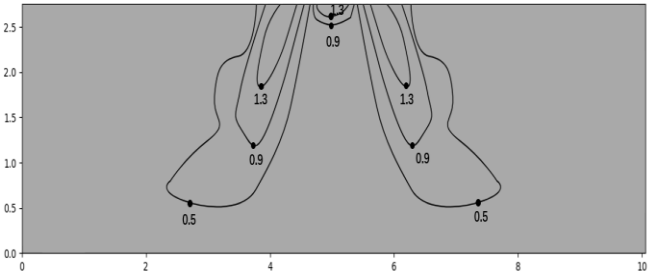


Figure 9.19: VECR048T0A-DWV140 cooling at 300s

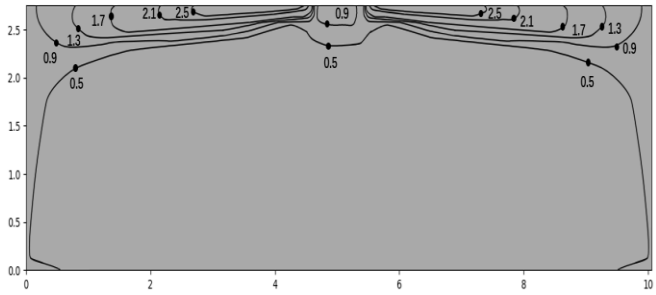


Figure 9.20: VECR048T0A-DWV140 heating at 300s

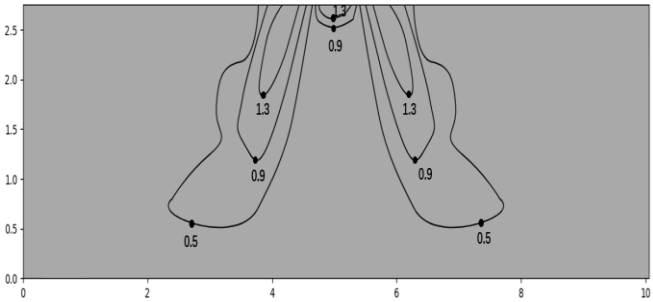


Figure 9.19: VECR060T0A-DWV160 cooling at 300s

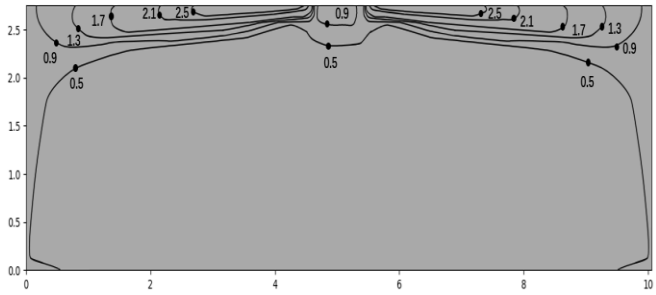


Figure 9.20: VECR060T0A-DWV160 heating at 300s

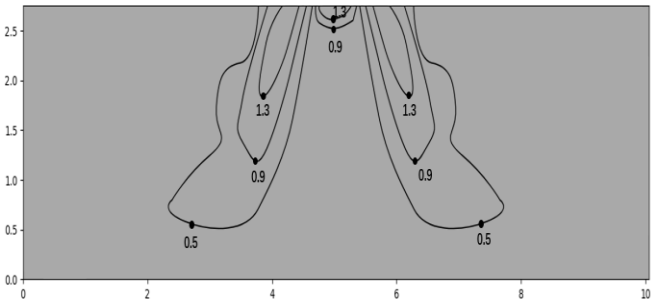


Figure 9.19: VECR062T0A-DWV180 cooling at 300s

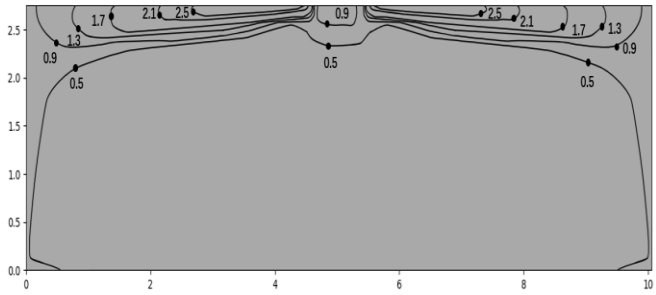
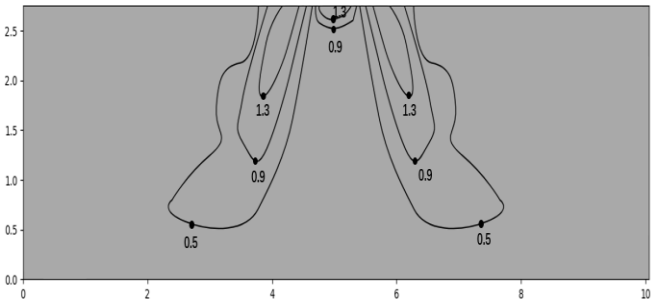


Figure 9.20: VECR062T0A-DWV180 heating at 300s



9.3 Temperature distributions

Figure 9.21: VECR010T0A-DWV028 cooling at 300s

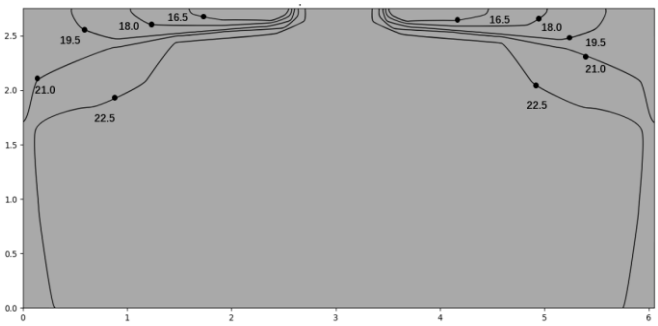


Figure 9.22: VECR010T0A-DWV028 heating at 300s

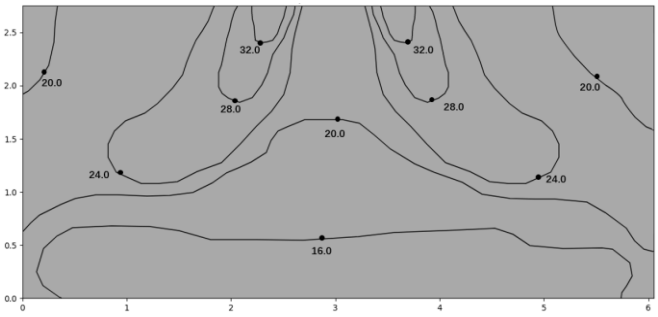


Figure 9.23: VECR012T0A-DWV036 cooling at 300s

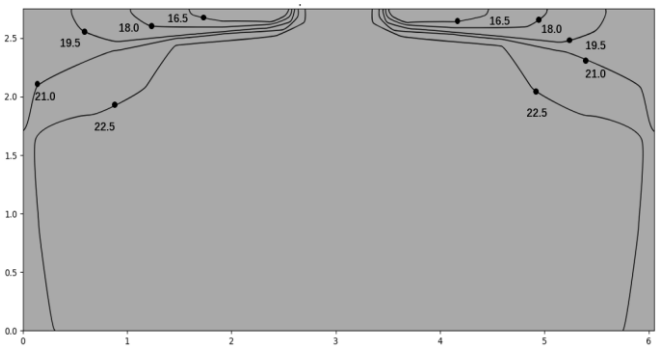


Figure 9.24: VECR012T0A-DWV036 heating at 300s

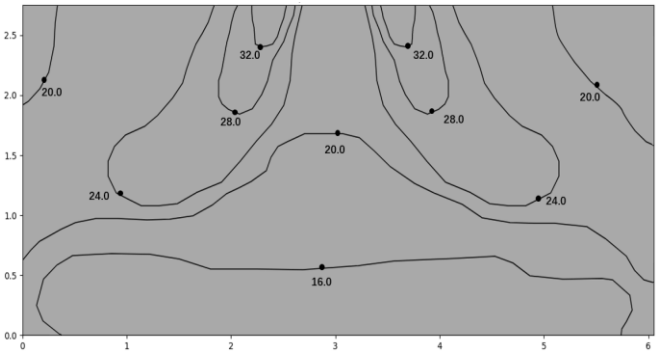


Figure 9.25: VECR015T0A-DWV045 cooling at 300s

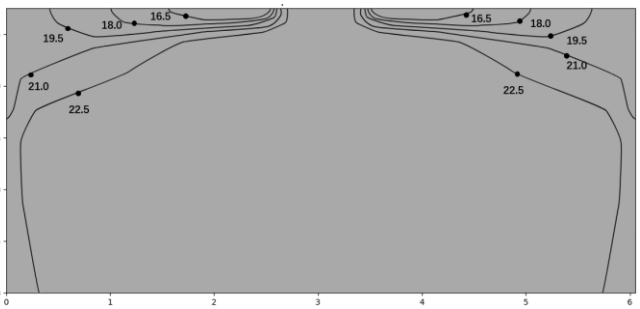


Figure 9.26: VECR015T0A-DWV045 heating at 300s

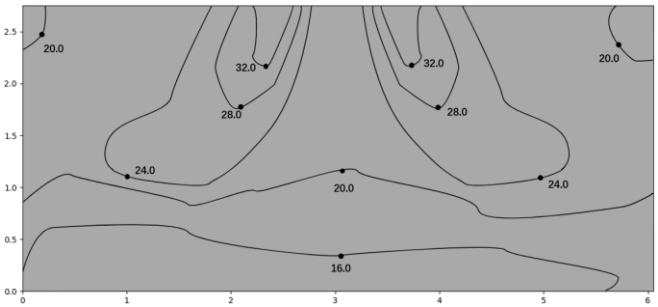


Figure 9.27: VECR019T0A-DWV056 cooling at 300s

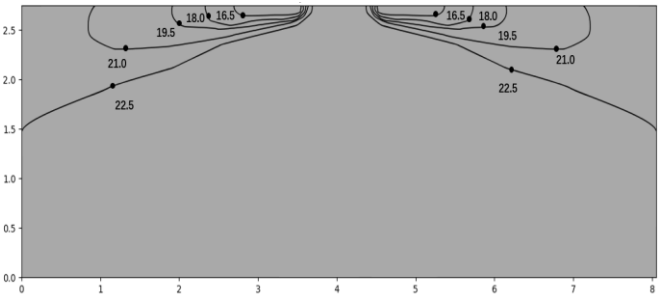


Figure 9.28: VECR019T0A-DWV056 heating at 300s

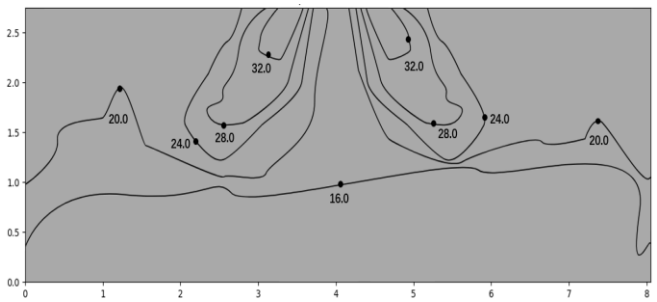


Figure 9.29: VECR024T0A-DWV071 cooling at 300s

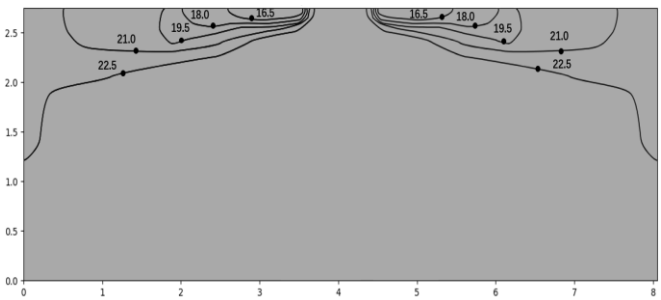


Figure 9.30: VECR024T0A-DWV071 heating at 300s

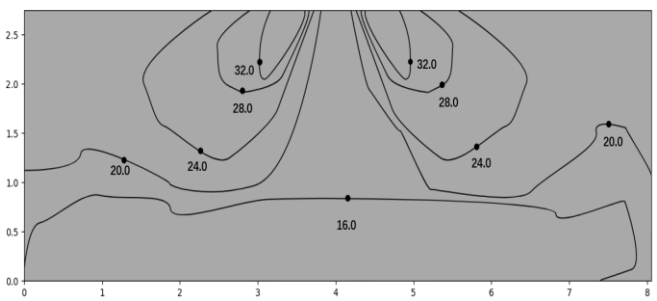


Figure 9.31: VECR027T0A-DWV080 cooling at 300s

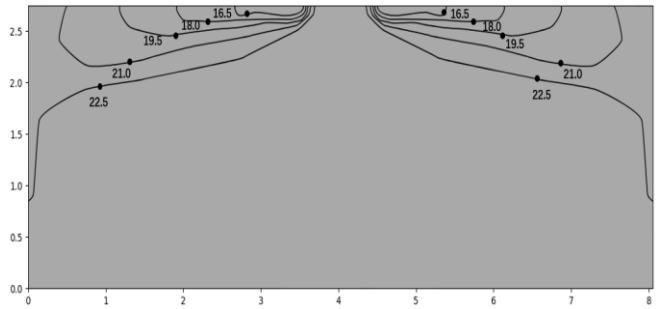


Figure 9.32: VECR027T0A-DWV080 heating at 300s

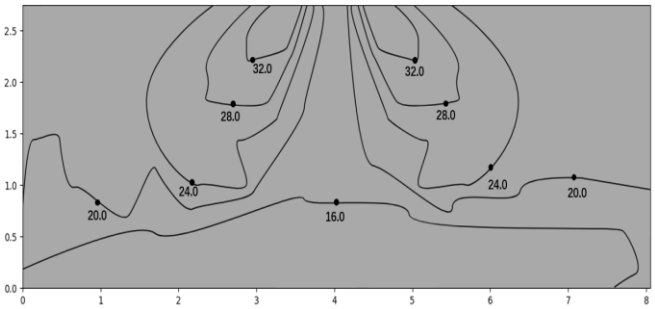


Figure 9.33: VECR031T0A-DWV090 cooling at 300s

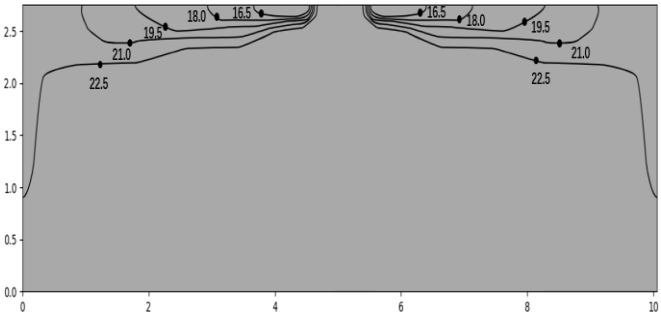


Figure 9.34: VECR031T0A-DWV090 heating at 300s

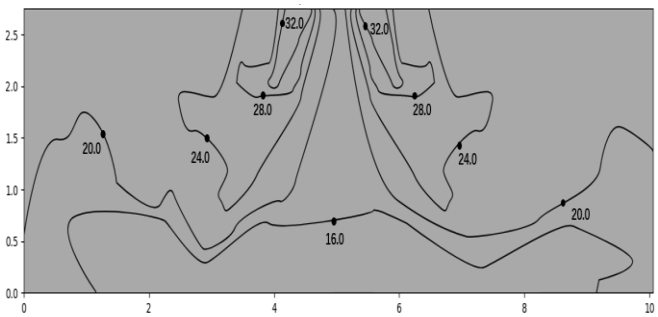


Figure 9.35: VECR035T0A-DWV100 cooling at 300s

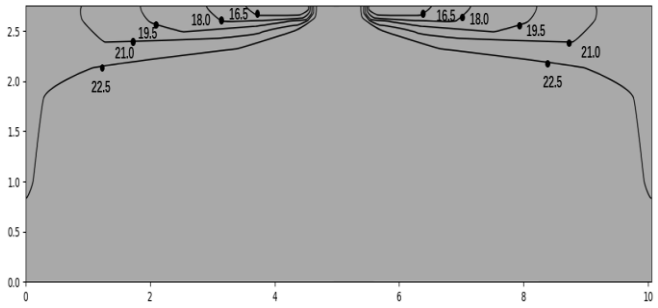


Figure 9.36: VECR035T0A-DWV100 heating at 300s

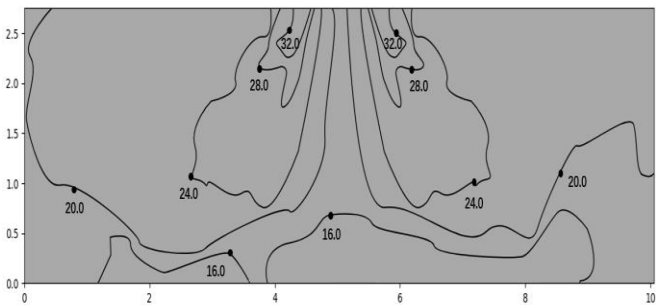


Figure 9.37: VECR038T0A-DWV112 cooling at 300s

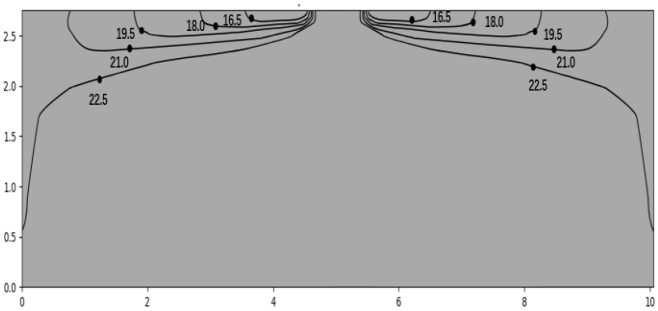


Figure 9.38: VECR038T0A-DWV112 heating at 300s

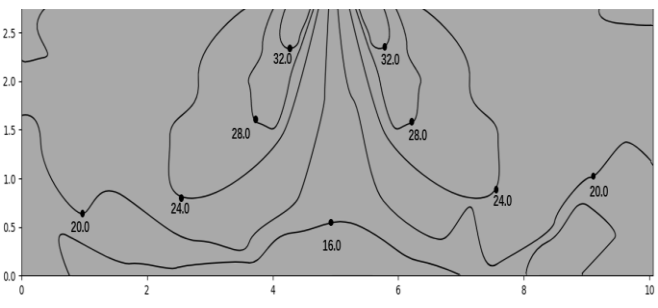


Figure 9.39: VECR048T0A-DWV140 cooling at 300s

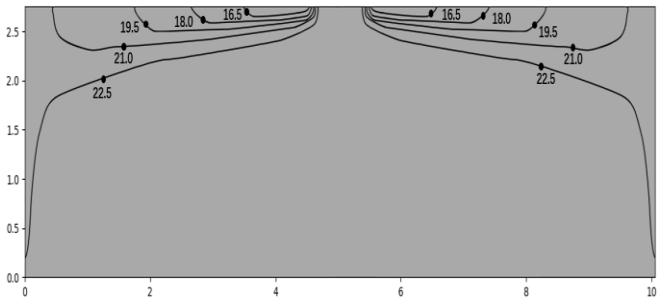


Figure 9.40: VECR048T0A-DWV140 heating at 300s

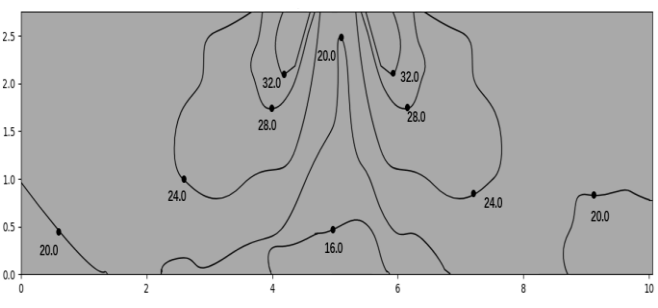


Figure 9.39: VECR060T0A-DWV160 cooling at 300s

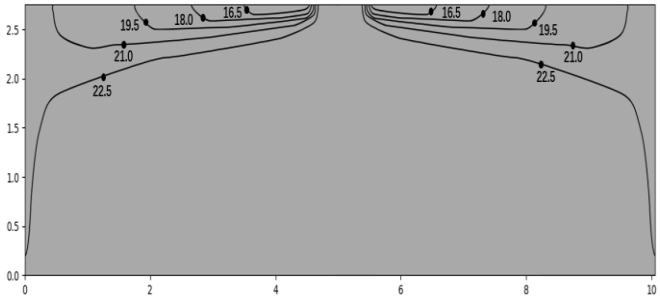


Figure 9.40: VECR060T0A-DWV160 heating at 300s

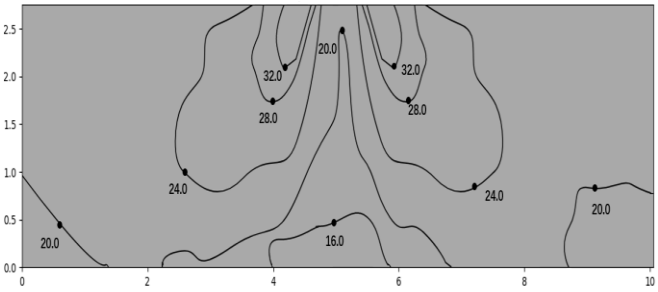


Figure 9.39: VECR062T0A-DWV180 cooling at 300s

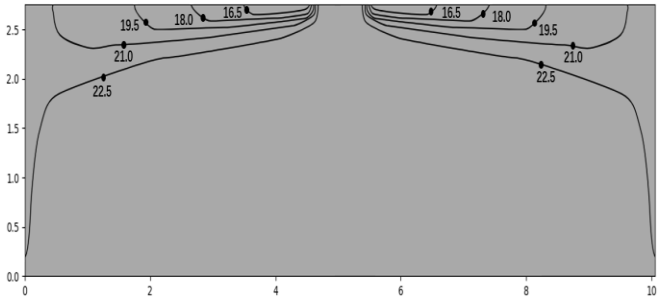
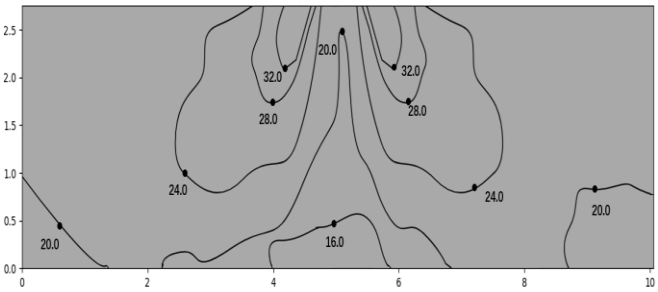


Figure 9.40: VECR062T0A-DWV180 heating at 300s



OMEGA
ENVIRONMENTAL
TECHNOLOGIES LLC.

17702 Mitchell North, #101
Irvine, CA. 92614 .USA
Tel: 714 795 2830
Fax: 714 966 1646
info@omegavrf.com
www.omegavrf.com

OTEC™
AIR CONDITIONING

Showroom & Technology Center
11380 Interchange Circle North
Miramar,FL 33025 .USA
Tel: 305 901 1270
Fax: 954 212 8280
info@otecomega.com
www.otecomega.com

VECRT0A-TM1D0823