

**DAIKIN**

**R410A**

# TECHNICAL MANUAL

**Split Unit Air Conditioner  
Ceiling Cassette C & E Series**

**FCQN-E, FFQN-C, FCRN-E, FFRN-C**

**— Cooling only & Heatpump [50Hz] —**



TM-5CK-C/E-ST-A1



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# Table of Contents

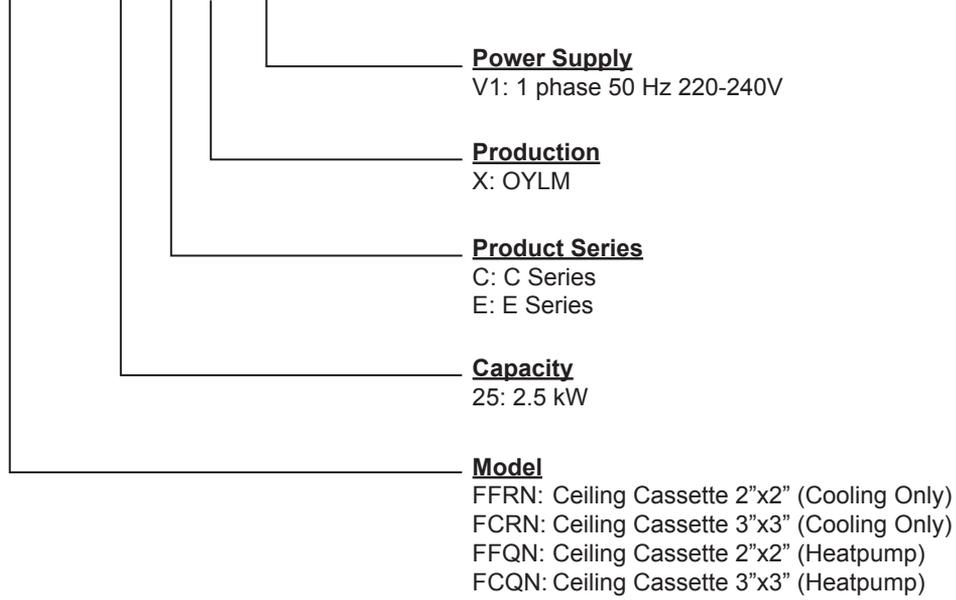
<b>Nomenclature</b> .....	<b>1</b>
Indoor .....	1
Outdoor.....	1
Product Line-Up.....	2
<b>Application Information</b> .....	<b>5</b>
Operating Range .....	5
Refrigerant Circuit Diagrams (C Series) .....	6
Refrigerant Circuit Diagrams (E Series) .....	8
Installation Guideline .....	11
<b>Sound Data</b> .....	<b>16</b>
Sound Pressure Level .....	16
NC Curve.....	17
<b>Engineering &amp; Physical Data</b> .....	<b>21</b>
<b>Performance Data</b> .....	<b>26</b>
Calculation Steps.....	26
Performance Tables.....	28
<b>Outline &amp; Dimension</b> .....	<b>50</b>
<b>Wiring Diagram</b> .....	<b>53</b>
<b>Service &amp; Maintenance</b> .....	<b>64</b>
<b>Troubleshooting</b> .....	<b>66</b>

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# Nomenclature

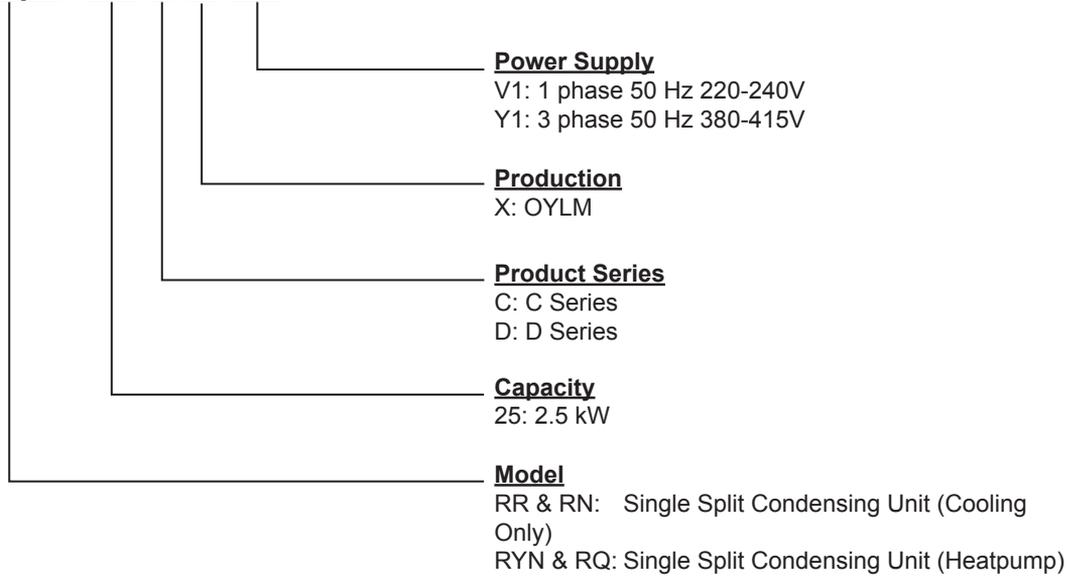
## Indoor

**FFRN 25 C X V1**



## Outdoor

**R(Y)N 25 C X V1**



## Product Line-Up

Indoor Unit  
 FCQN-E, FFQN-C, FCRN-E, FFRN-C

Nomenclature		Classification											
		Panel (Handset)				PCB				Fin		Refrigerant Control	
		BC20CXW (BRC52A62)	BYC20CXW (BRC52A61)	BC50EXW (BRC52A62)	BYC50EXW (BRC52A61)	L208A EC	L208A AP	L2CKE EC	L2CKE AP	Hydrophilic (Blue)	Cap Tube	w/o Cap Tube	
COOLING	FFRN25CXV1	X				X				X		X	
	FFRN35CXV1	X				X				X		X	
	FFRN50CXV1	X				X				X		X	
	FCRN50EXV1			X				X		X		X	
	FCRN60EXV1			X				X		X		X	
	FCRN71EXV1			X				X		X	X		
	FCRN100EXV1			X				X		X	X		
	FCRN125EXV1			X				X		X	X		
HEATPUMP	FFQN25CXV1		X				X			X		X	
	FFQN35CXV1		X				X			X		X	
	FFQN50CXV1		X				X			X		X	
	FCQN50EXV1				X			X	X	X		X	
	FCQN60EXV1				X			X	X	X		X	
	FCQN71EXV1				X			X	X	X		X	
	FCQN100EXV1				X			X	X	X		X	
	FCQN125EXV1				X			X	X	X		X	

Outdoor Unit  
R(Y)N / RR / RQ

Nomenclature		Classification												
		Refrigerant Control		Fin			Safety Devices			Compressor		Others		
		Cap Tube	TXV	Hydrophilic (Blue)	Hydrophilic (Gold)	Bare Aluminium	Contact	High Pressure Switch	Low Pressure Switch	Phase Sequencer	Scroll	Rotary	Drain Elbow	
COOLING	RN25CXV1	X				X							X	
	RN25CGXV1	X			X								X	
	RN35CXV1	X				X							X	
	RN35CGXV1	X			X								X	
	RN50CXV1	X				X							X	
	RN50CGXV1	X			X								X	
	RN60CXV1	X				X							X	
	RN60CGXV1	X			X								X	
	RR71CXV1	X				X							X	
	RR71CGXV1	X			X								X	
	RR90DXV1	X				X		X	X		X			
	RR90DGXV1	X			X			X	X		X			
	RR100DXV1	X				X		X	X		X			
	RR100DGXV1	X			X			X	X		X			
	RR100DXY1	X				X	X	X	X	X	X			
	RR100DGXY1	X			X		X	X	X	X	X			
	RR125DXY1	X				X	X	X	X	X	X			
	RR125DGXY1	X			X		X	X	X	X	X			

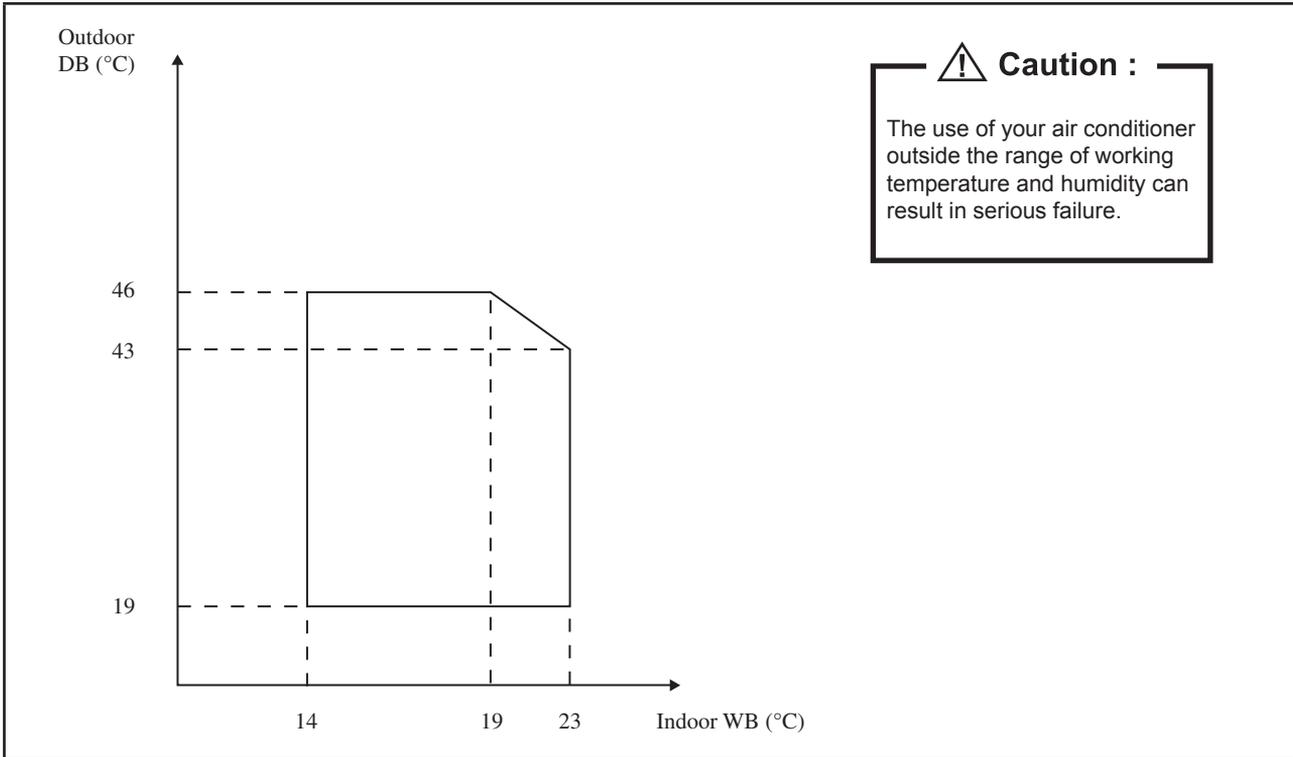
Nomenclature		Classification											
		Refrigerant Control		Fin			Safety Devices				Compressor		Others
		Cap Tube	TXV	Hydrophilic (Blue)	Hydrophilic (Gold)	Bare Aluminium	Contact	High Pressure Switch	Low Pressure Switch	Phase Sequencer	Scroll	Rotary	Drain Elbow
HEATPUMP	RYN25CXV1	X				X						X	X
	RYN25CGXV1	X			X							X	X
	RYN35CXV1	X				X						X	X
	RYN35CGXV1	X			X							X	X
	RYN50CXV1	X				X						X	X
	RYN50CGXV1	X			X							X	X
	RYN60CXV1	X				X						X	X
	RYN60CGXV1	X			X							X	X
	RQ71CXV1	X				X						X	X
	RQ71CGXV1	X			X							X	X
	RQ90DXV1	X				X		X	X		X		X
	RQ90DGXV1	X			X			X	X		X		X
	RQ100DXV1	X				X		X	X		X		X
	RQ100DGXV1	X			X			X	X		X		X
	RQ100DXY1	X				X	X	X	X	X	X		X
	RQ100DGXY1	X			X		X	X	X	X	X		X
	RQ125DXY1	X				X	X	X	X	X	X		X
	RQ125DGXY1	X			X		X	X	X	X	X		X

# Application Information

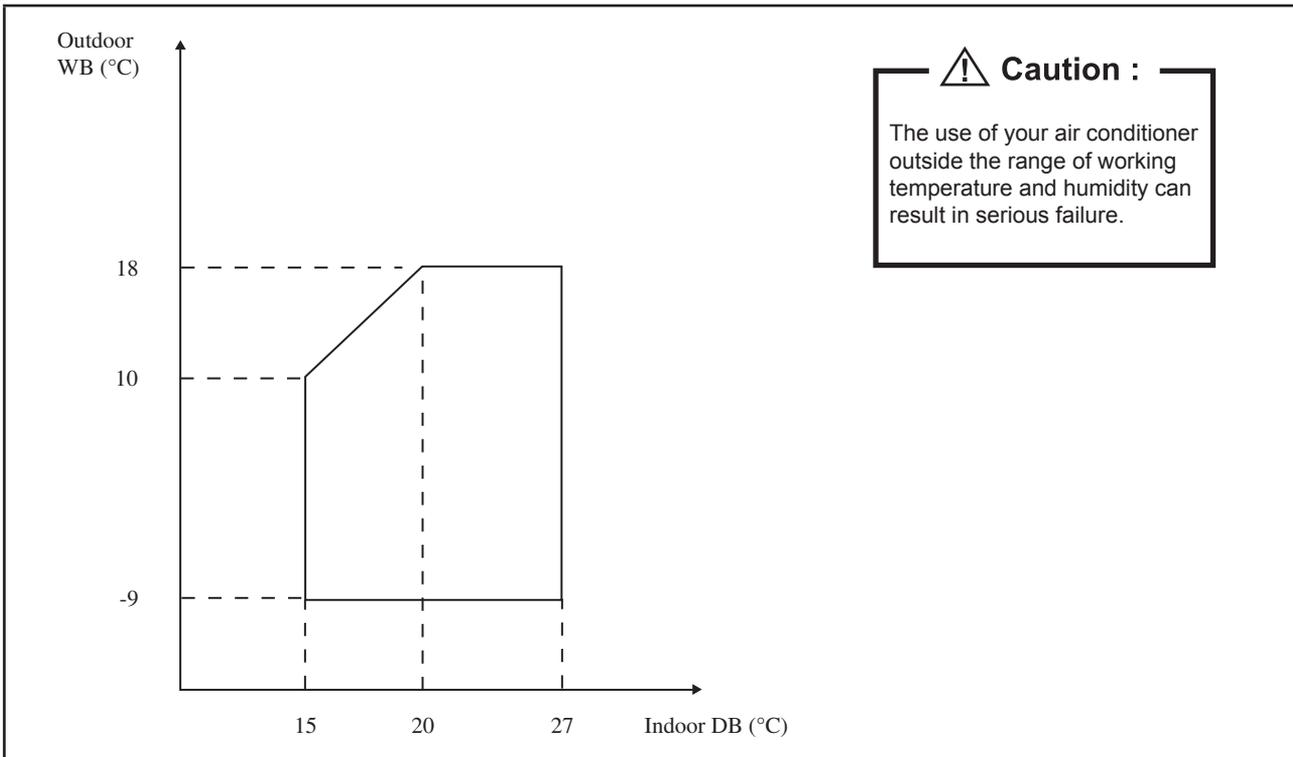
## Operating Range

Ensure the operating temperature is in allowance range.

### Cooling

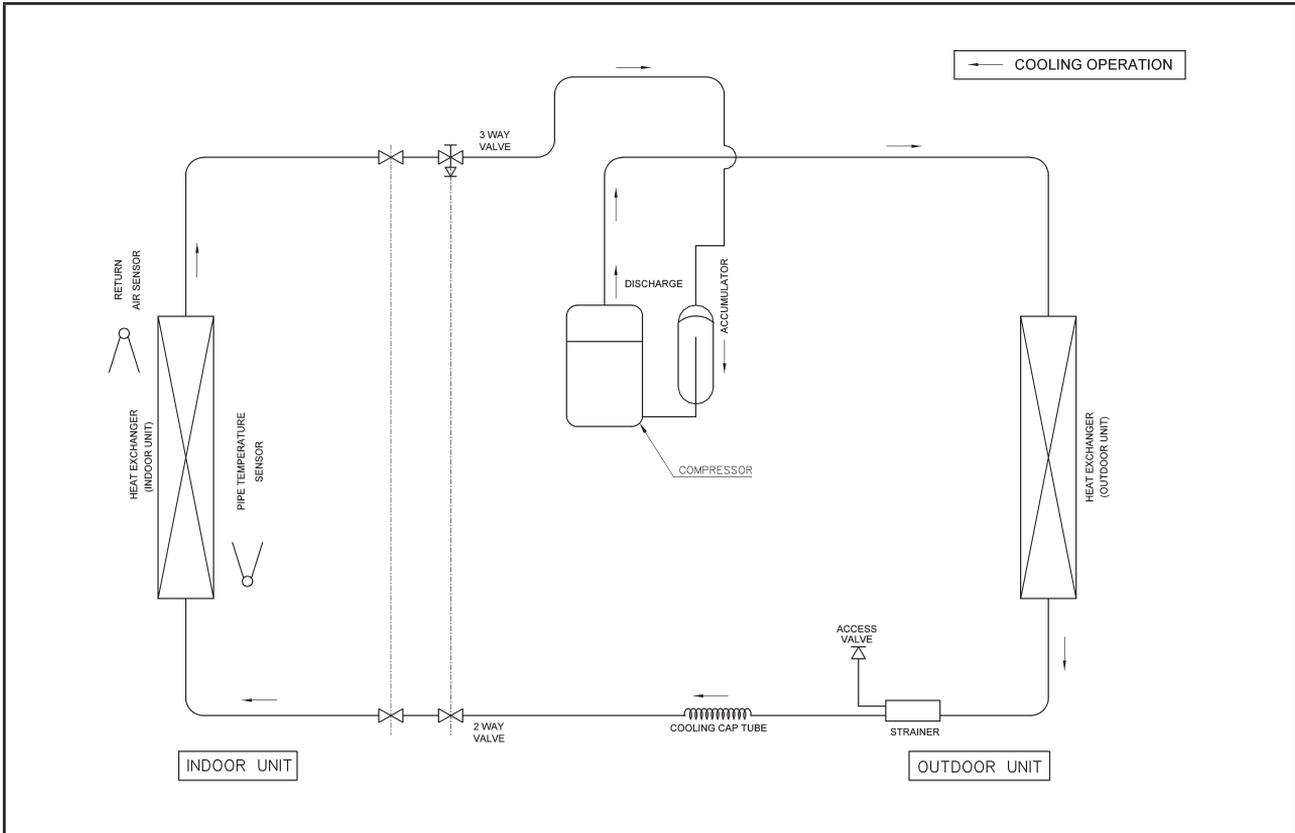


### Heating

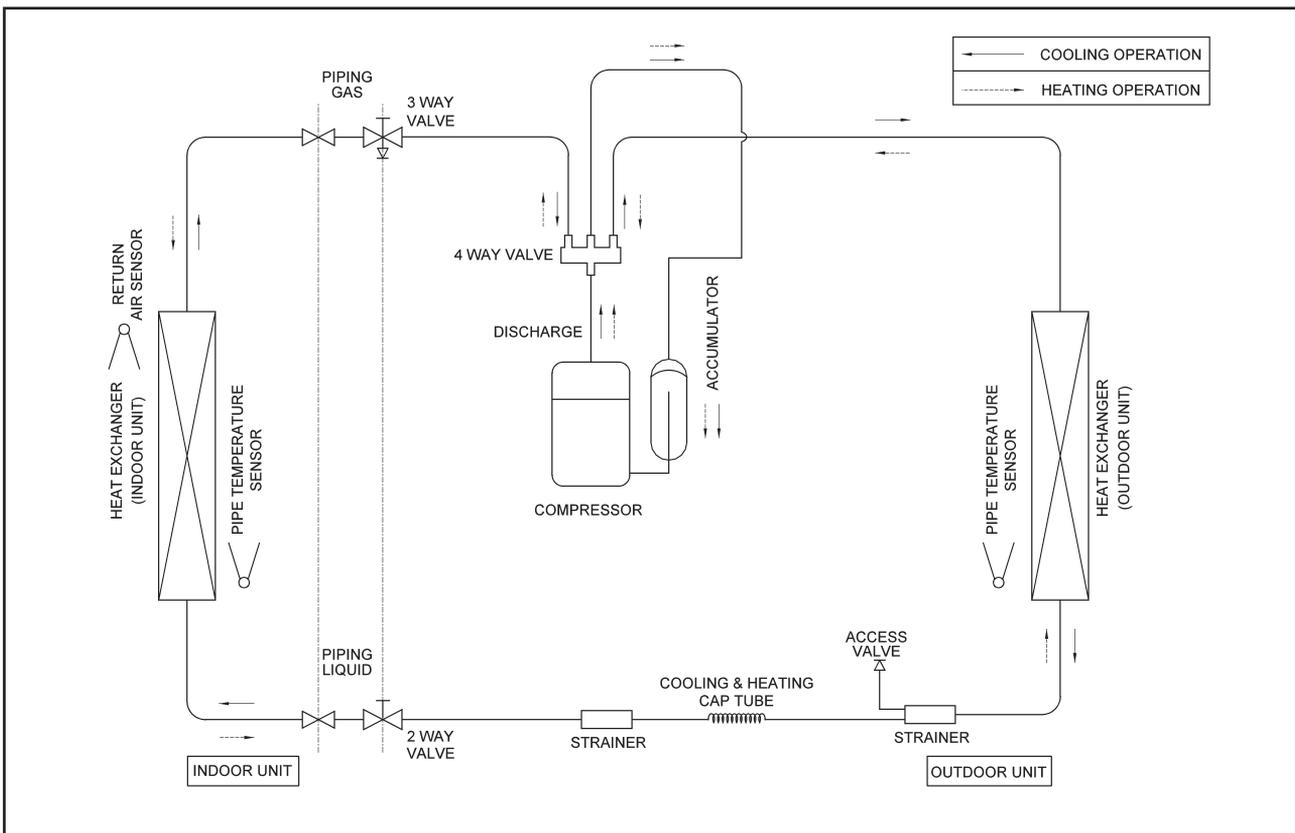


## Refrigerant Circuit Diagrams (C Series)

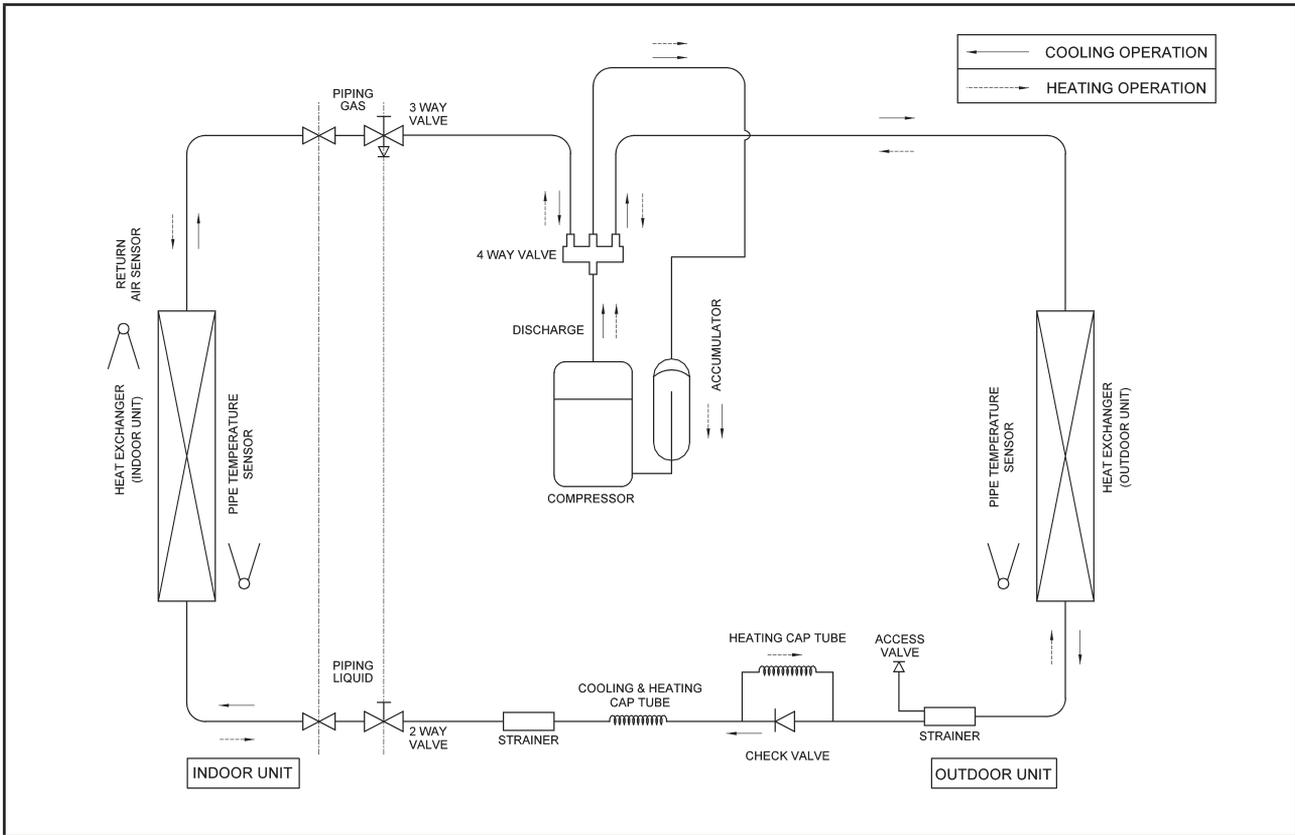
Model: FFRN25CXV1 – RN25CXV1 / FFRN35CXV1 – RN35CXV1 / FFRN50CXV1 – RN50CXV1



Model: FFQN25CXV1 – RYN25CXV1

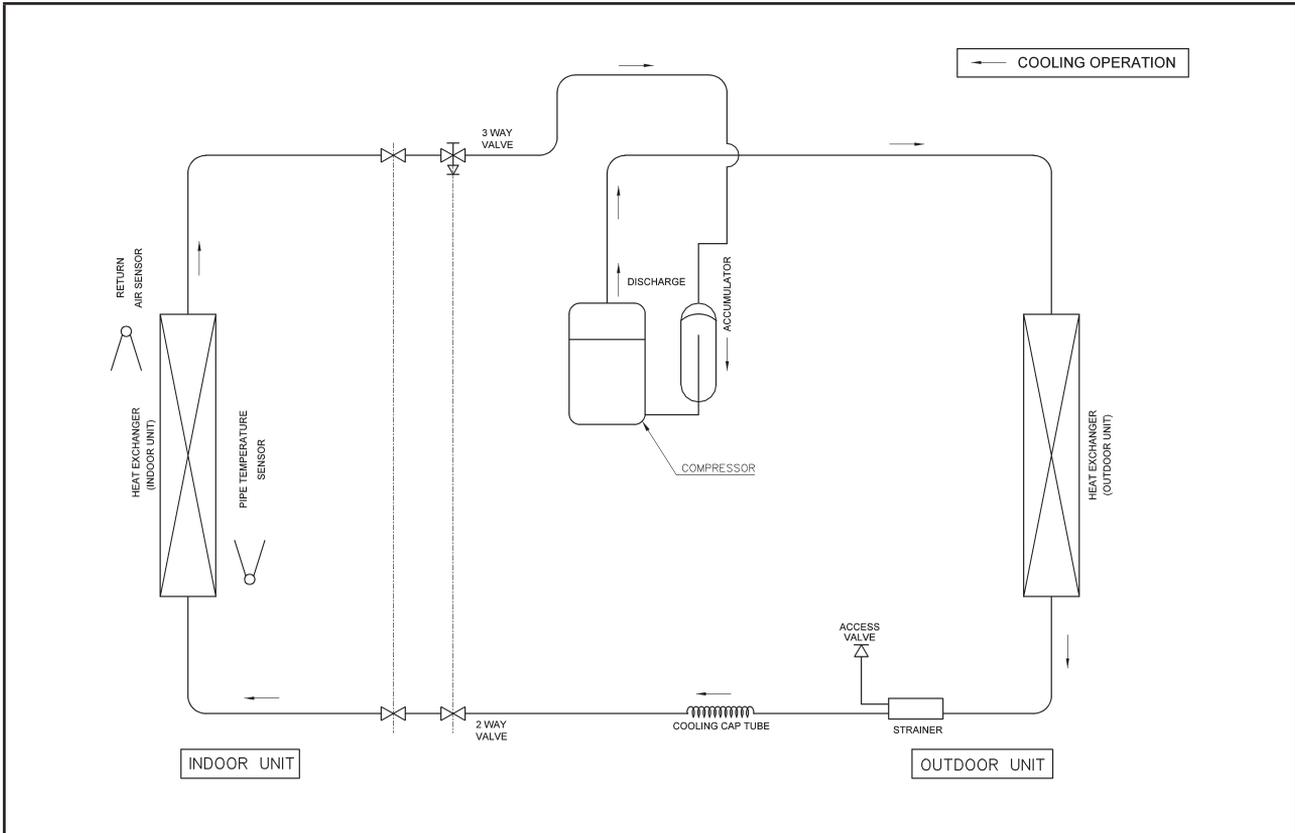


Model: FFQN35CXV1 – RYN35CXV1 / FFQN50CXV1 – RYN50CXV1

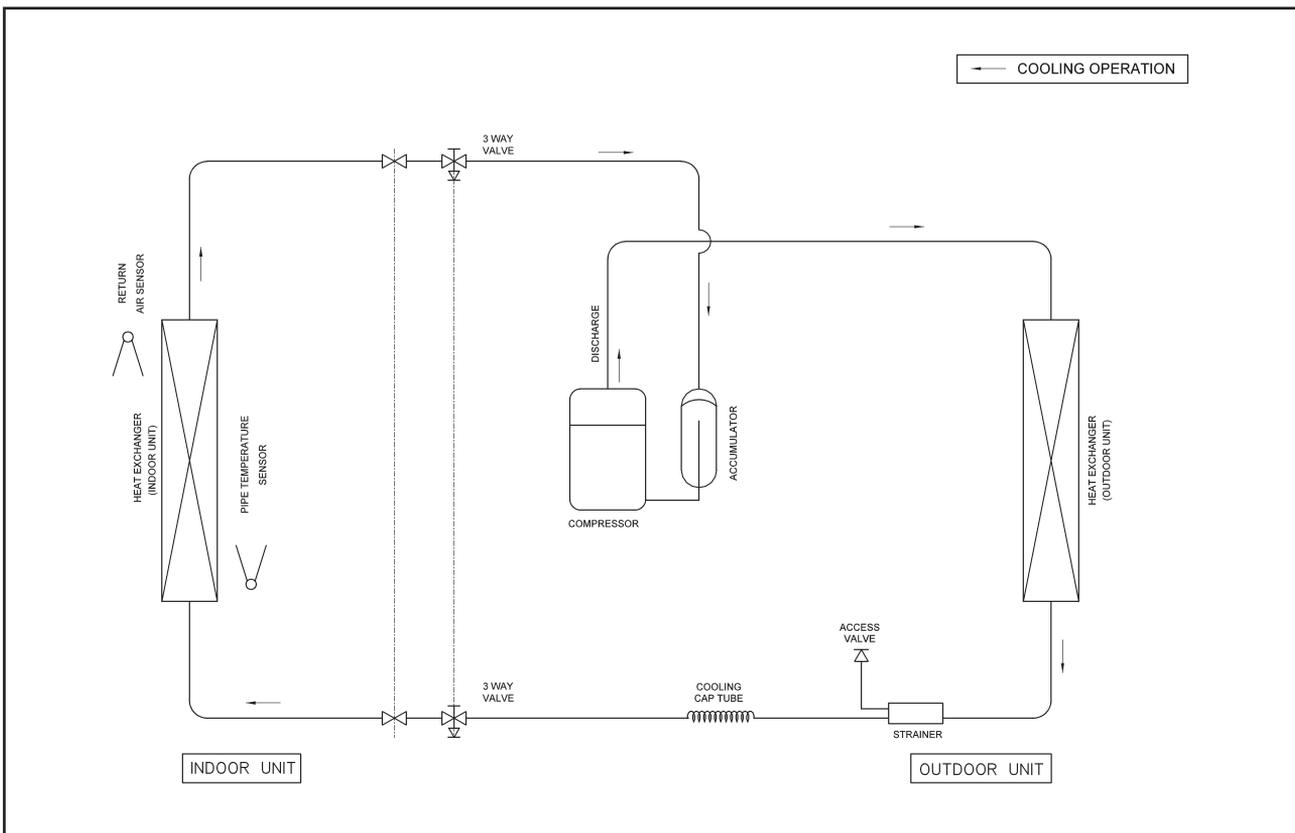


## Refrigerant Circuit Diagrams (E Series)

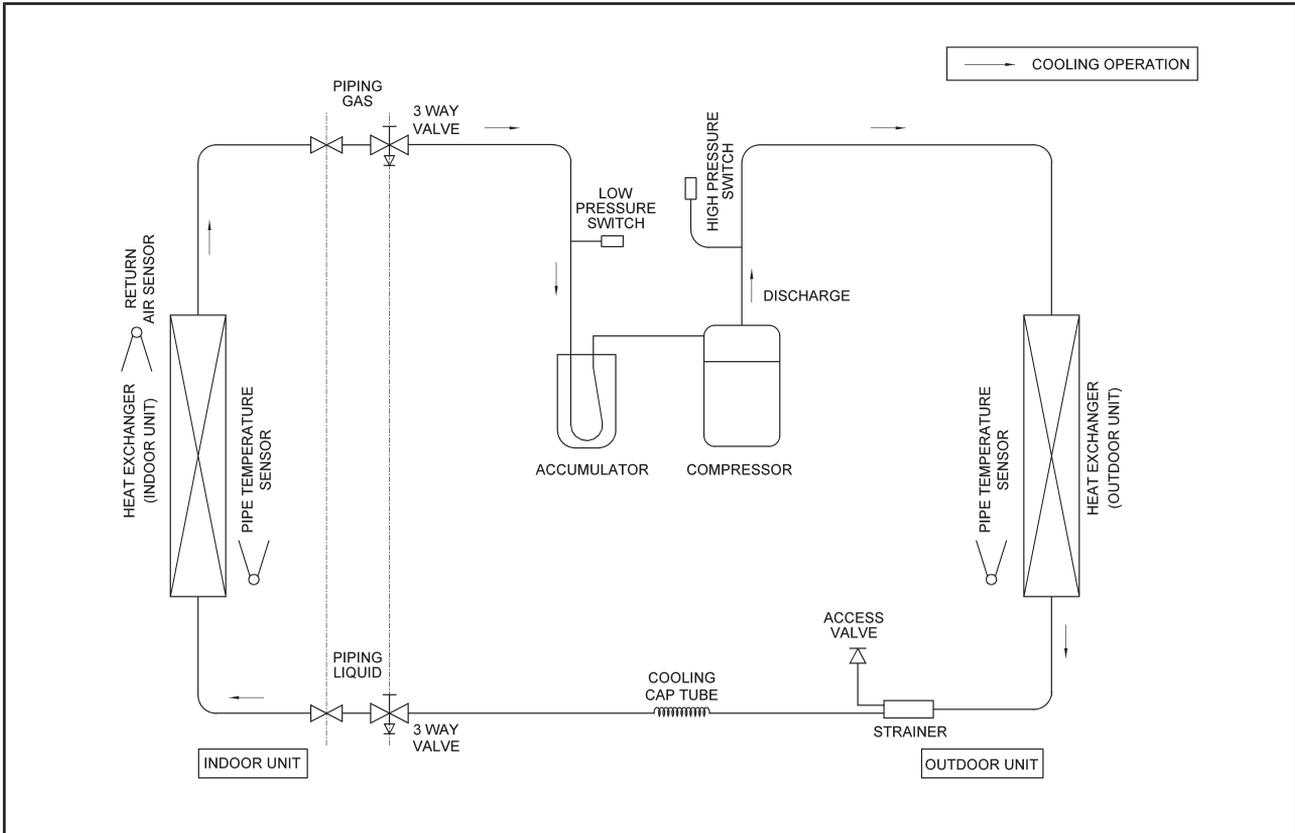
Model: FCRN50EXV1 – RN50CXV1 / FCRN60EXV1 – RN60CXV1



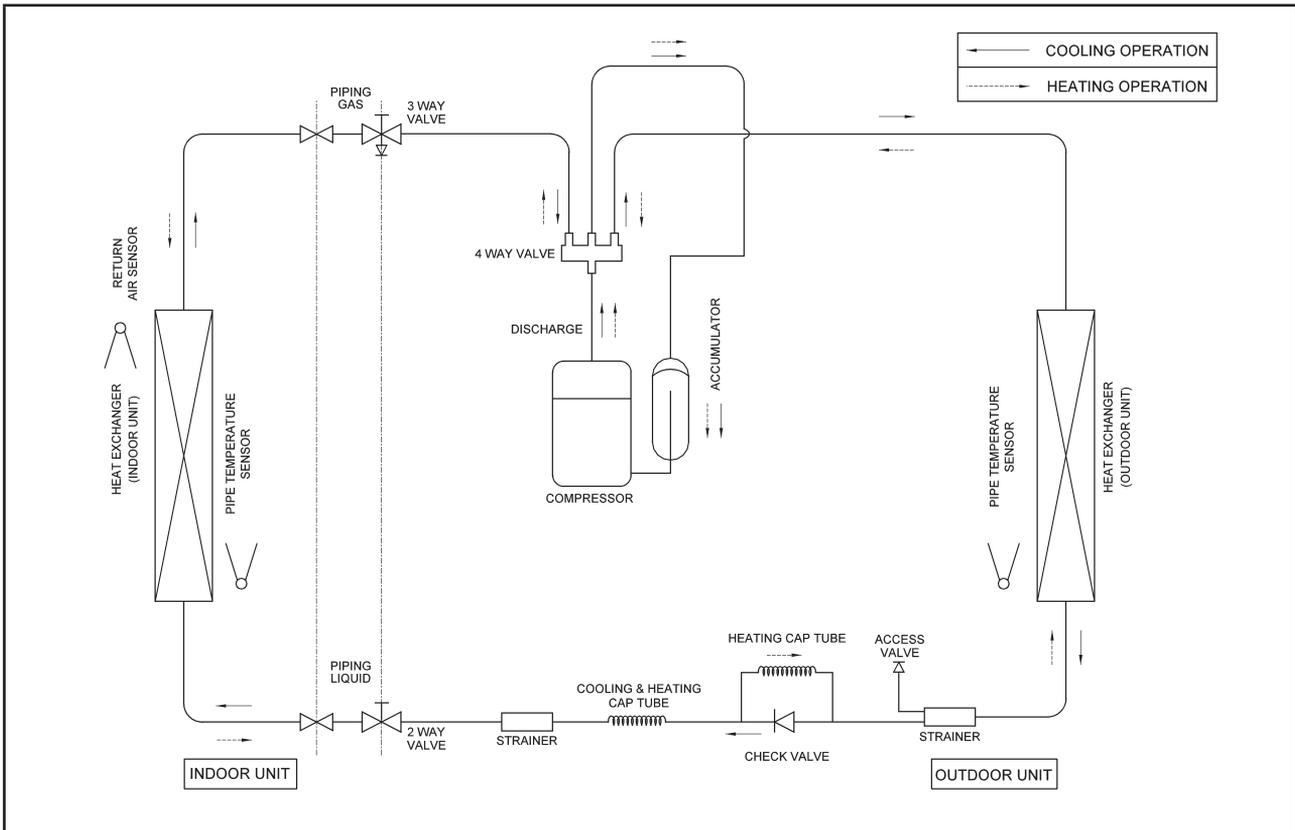
Model: FCRN71EXV1 – RR71CXV1



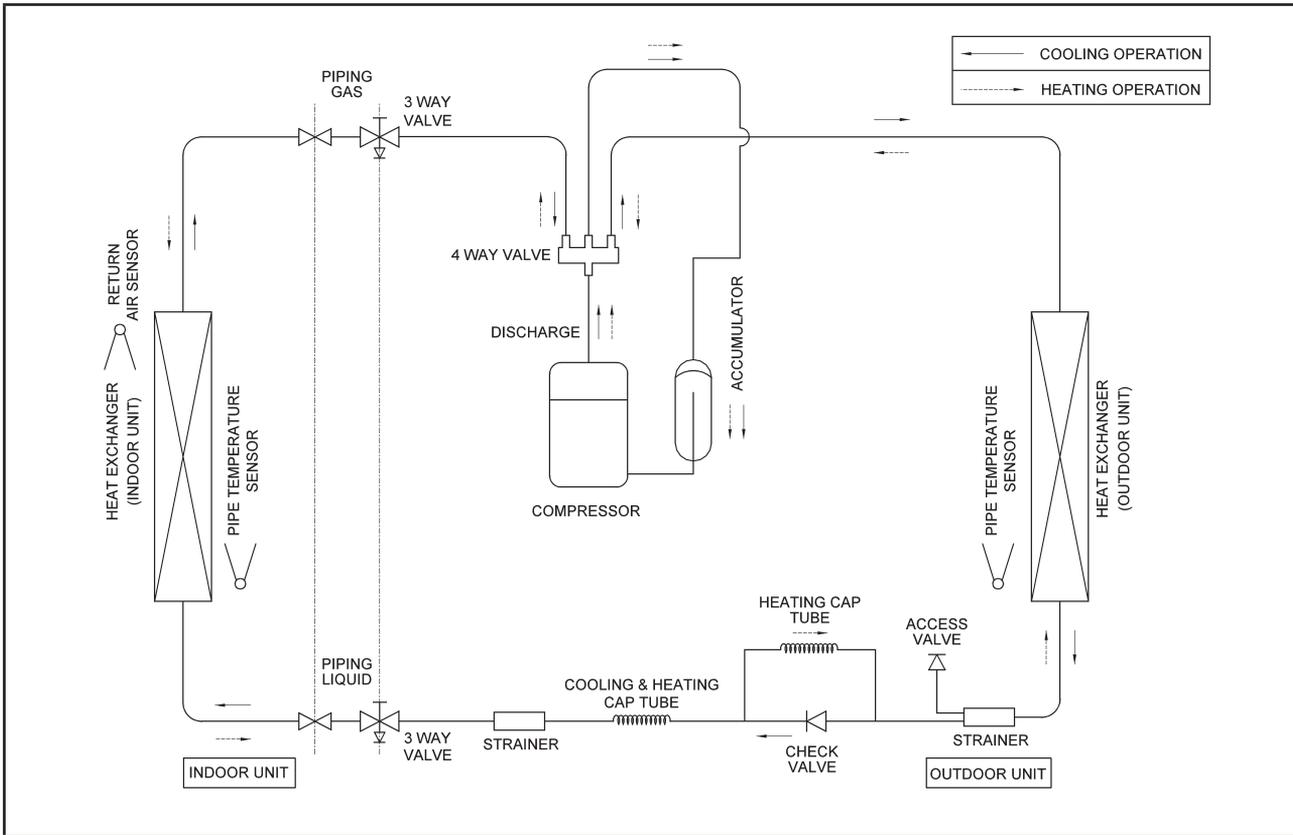
Model: FCRN100EXV1 – RR90DXV1 / FCRN100EXV1 – RR100DXV1 / FCRN100EXV1 – RR100DXY1 / FCRN125EXV1 – RR125DXY1



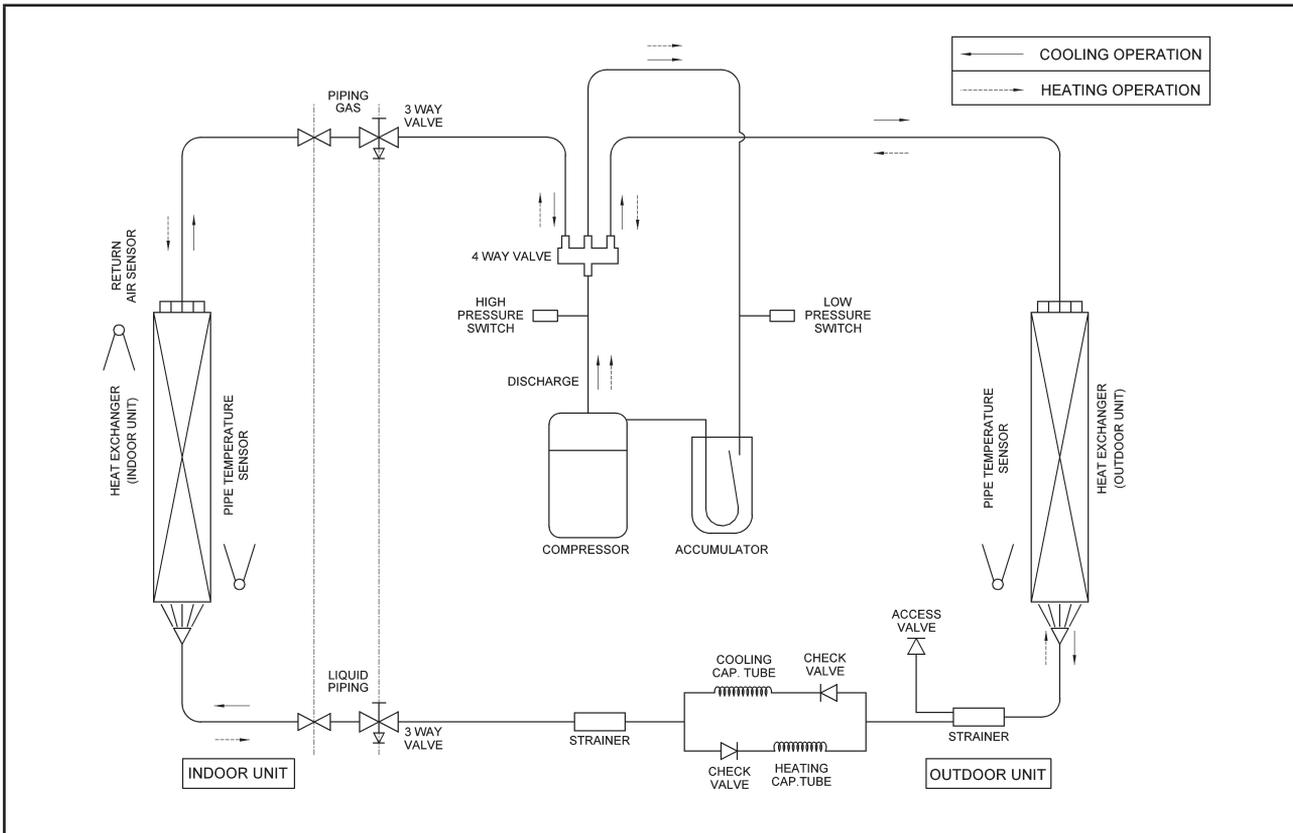
Model: FCQN50EXV1 – RYN50CXV1 / FCQN60EXV1 – RYN60CXV1



**Model: FCQN71EXV1 – RQ71CXV1**



**Model: FCQN100EXV1 – RQ90DXV1 / FCQN100EXV1 – RQ100DXV1 / FCQN100EXV1 – RR100DXY1 / FCQN125EXV1 – RR125DXY1**



## Installation Guideline

### Safety Precautions

#### **WARNING**

- Installation and maintenance should be performed by qualified persons who are familiar with local code and regulation, and experienced with this type of appliance.
- All field wiring must be installed in accordance with the national wiring regulation.
- Ensure that the rated voltage of the unit corresponds to that of the name plate before commencing wiring work according to the wiring diagram.
- The unit must be GROUNDED to prevent possible hazard due to insulation failure.
- All electrical wiring must not touch the refrigerant piping or any moving parts of the fan motors.
- Confirm that the unit has been switched OFF before installing or servicing the unit.
- Disconnect from the main power supply before servicing the air conditioner unit.
- DO NOT pull out the power cord when the power is ON. This may cause serious electrical shocks which may result in fire hazards.
- Keep the indoor and outdoor units, power cable and transmission wiring, at least 1m from TVs and radios, to prevent distorted pictures and static. {Depending on the type and source of the electrical waves, static may be heard even when more than 1m away}.

#### **CAUTION**

Please take note of the following important points when installing.

- **Do not install the unit where leakage of flammable gas may occur.**
  -  If gas leaks and accumulates around the unit, it may cause fire ignition.
- **Ensure that drainage piping is connected properly.**
  -  If the drainage piping is not connected properly, it may cause water leakage which will dampen the furniture.
- **Do not overcharge the unit.**
  -  This unit is factory pre-charged. Overcharge will cause over-current or damage to the compressor.
- **Ensure that the unit's panel is closed after service or installation.**
  -  Unsecured panels will cause the unit to operate noisily.
- **Sharp edges and coil surfaces are potential locations which may cause injury hazards. Avoid from being in contact with these places.**
- **Before turning off the power supply, set the remote controller's ON/OFF switch to the "OFF" position to prevent the nuisance tripping of the unit.** If this is not done, the unit's fans will start turning automatically when power resumes, posing a hazard to service personnel or the user.
- **Do not operate any heating apparatus too close to the air conditioner unit.** This may cause the plastic panel to melt or deform as a result of the excessive heat.
- **Ensure the color of wires of the outdoor unit and the terminal markings are same to the indoors respectively.**
- **IMPORTANT : DO NOT INSTALL OR USE THE AIR CONDITIONER UNIT IN A LAUNDRY ROOM.**
- **Do not use joined and twisted wires for incoming power supply.**

#### **NOTICE**

##### **Disposal requirements**

Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste.

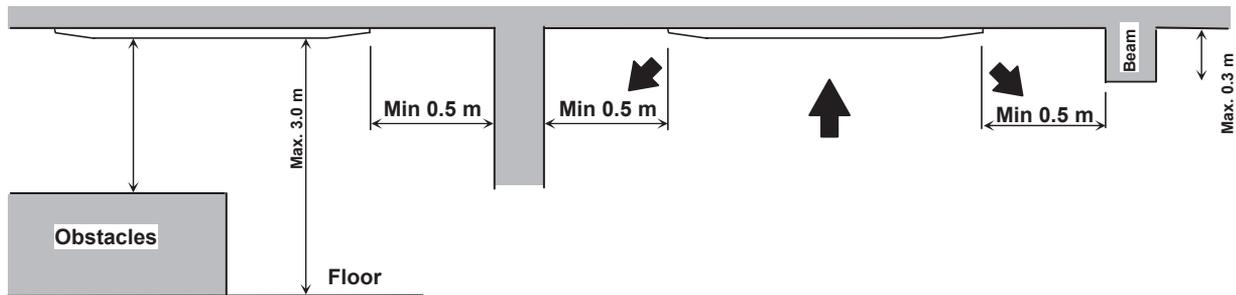
Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other parts must be done by a qualified installer in accordance with relevant local and national legislation. Air conditioners must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information.

Batteries must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.



### 1) Indoor Installation Clearance

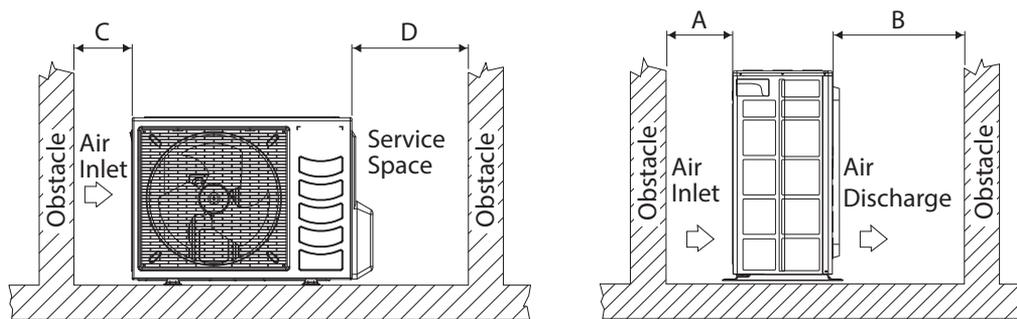
Clearance must be provided for the indoor unit from wall and obstacles as shown in figure below.



The installation place (handling ceiling surface) must be level and the height in the ceiling is 350mm or more.

### 2) Outdoor Installation Clearance

Outdoor unit must be installed such that there is no short circuit of the hot discharge air or obstruction to smooth air flow. Select the coolest possible place where intake air should not hotter than the outside temperature (Max. 45°C).



ALL MODELS	A	B	C	D
Minimum Distance	300 mm	1000 mm	300 mm	500 mm

**Caution**

If the condensing unit is operated in an atmosphere containing oils (including machine oils), salt (coastal area), sulphide gas (near hot spring, oil refinery plant), such substances may lead to failure the unit.

### 3) Cable Size

#### Cooling only

Model	Unit	FFRN25/35CXV1	FFRN50CXV1	FCRN50EXV1
		RN25/35CXV1	RN50CXV1	RN50CXV1
Power supply cable size	mm <sup>2</sup>	1.5	2.5	2.5
Number of wire		3	3	3
Interconnection cable size	mm <sup>2</sup>	1.5	2.5	2.5
Number of wire		3	3	3
Recommended fuse	A	15	20	13

Model	Unit	FCRN60EXV1	FCRN71EXV1	FCRN100EXV1
		RN60CXV1	RR71CXV1	RR90DXV1
Power supply cable size	mm <sup>2</sup>	2.5	4.0	4.0
Number of wire		3	3	3
Interconnection cable size	mm <sup>2</sup>	2.5	2.5	2.5
Number of wire		3	3	4
Recommended fuse	A	18	25	25

Model	Unit	FCRN100EXV1	FCRN100EXV1	FCRN125EXV1
		RR100DXV1	RR100DXY1	RR125DXY1
Power supply cable size	mm <sup>2</sup>	4.0	2.5	4.0
Number of wire		3	5	5
Interconnection cable size	mm <sup>2</sup>	2.5	1.5	1.5
Number of wire		4	4	4
Recommended fuse	A	30	13	18

#### Heatpump

Model	Unit	FFQN25/35CXV1	FFQN50CXV1	FCQN50EXV1
		RYN25/35CXV1	RYN50CXV1	RYN50CXV1
Power supply cable size	mm <sup>2</sup>	1.5	2.5	2.5
Number of wire		3	3	3
Interconnection cable size	mm <sup>2</sup>	1.5	2.5	2.5
Number of wire		5	5	5
Recommended fuse	A	15	20	13

Model	Unit	FCQN60EXV1	FCQN71EXV1	FCQN100EXV1
		RYN60CXV1	RQ71CXV1	RQ90DXV1
Power supply cable size	mm <sup>2</sup>	2.5	4.0	4.0
Number of wire		3	3	3
Interconnection cable size	mm <sup>2</sup>	2.5	2.5	2.5
Number of wire		5	5	3 & 4
Recommended fuse	A	18	25	25

Model	Unit	FCQN100EXV1	FCQN100EXV1	FCQN125EXV1
		RQ100DXV1	RQ100DXY1	RQ125DXY1
Power supply cable size	mm <sup>2</sup>	4.0	2.5	2.5
Number of wire		3	5	5
Interconnection cable size	mm <sup>2</sup>	2.5	1.5	1.5
Number of wire		3 & 4	3 & 4	3 & 4
Recommended fuse	A	30	13	18

#### 4) Refrigerant Piping

When the pipe length becomes too long, both the capacity and reliability drop. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity, and as the result the compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below:

Model	Indoor	FFRN25CXV1 FFQN25CXV1	FFRN35CXV1 FFQN35CXV1	FFRN50CXV1 FFQN50CXV1
	Outdoor	R(Y)N25CXV1	R(Y)N35CXV1	R(Y)N50CXV1
Max. Length, m		12	12	15
Max. Elevation, m		5	5	8
Max. No. of Bends		10	10	10

Model	Indoor	FCRN50EXV1 FCQN50EXV1	FCRN60EXV1 FCQN60EXV1	FCRN71EXV1 FCQN71EXV1
	Outdoor	R(Y)N50CXV1	R(Y)N60CXV1	RR71CXV1 RQ71CXV1
Max. Length, m		15	15	15
Max. Elevation, m		8	8	8
Max. No. of Bends		10	10	10

Model	Indoor	FCRN100EXV1 FCQN100EXV1		FCRN125EXV1 FCQN125EXV1
	Outdoor	RR90/100DXV1 RQ90/100DXV1	RR100DXY1 RQ100DXY1	RR125DXY1 RQ125DXY1
Max. Length, m		45		45
Max. Elevation, m		25		25
Max. No. of Bends		10		10

Piping sizes (flare connection type) are as follows:

Model	R(Y)N25CXV1	R(Y)N35CXV1	R(Y)N50CXV1
Liquid, mm / in	6.35 / 1/4	6.35 / 1/4	6.35 / 1/4
Suction, mm / in	9.52 / 3/8	12.70 / 1/2	12.70 / 1/2

Model	R(Y)N60CXV1	RR71CXV1 RQ71CXV1	RR90DXV1 RQ90DXV1
Liquid, mm / in	6.35 / 1/4	9.52 / 3/8	9.52 / 3/8
Suction, mm / in	15.88 / 5/8	15.88 / 5/8	15.88 / 5/8

Model	RR100DXV1 RQ100DXV1	RR100DXY1 RQ100DXY1	RR125DXY1 RQ125DXY1
Liquid, mm / in	9.52 / 3/8		
Suction, mm / in	15.88 / 5/8		

### 5) Additional Charge

- The refrigerant charge has already charged into the outdoor unit. For the piping length of 7.6m, additional refrigerant charge after vacuuming is not necessary.
- When the piping length is more than 7.6m, please use the table below (unit in gram).

#### Cooling Only

Indoor	FFRN25CXV1	FFRN35CXV1	FFRN50CXV1
Outdoor	RN25CXV1	RN35CXV1	RN50CXV1
Add. Charge, g/m	11	9	10

Indoor	FCRN50EXV1	FCRN60EXV1	FCRN71EXV1
Outdoor	RN50CXV1	RN60CXV1	RR71CXV1
Add. Charge, g/m	22	10	24

Indoor	FCRN100EXV1			FCRN125EXV1
Outdoor	RR90/100DXV1	RR100DXV1	RR100DXY1	RR125DXY1
Add. Charge, g/m	27	24	24	24

#### Heatpump

Indoor	FFQN25CXV1	FFQN35CXV1	FFQN50CXV1
Outdoor	RYN25CXV1	RYN35CXV1	RYN50CXV1
Add. Charge, g/m	15	18	12

Indoor	FCQN50EXV1	FCQN60EXV1	FCQN71EXV1
Outdoor	RYN50CXV1	RYN60CXV1	RQ71CXV1
Add. Charge, g/m	16	16	41

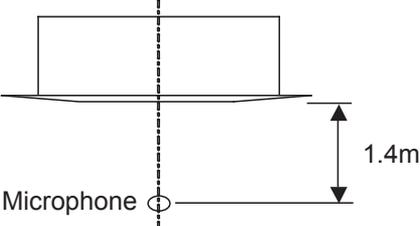
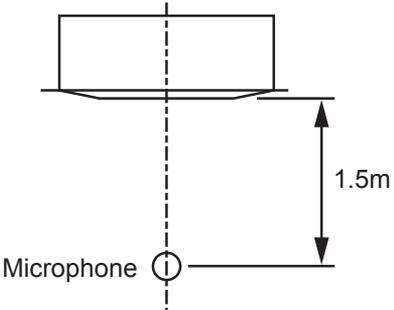
Indoor	FCQN100EXV1			FCQN125EXV1
Outdoor	RQ90/100DXV1	RQ100DXV1	RQ100DXY1	RQ125DXY1
Add. Charge, g/m	42	37	37	39

Example: FCRN60EXV1 & RN60CXV1 with 13m piping length, additional piping length is 5.5m. Thus,  
 Additional Charge = 5.5m x 10 g/m  
 = 55g

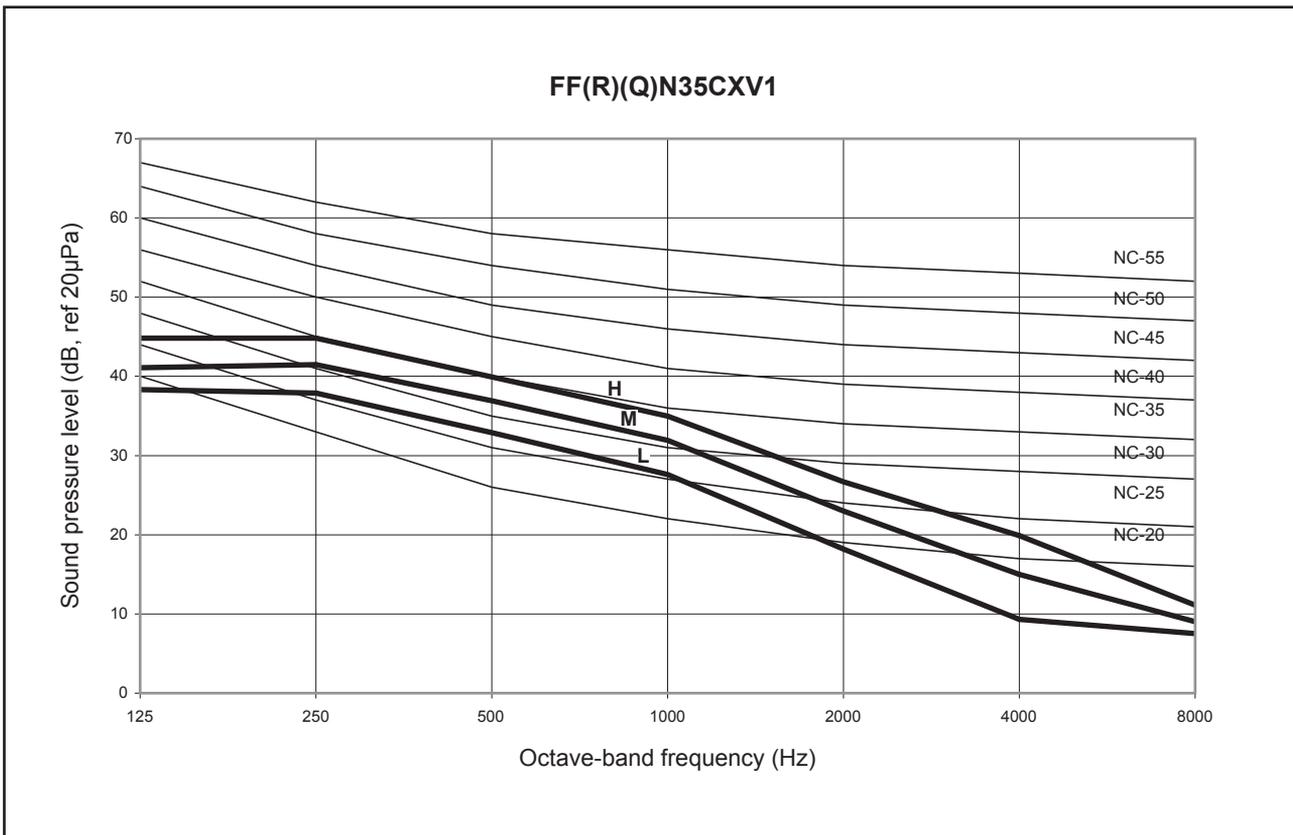
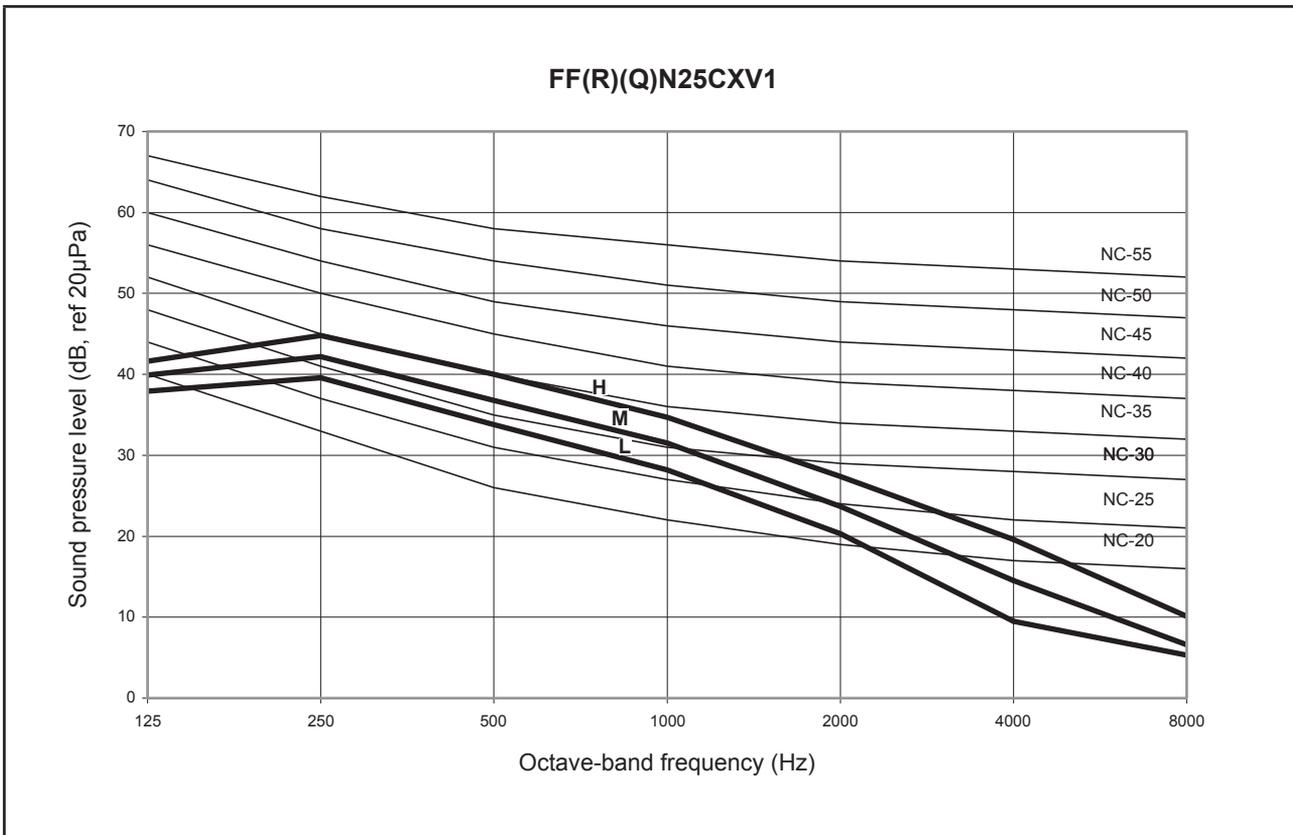
# Sound Data

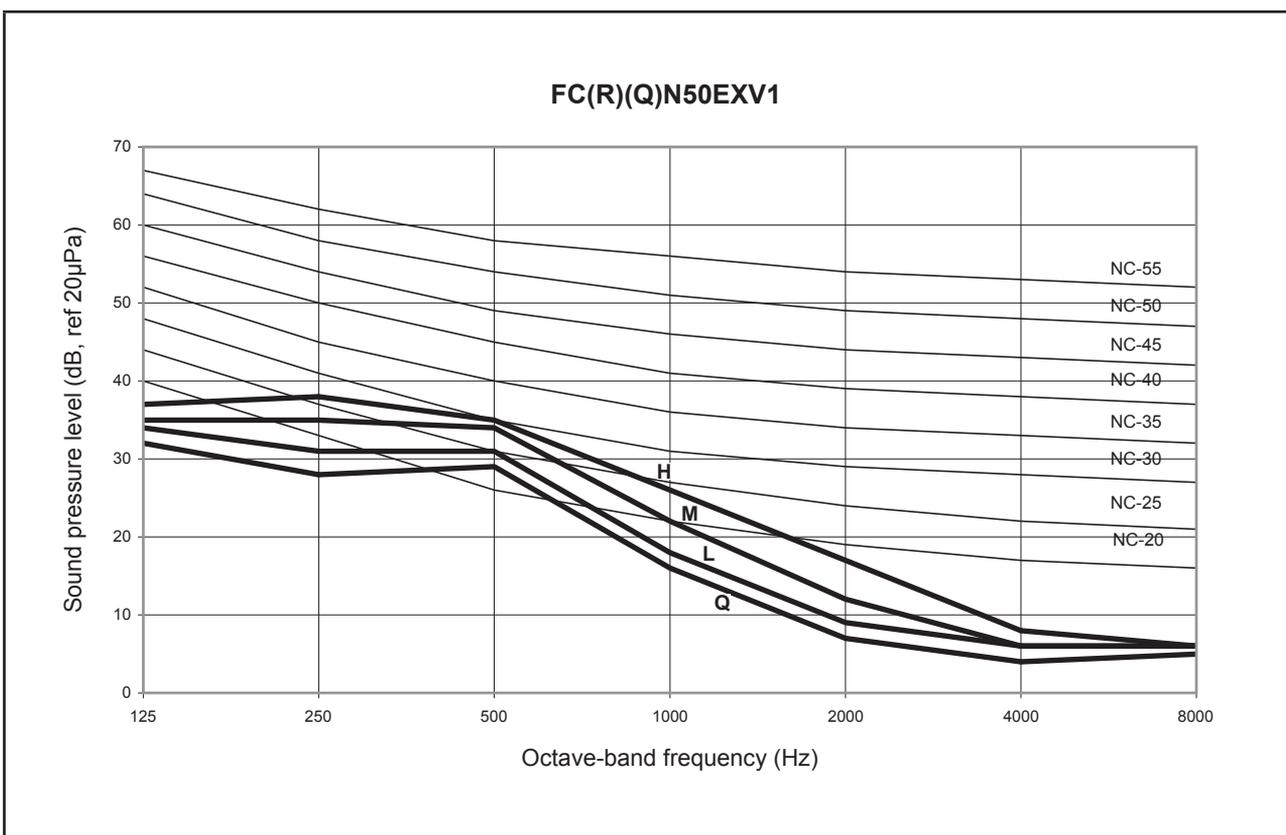
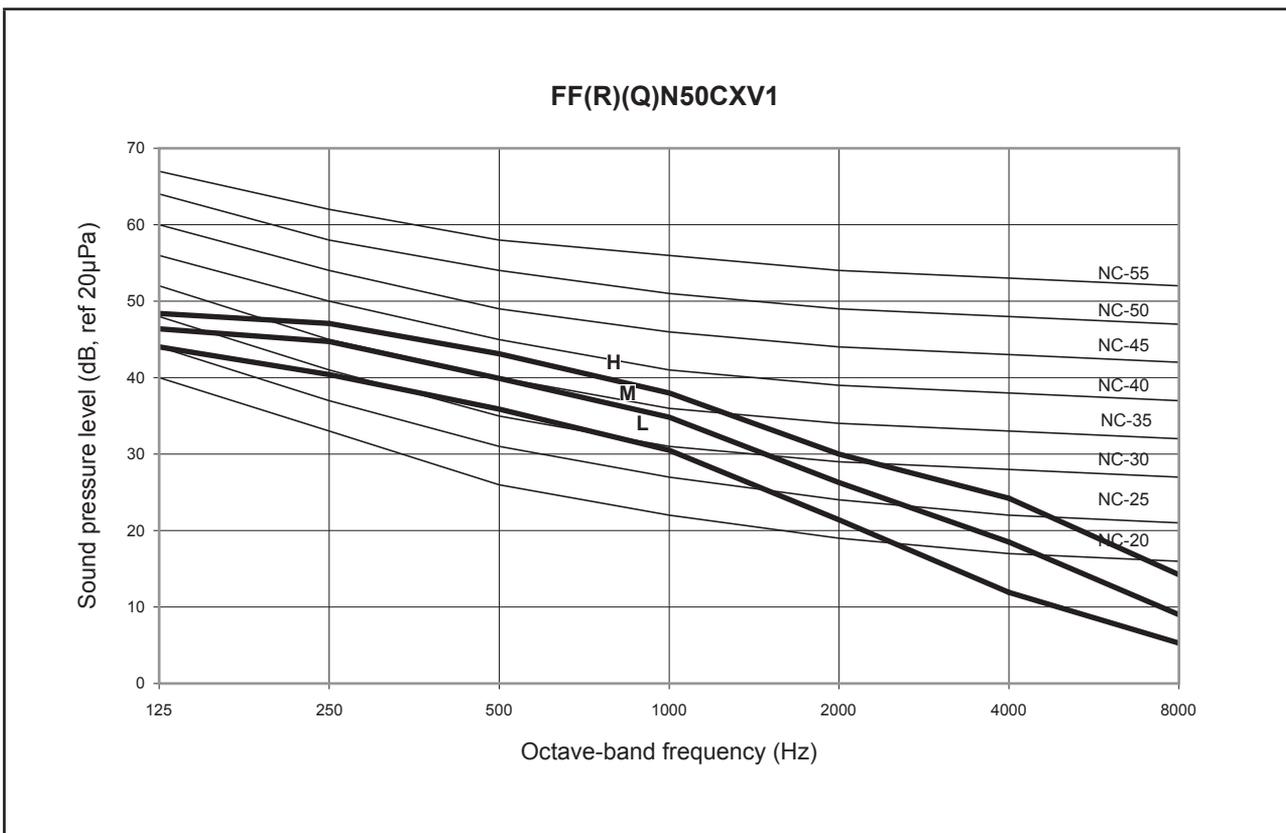
## Sound Pressure Level

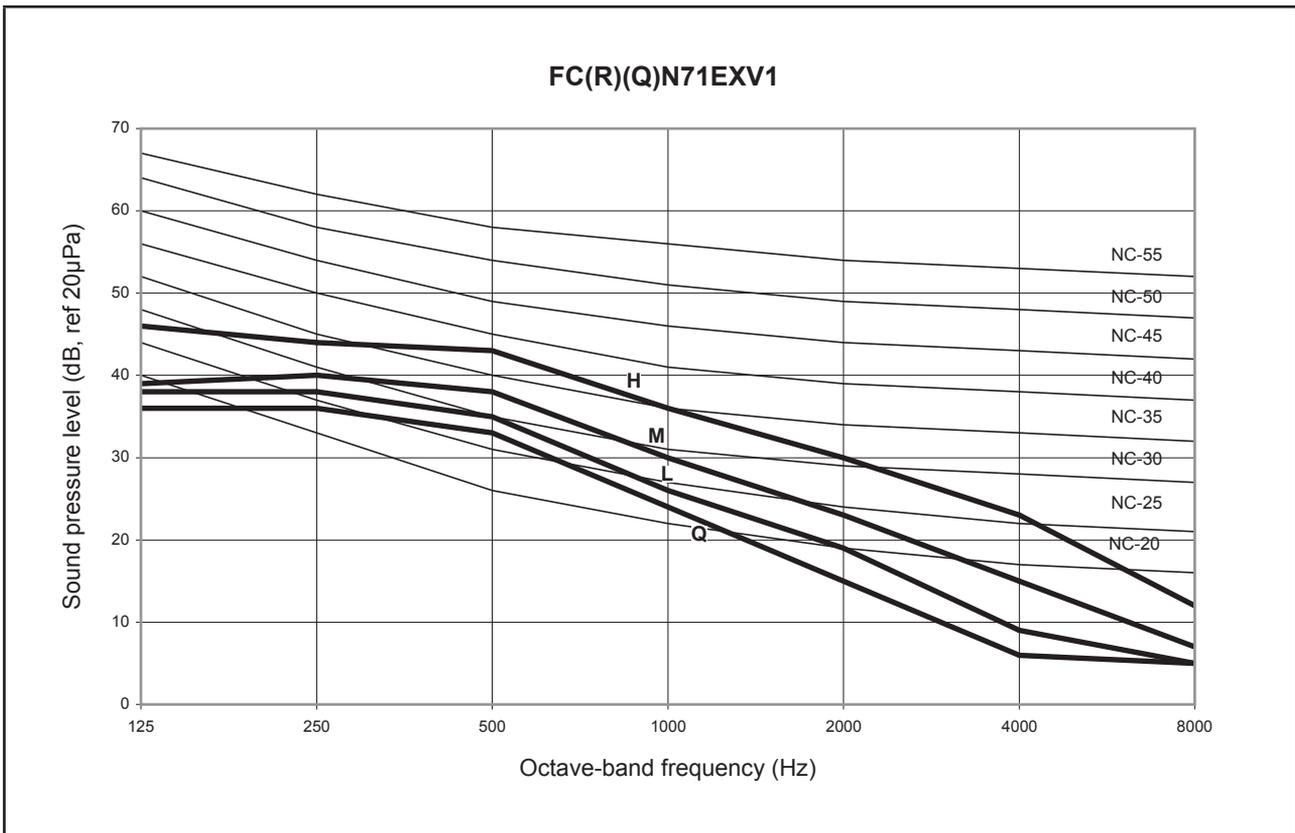
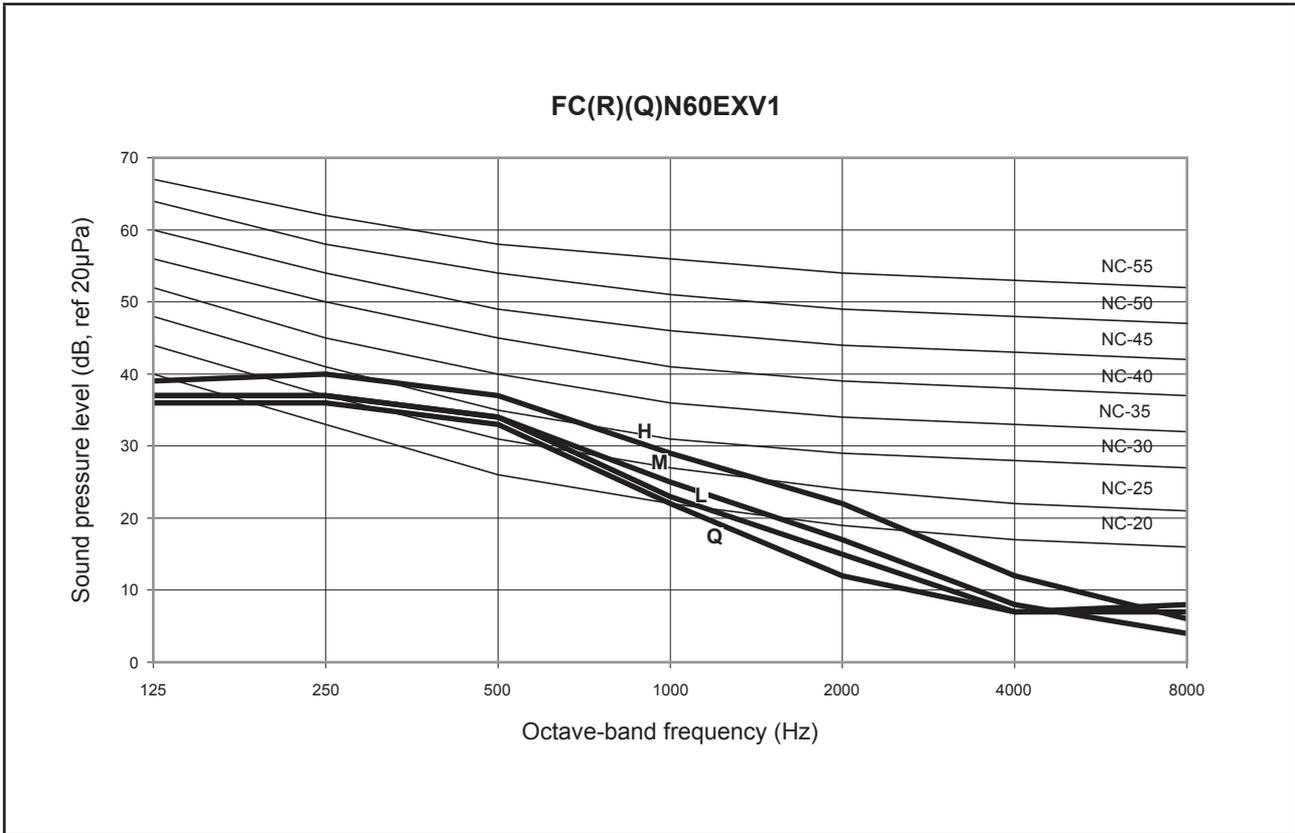
Model	Speed	1/1 Octave Sound Pressure (dB, ref 20 $\mu$ Pa)							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FF(R)(Q)N25CXV1	High	42	45	40	35	27	20	10	41	35
	Med	40	42	37	32	24	15	7	38	32
	Low	38	40	34	28	20	10	5	35	29
FF(R)(Q)N35CXV1	High	45	45	40	35	27	20	11	41	35
	Med	41	42	37	32	23	15	9	38	32
	Low	38	38	33	28	18	9	8	34	28
FF(R)(Q)N50CXV1	High	48	47	43	38	30	24	14	44	38
	Med	46	45	40	35	26	19	9	41	35
	Low	44	40	36	31	21	12	5	37	31
FC(R)(Q)N50EXV1	High	37	38	35	26	17	8	6	34	30
	Med	35	35	34	22	12	6	6	32	29
	Low	34	31	31	18	9	6	6	30	25
	Quiet	32	28	29	16	7	4	5	28	23
FC(R)(Q)N60EXV1	High	39	40	37	29	22	12	6	37	32
	Med	37	37	34	25	17	8	4	34	29
	Low	37	37	34	23	15	7	7	33	29
	Quiet	36	36	33	22	12	7	8	32	28
FC(R)(Q)N71EXV1	High	46	44	43	36	30	23	12	42	38
	Med	39	40	38	30	23	15	7	38	37
	Low	38	38	35	26	19	9	5	35	34
	Quiet	36	36	33	24	15	6	5	33	30
FC(R)(Q)N100EXV1	High	51	48	47	41	33	31	18	47	43
	Med	52	44	44	37	28	24	11	44	39
	Low	50	41	40	33	23	15	8	40	35
	Quiet	46	36	37	26	15	6	6	36	32
FC(R)(Q)N125EXV1	High	52	50	48	44	35	34	22	49	44
	Med	53	45	44	39	29	28	14	45	39
	Low	53	43	42	37	27	24	10	43	37
	Quiet	51	41	39	32	23	16	6	39	34

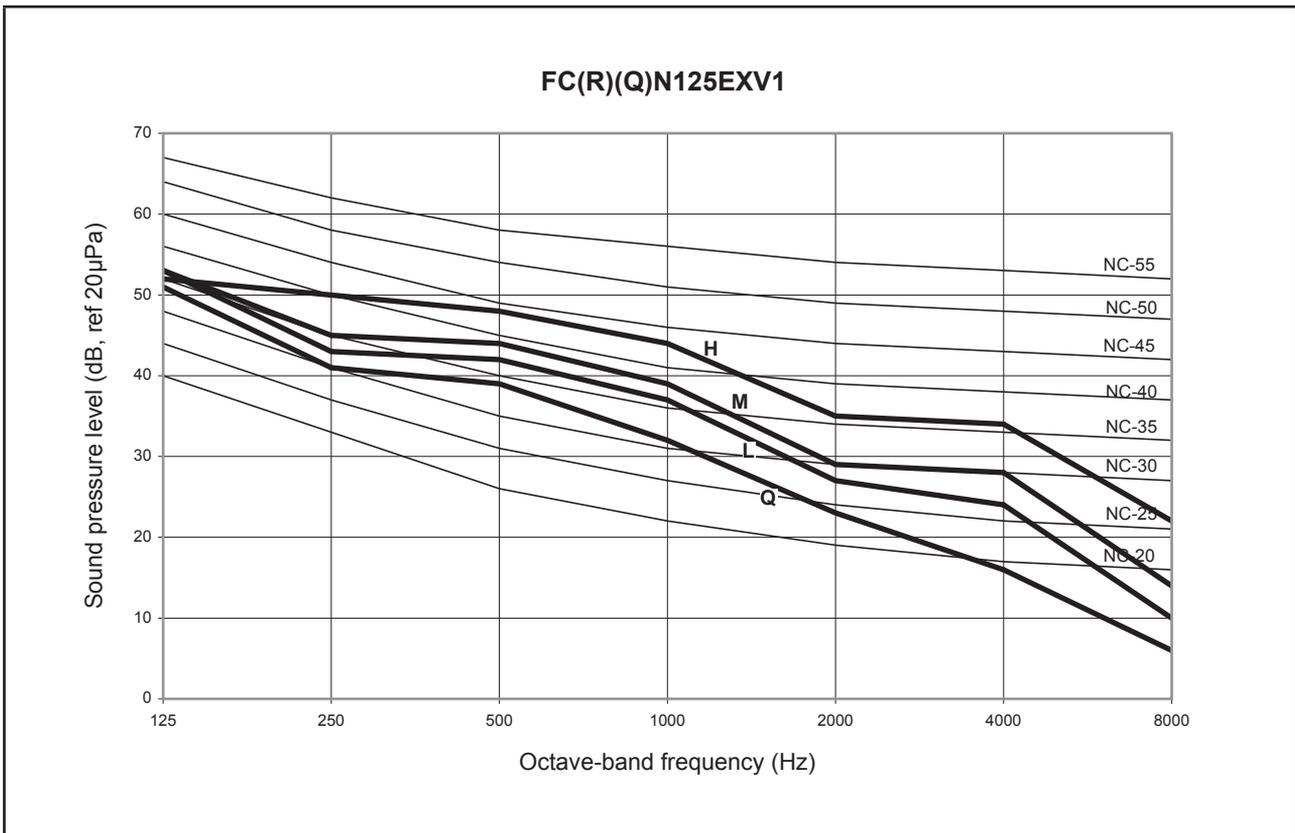
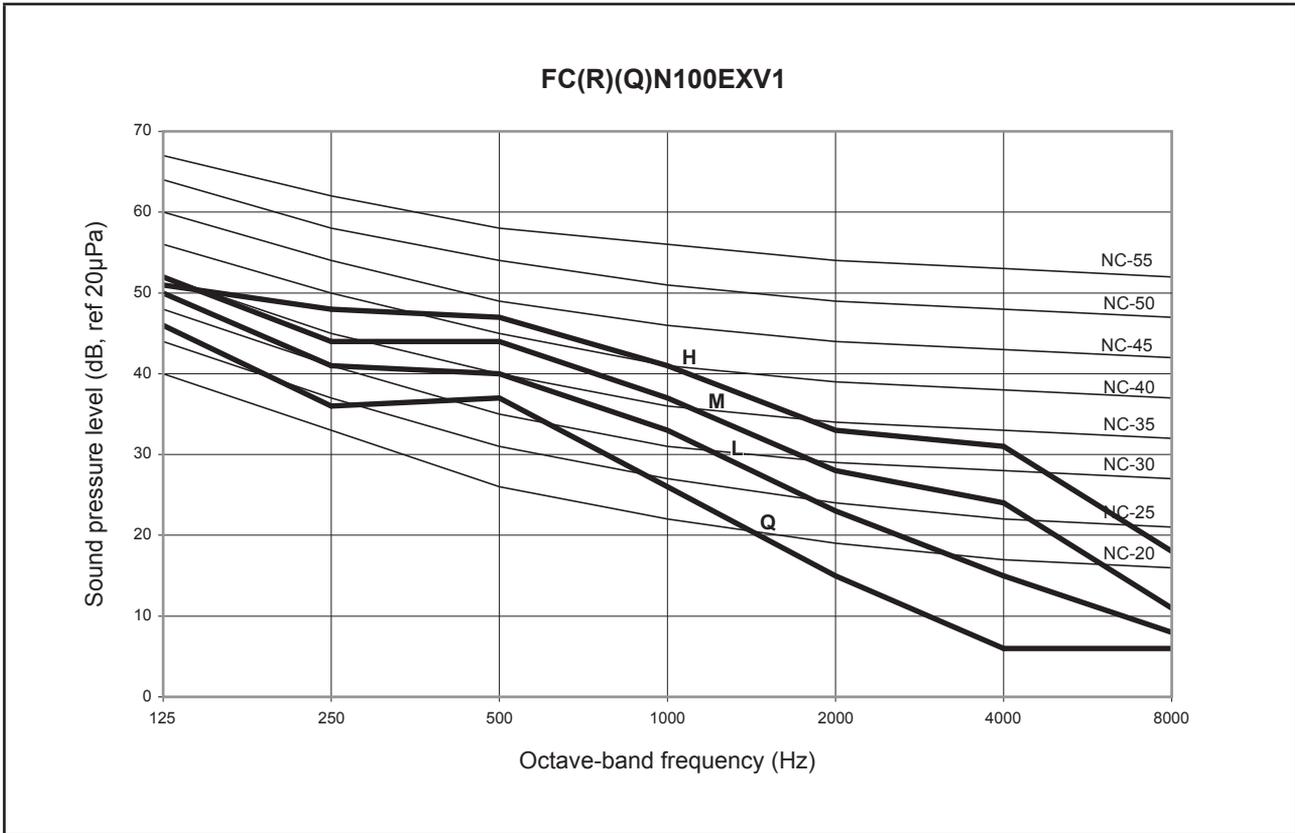
Model	Measuring Location
FF(R)(Q)N25/35/50CXV1 FC(R)(Q)N50/60/71EXV1	 <p>Standard : JIS C 9612</p>
FC(R)(Q)N100EXV1 FC(R)(Q)N125EXV1	 <p>Standard: JIS B 8616</p>

### NC Curve









# Engineering & Physical Data

## Engineering Data - R410A model

MODEL	INDOOR UNIT		FFRN25CXV1	FFRN35CXV1	FFRN50CXV1		
	OUTDOOR UNIT		RN25CXV1	RN35CXV1	RN50CXV1		
NOMINAL COOLING CAPACITY	Btu/h		9500	12500	17500		
	W		2780	3660	5129		
NOMINAL TOTAL INPUT POWER (COOLING)	W		900	1300	1690		
NOMINAL RUNNING CURRENT (COOLING)	A		4	5.9	7.72		
EER	W/W		3.09	2.82	3.03		
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAPILLARY TUBE				
REFRIGERANT CHARGE	kg		0.73	0.83	1.38		
MODEL	INDOOR UNIT		FFQN25CXV1	FFQN35CXV1	FFQN50CXV1		
	OUTDOOR UNIT		RYN25CXV1	RYN35CXV1	RYN50CXV1		
NOMINAL COOLING CAPACITY	Btu/h		9500	12500	17500	18000	
	W		2780	3660	5129	5280	
NOMINAL HEATING CAPACITY	Btu/h		9500	11500	17500	18000	
	W		2780	3370	5129	5420	
NOMINAL TOTAL INPUT POWER (COOLING)	W		900	1300	1690	1724	
NOMINAL TOTAL INPUT POWER (HEATING)	W		830	1020	1710	1494	
NOMINAL RUNNING CURRENT (COOLING)	A		4	5.9	7.72	3.3	
NOMINAL RUNNING CURRENT (HEATING)	A		3.7	4.60	7.75	2.80	
EER	W/W		3.09	2.82	3.03	3.06	
COP	W/W		3.35	3.30	3.00	3.63	
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAPILLARY TUBE				
REFRIGERANT CHARGE	kg		0.73	0.83	1.38	1.38	
POWER SOURCE	V/Ph/Hz		220 - 240 /1/50				
REFRIGERANT TYPE			R410A				
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION	4 WAY AUTOMATIC LOUVER (UP & DOWN)				
			WIRELESS MICROCOMPUTER REMOTE CONTROL				
	AIR FLOW	HIGH	l/s / CFM	194 / 410	194 / 410	212 / 450	212 / 450
		MEDIUM	l/s / CFM	170 / 360	170 / 360	194 / 410	194 / 410
		LOW	l/s / CFM	156 / 330	156 / 330	160 / 340	160 / 340
	SOUND PRESSURE LEVEL (H/M/L)	dBA	41 / 38 / 35	41 / 38 / 34	44 / 41 / 37	44 / 41 / 37	
	UNIT DIMENSION [Panel]	HEIGHT X WIDTH X DEPTH	mm	250X 570 X 570 [295 x 640 x 640]			
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	317 X 630 X 630			
	UNIT WEIGHT (UNIT + PANEL)	kg	22 + 2	23 + 2	23 + 2	23 + 2	
	CONDENSATE DRAIN SIZE	mm	19.05				
	FAN	TYPE		TURBO			
		DRIVE		DIRECT			
	FAN MOTOR	TYPE		INDUCTION			
		INDEX OF PROTECTION (IP)		IP20			
		INSULATION GRADE		CLASS B			
		RATED INPUT POWER	W	55	65	59	59
		RATED RUNNING CURRENT	A	0.24	0.29	0.25	0.25
		MOTOR MAX OUTPUT	W	19	23	28	28
	POLES		6				
	COIL	TUBE	MATERIAL	SEAMLESS INNER GROOVE COPPER			
DIAMETER			mm	7			
FIN		MATERIAL	ALUMINIUM (SLIT FIN)				
		FACE AREA	m <sup>2</sup>	0.318			
AIR QUALITY	FILTER	ROW	1	2			
		TYPE	WASHABLE SARANET FILTER				
QUANTITY	pc	1					
CASING	COLOUR	WITHOUT PAINT					
AIR FLOW	l/s / CFM	396 / 840	453 / 960	614 / 1300	614 / 1300		
SOUND PRESSURE LEVEL	dBA	46	49	52	52		
UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	540 X 700 X 250	540 X 700 X 250	651 X 855 X 328	651 X 855 X 328	
PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	620 X 810 X 330	620 X 810 X 330	710 X 990 X 415	710 X 990 X 415	
UNIT WEIGHT (RN / RYN)	kg	28	30	47	47		
PIPE CONNECTION	SIZE	TYPE	FLARE VALVE				
		LIQUID	mm	6.35	6.35	6.35	6.35
	GAS	mm	9.52	12.70	12.70	12.70	
FAN	TYPE		PROPELLER				
	DRIVE		DIRECT				
FAN MOTOR	TYPE		INDUCTION				
	INDEX OF PROTECTION (IP)		IP22	IP22	IP23	IP23	
	INSULATION GRADE		CLASS B	CLASS B	CLASS F	CLASS F	
	RATED INPUT POWER	W	57	70	80	80	
	RATED RUNNING CURRENT	A	0.25	0.31	0.36	0.36	
	MOTOR OUTPUT	W	24	35	42	42	
POLES		6	6	6	6		
COMPRESSOR	OIL TYPE	TYPE	ROTARY				
			RB68A or FREOL ALPHA68M				
	OIL AMOUNT	cm <sup>3</sup>	350	430	670	670	
		RN	W	788	1165	1551	1693
	RYN	RATED INPUT POWER (COOLING)	W	788	1165	1551	1693
		RATED INPUT POWER (HEATING)	W	718	881	1571	1643
		RATED RUNNING CURRENT (COOLING)	A	3.51	5.3	7.11	7.49
		RATED RUNNING CURRENT (HEATING)	A	3.51	5.3	7.11	7.49
LOCKED ROTOR AMP.	A	19	24	26	26		
COIL	TUBE	MATERIAL	SEAMLESS INNER GROOVE COPPER				
		DIAMETER (RN/RYN)	mm	7	7 / 9.52	7	7
	FIN	MATERIAL	ALUMINIUM (RAISE LANCE)				
		FACE AREA	m <sup>2</sup>	0.36	1	0.51	2
ROW		1	1	2	2		
CASING	COLOUR	LIGHT GREY					

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

COOLING	HEATING
INDOOR: 27°C DB/ 19°C WB	INDOOR: 20°C DB
OUTDOOR: 35°C DB/ 24°C WB	OUTDOOR: 7°C DB/ 6°C WB



Engineering Data - R410A MODEL

MODEL	INDOOR UNIT		FCRN100EXV1		FCRN125EXV1	
	OUTDOOR UNIT		RR90DXV1	RR100DXV1	RR125DXV1	
NOMINAL COOLING CAPACITY	Btu/h		31000	39000	45000	
	W		9086	11430	13190	
NOMINAL TOTAL INPUT POWER (COOLING)	W		2770	3920	4390	
NOMINAL RUNNING CURRENT (COOLING)	A		5.20	17.90	7.80	
EER	W/W		3.28	2.92	2.87	
REFRIGERANT CONTROL (EXPANSION DEVICE)	OUTDOOR CAPILLARY TUBE					
REFRIGERANT CHARGE	kg		2.60	2.10	2.25	
MODEL	INDOOR UNIT		FCQN100EXV1		FCQN125EXV1	
	OUTDOOR UNIT		RQ90DXV1	RQ100DXV1	RQ125DXV1	
NOMINAL COOLING CAPACITY	Btu/h		31000	39000	45000	
	W		9086	11430	13190	
NOMINAL HEATING CAPACITY	Btu/h		33400	39000	48000	
	W		9789	11430	14070	
NOMINAL TOTAL INPUT POWER (COOLING)	W		2770	3920	4390	
NOMINAL TOTAL INPUT POWER (HEATING)	W		2550	3740	4010	
NOMINAL RUNNING CURRENT (COOLING)	A		5.2	17.9	7.8	
NOMINAL RUNNING CURRENT (HEATING)	A		5.00	17.30	7.30	
EER	W/W		3.28	2.92	2.87	
COP	W/W		3.84	3.06	3.46	
REFRIGERANT CONTROL (EXPANSION DEVICE)	OUTDOOR CAPILLARY TUBE					
REFRIGERANT CHARGE	kg		2.60	2.10	2.25	
POWER SOURCE	V/Ph/Hz		220 - 240 /1/50	220 - 240 /1/50	380 - 415 / 3 / 50	
REFRIGERANT TYPE	R410A					
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION		4 WAY AUTOMATIC LOUVER (UP & DOWN)		
	AIR FLOW	HIGH		I/s / CFM	490 / 1030	570 / 1200
		MEDIUM		I/s / CFM	410 / 860	490 / 1030
		LOW		I/s / CFM	350 / 740	440 / 930
		SUPER LOW		I/s / CFM	295 / 620	370 / 780
	SOUND PRESSURE LEVEL (H/M/L/SL)	dB(A)		47 / 44 / 40 / 36	49 / 45 / 43 / 39	
	UNIT DIMENSION [Panel]	HEIGHT X WIDTH X DEPTH		mm 300 X 820 X 820 [375 X 990 X 990]		
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH		mm 335 X 916 X 916		
	UNIT WEIGHT (UNIT + PANEL)	kg		42 + 6		
	CONDENSATE DRAIN SIZE	mm		19.05		
	FAN	TYPE		BLOWER WHEEL		
		DRIVE		DIRECT		
	FAN MOTOR	TYPE		INDUCTION		
		INDEX OF PROTECTION (IP)		IP20		
		INSULATION GRADE		CLASS B		
		RATED INPUT POWER	W	176	176	221
		RATED RUNNING CURRENT	A	0.79	0.79	0.97
		MOTOR MAX OUTPUT	W	60	60	100
	COIL	TUBE	MATERIAL	SEAMLESS INNER GROOVE COPPER		
			DIAMETER	mm 7		
FIN		MATERIAL	ALUMINIUM (SLIT FIN)			
		FACE AREA	m <sup>2</sup> 0.461			
ROW	3					
AIR QUALITY	FILTER	TYPE	WASHABLE SARANET FILTER			
		QUANTITY	pc 1			
CASING	COLOUR		WITHOUT PAINT			
AIR FLOW	I/s / CFM		1605 / 3400	2171 / 4600		
SOUND PRESSURE LEVEL	dB(A)		58	60		
UNIT DIMENSION	HEIGHT X WIDTH X DEPTH		mm 852 X 1030 X 400			
PACKING DIMENSION	HEIGHT X WIDTH X DEPTH		mm 1010 x 1180 x 514			
UNIT WEIGHT (RN / RYN)	kg		86	95	98	
PIPE CONNECTION	SIZE	TYPE	FLARE VALVE			
		LIQUID	mm 9.52			
		GAS	mm 15.88			
FAN	TYPE		PROPELLER			
	DRIVE		DIRECT			
FAN MOTOR	TYPE		INDUCTION			
	INDEX OF PROTECTION (IP)		N / A	N / A	IP20	
	INSULATION GRADE		CLASS B	CLASS B	CLASS F	
	RATED INPUT POWER	W	257	257	276	
	RATED RUNNING CURRENT	A	1.1	1.1	1.34	
	MOTOR OUTPUT	W	145	145	145	
POLES	8					
COMPRESSOR	TYPE		SCROLL			
	OIL TYPE		MOBIL EAL ARCTIC 22C			
	OIL AMOUNT		cm <sup>3</sup>			
	RN	RATED INPUT POWER	W	1242	1951	1656
		RATED INPUT POWER (COOLING)	W	2337	3487	3893
	RYN	RATED INPUT POWER (HEATING)	W	2337	3487	3893
		RATED RUNNING CURRENT	A	4.57	16	7.03
	RATED RUNNING CURRENT (COOLING)	A	4.57	16	7.03	
	RATED RUNNING CURRENT (HEATING)	A	4.37	15.40	6.53	
	LOCKED ROTOR AMP.	A	48	136	74	
COIL	TUBE	MATERIAL	SEAMLESS INNER GROOVE COPPER			
		DIAMETER (RN/RYN)	mm 7			
	FIN	MATERIAL	ALUMINIUM (CORR.FIN)			
		FACE AREA	m <sup>2</sup> 0.87			
ROW	2					
CASING	COLOUR		LIGHT GREY			

ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151 (NON-DUCTED UNIT) OR ISO 13253 (DUCTED UNIT).

COOLING		HEATING	
INDOOR: 27°C DB/ 19°C WB		INDOOR: 20°C DB	
OUTDOOR: 35°C DB/ 24°C WB		OUTDOOR: 7°C DB/ 6°C WB	

## Safety Device

MODEL	INDOOR		FFRN25/35CXV1 FFQN25/35CXV1	FFRN50CXV1 FFQN50CXV1
	OUTDOOR		R(Y)N25CXV1	R(Y)N50CXV1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
DISC. THERMOSTAT SETTING		°C / F	N/A	

MODEL	INDOOR		FCRN50/60/71EXV1 FCQN50/60/71EXV1	
	OUTDOOR		R(Y)N50/60CXV1 R(R)(Q)71CXV1	
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	LOW PRESSURE SWITCH	TYPE		N/A
		OPEN	kPa / psi	N/A
		CLOSE	kPa / psi	N/A
	PHASE SEQUENCER			N/A
DISC. THERMOSTAT SETTING		°C / F	N/A	

MODEL	INDOOR		FCRN100EXV1		
	OUTDOOR		RR90DXV1	RR100DXV1	RR100DXY1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	kPa / psi	4140 / 600.46	
		CLOSE	kPa / psi	3310 / 480.07	
	LOW PRESSURE SWITCH	TYPE		NC	
		OPEN	kPa / psi	48 / 6.96	
		CLOSE	kPa / psi	152 / 22.05	
	PHASE SEQUENCER			N/A	YES
DISC. THERMOSTAT SETTING		°C / F	N/A	130 / 266	

MODEL	INDOOR		FCRN125EXV1	
	OUTDOOR		RR125DXY1	
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC
		OPEN	kPa / psi	4140 / 600.46
		CLOSE	kPa / psi	3310 / 480.07
	LOW PRESSURE SWITCH	TYPE		NC
		OPEN	kPa / psi	48 / 6.96
		CLOSE	kPa / psi	152 / 22.05
	PHASE SEQUENCER			YES
DISC. THERMOSTAT SETTING		°C / F	130 / 266	

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

MODEL	INDOOR		FCQN100EXV1		
	OUTDOOR		RQ90DXV1	RQ100DXV1	RQ100DXY1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	kPa / psi	4140 / 600.46	
		CLOSE	kPa / psi	3310 / 480.07	
	LOW PRESSURE SWITCH	TYPE		NC	
		OPEN	kPa / psi	48 / 6.96	
		CLOSE	kPa / psi	152 / 22.05	
	PHASE SEQUENCER			N/A	
DISC. THERMOSTAT SETTING		°C / F	N/A		130 / 266

MODEL	INDOOR		FCQN125EXV1	
	OUTDOOR		RQ125DXY1	
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC
		OPEN	kPa / psi	4140 / 600.46
		CLOSE	kPa / psi	3310 / 480.07
	LOW PRESSURE SWITCH	TYPE		NC
		OPEN	kPa / psi	48 / 6.96
		CLOSE	kPa / psi	152 / 22.05
	PHASE SEQUENCER			YES
DISC. THERMOSTAT SETTING		°C / F	130 / 266	

ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

# Performance Data

## Calculation Steps

Interpolation method can be used to get the total cooling capacity, **TC** and sensible cooling capacity, **SC** and power input, **PI** at those temperatures which are not stated out in the table. Extrapolation method is not allowed to be used.

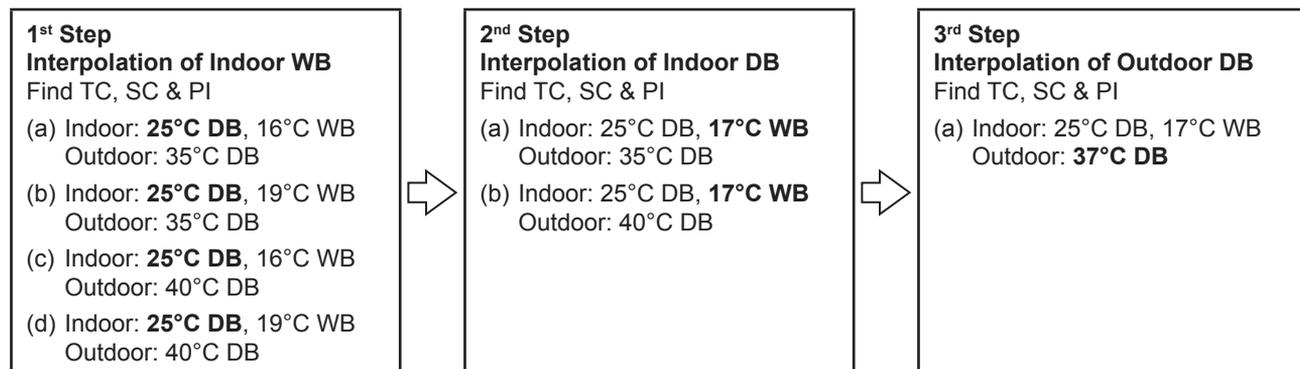
### Example:

**Model:** FFRN25CXV1 - RN25CXV1  
**Indoor Condition:** 25°C DB, 17°C WB  
**Outdoor Condition:** 37°C DB  
**Fan Speed:** High

### Solution:

Based on the Performance Table,

- Refer to the Indoor DB column,
  - 25°C is located between 24°C & 27°C for 16°C WB.
  - 25°C is located between 24°C & 27°C for 19°C WB.
  - Thus, Interpolation needs to be applied.
- Refer to the Indoor WB column,
  - 17°C is located between 16°C & 19°C for 25°C DB.
  - Thus, Interpolation needs to be applied.
- Refer to the Outdoor DB column,
  - 37°C is located between 35°C & 40°C.
  - Thus, Interpolation needs to be applied.



## Details of Calculation:

### 1<sup>st</sup> Step:

To obtain the TC, SC & PI for

(a) **Indoor Condition:** 25°C DB, 16°C WB  
**Outdoor Condition:** 35°C DB

EWB	EDB	Outdoor temperature		
		35°C		
		TC	SC	PI
		⋮	⋮	⋮
16	24	3.20	3.20	1.27
	25	x <sub>1</sub>	y <sub>1</sub>	z <sub>1</sub>
	27	3.30	3.30	1.27

### By Interpolation Method

$$\Rightarrow \frac{25^\circ\text{C} - 24^\circ\text{C}}{27^\circ\text{C} - 24^\circ\text{C}} = \frac{x_1 - 3.20\text{kW}}{3.30\text{kW} - 3.20\text{kW}}$$

$$\Rightarrow x_1 = 3.23\text{kW}$$

Similarly,

$$y_1 = 3.23\text{kW}$$

$$z_1 = 1.27\text{kW}$$

(b) Indoor Condition: 25°C DB, 16°C WB  
Outdoor Condition: 35°C DB

EWB	EDB	Outdoor temperature				
		35°C				
		TC	SC	PI		
			⋮	⋮	⋮	
19	24		3.51	2.57	1.29	
	25	-----	x <sub>2</sub>	y <sub>2</sub>	z <sub>2</sub>	
	27		3.52	2.99	1.29	

**By Interpolation Method**

$$\Rightarrow \frac{25^\circ\text{C} - 24^\circ\text{C}}{27^\circ\text{C} - 24^\circ\text{C}} = \frac{x_2 - 3.51\text{kW}}{3.52\text{kW} - 3.51\text{kW}}$$

$$\Rightarrow x_2 = 3.51\text{kW}$$

**Similarly,**

$$y_2 = 2.71\text{kW}$$

$$z_2 = 1.29\text{kW}$$

Repeat the same process for (c) & (d) in 1<sup>st</sup> Step

(c) x<sub>3</sub> = 2.98 kW; y<sub>3</sub> = 2.98 kW; z<sub>3</sub> = 1.38 kW

(d) x<sub>4</sub> = 3.22 W; y<sub>4</sub> = 2.53 kW; z<sub>4</sub> = 1.40 kW

**2<sup>nd</sup> Step:**

To obtain the TC, SC & PI for

(a) Indoor Condition: 25°C DB, 17°C WB  
Outdoor Condition: 35°C DB

EWB	EDB	Outdoor temperature				
		35°C				
		TC	SC	PI		
			⋮	⋮	⋮	
16	25		3.23	3.23	1.27	
17		-----	x <sub>5</sub>	y <sub>5</sub>	z <sub>5</sub>	
19			3.51	2.71	1.29	

**By Interpolation Method**

$$\Rightarrow \frac{17^\circ\text{C} - 16^\circ\text{C}}{19^\circ\text{C} - 16^\circ\text{C}} = \frac{x_5 - 3.23\text{kW}}{3.51\text{kW} - 3.23\text{kW}}$$

$$\Rightarrow x_5 = 3.32\text{kW}$$

**Similarly,**

$$y_5 = 3.06\text{kW}$$

$$z_5 = 1.28\text{kW}$$

Repeat the same process for (b) in 2<sup>nd</sup> Step

(c) x<sub>6</sub> = 3.06 kW; y<sub>6</sub> = 2.83 kW; z<sub>6</sub> = 1.39 kW

**3<sup>rd</sup> Step:**

To obtain the TC, SC & PI for

(a) Indoor Condition: 25°C DB, 17°C WB  
Outdoor Condition: 37°C DB

EWB	EDB	Outdoor temperature									
		35°C			37°C			40°C			
		TC	SC	PI	TC	SC	PI	TC	SC	PI	
25	17	-----	3.32	3.06	1.28	x	y	z	3.06	2.83	1.39

**By Interpolation Method**

$$\Rightarrow \frac{37^\circ\text{C} - 35^\circ\text{C}}{40^\circ\text{C} - 35^\circ\text{C}} = \frac{x - 3.32\text{kW}}{3.06\text{kW} - 3.32\text{kW}}$$

$$\Rightarrow x = 3.22\text{kW}$$

**Similarly,**

$$y = 2.97\text{kW}$$

$$z = 1.35\text{kW}$$

## Performance Tables

### R410A Cooling Only

Model: FFRN25CXV1 - RN25CXV1

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
330	16°C	21°C	2.62	2.08	0.68	2.53	2.03	0.74	2.43	1.97	0.80	2.34	1.92	0.87	2.15	1.78	0.94	1.98	1.68	1.04
		24°C	2.63	2.49	0.68	2.53	2.44	0.74	2.44	2.38	0.80	2.34	2.32	0.87	2.15	2.15	0.94	1.99	1.99	1.04
		27°C	2.65	2.65	0.69	2.56	2.56	0.74	2.47	2.47	0.80	2.37	2.37	0.87	2.19	2.19	0.95	2.04	2.04	1.04
		30°C	2.73	2.73	0.69	2.65	2.65	0.75	2.57	2.57	0.81	2.49	2.49	0.88	2.30	2.30	0.95	2.16	2.16	1.05
	19°C	24°C	2.89	1.94	0.69	2.79	1.89	0.75	2.69	1.84	0.81	2.58	1.79	0.88	2.37	1.67	0.96	2.19	1.57	1.06
		27°C	2.89	2.22	0.69	2.79	2.17	0.75	2.69	2.12	0.81	2.58	2.07	0.88	2.37	1.94	0.96	2.20	1.84	1.06
		30°C	2.90	2.74	0.69	2.80	2.69	0.75	2.70	2.63	0.82	2.60	2.56	0.88	2.39	2.39	0.96	2.22	2.22	1.06
		33°C	2.93	2.93	0.70	2.84	2.84	0.75	2.75	2.75	0.82	2.65	2.65	0.89	2.45	2.45	0.96	2.29	2.29	1.07
	22°C	27°C	3.18	1.90	0.71	3.07	1.86	0.77	2.96	1.81	0.83	2.84	1.76	0.90	2.61	1.64	0.98	2.42	1.55	1.08
		30°C	3.18	2.32	0.71	3.07	2.27	0.77	2.96	2.22	0.83	2.84	2.16	0.90	2.62	2.03	0.98	2.42	1.92	1.08
		33°C	3.18	2.71	0.71	3.07	2.66	0.77	2.96	2.60	0.83	2.85	2.55	0.90	2.62	2.39	0.98	2.43	2.27	1.08
		36°C	3.19	3.07	0.71	3.09	3.01	0.77	2.98	2.95	0.83	2.87	2.87	0.90	2.65	2.65	0.98	2.46	2.46	1.08
360	16°C	21°C	2.73	2.17	0.69	2.63	2.11	0.75	2.53	2.06	0.81	2.43	2.00	0.88	2.23	1.86	0.95	2.05	1.75	1.05
		24°C	2.74	2.63	0.69	2.64	2.57	0.75	2.54	2.51	0.81	2.44	2.44	0.88	2.24	2.24	0.95	2.07	2.07	1.05
		27°C	2.77	2.77	0.69	2.68	2.68	0.75	2.58	2.58	0.81	2.49	2.49	0.88	2.30	2.30	0.96	2.14	2.14	1.05
		30°C	2.88	2.88	0.70	2.80	2.80	0.75	2.72	2.72	0.82	2.63	2.63	0.89	2.43	2.43	0.97	2.27	2.27	1.07
	19°C	24°C	3.00	2.05	0.70	2.90	2.00	0.76	2.79	1.95	0.82	2.68	1.90	0.89	2.46	1.77	0.97	2.27	1.67	1.07
		27°C	3.01	2.37	0.70	2.90	2.31	0.76	2.79	2.26	0.82	2.68	2.21	0.89	2.46	2.06	0.97	2.28	1.95	1.07
		30°C	3.02	2.92	0.70	2.92	2.85	0.76	2.81	2.79	0.82	2.71	2.71	0.89	2.49	2.49	0.97	2.31	2.31	1.07
		33°C	3.07	3.07	0.70	2.98	2.98	0.76	2.89	2.89	0.83	2.79	2.79	0.90	2.58	2.58	0.98	2.42	2.42	1.08
	22°C	27°C	3.30	2.01	0.71	3.19	1.96	0.77	3.07	1.91	0.84	2.94	1.86	0.91	2.71	1.74	0.99	2.50	1.64	1.09
		30°C	3.31	2.47	0.71	3.19	2.42	0.77	3.07	2.36	0.84	2.95	2.31	0.91	2.71	2.16	0.99	2.51	2.05	1.09
		33°C	3.31	2.89	0.71	3.20	2.84	0.77	3.08	2.78	0.84	2.96	2.72	0.91	2.72	2.55	0.99	2.52	2.42	1.09
		36°C	3.33	3.27	0.72	3.22	3.21	0.78	3.11	3.11	0.84	3.00	3.00	0.91	2.77	2.77	0.99	2.58	2.58	1.09
410	16°C	21°C	2.83	2.27	0.70	2.72	2.21	0.75	2.62	2.15	0.81	2.51	2.09	0.88	2.30	1.95	0.96	2.12	1.83	1.06
		24°C	2.84	2.75	0.70	2.74	2.69	0.75	2.64	2.62	0.82	2.53	2.53	0.88	2.32	2.32	0.96	2.15	2.15	1.06
		27°C	2.89	2.89	0.70	2.79	2.79	0.76	2.70	2.70	0.82	2.60	2.60	0.89	2.41	2.41	0.97	2.24	2.24	1.07
		30°C	3.03	3.03	0.70	2.94	2.94	0.76	2.85	2.85	0.83	2.76	2.76	0.90	2.56	2.56	0.98	2.39	2.39	1.08
	19°C	24°C	3.11	2.17	0.71	3.00	2.12	0.77	2.89	2.06	0.83	2.77	2.01	0.90	2.54	1.87	0.98	2.35	1.77	1.07
		27°C	3.12	2.51	0.71	3.01	2.46	0.77	2.90	2.40	0.83	2.78	2.34	0.90	2.55	2.19	0.98	2.36	2.07	1.08
		30°C	3.15	3.09	0.71	3.04	3.03	0.77	2.93	2.93	0.83	2.82	2.82	0.90	2.59	2.59	0.98	2.41	2.41	1.08
		33°C	3.22	3.22	0.71	3.12	3.12	0.77	3.03	3.03	0.84	2.93	2.93	0.91	2.71	2.71	0.99	2.54	2.54	1.09
	22°C	27°C	3.42	2.13	0.72	3.29	2.08	0.78	3.17	2.03	0.85	3.04	1.97	0.92	2.80	1.84	0.99	2.58	1.74	1.10
		30°C	3.42	2.62	0.72	3.30	2.57	0.78	3.18	2.51	0.85	3.05	2.46	0.92	2.80	2.30	1.00	2.59	2.18	1.10
		33°C	3.43	3.07	0.72	3.32	3.02	0.78	3.19	2.95	0.85	3.07	2.89	0.92	2.82	2.71	1.00	2.62	2.57	1.10
		36°C	3.47	3.47	0.72	3.36	3.36	0.78	3.24	3.24	0.85	3.12	3.12	0.92	2.89	2.89	1.00	2.69	2.69	1.11

**Remark:**

AFR: Air flow rate (CFM)  
 EWB: Entering Wet Bulb Temp. (°C)  
 EDB: Entering Dry Bulb Temp. (°C)  
 TC: Total Cooling Capacity (kW)  
 SC: Sensible Cooling Capacity (kW)  
 PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

**Model: FFRN35CXV1 - RN35CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
330	16°C	21°C	3.45	2.73	0.99	3.33	2.66	1.07	3.21	2.59	1.16	3.08	2.51	1.25	2.83	2.34	1.36	2.61	2.20	1.50
		24°C	3.46	3.27	0.99	3.33	3.20	1.07	3.21	3.12	1.16	3.08	3.04	1.26	2.83	2.83	1.36	2.62	2.62	1.50
		27°C	3.48	3.48	0.99	3.37	3.37	1.07	3.25	3.25	1.16	3.13	3.13	1.26	2.88	2.88	1.37	2.68	2.68	1.51
		30°C	3.59	3.59	0.99	3.49	3.49	1.08	3.38	3.38	1.17	3.27	3.27	1.27	3.03	3.03	1.38	2.84	2.84	1.52
	19°C	24°C	3.81	2.55	1.00	3.67	2.49	1.09	3.54	2.42	1.18	3.40	2.35	1.28	3.12	2.19	1.38	2.89	2.06	1.53
		27°C	3.81	2.92	1.00	3.68	2.85	1.09	3.54	2.79	1.18	3.40	2.72	1.28	3.13	2.54	1.39	2.89	2.41	1.53
		30°C	3.82	3.60	1.00	3.68	3.52	1.09	3.55	3.45	1.18	3.42	3.36	1.28	3.15	3.14	1.39	2.92	2.92	1.53
		33°C	3.86	3.86	1.01	3.74	3.74	1.09	3.61	3.61	1.18	3.49	3.49	1.28	3.23	3.23	1.39	3.02	3.02	1.54
	22°C	27°C	4.19	2.50	1.02	4.04	2.44	1.11	3.90	2.37	1.20	3.74	2.31	1.30	3.44	2.15	1.41	3.19	2.03	1.56
		30°C	4.19	3.04	1.02	4.04	2.98	1.11	3.90	2.91	1.20	3.74	2.84	1.30	3.44	2.66	1.41	3.19	2.52	1.56
		33°C	4.19	3.55	1.02	4.05	3.49	1.11	3.90	3.42	1.20	3.75	3.35	1.30	3.45	3.14	1.41	3.20	2.98	1.56
		36°C	4.21	4.03	1.02	4.07	3.95	1.11	3.93	3.87	1.20	3.78	3.78	1.30	3.49	3.49	1.42	3.24	3.24	1.56
360	16°C	21°C	3.59	2.85	1.00	3.46	2.77	1.08	3.33	2.70	1.17	3.19	2.62	1.27	2.93	2.44	1.37	2.70	2.30	1.51
		24°C	3.60	3.46	1.00	3.47	3.38	1.08	3.34	3.30	1.17	3.21	3.21	1.27	2.95	2.95	1.37	2.72	2.72	1.51
		27°C	3.64	3.64	1.00	3.52	3.52	1.08	3.40	3.40	1.17	3.28	3.28	1.27	3.03	3.03	1.38	2.82	2.82	1.52
		30°C	3.80	3.80	1.01	3.69	3.69	1.09	3.57	3.57	1.18	3.46	3.46	1.28	3.20	3.20	1.39	3.00	3.00	1.54
	19°C	24°C	3.96	2.69	1.01	3.81	2.63	1.10	3.67	2.56	1.19	3.52	2.49	1.29	3.24	2.32	1.40	2.99	2.19	1.54
		27°C	3.96	3.10	1.01	3.82	3.03	1.10	3.68	2.97	1.19	3.53	2.90	1.29	3.24	2.71	1.40	3.00	2.56	1.54
		30°C	3.98	3.83	1.01	3.84	3.75	1.10	3.71	3.66	1.19	3.56	3.56	1.29	3.28	3.28	1.40	3.04	3.04	1.54
		33°C	4.05	4.05	1.02	3.92	3.92	1.10	3.80	3.80	1.20	3.67	3.67	1.30	3.40	3.40	1.41	3.18	3.18	1.56
	22°C	27°C	4.35	2.64	1.03	4.19	2.58	1.12	4.04	2.51	1.21	3.88	2.44	1.31	3.56	2.28	1.42	3.30	2.15	1.57
		30°C	4.35	3.24	1.03	4.20	3.17	1.12	4.04	3.10	1.21	3.88	3.03	1.31	3.57	2.83	1.43	3.30	2.69	1.57
		33°C	4.36	3.79	1.03	4.21	3.72	1.12	4.05	3.64	1.21	3.89	3.57	1.32	3.58	3.35	1.43	3.32	3.18	1.57
		36°C	4.39	4.29	1.03	4.24	4.21	1.12	4.10	4.10	1.22	3.95	3.95	1.32	3.64	3.64	1.43	3.40	3.40	1.58
410	16°C	21°C	3.72	2.97	1.00	3.59	2.90	1.09	3.45	2.82	1.18	3.31	2.74	1.28	3.03	2.55	1.38	2.80	2.40	1.52
		24°C	3.74	3.61	1.01	3.61	3.53	1.09	3.47	3.44	1.18	3.33	3.33	1.28	3.06	3.06	1.39	2.83	2.83	1.53
		27°C	3.80	3.80	1.01	3.68	3.68	1.09	3.55	3.55	1.18	3.43	3.43	1.28	3.17	3.17	1.39	2.95	2.95	1.54
		30°C	3.99	3.99	1.02	3.88	3.88	1.10	3.76	3.76	1.20	3.63	3.63	1.30	3.36	3.36	1.41	3.14	3.14	1.56
	19°C	24°C	4.10	2.85	1.02	3.95	2.78	1.11	3.80	2.71	1.20	3.65	2.64	1.30	3.35	2.46	1.41	3.09	2.32	1.55
		27°C	4.11	3.30	1.02	3.96	3.22	1.11	3.81	3.15	1.20	3.66	3.07	1.30	3.36	2.87	1.41	3.11	2.72	1.55
		30°C	4.14	4.06	1.02	4.00	3.97	1.11	3.85	3.85	1.20	3.71	3.71	1.30	3.41	3.41	1.41	3.17	3.17	1.56
		33°C	4.23	4.23	1.03	4.11	4.11	1.12	3.98	3.98	1.21	3.85	3.85	1.31	3.57	3.57	1.43	3.34	3.34	1.58
	22°C	27°C	4.50	2.79	1.04	4.34	2.73	1.13	4.17	2.66	1.22	4.01	2.59	1.32	3.68	2.42	1.44	3.40	2.28	1.58
		30°C	4.51	3.44	1.04	4.35	3.37	1.13	4.18	3.30	1.22	4.01	3.22	1.33	3.69	3.02	1.44	3.41	2.86	1.58
		33°C	4.52	4.03	1.04	4.37	3.96	1.13	4.21	3.88	1.22	4.04	3.79	1.33	3.72	3.55	1.44	3.44	3.37	1.59
		36°C	4.56	4.55	1.04	4.42	4.42	1.13	4.27	4.27	1.23	4.11	4.11	1.33	3.80	3.80	1.45	3.55	3.55	1.60

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling Capacity (kW)
- SC: Sensible Cooling Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

## Model: FFRN50CXV1 - RN50CXV1

## Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
340	16°C	21°C	4.84	3.33	1.28	4.67	3.24	1.39	4.49	3.15	1.50	4.31	3.06	1.63	3.96	2.85	1.77	3.66	2.68	1.95
		24°C	4.84	3.98	1.28	4.67	3.89	1.39	4.50	3.80	1.50	4.32	3.71	1.63	3.97	3.46	1.77	3.67	3.27	1.95
		27°C	4.88	4.52	1.29	4.72	4.41	1.39	4.55	4.31	1.51	4.38	4.20	1.64	4.04	3.91	1.77	3.76	3.67	1.96
		30°C	5.03	5.03	1.29	4.89	4.89	1.40	4.74	4.74	1.52	4.59	4.59	1.65	4.25	4.25	1.79	3.98	3.98	1.98
	19°C	24°C	5.34	3.11	1.30	5.15	3.03	1.41	4.96	2.95	1.53	4.76	2.86	1.66	4.38	2.67	1.80	4.05	2.51	1.98
		27°C	5.34	3.55	1.30	5.15	3.47	1.41	4.96	3.39	1.53	4.77	3.31	1.66	4.38	3.10	1.80	4.05	2.93	1.98
		30°C	5.35	4.39	1.30	5.16	4.29	1.41	4.98	4.20	1.53	4.79	4.10	1.66	4.41	3.83	1.80	4.09	3.62	1.99
		33°C	5.41	5.41	1.31	5.23	5.23	1.42	5.06	5.06	1.54	4.89	4.89	1.67	4.53	4.53	1.81	4.23	4.23	2.00
	22°C	27°C	5.87	3.04	1.33	5.67	2.97	1.44	5.46	2.89	1.56	5.25	2.81	1.69	4.82	2.62	1.84	4.47	2.47	2.02
		30°C	5.87	3.70	1.33	5.67	3.63	1.44	5.46	3.54	1.56	5.25	3.46	1.69	4.83	3.24	1.84	4.47	3.07	2.02
		33°C	5.87	4.33	1.33	5.67	4.24	1.44	5.46	4.16	1.56	5.25	4.07	1.69	4.83	3.82	1.84	4.48	3.63	2.02
		36°C	5.89	4.91	1.33	5.70	4.81	1.44	5.50	4.71	1.56	5.30	4.60	1.70	4.89	4.32	1.84	4.55	4.10	2.03
410	16°C	21°C	5.03	3.47	1.30	4.85	3.38	1.40	4.67	3.29	1.52	4.48	3.20	1.65	4.11	2.98	1.78	3.79	2.80	1.97
		24°C	5.05	4.21	1.30	4.87	4.11	1.40	4.68	4.01	1.52	4.50	3.91	1.65	4.13	3.65	1.79	3.82	3.45	1.97
		27°C	5.11	4.78	1.30	4.94	4.67	1.41	4.77	4.55	1.52	4.60	4.42	1.65	4.24	4.10	1.79	3.95	3.84	1.98
		30°C	5.32	5.32	1.31	5.17	5.17	1.42	5.01	5.01	1.54	4.85	4.85	1.67	4.49	4.49	1.81	4.20	4.20	2.00
	19°C	24°C	5.54	3.28	1.32	5.35	3.20	1.43	5.15	3.12	1.54	4.94	3.03	1.67	4.54	2.82	1.82	4.19	2.66	2.00
		27°C	5.55	3.78	1.32	5.36	3.70	1.43	5.16	3.61	1.54	4.95	3.53	1.68	4.55	3.30	1.82	4.20	3.12	2.00
		30°C	5.58	4.66	1.32	5.39	4.56	1.43	5.19	4.46	1.55	5.00	4.35	1.68	4.60	4.07	1.82	4.27	3.84	2.01
		33°C	5.67	5.67	1.32	5.50	5.50	1.43	5.33	5.33	1.56	5.15	5.15	1.69	4.77	4.77	1.83	4.46	4.46	2.03
	22°C	27°C	6.09	3.21	1.34	5.88	3.14	1.45	5.66	3.06	1.57	5.43	2.98	1.71	4.99	2.78	1.85	4.62	2.62	2.04
		30°C	6.10	3.94	1.34	5.88	3.86	1.45	5.67	3.78	1.58	5.44	3.69	1.71	5.00	3.45	1.85	4.63	3.28	2.04
		33°C	6.11	4.62	1.34	5.90	4.53	1.45	5.68	4.44	1.58	5.46	4.35	1.71	5.02	4.08	1.85	4.65	3.87	2.04
		36°C	6.15	5.22	1.34	5.95	5.13	1.46	5.74	5.02	1.58	5.53	4.90	1.71	5.11	4.59	1.86	4.76	4.33	2.05
450	16°C	21°C	5.22	3.62	1.31	5.03	3.53	1.41	4.83	3.44	1.53	4.63	3.34	1.66	4.25	3.11	1.80	3.92	2.93	1.98
		24°C	5.25	4.40	1.31	5.06	4.29	1.41	4.87	4.19	1.53	4.67	4.08	1.66	4.29	3.81	1.80	3.96	3.59	1.99
		27°C	5.33	5.04	1.31	5.16	4.91	1.42	4.98	4.77	1.54	4.80	4.63	1.67	4.44	4.29	1.81	4.14	4.00	2.00
		30°C	5.60	5.60	1.32	5.43	5.43	1.43	5.27	5.27	1.55	5.09	5.09	1.69	4.72	4.72	1.83	4.40	4.40	2.02
	19°C	24°C	5.74	3.47	1.33	5.54	3.39	1.44	5.33	3.30	1.56	5.11	3.21	1.69	4.69	2.99	1.83	4.33	2.82	2.02
		27°C	5.76	4.02	1.33	5.55	3.93	1.44	5.35	3.83	1.56	5.13	3.74	1.69	4.71	3.50	1.83	4.35	3.31	2.02
		30°C	5.81	4.94	1.33	5.60	4.84	1.44	5.40	4.73	1.56	5.20	4.61	1.69	4.78	4.30	1.84	4.44	4.06	2.03
		33°C	5.93	5.93	1.34	5.76	5.76	1.45	5.58	5.58	1.57	5.40	5.40	1.71	5.00	5.00	1.86	4.68	4.68	2.05
	22°C	27°C	6.30	3.40	1.35	6.08	3.32	1.47	5.85	3.24	1.59	5.62	3.15	1.72	5.16	2.94	1.87	4.77	2.78	2.06
		30°C	6.32	4.19	1.35	6.09	4.11	1.47	5.86	4.02	1.59	5.63	3.93	1.72	5.17	3.68	1.87	4.78	3.49	2.06
		33°C	6.34	4.91	1.35	6.12	4.82	1.47	5.89	4.72	1.59	5.66	4.62	1.73	5.21	4.33	1.87	4.83	4.11	2.06
		36°C	6.39	5.54	1.36	6.19	5.44	1.47	5.98	5.32	1.60	5.77	5.19	1.73	5.33	4.84	1.88	4.97	4.56	2.08

## Remark:

AFR: Air flow rate (CFM)

EWB: Entering Wet Bulb Temp. (°C)

EDB: Entering Dry Bulb Temp. (°C)

TC: Total Cooling Capacity (kW)

SC: Sensible Cooling Capacity (kW)

PI: Power Input (kW)

## Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

**Model: FFRN50CXV1 - RN50CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
340	16°C	21°C	4.98	3.42	1.31	4.80	3.34	1.42	4.62	3.25	1.53	4.44	3.15	1.66	4.08	2.93	1.80	3.76	2.76	1.99
		24°C	4.99	4.10	1.31	4.81	4.01	1.42	4.63	3.91	1.53	4.44	3.82	1.66	4.08	3.56	1.81	3.78	3.36	1.99
		27°C	5.02	4.65	1.31	4.86	4.54	1.42	4.69	4.44	1.54	4.51	4.32	1.67	4.16	4.02	1.81	3.87	3.78	2.00
		30°C	5.18	5.18	1.32	5.03	5.03	1.43	4.88	4.88	1.55	4.72	4.72	1.68	4.38	4.38	1.83	4.09	4.09	2.02
	19°C	24°C	5.49	3.20	1.33	5.30	3.12	1.44	5.10	3.03	1.56	4.90	2.95	1.69	4.51	2.75	1.84	4.16	2.59	2.02
		27°C	5.49	3.66	1.33	5.30	3.58	1.44	5.11	3.49	1.56	4.91	3.41	1.69	4.51	3.19	1.84	4.17	3.02	2.02
		30°C	5.50	4.51	1.33	5.31	4.42	1.44	5.13	4.32	1.56	4.93	4.22	1.69	4.54	3.94	1.84	4.21	3.73	2.03
		33°C	5.57	5.57	1.33	5.39	5.39	1.45	5.21	5.21	1.57	5.03	5.03	1.70	4.66	4.66	1.85	4.36	4.36	2.04
	22°C	27°C	6.04	3.13	1.35	5.83	3.05	1.47	5.62	2.98	1.59	5.40	2.90	1.73	4.97	2.70	1.87	4.60	2.54	2.06
		30°C	6.04	3.81	1.35	5.83	3.73	1.47	5.62	3.65	1.59	5.40	3.56	1.73	4.97	3.33	1.87	4.60	3.16	2.06
		33°C	6.05	4.45	1.35	5.84	4.37	1.47	5.62	4.28	1.59	5.41	4.19	1.73	4.97	3.94	1.87	4.61	3.74	2.06
		36°C	6.07	5.05	1.36	5.87	4.95	1.47	5.66	4.85	1.59	5.46	4.74	1.73	5.03	4.44	1.88	4.68	4.22	2.07
410	16°C	21°C	5.18	3.57	1.32	4.99	3.48	1.43	4.80	3.39	1.55	4.61	3.29	1.68	4.23	3.07	1.82	3.90	2.88	2.01
		24°C	5.20	4.34	1.32	5.01	4.23	1.43	4.82	4.13	1.55	4.63	4.03	1.68	4.25	3.76	1.82	3.93	3.55	2.01
		27°C	5.26	4.92	1.33	5.08	4.81	1.43	4.91	4.69	1.55	4.73	4.55	1.69	4.37	4.22	1.83	4.07	3.95	2.02
		30°C	5.48	5.48	1.33	5.32	5.32	1.45	5.16	5.16	1.57	4.99	4.99	1.70	4.62	4.62	1.85	4.32	4.32	2.04
	19°C	24°C	5.71	3.38	1.34	5.50	3.29	1.45	5.30	3.21	1.58	5.08	3.12	1.71	4.67	2.91	1.85	4.31	2.74	2.04
		27°C	5.72	3.89	1.34	5.51	3.81	1.45	5.31	3.72	1.58	5.09	3.63	1.71	4.68	3.40	1.85	4.33	3.21	2.04
		30°C	5.74	4.80	1.35	5.54	4.70	1.46	5.35	4.59	1.58	5.14	4.48	1.71	4.73	4.19	1.86	4.39	3.96	2.05
		33°C	5.84	5.84	1.35	5.66	5.66	1.46	5.48	5.48	1.59	5.30	5.30	1.72	4.91	4.91	1.87	4.59	4.59	2.07
	22°C	27°C	6.27	3.31	1.37	6.05	3.23	1.48	5.82	3.15	1.61	5.59	3.06	1.74	5.14	2.86	1.89	4.75	2.70	2.08
		30°C	6.28	4.06	1.37	6.06	3.98	1.48	5.83	3.89	1.61	5.60	3.80	1.74	5.15	3.56	1.89	4.76	3.37	2.08
		33°C	6.29	4.76	1.37	6.07	4.67	1.48	5.85	4.57	1.61	5.62	4.47	1.74	5.17	4.20	1.89	4.79	3.98	2.08
		36°C	6.33	5.38	1.37	6.12	5.28	1.49	5.91	5.17	1.61	5.70	5.05	1.75	5.25	4.72	1.90	4.90	4.45	2.09
450	16°C	21°C	5.37	3.73	1.33	5.17	3.63	1.44	4.98	3.54	1.56	4.77	3.44	1.69	4.37	3.20	1.83	4.03	3.01	2.02
		24°C	5.40	4.53	1.33	5.20	4.42	1.44	5.01	4.31	1.56	4.81	4.20	1.69	4.41	3.92	1.84	4.08	3.70	2.03
		27°C	5.49	5.19	1.34	5.31	5.06	1.45	5.13	4.91	1.57	4.94	4.76	1.70	4.57	4.41	1.85	4.26	4.12	2.04
		30°C	5.76	5.76	1.35	5.59	5.59	1.46	5.42	5.42	1.59	5.24	5.24	1.72	4.85	4.85	1.87	4.53	4.53	2.06
	19°C	24°C	5.91	3.57	1.35	5.70	3.49	1.47	5.48	3.40	1.59	5.26	3.30	1.72	4.83	3.08	1.87	4.46	2.91	2.06
		27°C	5.93	4.14	1.36	5.72	4.04	1.47	5.50	3.95	1.59	5.28	3.85	1.72	4.85	3.60	1.87	4.48	3.41	2.06
		30°C	5.98	5.09	1.36	5.77	4.98	1.47	5.56	4.86	1.59	5.35	4.74	1.73	4.92	4.43	1.88	4.57	4.18	2.07
		33°C	6.11	6.11	1.36	5.93	5.93	1.48	5.75	5.75	1.60	5.56	5.56	1.74	5.15	5.15	1.89	4.81	4.81	2.09
	22°C	27°C	6.49	3.50	1.38	6.26	3.42	1.49	6.02	3.33	1.62	5.78	3.25	1.76	5.31	3.03	1.90	4.91	2.86	2.10
		30°C	6.50	4.31	1.38	6.27	4.23	1.50	6.03	4.14	1.62	5.79	4.04	1.76	5.32	3.79	1.91	4.92	3.59	2.10
		33°C	6.52	5.05	1.38	6.30	4.96	1.50	6.07	4.86	1.62	5.83	4.75	1.76	5.36	4.45	1.91	4.97	4.23	2.10
		36°C	6.58	5.70	1.39	6.38	5.60	1.50	6.16	5.48	1.63	5.93	5.34	1.77	5.48	4.98	1.92	5.11	4.69	2.12

**Remark:**

AFR: Air flow rate (CFM)  
 EWB: Entering Wet Bulb Temp. (°C)  
 EDB: Entering Dry Bulb Temp. (°C)  
 TC: Total Cooling Capacity (kW)  
 SC: Sensible Cooling Capacity (kW)  
 PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

**Model: FCRN50EXV1 - RN50CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
430	16°C	21°C	5.05	3.81	1.32	4.87	3.71	1.43	4.69	3.61	1.55	4.50	3.51	1.68	4.14	3.27	1.82	3.82	3.07	2.01
		24°C	5.06	4.57	1.32	4.88	4.46	1.43	4.70	4.36	1.55	4.51	4.25	1.68	4.14	3.97	1.82	3.83	3.74	2.01
		27°C	5.10	5.10	1.32	4.93	4.93	1.43	4.76	4.76	1.55	4.58	4.58	1.68	4.22	4.22	1.83	3.93	3.93	2.02
		30°C	5.26	5.26	1.33	5.11	5.11	1.44	4.95	4.95	1.56	4.79	4.79	1.70	4.44	4.44	1.84	4.16	4.16	2.04
	19°C	24°C	5.57	3.56	1.34	5.38	3.47	1.45	5.18	3.38	1.58	4.98	3.28	1.71	4.57	3.06	1.85	4.23	2.88	2.04
		27°C	5.58	4.07	1.34	5.38	3.98	1.45	5.18	3.89	1.58	4.98	3.80	1.71	4.58	3.55	1.85	4.23	3.36	2.04
		30°C	5.59	5.03	1.34	5.39	4.92	1.45	5.20	4.81	1.58	5.01	4.69	1.71	4.61	4.39	1.86	4.28	4.15	2.05
		33°C	5.65	5.65	1.35	5.47	5.47	1.46	5.29	5.29	1.58	5.11	5.11	1.72	4.73	4.73	1.86	4.42	4.42	2.06
	22°C	27°C	6.13	3.48	1.37	5.92	3.40	1.48	5.70	3.32	1.61	5.48	3.22	1.74	5.04	3.00	1.89	4.67	2.83	2.08
		30°C	6.13	4.25	1.37	5.92	4.16	1.48	5.70	4.06	1.61	5.48	3.97	1.74	5.04	3.71	1.89	4.67	3.52	2.08
		33°C	6.14	4.96	1.37	5.92	4.87	1.48	5.71	4.77	1.61	5.49	4.67	1.74	5.05	4.38	1.89	4.68	4.16	2.08
		36°C	6.16	5.62	1.37	5.95	5.51	1.48	5.75	5.40	1.61	5.54	5.28	1.75	5.11	4.95	1.89	4.75	4.69	2.09
530	16°C	21°C	5.26	3.98	1.33	5.07	3.88	1.44	4.88	3.77	1.56	4.68	3.67	1.69	4.29	3.41	1.84	3.96	3.21	2.03
		24°C	5.27	4.83	1.33	5.08	4.72	1.44	4.89	4.60	1.56	4.70	4.49	1.70	4.31	4.19	1.84	3.99	3.95	2.03
		27°C	5.34	5.34	1.34	5.16	5.16	1.45	4.98	4.98	1.57	4.80	4.80	1.70	4.43	4.43	1.85	4.13	4.13	2.04
		30°C	5.56	5.56	1.35	5.40	5.40	1.46	5.23	5.23	1.58	5.06	5.06	1.72	4.69	4.69	1.87	4.39	4.39	2.06
	19°C	24°C	5.79	3.76	1.36	5.59	3.67	1.47	5.38	3.57	1.59	5.16	3.47	1.72	4.74	3.24	1.87	4.38	3.05	2.06
		27°C	5.80	4.33	1.36	5.60	4.24	1.47	5.39	4.14	1.59	5.17	4.04	1.72	4.75	3.78	1.87	4.39	3.58	2.06
		30°C	5.83	5.35	1.36	5.63	5.23	1.47	5.43	5.11	1.59	5.22	4.99	1.73	4.81	4.67	1.87	4.46	4.41	2.07
		33°C	5.93	5.93	1.36	5.75	5.75	1.48	5.56	5.56	1.60	5.38	5.38	1.74	4.98	4.98	1.89	4.66	4.66	2.09
	22°C	27°C	6.37	3.68	1.38	6.14	3.60	1.50	5.91	3.51	1.62	5.68	3.41	1.76	5.22	3.18	1.91	4.83	3.00	2.10
		30°C	6.37	4.52	1.38	6.15	4.43	1.50	5.92	4.33	1.62	5.68	4.23	1.76	5.22	3.96	1.91	4.83	3.76	2.10
		33°C	6.38	5.30	1.38	6.16	5.20	1.50	5.94	5.09	1.62	5.70	4.98	1.76	5.25	4.67	1.91	4.86	4.44	2.10
		36°C	6.42	5.99	1.38	6.22	5.88	1.50	6.00	5.75	1.63	5.78	5.62	1.77	5.33	5.26	1.92	4.97	4.96	2.11
600	16°C	21°C	5.45	4.15	1.34	5.25	4.05	1.45	5.05	3.94	1.57	4.84	3.83	1.71	4.44	3.57	1.85	4.09	3.36	2.04
		24°C	5.48	5.04	1.35	5.28	4.92	1.46	5.08	4.80	1.58	4.88	4.68	1.71	4.48	4.36	1.85	4.14	4.12	2.04
		27°C	5.57	5.57	1.35	5.39	5.39	1.46	5.21	5.21	1.58	5.02	5.02	1.72	4.64	4.64	1.87	4.32	4.32	2.06
		30°C	5.85	5.85	1.36	5.68	5.68	1.48	5.50	5.50	1.60	5.32	5.32	1.74	4.93	4.93	1.89	4.60	4.60	2.08
	19°C	24°C	6.00	3.98	1.37	5.78	3.88	1.48	5.57	3.78	1.60	5.34	3.68	1.74	4.90	3.43	1.89	4.52	3.24	2.08
		27°C	6.02	4.61	1.37	5.80	4.50	1.48	5.59	4.40	1.60	5.36	4.29	1.74	4.92	4.01	1.89	4.55	3.79	2.08
		30°C	6.07	5.67	1.37	5.85	5.55	1.48	5.64	5.42	1.61	5.43	5.28	1.74	5.00	4.93	1.89	4.64	4.64	2.09
		33°C	6.20	6.20	1.38	6.02	6.02	1.49	5.83	5.83	1.62	5.64	5.64	1.76	5.23	5.23	1.91	4.89	4.89	2.11
	22°C	27°C	6.59	3.89	1.39	6.35	3.81	1.51	6.11	3.71	1.64	5.87	3.62	1.77	5.39	3.37	1.92	4.98	3.19	2.12
		30°C	6.60	4.80	1.39	6.36	4.71	1.51	6.13	4.61	1.64	5.88	4.50	1.77	5.40	4.22	1.92	5.00	4.00	2.12
		33°C	6.62	5.63	1.39	6.39	5.53	1.51	6.16	5.41	1.64	5.92	5.29	1.78	5.44	4.96	1.93	5.04	4.71	2.12
		36°C	6.68	6.35	1.40	6.47	6.24	1.52	6.25	6.10	1.64	6.02	5.95	1.78	5.57	5.55	1.94	5.19	5.19	2.14

**Remark:**

AFR: Air flow rate (CFM)  
 EWB: Entering Wet Bulb Temp. (°C)  
 EDB: Entering Dry Bulb Temp. (°C)  
 TC: Total Cooling Capacity (kW)  
 SC: Sensible Cooling Capacity (kW)  
 PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

Model: FCRN60EXV1 - RN60CXV1

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
530	16°C	21°C	6.14	4.34	1.47	5.92	4.23	1.59	5.70	4.11	1.73	5.47	4.00	1.87	5.03	3.72	2.03	4.64	3.50	2.24
		24°C	6.15	5.20	1.47	5.93	5.08	1.59	5.71	4.96	1.73	5.48	4.84	1.87	5.04	4.52	2.03	4.66	4.26	2.24
		27°C	6.20	5.89	1.48	5.99	5.76	1.60	5.78	5.62	1.73	5.56	5.48	1.88	5.13	5.10	2.04	4.77	4.77	2.25
		30°C	6.39	6.39	1.48	6.20	6.20	1.61	6.01	6.01	1.74	5.82	5.82	1.89	5.40	5.40	2.06	5.05	5.05	2.27
	19°C	24°C	6.77	4.05	1.50	6.53	3.95	1.62	6.29	3.85	1.76	6.04	3.74	1.90	5.56	3.48	2.07	5.14	3.28	2.28
		27°C	6.78	4.64	1.50	6.54	4.53	1.62	6.30	4.43	1.76	6.05	4.32	1.91	5.56	4.04	2.07	5.14	3.83	2.28
		30°C	6.79	5.72	1.50	6.55	5.60	1.62	6.32	5.48	1.76	6.08	5.34	1.91	5.60	5.00	2.07	5.19	4.73	2.28
		33°C	6.87	6.87	1.50	6.64	6.64	1.63	6.43	6.43	1.76	6.21	6.21	1.91	5.74	5.74	2.08	5.37	5.37	2.30
	22°C	27°C	7.45	3.97	1.52	7.19	3.87	1.65	6.93	3.77	1.79	6.66	3.67	1.94	6.12	3.42	2.11	5.67	3.22	2.32
		30°C	7.45	4.83	1.52	7.19	4.73	1.65	6.93	4.62	1.79	6.66	4.51	1.94	6.12	4.23	2.11	5.67	4.01	2.32
		33°C	7.46	5.65	1.52	7.20	5.54	1.65	6.94	5.43	1.79	6.66	5.32	1.94	6.13	4.99	2.11	5.68	4.74	2.32
		36°C	7.48	6.40	1.53	7.23	6.27	1.65	6.98	6.14	1.79	6.73	6.01	1.95	6.20	5.63	2.11	5.77	5.34	2.33
600	16°C	21°C	6.39	4.53	1.49	6.16	4.41	1.61	5.92	4.29	1.74	5.68	4.17	1.89	5.21	3.88	2.05	4.81	3.66	2.26
		24°C	6.41	5.50	1.49	6.18	5.37	1.61	5.94	5.24	1.74	5.70	5.11	1.89	5.24	4.76	2.05	4.84	4.50	2.26
		27°C	6.48	6.24	1.49	6.27	6.10	1.61	6.05	5.94	1.75	5.83	5.76	1.90	5.38	5.35	2.06	5.02	5.01	2.27
		30°C	6.75	6.75	1.50	6.56	6.56	1.63	6.36	6.36	1.76	6.15	6.15	1.92	5.70	5.70	2.08	5.33	5.33	2.30
	19°C	24°C	7.04	4.28	1.51	6.79	4.18	1.64	6.53	4.07	1.77	6.27	3.95	1.92	5.76	3.69	2.08	5.32	3.47	2.30
		27°C	7.05	4.93	1.51	6.80	4.82	1.64	6.54	4.71	1.77	6.28	4.60	1.92	5.77	4.30	2.09	5.33	4.07	2.30
		30°C	7.08	6.09	1.51	6.84	5.95	1.64	6.59	5.82	1.78	6.34	5.68	1.93	5.84	5.31	2.09	5.41	5.02	2.30
		33°C	7.20	7.20	1.52	6.98	6.98	1.65	6.76	6.76	1.79	6.53	6.53	1.94	6.05	6.05	2.11	5.66	5.66	2.32
	22°C	27°C	7.73	4.19	1.54	7.46	4.09	1.67	7.18	3.99	1.81	6.90	3.88	1.96	6.34	3.62	2.13	5.86	3.42	2.34
		30°C	7.74	5.15	1.54	7.47	5.04	1.67	7.19	4.93	1.81	6.90	4.81	1.96	6.35	4.51	2.13	5.87	4.28	2.34
		33°C	7.75	6.03	1.54	7.48	5.91	1.67	7.21	5.79	1.81	6.93	5.67	1.96	6.37	5.32	2.13	5.91	5.05	2.35
		36°C	7.80	6.82	1.54	7.55	6.69	1.67	7.29	6.55	1.81	7.02	6.40	1.97	6.48	5.98	2.14	6.04	5.65	2.36
680	16°C	21°C	6.62	4.72	1.50	6.38	4.60	1.62	6.14	4.48	1.76	5.88	4.36	1.90	5.39	4.06	2.06	4.97	3.82	2.28
		24°C	6.66	5.74	1.50	6.42	5.60	1.62	6.17	5.47	1.76	5.92	5.32	1.91	5.44	4.97	2.07	5.03	4.68	2.28
		27°C	6.76	6.58	1.51	6.54	6.41	1.63	6.32	6.23	1.77	6.10	6.04	1.92	5.63	5.59	2.08	5.25	5.22	2.30
		30°C	7.10	7.10	1.52	6.90	6.90	1.65	6.68	6.68	1.78	6.46	6.46	1.94	5.98	5.98	2.10	5.59	5.59	2.32
	19°C	24°C	7.29	4.53	1.52	7.03	4.42	1.65	6.76	4.31	1.79	6.48	4.19	1.94	5.95	3.91	2.10	5.49	3.68	2.32
		27°C	7.31	5.24	1.53	7.05	5.12	1.65	6.78	5.00	1.79	6.51	4.88	1.94	5.98	4.56	2.10	5.52	4.32	2.32
		30°C	7.37	6.45	1.53	7.11	6.31	1.65	6.86	6.17	1.79	6.59	6.01	1.94	6.07	5.61	2.11	5.64	5.29	2.33
		33°C	7.53	7.53	1.54	7.31	7.31	1.66	7.09	7.09	1.81	6.85	6.85	1.96	6.35	6.35	2.13	5.94	5.94	2.35
	22°C	27°C	8.00	4.43	1.55	7.71	4.34	1.68	7.42	4.23	1.82	7.13	4.12	1.98	6.55	3.84	2.14	6.05	3.63	2.36
		30°C	8.02	5.46	1.55	7.73	5.36	1.68	7.44	5.24	1.82	7.14	5.12	1.98	6.56	4.80	2.15	6.07	4.55	2.36
		33°C	8.04	6.40	1.56	7.77	6.29	1.69	7.48	6.16	1.83	7.19	6.02	1.98	6.61	5.65	2.15	6.12	5.36	2.37
		36°C	8.11	7.23	1.56	7.86	7.10	1.69	7.59	6.94	1.83	7.32	6.77	1.99	6.76	6.32	2.16	6.31	5.95	2.38

Remark:

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling Capacity (kW)
- SC: Sensible Cooling Capacity (kW)
- PI: Power Input (kW)

Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

## Model: FCRN71EXV1 - RR71CXV1

## Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
620	16°C	21°C	7.46	5.49	2.12	7.19	5.34	2.29	6.93	5.20	2.48	6.65	5.05	2.69	6.10	4.70	2.92	5.64	4.42	3.22
		24°C	7.47	6.57	2.12	7.20	6.42	2.29	6.94	6.27	2.48	6.66	6.11	2.69	6.12	5.71	2.92	5.66	5.39	3.22
		27°C	7.53	7.45	2.12	7.28	7.28	2.30	7.02	7.02	2.49	6.76	6.76	2.70	6.23	6.23	2.93	5.80	5.80	3.23
		30°C	7.76	7.76	2.13	7.54	7.54	2.31	7.31	7.31	2.51	7.07	7.07	2.72	6.55	6.55	2.96	6.13	6.13	3.26
	19°C	24°C	8.23	5.12	2.15	7.94	4.99	2.33	7.65	4.86	2.53	7.34	4.72	2.74	6.75	4.40	2.97	6.24	4.14	3.28
		27°C	8.23	5.86	2.15	7.94	5.73	2.33	7.65	5.60	2.53	7.35	5.46	2.74	6.76	5.11	2.97	6.25	4.84	3.28
		30°C	8.24	7.23	2.15	7.96	7.08	2.33	7.68	6.92	2.53	7.39	6.76	2.74	6.80	6.32	2.98	6.31	5.98	3.28
		33°C	8.34	8.34	2.16	8.07	8.07	2.34	7.81	7.81	2.54	7.54	7.54	2.75	6.98	6.98	2.99	6.52	6.52	3.30
	22°C	27°C	9.05	5.01	2.19	8.74	4.89	2.38	8.42	4.77	2.57	8.09	4.64	2.79	7.44	4.32	3.03	6.89	4.08	3.34
		30°C	9.05	6.11	2.19	8.74	5.98	2.38	8.42	5.84	2.58	8.09	5.71	2.79	7.44	5.34	3.03	6.89	5.06	3.34
		33°C	9.06	7.14	2.19	8.74	7.00	2.38	8.43	6.86	2.58	8.10	6.72	2.79	7.45	6.31	3.03	6.91	5.99	3.34
		36°C	9.09	8.09	2.19	8.79	7.93	2.38	8.48	7.77	2.58	8.17	7.59	2.80	7.54	7.12	3.04	7.01	6.75	3.35
725	16°C	21°C	7.76	5.72	2.14	7.48	5.58	2.31	7.20	5.43	2.51	6.90	5.27	2.72	6.33	4.91	2.95	5.84	4.62	3.25
		24°C	7.78	6.95	2.14	7.50	6.78	2.31	7.22	6.62	2.51	6.93	6.46	2.72	6.37	6.02	2.95	5.89	5.68	3.25
		27°C	7.88	7.88	2.15	7.61	7.61	2.32	7.35	7.35	2.51	7.09	7.09	2.73	6.54	6.54	2.96	6.09	6.09	3.27
		30°C	8.21	8.21	2.16	7.97	7.97	2.34	7.72	7.72	2.54	7.47	7.47	2.75	6.92	6.92	2.99	6.47	6.47	3.30
	19°C	24°C	8.55	5.41	2.17	8.24	5.28	2.35	7.93	5.14	2.55	7.62	5.00	2.76	6.99	4.66	3.00	6.46	4.39	3.30
		27°C	8.56	6.24	2.17	8.26	6.10	2.35	7.95	5.96	2.55	7.63	5.82	2.77	7.01	5.44	3.00	6.48	5.15	3.31
		30°C	8.60	7.69	2.18	8.31	7.53	2.36	8.01	7.36	2.55	7.70	7.18	2.77	7.09	6.71	3.01	6.58	6.34	3.31
		33°C	8.75	8.75	2.18	8.48	8.48	2.37	8.21	8.21	2.57	7.94	7.94	2.79	7.35	7.35	3.03	6.87	6.87	3.34
	22°C	27°C	9.39	5.30	2.21	9.06	5.18	2.40	8.73	5.05	2.60	8.38	4.91	2.82	7.70	4.58	3.06	7.12	4.32	3.37
		30°C	9.40	6.50	2.21	9.07	6.37	2.40	8.73	6.23	2.60	8.39	6.08	2.82	7.71	5.70	3.06	7.13	5.41	3.37
		33°C	9.42	7.62	2.22	9.09	7.48	2.40	8.76	7.32	2.60	8.42	7.17	2.82	7.74	6.72	3.06	7.18	6.38	3.37
		36°C	9.48	8.62	2.22	9.17	8.45	2.41	8.85	8.28	2.61	8.53	8.09	2.83	7.87	7.57	3.07	7.34	7.14	3.39
860	16°C	21°C	8.05	5.97	2.16	7.75	5.82	2.33	7.45	5.67	2.53	7.15	5.51	2.74	6.55	5.13	2.97	6.04	4.83	3.27
		24°C	8.09	7.26	2.16	7.80	7.09	2.33	7.50	6.91	2.53	7.20	6.73	2.74	6.61	6.28	2.97	6.11	5.92	3.28
		27°C	8.22	8.22	2.17	7.95	7.95	2.34	7.68	7.68	2.54	7.41	7.41	2.76	6.84	6.84	2.99	6.38	6.38	3.30
		30°C	8.63	8.63	2.18	8.38	8.38	2.37	8.12	8.12	2.57	7.85	7.85	2.79	7.27	7.27	3.03	6.79	6.79	3.34
	19°C	24°C	8.86	5.73	2.19	8.54	5.59	2.37	8.21	5.44	2.57	7.88	5.30	2.79	7.23	4.94	3.02	6.67	4.66	3.33
		27°C	8.88	6.63	2.19	8.56	6.48	2.37	8.24	6.32	2.57	7.91	6.17	2.79	7.26	5.77	3.03	6.71	5.46	3.33
		30°C	8.96	8.16	2.20	8.64	7.98	2.38	8.33	7.80	2.58	8.01	7.60	2.80	7.38	7.10	3.03	6.85	6.69	3.35
		33°C	9.15	9.15	2.21	8.88	8.88	2.39	8.61	8.61	2.60	8.33	8.33	2.82	7.71	7.71	3.06	7.21	7.21	3.38
	22°C	27°C	9.72	5.60	2.23	9.37	5.48	2.42	9.02	5.34	2.62	8.66	5.20	2.84	7.95	4.86	3.08	7.35	4.58	3.39
		30°C	9.74	6.91	2.23	9.39	6.78	2.42	9.04	6.63	2.62	8.68	6.48	2.84	7.97	6.07	3.08	7.37	5.75	3.40
		33°C	9.77	8.10	2.24	9.44	7.96	2.42	9.09	7.79	2.63	8.73	7.62	2.85	8.03	7.14	3.09	7.44	6.77	3.40
		36°C	9.86	9.14	2.24	9.55	8.98	2.43	9.22	8.78	2.64	8.89	8.56	2.86	8.21	7.99	3.11	7.66	7.52	3.43

## Remark:

AFR: Air flow rate (CFM)  
EWB: Entering Wet Bulb Temp. (°C)  
EDB: Entering Dry Bulb Temp. (°C)  
TC: Total Cooling Capacity (kW)  
SC: Sensible Cooling Capacity (kW)  
PI: Power Input (kW)

## Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

**Model: FCRN100EXV1- RR90DXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
740	16°C	21°C	8.07	6.17	2.14	7.78	6.00	2.32	7.50	5.84	2.51	7.19	5.68	2.72	6.61	5.28	2.95	6.10	4.97	3.25
		24°C	8.08	7.38	2.14	7.79	7.21	2.32	7.51	7.05	2.51	7.21	6.87	2.72	6.62	6.42	2.95	6.12	6.05	3.26
		27°C	8.14	8.14	2.15	7.87	7.87	2.32	7.60	7.60	2.52	7.31	7.31	2.73	6.75	6.75	2.96	6.28	6.28	3.27
		30°C	8.40	8.40	2.16	8.15	8.15	2.34	7.91	7.91	2.53	7.65	7.65	2.75	7.09	7.09	2.99	6.64	6.64	3.30
	19°C	24°C	8.90	5.76	2.18	8.59	5.61	2.36	8.27	5.46	2.55	7.95	5.31	2.77	7.30	4.94	3.00	6.75	4.65	3.31
		27°C	8.91	6.59	2.18	8.59	6.44	2.36	8.28	6.29	2.55	7.95	6.14	2.77	7.31	5.74	3.00	6.76	5.44	3.31
		30°C	8.92	8.13	2.18	8.61	7.95	2.36	8.31	7.78	2.56	7.99	7.59	2.77	7.36	7.10	3.01	6.83	6.72	3.32
		33°C	9.03	9.03	2.18	8.73	8.73	2.36	8.45	8.45	2.56	8.16	8.16	2.78	7.55	7.55	3.02	7.06	7.06	3.34
	22°C	27°C	9.79	5.63	2.22	9.45	5.50	2.40	9.11	5.36	2.60	8.75	5.21	2.82	8.05	4.86	3.06	7.45	4.58	3.37
		30°C	9.80	6.87	2.22	9.46	6.72	2.40	9.11	6.57	2.60	8.76	6.41	2.82	8.05	6.00	3.06	7.45	5.69	3.37
		33°C	9.80	8.02	2.22	9.46	7.87	2.40	9.12	7.71	2.60	8.76	7.55	2.82	8.06	7.09	3.06	7.47	6.73	3.38
		36°C	9.83	9.09	2.22	9.51	8.91	2.40	9.18	8.73	2.61	8.84	8.53	2.83	8.16	8.00	3.07	7.58	7.58	3.39
860	16°C	21°C	8.40	6.43	2.16	8.09	6.26	2.34	7.79	6.10	2.53	7.47	5.93	2.75	6.85	5.52	2.98	6.32	5.19	3.28
		24°C	8.42	7.81	2.16	8.12	7.62	2.34	7.82	7.44	2.53	7.50	7.25	2.75	6.89	6.77	2.98	6.37	6.37	3.29
		27°C	8.52	8.52	2.17	8.24	8.24	2.35	7.95	7.95	2.54	7.67	7.67	2.76	7.08	7.08	2.99	6.59	6.59	3.30
		30°C	8.88	8.88	2.18	8.62	8.62	2.36	8.36	8.36	2.56	8.09	8.09	2.78	7.49	7.49	3.03	7.00	7.00	3.34
	19°C	24°C	9.25	6.08	2.20	8.92	5.93	2.38	8.59	5.78	2.58	8.24	5.62	2.79	7.57	5.23	3.03	6.99	4.93	3.34
		27°C	9.27	7.01	2.20	8.94	6.85	2.38	8.60	6.70	2.58	8.26	6.54	2.80	7.59	6.11	3.03	7.01	5.79	3.34
		30°C	9.31	8.64	2.20	8.99	8.46	2.38	8.67	8.27	2.58	8.33	8.07	2.80	7.67	7.54	3.04	7.12	7.12	3.35
		33°C	9.47	9.47	2.21	9.18	9.18	2.39	8.89	8.89	2.60	8.59	8.59	2.82	7.96	7.96	3.06	7.44	7.44	3.38
	22°C	27°C	10.16	5.96	2.24	9.81	5.82	2.42	9.44	5.67	2.63	9.07	5.52	2.85	8.33	5.15	3.09	7.71	4.85	3.40
		30°C	10.18	7.31	2.24	9.82	7.16	2.42	9.45	7.00	2.63	9.08	6.84	2.85	8.34	6.40	3.09	7.72	6.07	3.41
		33°C	10.20	8.57	2.24	9.84	8.40	2.43	9.48	8.23	2.63	9.11	8.05	2.85	8.38	7.56	3.10	7.77	7.17	3.41
		36°C	10.26	9.68	2.24	9.93	9.50	2.43	9.58	9.30	2.64	9.23	9.08	2.86	8.52	8.50	3.11	7.94	7.94	3.43
1030	16°C	21°C	8.71	6.71	2.18	8.39	6.54	2.36	8.07	6.37	2.55	7.73	6.19	2.77	7.09	5.77	3.00	6.54	5.43	3.31
		24°C	8.75	8.15	2.18	8.44	7.96	2.36	8.12	7.77	2.56	7.79	7.56	2.77	7.16	7.06	3.01	6.61	6.61	3.31
		27°C	8.90	8.90	2.19	8.60	8.60	2.37	8.31	8.31	2.57	8.02	8.02	2.79	7.41	7.41	3.02	6.90	6.90	3.34
		30°C	9.34	9.34	2.21	9.07	9.07	2.39	8.79	8.79	2.59	8.50	8.50	2.82	7.87	7.87	3.06	7.35	7.35	3.38
	19°C	24°C	9.59	6.44	2.22	9.24	6.28	2.40	8.89	6.12	2.60	8.53	5.95	2.82	7.82	5.55	3.06	7.22	5.23	3.37
		27°C	9.61	7.45	2.22	9.27	7.28	2.40	8.92	7.11	2.60	8.56	6.93	2.82	7.86	6.48	3.06	7.26	6.13	3.37
		30°C	9.69	9.17	2.22	9.35	8.97	2.41	9.01	8.76	2.61	8.67	8.54	2.83	7.98	7.98	3.07	7.41	7.41	3.38
		33°C	9.90	9.90	2.23	9.61	9.61	2.42	9.32	9.32	2.62	9.01	9.01	2.85	8.35	8.35	3.10	7.81	7.81	3.42
	22°C	27°C	10.52	6.30	2.26	10.14	6.16	2.45	9.76	6.00	2.65	9.37	5.85	2.87	8.61	5.46	3.12	7.95	5.15	3.43
		30°C	10.54	7.76	2.26	10.16	7.62	2.45	9.78	7.45	2.65	9.39	7.28	2.88	8.63	6.82	3.12	7.98	6.46	3.43
		33°C	10.58	9.10	2.26	10.21	8.94	2.45	9.84	8.75	2.66	9.45	8.56	2.88	8.69	8.02	3.12	8.05	7.61	3.44
		36°C	10.67	10.27	2.27	10.34	10.09	2.46	9.98	9.86	2.66	9.62	9.62	2.89	8.89	8.89	3.14	8.29	8.29	3.46

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling Capacity (kW)
- SC: Sensible Cooling Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

## Model: FCRN100EXV1- RR90DXV1

## Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
740	16°C	21°C	8.57	6.14	2.10	8.27	5.98	2.28	7.96	5.82	2.47	7.64	5.66	2.67	7.02	5.26	2.90	6.48	4.95	3.20
		24°C	8.58	7.36	2.11	8.28	7.19	2.28	7.97	7.02	2.47	7.65	6.85	2.67	7.03	6.39	2.90	6.50	6.03	3.20
		27°C	8.65	8.34	2.11	8.36	8.15	2.28	8.07	7.96	2.47	7.76	7.76	2.68	7.16	7.16	2.91	6.66	6.66	3.21
		30°C	8.92	8.92	2.12	8.66	8.66	2.29	8.40	8.40	2.49	8.13	8.13	2.70	7.53	7.53	2.93	7.05	7.05	3.24
	19°C	24°C	9.45	5.74	2.14	9.12	5.59	2.31	8.79	5.44	2.51	8.44	5.29	2.72	7.76	4.93	2.95	7.17	4.64	3.25
		27°C	9.46	6.56	2.14	9.13	6.41	2.31	8.79	6.27	2.51	8.45	6.12	2.72	7.76	5.72	2.95	7.18	5.42	3.25
		30°C	9.47	8.10	2.14	9.15	7.93	2.32	8.82	7.75	2.51	8.49	7.56	2.72	7.82	7.07	2.95	7.25	6.69	3.26
		33°C	9.59	9.59	2.14	9.27	9.27	2.32	8.97	8.97	2.52	8.67	8.67	2.73	8.02	8.02	2.97	7.50	7.50	3.28
	22°C	27°C	10.40	5.61	2.18	10.04	5.48	2.36	9.67	5.34	2.56	9.30	5.19	2.77	8.55	4.84	3.01	7.91	4.56	3.31
		30°C	10.40	6.84	2.18	10.04	6.70	2.36	9.68	6.54	2.56	9.30	6.39	2.77	8.55	5.98	3.01	7.92	5.67	3.31
		33°C	10.41	7.99	2.18	10.05	7.84	2.36	9.68	7.68	2.56	9.30	7.52	2.77	8.56	7.06	3.01	7.94	6.71	3.32
		36°C	10.44	9.06	2.18	10.10	8.88	2.36	9.75	8.69	2.56	9.39	8.50	2.78	8.66	7.97	3.02	8.05	7.56	3.33
860	16°C	21°C	8.92	6.41	2.12	8.60	6.24	2.30	8.27	6.08	2.49	7.93	5.91	2.70	7.28	5.50	2.92	6.71	5.18	3.22
		24°C	8.94	7.78	2.12	8.62	7.60	2.30	8.30	7.41	2.49	7.96	7.23	2.70	7.32	6.74	2.93	6.76	6.36	3.23
		27°C	9.05	8.83	2.13	8.75	8.63	2.30	8.45	8.41	2.50	8.14	8.14	2.71	7.52	7.52	2.94	7.00	7.00	3.25
		30°C	9.43	9.43	2.14	9.16	9.16	2.32	8.88	8.88	2.52	8.59	8.59	2.74	7.96	7.96	2.97	7.44	7.44	3.28
	19°C	24°C	9.82	6.06	2.16	9.47	5.91	2.34	9.12	5.76	2.53	8.75	5.60	2.74	8.04	5.22	2.98	7.42	4.92	3.28
		27°C	9.84	6.98	2.16	9.49	6.83	2.34	9.14	6.67	2.53	8.77	6.52	2.75	8.06	6.09	2.98	7.45	5.77	3.28
		30°C	9.89	8.61	2.16	9.54	8.43	2.34	9.20	8.24	2.54	8.85	8.04	2.75	8.15	7.51	2.98	7.56	7.10	3.29
		33°C	10.05	10.05	2.17	9.75	9.75	2.35	9.44	9.44	2.55	9.12	9.12	2.77	8.45	8.45	3.01	7.90	7.90	3.32
	22°C	27°C	10.79	5.94	2.20	10.41	5.80	2.38	10.03	5.65	2.58	9.63	5.50	2.80	8.85	5.13	3.04	8.18	4.84	3.34
		30°C	10.81	7.28	2.20	10.43	7.13	2.38	10.04	6.97	2.58	9.64	6.81	2.80	8.86	6.38	3.04	8.20	6.05	3.34
		33°C	10.83	8.53	2.20	10.45	8.37	2.38	10.07	8.20	2.58	9.67	8.03	2.80	8.90	7.53	3.04	8.25	7.15	3.35
		36°C	10.89	9.65	2.20	10.54	9.47	2.39	10.17	9.27	2.59	9.80	9.05	2.81	9.04	8.47	3.05	8.43	7.99	3.37
1030	16°C	21°C	9.25	6.69	2.14	8.91	6.52	2.32	8.57	6.35	2.51	8.21	6.17	2.72	7.53	5.74	2.95	6.94	5.41	3.25
		24°C	9.30	8.13	2.14	8.96	7.93	2.32	8.62	7.74	2.51	8.27	7.54	2.72	7.60	7.03	2.95	7.02	6.63	3.25
		27°C	9.45	9.31	2.15	9.14	9.07	2.33	8.83	8.82	2.52	8.51	8.51	2.74	7.87	7.87	2.97	7.33	7.33	3.28
		30°C	9.92	9.92	2.17	9.63	9.63	2.35	9.33	9.33	2.55	9.03	9.03	2.77	8.36	8.36	3.01	7.80	7.80	3.32
	19°C	24°C	10.18	6.41	2.18	9.81	6.26	2.36	9.44	6.10	2.55	9.05	5.93	2.77	8.31	5.53	3.00	7.67	5.21	3.31
		27°C	10.21	7.42	2.18	9.84	7.25	2.36	9.47	7.08	2.55	9.09	6.91	2.77	8.35	6.46	3.00	7.71	6.11	3.31
		30°C	10.29	9.13	2.18	9.93	8.93	2.36	9.57	8.73	2.56	9.21	8.51	2.78	8.48	7.95	3.01	7.87	7.49	3.32
		33°C	10.52	10.52	2.19	10.21	10.21	2.38	9.89	9.89	2.58	9.57	9.57	2.80	8.86	8.86	3.04	8.29	8.29	3.36
	22°C	27°C	11.17	6.27	2.22	10.77	6.14	2.40	10.37	5.98	2.60	9.95	5.83	2.82	9.14	5.44	3.06	8.45	5.13	3.37
		30°C	11.19	7.74	2.22	10.79	7.59	2.40	10.39	7.42	2.60	9.97	7.26	2.82	9.16	6.79	3.06	8.47	6.44	3.37
		33°C	11.23	9.07	2.22	10.84	8.91	2.41	10.44	8.72	2.61	10.03	8.53	2.83	9.23	7.99	3.07	8.55	7.59	3.38
		36°C	11.33	10.24	2.23	10.98	10.05	2.41	10.60	9.83	2.62	10.22	9.59	2.84	9.44	8.94	3.08	8.80	8.42	3.40

## Remark:

AFR: Air flow rate (CFM)

EWB: Entering Wet Bulb Temp. (°C)

EDB: Entering Dry Bulb Temp. (°C)

TC: Total Cooling Capacity (kW)

SC: Sensible Cooling Capacity (kW)

PI: Power Input (kW)

## Notes:

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

Performance Data

**Model: FCRN100EXV1- RR100DXV1**  
**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
740	16°C	21°C	10.75	7.10	2.98	10.37	6.91	3.22	9.98	6.73	3.49	9.58	6.53	3.78	8.80	6.08	4.10	8.12	5.72	4.52
		24°C	10.76	8.50	2.98	10.38	8.30	3.22	10.00	8.11	3.49	9.60	7.91	3.78	8.82	7.39	4.11	8.15	6.97	4.53
		27°C	10.85	9.63	2.98	10.49	9.42	3.23	10.12	9.19	3.50	9.74	8.96	3.79	8.98	8.34	4.12	8.36	7.83	4.54
		30°C	11.18	11.18	3.00	10.86	10.86	3.25	10.53	10.53	3.52	10.19	10.19	3.82	9.45	9.45	4.15	8.84	8.84	4.59
	19°C	24°C	11.85	6.63	3.03	11.44	6.46	3.28	11.02	6.29	3.55	10.58	6.11	3.85	9.73	5.69	4.18	8.99	5.36	4.60
		27°C	11.86	7.58	3.03	11.44	7.41	3.28	11.03	7.24	3.55	10.59	7.06	3.85	9.74	6.61	4.18	9.00	6.26	4.60
		30°C	11.88	9.35	3.03	11.47	9.16	3.28	11.07	8.95	3.55	10.65	8.74	3.85	9.80	8.17	4.18	9.09	7.73	4.61
		33°C	12.02	12.02	3.03	11.63	11.63	3.29	11.25	11.25	3.56	10.87	10.87	3.87	10.06	10.06	4.20	9.40	9.40	4.64
	22°C	27°C	13.04	6.49	3.08	12.59	6.33	3.34	12.13	6.17	3.62	11.66	6.00	3.92	10.72	5.59	4.26	9.92	5.27	4.69
		30°C	13.05	7.90	3.08	12.60	7.73	3.34	12.13	7.56	3.62	11.66	7.38	3.92	10.72	6.91	4.26	9.93	6.55	4.69
		33°C	13.05	9.23	3.08	12.60	9.05	3.34	12.14	8.87	3.62	11.67	8.69	3.93	10.74	8.16	4.26	9.95	7.75	4.69
		36°C	13.10	10.47	3.08	12.66	10.26	3.34	12.22	10.04	3.62	11.78	9.82	3.93	10.86	9.21	4.27	10.10	8.74	4.71
860	16°C	21°C	11.18	7.40	3.01	10.78	7.21	3.25	10.37	7.02	3.52	9.95	6.82	3.82	9.13	6.35	4.14	8.42	5.98	4.56
		24°C	11.22	8.98	3.01	10.81	8.77	3.25	10.41	8.56	3.52	9.99	8.35	3.82	9.18	7.79	4.14	8.48	7.35	4.57
		27°C	11.35	10.20	3.01	10.97	9.97	3.26	10.59	9.71	3.53	10.21	9.42	3.83	9.43	8.75	4.16	8.78	8.19	4.59
		30°C	11.83	11.83	3.03	11.48	11.48	3.29	11.13	11.13	3.56	10.77	10.77	3.87	9.98	9.98	4.21	9.33	9.33	4.64
	19°C	24°C	12.32	7.00	3.05	11.88	6.83	3.31	11.44	6.65	3.58	10.98	6.47	3.88	10.08	6.03	4.21	9.31	5.68	4.64
		27°C	12.34	8.07	3.06	11.90	7.89	3.31	11.46	7.71	3.58	11.00	7.53	3.89	10.10	7.04	4.21	9.34	6.66	4.64
		30°C	12.40	9.95	3.06	11.97	9.73	3.31	11.54	9.52	3.59	11.10	9.28	3.89	10.22	8.68	4.22	9.48	8.20	4.66
		33°C	12.61	12.61	3.07	12.22	12.22	3.33	11.83	11.83	3.61	11.44	11.44	3.92	10.60	10.60	4.26	9.91	9.91	4.70
	22°C	27°C	13.54	6.86	3.11	13.06	6.70	3.37	12.57	6.53	3.65	12.07	6.35	3.96	11.10	5.92	4.30	10.26	5.59	4.73
		30°C	13.55	8.41	3.11	13.08	8.24	3.37	12.59	8.05	3.65	12.09	7.87	3.96	11.11	7.37	4.30	10.28	6.99	4.73
		33°C	13.58	9.86	3.11	13.11	9.67	3.37	12.62	9.47	3.66	12.13	9.27	3.97	11.16	8.70	4.30	10.34	8.26	4.74
		36°C	13.66	11.14	3.12	13.22	10.93	3.38	12.76	10.71	3.67	12.29	10.46	3.98	11.34	9.79	4.32	10.58	9.23	4.76
1030	16°C	21°C	11.60	7.72	3.03	11.17	7.53	3.28	10.74	7.33	3.55	10.30	7.12	3.85	9.45	6.64	4.17	8.71	6.25	4.60
		24°C	11.66	9.39	3.03	11.23	9.16	3.28	10.81	8.94	3.55	10.38	8.70	3.85	9.53	8.12	4.18	8.80	7.66	4.60
		27°C	11.85	10.76	3.04	11.46	10.48	3.29	11.07	10.19	3.57	10.67	9.87	3.87	9.86	9.14	4.20	9.19	8.54	4.64
		30°C	12.44	12.44	3.07	12.08	12.08	3.32	11.70	11.70	3.61	11.32	11.32	3.91	10.48	10.48	4.25	9.79	9.79	4.69
	19°C	24°C	12.77	7.41	3.08	12.30	7.23	3.33	11.84	7.04	3.61	11.35	6.85	3.92	10.42	6.39	4.25	9.62	6.02	4.68
		27°C	12.80	8.57	3.08	12.34	8.38	3.34	11.88	8.18	3.61	11.40	7.98	3.92	10.47	7.46	4.25	9.67	7.06	4.68
		30°C	12.91	10.55	3.09	12.45	10.32	3.34	12.01	10.08	3.62	11.55	9.83	3.93	10.63	9.18	4.26	9.87	8.65	4.70
		33°C	13.19	13.19	3.10	12.80	12.80	3.36	12.41	12.41	3.65	12.00	12.00	3.96	11.12	11.12	4.30	10.40	10.40	4.75
	22°C	27°C	14.01	7.25	3.14	13.51	7.09	3.40	13.00	6.91	3.68	12.48	6.73	3.99	11.46	6.28	4.33	10.59	5.93	4.77
		30°C	14.04	8.94	3.14	13.54	8.77	3.40	13.03	8.58	3.69	12.50	8.38	4.00	11.49	7.85	4.33	10.63	7.44	4.77
		33°C	14.09	10.47	3.14	13.60	10.29	3.41	13.10	10.07	3.69	12.58	9.85	4.00	11.58	9.23	4.34	10.72	8.76	4.78
		36°C	14.21	11.82	3.15	13.77	11.61	3.42	13.29	11.35	3.70	12.81	11.07	4.02	11.84	10.33	4.36	11.04	9.72	4.81

**Remark:**

AFR: Air flow rate (CFM)  
 EWB: Entering Wet Bulb Temp. (°C)  
 EDB: Entering Dry Bulb Temp. (°C)  
 TC: Total Cooling Capacity (kW)  
 SC: Sensible Cooling Capacity (kW)  
 PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

**Model: FCRN125EXV1- RR125DXY1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
930	16°C	21°C	11.88	8.18	3.34	11.46	7.97	3.61	11.03	7.75	3.91	10.59	7.53	4.24	9.73	7.01	4.60	8.98	6.59	5.07
		24°C	11.90	9.80	3.34	11.47	9.57	3.61	11.05	9.35	3.91	10.61	9.12	4.24	9.75	8.52	4.60	9.01	8.04	5.07
		27°C	11.99	11.11	3.34	11.59	10.86	3.61	11.18	10.60	3.92	10.76	10.33	4.25	9.93	9.61	4.61	9.24	9.03	5.09
		30°C	12.36	12.36	3.36	12.00	12.00	3.64	11.64	11.64	3.94	11.27	11.27	4.28	10.44	10.44	4.65	9.77	9.77	5.14
	19°C	24°C	13.11	7.64	3.39	12.65	7.45	3.67	12.18	7.25	3.97	11.70	7.04	4.31	10.75	6.56	4.68	9.94	6.18	5.15
		27°C	13.11	8.74	3.39	12.65	8.54	3.67	12.19	8.35	3.98	11.71	8.15	4.31	10.76	7.62	4.68	9.95	7.22	5.16
		30°C	13.13	10.79	3.39	12.68	10.56	3.67	12.23	10.32	3.98	11.77	10.07	4.32	10.84	9.42	4.68	10.05	8.92	5.16
		33°C	13.29	13.29	3.40	12.86	12.86	3.68	12.44	12.44	3.99	12.02	12.02	4.33	11.12	11.12	4.71	10.39	10.39	5.20
	22°C	27°C	14.42	7.48	3.45	13.92	7.30	3.74	13.41	7.11	4.05	12.89	6.92	4.39	11.85	6.45	4.77	10.97	6.08	5.25
		30°C	14.42	9.11	3.45	13.92	8.92	3.74	13.41	8.72	4.05	12.89	8.51	4.40	11.85	7.96	4.77	10.97	7.55	5.25
		33°C	14.43	10.64	3.45	13.93	10.44	3.74	13.42	10.23	4.05	12.90	10.02	4.40	11.87	9.41	4.77	11.00	8.94	5.26
		36°C	14.48	12.07	3.45	14.00	11.83	3.74	13.51	11.58	4.06	13.02	11.32	4.40	12.01	10.62	4.78	11.16	10.07	5.27
1030	16°C	21°C	12.36	8.53	3.37	11.91	8.31	3.64	11.46	8.09	3.94	10.99	7.86	4.27	10.09	7.32	4.63	9.31	6.89	5.11
		24°C	12.40	10.36	3.37	11.95	10.11	3.64	11.51	9.87	3.95	11.04	9.62	4.28	10.14	8.98	4.64	9.38	8.47	5.11
		27°C	12.55	11.76	3.38	12.13	11.49	3.65	11.71	11.19	3.96	11.29	10.86	4.29	10.42	10.09	4.66	9.71	9.44	5.14
		30°C	13.07	13.07	3.40	12.69	12.69	3.68	12.31	12.31	3.99	11.91	11.91	4.33	11.03	11.03	4.71	10.31	10.31	5.20
	19°C	24°C	13.62	8.07	3.42	13.13	7.87	3.70	12.64	7.66	4.01	12.13	7.45	4.35	11.14	6.95	4.72	10.29	6.55	5.20
		27°C	13.64	9.30	3.42	13.15	9.09	3.70	12.66	8.89	4.01	12.15	8.68	4.35	11.17	8.11	4.72	10.32	7.68	5.20
		30°C	13.71	11.47	3.43	13.23	11.22	3.71	12.76	10.97	4.02	12.27	10.70	4.36	11.30	10.01	4.73	10.48	9.45	5.22
		33°C	13.94	13.94	3.44	13.51	13.51	3.72	13.08	13.08	4.04	12.65	12.65	4.39	11.71	11.71	4.77	10.95	10.95	5.26
	22°C	27°C	14.96	7.90	3.48	14.44	7.72	3.77	13.90	7.52	4.09	13.35	7.32	4.44	12.26	6.83	4.81	11.34	6.44	5.30
		30°C	14.98	9.70	3.48	14.45	9.50	3.77	13.91	9.29	4.09	13.36	9.07	4.44	12.28	8.49	4.81	11.36	8.06	5.30
		33°C	15.01	11.36	3.49	14.49	11.15	3.78	13.95	10.92	4.10	13.41	10.69	4.44	12.33	10.02	4.82	11.43	9.52	5.31
		36°C	15.10	12.85	3.49	14.61	12.60	3.79	14.10	12.34	4.10	13.59	12.05	4.45	12.54	11.28	4.83	11.69	10.64	5.33
1200	16°C	21°C	12.82	8.90	3.39	12.35	8.68	3.67	11.87	8.45	3.97	11.38	8.21	4.31	10.44	7.65	4.67	9.62	7.20	5.15
		24°C	12.89	10.82	3.40	12.42	10.56	3.67	11.95	10.30	3.98	11.47	10.03	4.31	10.53	9.36	4.68	9.73	8.83	5.16
		27°C	13.09	12.40	3.41	12.67	12.08	3.69	12.24	11.74	4.00	11.80	11.38	4.34	10.90	10.54	4.71	10.16	9.84	5.20
		30°C	13.75	13.75	3.44	13.35	13.35	3.72	12.94	12.94	4.04	12.51	12.51	4.38	11.58	11.58	4.76	10.82	10.82	5.26
	19°C	24°C	14.11	8.54	3.45	13.60	8.33	3.73	13.08	8.12	4.04	12.55	7.90	4.39	11.52	7.36	4.76	10.63	6.94	5.24
		27°C	14.15	9.88	3.45	13.64	9.65	3.74	13.13	9.43	4.05	12.60	9.20	4.39	11.57	8.60	4.76	10.69	8.14	5.25
		30°C	14.27	12.16	3.46	13.76	11.89	3.74	13.27	11.62	4.06	12.76	11.33	4.40	11.75	10.58	4.77	10.91	9.98	5.26
		33°C	14.58	14.58	3.47	14.15	14.15	3.77	13.71	13.71	4.09	13.26	13.26	4.44	12.29	12.29	4.82	11.49	11.49	5.32
	22°C	27°C	15.48	8.35	3.51	14.93	8.17	3.81	14.37	7.97	4.13	13.79	7.76	4.47	12.67	7.24	4.85	11.71	6.84	5.34
		30°C	15.51	10.30	3.52	14.96	10.10	3.81	14.40	9.88	4.13	13.82	9.66	4.48	12.70	9.05	4.85	11.74	8.58	5.35
		33°C	15.57	12.07	3.52	15.03	11.86	3.81	14.48	11.61	4.13	13.91	11.35	4.48	12.80	10.64	4.86	11.85	10.10	5.36
		36°C	15.71	13.63	3.53	15.21	13.38	3.82	14.69	13.09	4.15	14.16	12.76	4.50	13.08	11.90	4.89	12.20	11.21	5.39

**Remark:**

AFR: Air flow rate (CFM)  
 EWB: Entering Wet Bulb Temp. (°C)  
 EDB: Entering Dry Bulb Temp. (°C)  
 TC: Total Cooling Capacity (kW)  
 SC: Sensible Cooling Capacity (kW)  
 PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB without pressure trip.

## R410A Heatpump

Model: FFQN25CXV1 - RYN25CXV1

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
330	16°C	21°C	2.62	2.08	0.68	2.53	2.03	0.74	2.43	1.97	0.80	2.34	1.92	0.87	2.15	1.78	0.94	1.98	1.68	1.04
		24°C	2.63	2.49	0.68	2.53	2.44	0.74	2.44	2.38	0.80	2.34	2.32	0.87	2.15	2.15	0.94	1.99	1.99	1.04
		27°C	2.65	2.65	0.69	2.56	2.56	0.74	2.47	2.47	0.80	2.37	2.37	0.87	2.19	2.19	0.95	2.04	2.04	1.04
		30°C	2.73	2.73	0.69	2.65	2.65	0.75	2.57	2.57	0.81	2.49	2.49	0.88	2.30	2.30	0.95	2.16	2.16	1.05
	19°C	24°C	2.89	1.94	0.69	2.79	1.89	0.75	2.69	1.84	0.81	2.58	1.79	0.88	2.37	1.67	0.96	2.19	1.57	1.06
		27°C	2.89	2.22	0.69	2.79	2.17	0.75	2.69	2.12	0.81	2.58	2.07	0.88	2.37	1.94	0.96	2.20	1.84	1.06
		30°C	2.90	2.74	0.69	2.80	2.69	0.75	2.70	2.63	0.82	2.60	2.56	0.88	2.39	2.39	0.96	2.22	2.22	1.06
		33°C	2.93	2.93	0.70	2.84	2.84	0.75	2.75	2.75	0.82	2.65	2.65	0.89	2.45	2.45	0.96	2.29	2.29	1.07
	22°C	27°C	3.18	1.90	0.71	3.07	1.86	0.77	2.96	1.81	0.83	2.84	1.76	0.90	2.61	1.64	0.98	2.42	1.55	1.08
		30°C	3.18	2.32	0.71	3.07	2.27	0.77	2.96	2.22	0.83	2.84	2.16	0.90	2.62	2.03	0.98	2.42	1.92	1.08
		33°C	3.18	2.71	0.71	3.07	2.66	0.77	2.96	2.60	0.83	2.85	2.55	0.90	2.62	2.39	0.98	2.43	2.27	1.08
		36°C	3.19	3.07	0.71	3.09	3.01	0.77	2.98	2.95	0.83	2.87	2.87	0.90	2.65	2.65	0.98	2.46	2.46	1.08
360	16°C	21°C	2.73	2.17	0.69	2.63	2.11	0.75	2.53	2.06	0.81	2.43	2.00	0.88	2.23	1.86	0.95	2.05	1.75	1.05
		24°C	2.74	2.63	0.69	2.64	2.57	0.75	2.54	2.51	0.81	2.44	2.44	0.88	2.24	2.24	0.95	2.07	2.07	1.05
		27°C	2.77	2.77	0.69	2.68	2.68	0.75	2.58	2.58	0.81	2.49	2.49	0.88	2.30	2.30	0.96	2.14	2.14	1.05
		30°C	2.88	2.88	0.70	2.80	2.80	0.75	2.72	2.72	0.82	2.63	2.63	0.89	2.43	2.43	0.97	2.27	2.27	1.07
	19°C	24°C	3.00	2.05	0.70	2.90	2.00	0.76	2.79	1.95	0.82	2.68	1.90	0.89	2.46	1.77	0.97	2.27	1.67	1.07
		27°C	3.01	2.37	0.70	2.90	2.31	0.76	2.79	2.26	0.82	2.68	2.21	0.89	2.46	2.06	0.97	2.28	1.95	1.07
		30°C	3.02	2.92	0.70	2.92	2.85	0.76	2.81	2.79	0.82	2.71	2.71	0.89	2.49	2.49	0.97	2.31	2.31	1.07
		33°C	3.07	3.07	0.70	2.98	2.98	0.76	2.89	2.89	0.83	2.79	2.79	0.90	2.58	2.58	0.98	2.42	2.42	1.08
	22°C	27°C	3.30	2.01	0.71	3.19	1.96	0.77	3.07	1.91	0.84	2.94	1.86	0.91	2.71	1.74	0.99	2.50	1.64	1.09
		30°C	3.31	2.47	0.71	3.19	2.42	0.77	3.07	2.36	0.84	2.95	2.31	0.91	2.71	2.16	0.99	2.51	2.05	1.09
		33°C	3.31	2.89	0.71	3.20	2.84	0.77	3.08	2.78	0.84	2.96	2.72	0.91	2.72	2.55	0.99	2.52	2.42	1.09
		36°C	3.33	3.27	0.72	3.22	3.21	0.78	3.11	3.11	0.84	3.00	3.00	0.91	2.77	2.77	0.99	2.58	2.58	1.09
410	16°C	21°C	2.83	2.27	0.70	2.72	2.21	0.75	2.62	2.15	0.81	2.51	2.09	0.88	2.30	1.95	0.96	2.12	1.83	1.06
		24°C	2.84	2.75	0.70	2.74	2.69	0.75	2.64	2.62	0.82	2.53	2.53	0.88	2.32	2.32	0.96	2.15	2.15	1.06
		27°C	2.89	2.89	0.70	2.79	2.79	0.76	2.70	2.70	0.82	2.60	2.60	0.89	2.41	2.41	0.97	2.24	2.24	1.07
		30°C	3.03	3.03	0.70	2.94	2.94	0.76	2.85	2.85	0.83	2.76	2.76	0.90	2.56	2.56	0.98	2.39	2.39	1.08
	19°C	24°C	3.11	2.17	0.71	3.00	2.12	0.77	2.89	2.06	0.83	2.77	2.01	0.90	2.54	1.87	0.98	2.35	1.77	1.07
		27°C	3.12	2.51	0.71	3.01	2.46	0.77	2.90	2.40	0.83	2.78	2.34	0.90	2.55	2.19	0.98	2.36	2.07	1.08
		30°C	3.15	3.09	0.71	3.04	3.03	0.77	2.93	2.93	0.83	2.82	2.82	0.90	2.59	2.59	0.98	2.41	2.41	1.08
		33°C	3.22	3.22	0.71	3.12	3.12	0.77	3.03	3.03	0.84	2.93	2.93	0.91	2.71	2.71	0.99	2.54	2.54	1.09
	22°C	27°C	3.42	2.13	0.72	3.29	2.08	0.78	3.17	2.03	0.85	3.04	1.97	0.92	2.80	1.84	0.99	2.58	1.74	1.10
		30°C	3.42	2.62	0.72	3.30	2.57	0.78	3.18	2.51	0.85	3.05	2.46	0.92	2.80	2.30	1.00	2.59	2.18	1.10
		33°C	3.43	3.07	0.72	3.32	3.02	0.78	3.19	2.95	0.85	3.07	2.89	0.92	2.82	2.71	1.00	2.62	2.57	1.10
		36°C	3.47	3.47	0.72	3.36	3.36	0.78	3.24	3.24	0.85	3.12	3.12	0.92	2.89	2.89	1.00	2.69	2.69	1.11

Model: FFQN25CXV1 - RYN25CXV1

Heating Mode

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	1.683	1.683	1.905	1.905	1.979	1.979	2.793	2.793	3.236	3.236	3.458	3.458	3.680	3.680
17°C	1.639	1.639	1.882	1.882	1.939	1.939	2.789	2.789	3.213	3.213	3.438	3.438	3.663	3.663
19°C	1.595	1.595	1.858	1.858	1.899	1.899	2.786	2.786	3.190	3.190	3.418	3.418	3.645	3.645
21°C	1.551	1.551	1.820	1.820	1.859	1.859	2.760	2.760	3.166	3.166	3.397	3.397	3.628	3.628
23°C	1.507	1.507	1.766	1.766	1.818	1.818	2.713	2.713	3.143	3.143	3.377	3.377	3.610	3.610
25°C	1.463	1.463	1.712	1.712	1.778	1.778	2.665	2.665	3.120	3.120	3.356	3.356	3.593	3.593
27°C	1.418	1.418	1.658	1.658	1.738	1.738	2.617	2.617	3.096	3.096	3.336	3.336	3.576	3.576
Frost Region														

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FFQN35CXV1- RYN35CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
330	16°C	21°C	3.45	2.73	0.99	3.33	2.66	1.07	3.21	2.59	1.16	3.08	2.51	1.25	2.83	2.34	1.36	2.61	2.20	1.50
		24°C	3.46	3.27	0.99	3.33	3.20	1.07	3.21	3.12	1.16	3.08	3.04	1.26	2.83	2.83	1.36	2.62	2.62	1.50
		27°C	3.48	3.48	0.99	3.37	3.37	1.07	3.25	3.25	1.16	3.13	3.13	1.26	2.88	2.88	1.37	2.68	2.68	1.51
		30°C	3.59	3.59	0.99	3.49	3.49	1.08	3.38	3.38	1.17	3.27	3.27	1.27	3.03	3.03	1.38	2.84	2.84	1.52
	19°C	24°C	3.81	2.55	1.00	3.67	2.49	1.09	3.54	2.42	1.18	3.40	2.35	1.28	3.12	2.19	1.38	2.89	2.06	1.53
		27°C	3.81	2.92	1.00	3.68	2.85	1.09	3.54	2.79	1.18	3.40	2.72	1.28	3.13	2.54	1.39	2.89	2.41	1.53
		30°C	3.82	3.60	1.00	3.68	3.52	1.09	3.55	3.45	1.18	3.42	3.36	1.28	3.15	3.14	1.39	2.92	2.92	1.53
		33°C	3.86	3.86	1.01	3.74	3.74	1.09	3.61	3.61	1.18	3.49	3.49	1.28	3.23	3.23	1.39	3.02	3.02	1.54
	22°C	27°C	4.19	2.50	1.02	4.04	2.44	1.11	3.90	2.37	1.20	3.74	2.31	1.30	3.44	2.15	1.41	3.19	2.03	1.56
		30°C	4.19	3.04	1.02	4.04	2.98	1.11	3.90	2.91	1.20	3.74	2.84	1.30	3.44	2.66	1.41	3.19	2.52	1.56
		33°C	4.19	3.55	1.02	4.05	3.49	1.11	3.90	3.42	1.20	3.75	3.35	1.30	3.45	3.14	1.41	3.20	2.98	1.56
		36°C	4.21	4.03	1.02	4.07	3.95	1.11	3.93	3.87	1.20	3.78	3.78	1.30	3.49	3.49	1.42	3.24	3.24	1.56
360	16°C	21°C	3.59	2.85	1.00	3.46	2.77	1.08	3.33	2.70	1.17	3.19	2.62	1.27	2.93	2.44	1.37	2.70	2.30	1.51
		24°C	3.60	3.46	1.00	3.47	3.38	1.08	3.34	3.30	1.17	3.21	3.21	1.27	2.95	2.95	1.37	2.72	2.72	1.51
		27°C	3.64	3.64	1.00	3.52	3.52	1.08	3.40	3.40	1.17	3.28	3.28	1.27	3.03	3.03	1.38	2.82	2.82	1.52
		30°C	3.80	3.80	1.01	3.69	3.69	1.09	3.57	3.57	1.18	3.46	3.46	1.28	3.20	3.20	1.39	3.00	3.00	1.54
	19°C	24°C	3.96	2.69	1.01	3.81	2.63	1.10	3.67	2.56	1.19	3.52	2.49	1.29	3.24	2.32	1.40	2.99	2.19	1.54
		27°C	3.96	3.10	1.01	3.82	3.03	1.10	3.68	2.97	1.19	3.53	2.90	1.29	3.24	2.71	1.40	3.00	2.56	1.54
		30°C	3.98	3.83	1.01	3.84	3.75	1.10	3.71	3.66	1.19	3.56	3.56	1.29	3.28	3.28	1.40	3.04	3.04	1.54
		33°C	4.05	4.05	1.02	3.92	3.92	1.10	3.80	3.80	1.20	3.67	3.67	1.30	3.40	3.40	1.41	3.18	3.18	1.56
	22°C	27°C	4.35	2.64	1.03	4.19	2.58	1.12	4.04	2.51	1.21	3.88	2.44	1.31	3.56	2.28	1.42	3.30	2.15	1.57
		30°C	4.35	3.24	1.03	4.20	3.17	1.12	4.04	3.10	1.21	3.88	3.03	1.31	3.57	2.83	1.43	3.30	2.69	1.57
		33°C	4.36	3.79	1.03	4.21	3.72	1.12	4.05	3.64	1.21	3.89	3.57	1.32	3.58	3.35	1.43	3.32	3.18	1.57
		36°C	4.39	4.29	1.03	4.24	4.21	1.12	4.10	4.10	1.22	3.95	3.95	1.32	3.64	3.64	1.43	3.40	3.40	1.58
410	16°C	21°C	3.72	2.97	1.00	3.59	2.90	1.09	3.45	2.82	1.18	3.31	2.74	1.28	3.03	2.55	1.38	2.80	2.40	1.52
		24°C	3.74	3.61	1.01	3.61	3.53	1.09	3.47	3.44	1.18	3.33	3.33	1.28	3.06	3.06	1.39	2.83	2.83	1.53
		27°C	3.80	3.80	1.01	3.68	3.68	1.09	3.55	3.55	1.18	3.43	3.43	1.28	3.17	3.17	1.39	2.95	2.95	1.54
		30°C	3.99	3.99	1.02	3.88	3.88	1.10	3.76	3.76	1.20	3.63	3.63	1.30	3.36	3.36	1.41	3.14	3.14	1.56
	19°C	24°C	4.10	2.85	1.02	3.95	2.78	1.11	3.80	2.71	1.20	3.65	2.64	1.30	3.35	2.46	1.41	3.09	2.32	1.55
		27°C	4.11	3.30	1.02	3.96	3.22	1.11	3.81	3.15	1.20	3.66	3.07	1.30	3.36	2.87	1.41	3.11	2.72	1.55
		30°C	4.14	4.06	1.02	4.00	3.97	1.11	3.85	3.85	1.20	3.71	3.71	1.30	3.41	3.41	1.41	3.17	3.17	1.56
		33°C	4.23	4.23	1.03	4.11	4.11	1.12	3.98	3.98	1.21	3.85	3.85	1.31	3.57	3.57	1.43	3.34	3.34	1.58
	22°C	27°C	4.50	2.79	1.04	4.34	2.73	1.13	4.17	2.66	1.22	4.01	2.59	1.32	3.68	2.42	1.44	3.40	2.28	1.58
		30°C	4.51	3.44	1.04	4.35	3.37	1.13	4.18	3.30	1.22	4.01	3.22	1.33	3.69	3.02	1.44	3.41	2.86	1.58
		33°C	4.52	4.03	1.04	4.37	3.96	1.13	4.21	3.88	1.22	4.04	3.79	1.33	3.72	3.55	1.44	3.44	3.37	1.59
		36°C	4.56	4.55	1.04	4.42	4.42	1.13	4.27	4.27	1.23	4.11	4.11	1.33	3.80	3.80	1.45	3.55	3.55	1.60

**Model: FFQN35CXV1- RYN35CXV1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	2.038	2.038	2.306	2.306	2.396	2.396	3.381	3.381	3.918	3.918	4.186	4.186	4.455	4.455
17°C	1.984	1.984	2.286	2.286	2.336	2.336	3.377	3.377	3.830	3.830	4.094	4.094	4.357	4.357
19°C	1.931	1.931	2.267	2.267	2.276	2.276	3.372	3.372	3.742	3.742	4.001	4.001	4.260	4.260
21°C	1.877	1.877	2.214	2.214	2.216	2.216	3.305	3.305	3.654	3.654	3.908	3.908	4.162	4.162
23°C	1.824	1.824	2.218	2.218	2.156	2.156	3.174	3.174	3.566	3.566	3.815	3.815	4.064	4.064
25°C	1.770	1.770	2.042	2.042	2.096	2.096	3.043	3.043	3.478	3.478	3.722	3.722	3.966	3.966
27°C	1.717	1.717	1.956	1.956	2.036	2.036	2.912	2.912	3.391	3.391	3.630	3.630	3.869	3.869
<b>Frost Region</b>														

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FFQN50CXV1- RYN50CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
340	16°C	21°C	4.84	3.33	1.28	4.67	3.24	1.39	4.49	3.15	1.50	4.31	3.06	1.63	3.96	2.85	1.77	3.66	2.68	1.95
		24°C	4.84	3.98	1.28	4.67	3.89	1.39	4.50	3.80	1.50	4.32	3.71	1.63	3.97	3.46	1.77	3.67	3.27	1.95
		27°C	4.88	4.52	1.29	4.72	4.41	1.39	4.55	4.31	1.51	4.38	4.20	1.64	4.04	3.91	1.77	3.76	3.67	1.96
		30°C	5.03	5.03	1.29	4.89	4.89	1.40	4.74	4.74	1.52	4.59	4.59	1.65	4.25	4.25	1.79	3.98	3.98	1.98
	19°C	24°C	5.34	3.11	1.30	5.15	3.03	1.41	4.96	2.95	1.53	4.76	2.86	1.66	4.38	2.67	1.80	4.05	2.51	1.98
		27°C	5.34	3.55	1.30	5.15	3.47	1.41	4.96	3.39	1.53	4.77	3.31	1.66	4.38	3.10	1.80	4.05	2.93	1.98
		30°C	5.35	4.39	1.30	5.16	4.29	1.41	4.98	4.20	1.53	4.79	4.10	1.66	4.41	3.83	1.80	4.09	3.62	1.99
		33°C	5.41	5.41	1.31	5.23	5.23	1.42	5.06	5.06	1.54	4.89	4.89	1.67	4.53	4.53	1.81	4.23	4.23	2.00
	22°C	27°C	5.87	3.04	1.33	5.67	2.97	1.44	5.46	2.89	1.56	5.25	2.81	1.69	4.82	2.62	1.84	4.47	2.47	2.02
		30°C	5.87	3.70	1.33	5.67	3.63	1.44	5.46	3.54	1.56	5.25	3.46	1.69	4.83	3.24	1.84	4.47	3.07	2.02
		33°C	5.87	4.33	1.33	5.67	4.24	1.44	5.46	4.16	1.56	5.25	4.07	1.69	4.83	3.82	1.84	4.48	3.63	2.02
		36°C	5.89	4.91	1.33	5.70	4.81	1.44	5.50	4.71	1.56	5.30	4.60	1.70	4.89	4.32	1.84	4.55	4.10	2.03
410	16°C	21°C	5.03	3.47	1.30	4.85	3.38	1.40	4.67	3.29	1.52	4.48	3.20	1.65	4.11	2.98	1.78	3.79	2.80	1.97
		24°C	5.05	4.21	1.30	4.87	4.11	1.40	4.68	4.01	1.52	4.50	3.91	1.65	4.13	3.65	1.79	3.82	3.45	1.97
		27°C	5.11	4.78	1.30	4.94	4.67	1.41	4.77	4.55	1.52	4.60	4.42	1.65	4.24	4.10	1.79	3.95	3.84	1.98
		30°C	5.32	5.32	1.31	5.17	5.17	1.42	5.01	5.01	1.54	4.85	4.85	1.67	4.49	4.49	1.81	4.20	4.20	2.00
	19°C	24°C	5.54	3.28	1.32	5.35	3.20	1.43	5.15	3.12	1.54	4.94	3.03	1.67	4.54	2.82	1.82	4.19	2.66	2.00
		27°C	5.55	3.78	1.32	5.36	3.70	1.43	5.16	3.61	1.54	4.95	3.53	1.68	4.55	3.30	1.82	4.20	3.12	2.00
		30°C	5.58	4.66	1.32	5.39	4.56	1.43	5.19	4.46	1.55	5.00	4.35	1.68	4.60	4.07	1.82	4.27	3.84	2.01
		33°C	5.67	5.67	1.32	5.50	5.50	1.43	5.33	5.33	1.56	5.15	5.15	1.69	4.77	4.77	1.83	4.46	4.46	2.03
	22°C	27°C	6.09	3.21	1.34	5.88	3.14	1.45	5.66	3.06	1.57	5.43	2.98	1.71	4.99	2.78	1.85	4.62	2.62	2.04
		30°C	6.10	3.94	1.34	5.88	3.86	1.45	5.67	3.78	1.58	5.44	3.69	1.71	5.00	3.45	1.85	4.63	3.28	2.04
		33°C	6.11	4.62	1.34	5.90	4.53	1.45	5.68	4.44	1.58	5.46	4.35	1.71	5.02	4.08	1.85	4.65	3.87	2.04
		36°C	6.15	5.22	1.34	5.95	5.13	1.46	5.74	5.02	1.58	5.53	4.90	1.71	5.11	4.59	1.86	4.76	4.33	2.05
450	16°C	21°C	5.22	3.62	1.31	5.03	3.53	1.41	4.83	3.44	1.53	4.63	3.34	1.66	4.25	3.11	1.80	3.92	2.93	1.98
		24°C	5.25	4.40	1.31	5.06	4.29	1.41	4.87	4.19	1.53	4.67	4.08	1.66	4.29	3.81	1.80	3.96	3.59	1.99
		27°C	5.33	5.04	1.31	5.16	4.91	1.42	4.98	4.77	1.54	4.80	4.63	1.67	4.44	4.29	1.81	4.14	4.00	2.00
		30°C	5.60	5.60	1.32	5.43	5.43	1.43	5.27	5.27	1.55	5.09	5.09	1.69	4.72	4.72	1.83	4.40	4.40	2.02
	19°C	24°C	5.74	3.47	1.33	5.54	3.39	1.44	5.33	3.30	1.56	5.11	3.21	1.69	4.69	2.99	1.83	4.33	2.82	2.02
		27°C	5.76	4.02	1.33	5.55	3.93	1.44	5.35	3.83	1.56	5.13	3.74	1.69	4.71	3.50	1.83	4.35	3.31	2.02
		30°C	5.81	4.94	1.33	5.60	4.84	1.44	5.40	4.73	1.56	5.20	4.61	1.69	4.78	4.30	1.84	4.44	4.06	2.03
		33°C	5.93	5.93	1.34	5.76	5.76	1.45	5.58	5.58	1.57	5.40	5.40	1.71	5.00	5.00	1.86	4.68	4.68	2.05
	22°C	27°C	6.30	3.40	1.35	6.08	3.32	1.47	5.85	3.24	1.59	5.62	3.15	1.72	5.16	2.94	1.87	4.77	2.78	2.06
		30°C	6.32	4.19	1.35	6.09	4.11	1.47	5.86	4.02	1.59	5.63	3.93	1.72	5.17	3.68	1.87	4.78	3.49	2.06
		33°C	6.34	4.91	1.35	6.12	4.82	1.47	5.89	4.72	1.59	5.66	4.62	1.73	5.21	4.33	1.87	4.83	4.11	2.06
		36°C	6.39	5.54	1.36	6.19	5.44	1.47	5.98	5.32	1.60	5.77	5.19	1.73	5.33	4.84	1.88	4.97	4.56	2.08

**Model: FFQN50CXV1- RYN50CXV1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	3.101	3.101	3.509	3.509	3.646	3.646	5.144	5.144	5.962	5.962	6.371	6.371	6.779	6.779
17°C	3.019	3.019	3.395	3.395	3.566	3.566	5.138	5.138	5.889	5.889	6.299	6.299	6.709	6.709
19°C	2.938	2.938	3.281	3.281	3.486	3.486	5.132	5.132	5.817	5.817	6.228	6.228	6.639	6.639
21°C	2.857	2.857	3.196	3.196	3.407	3.407	5.067	5.067	5.745	5.745	6.157	6.157	6.570	6.570
23°C	2.775	2.775	3.140	3.140	3.327	3.327	4.943	4.943	5.672	5.672	6.086	6.086	6.500	6.500
25°C	2.694	2.694	3.085	3.085	3.248	3.248	4.819	4.819	5.600	5.600	6.015	6.015	6.430	6.430
27°C	2.613	2.613	3.029	3.029	3.168	3.168	4.695	4.695	5.527	5.527	5.944	5.944	6.360	6.360

**Frost Region**

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FFQN50CXV1- RYN50CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
340	16°C	21°C	4.98	3.42	1.31	4.80	3.34	1.42	4.62	3.25	1.53	4.44	3.15	1.66	4.08	2.93	1.80	3.76	2.76	1.99
		24°C	4.99	4.10	1.31	4.81	4.01	1.42	4.63	3.91	1.53	4.44	3.82	1.66	4.08	3.56	1.81	3.78	3.36	1.99
		27°C	5.02	4.65	1.31	4.86	4.54	1.42	4.69	4.44	1.54	4.51	4.32	1.67	4.16	4.02	1.81	3.87	3.78	2.00
		30°C	5.18	5.18	1.32	5.03	5.03	1.43	4.88	4.88	1.55	4.72	4.72	1.68	4.38	4.38	1.83	4.09	4.09	2.02
	19°C	24°C	5.49	3.20	1.33	5.30	3.12	1.44	5.10	3.03	1.56	4.90	2.95	1.69	4.51	2.75	1.84	4.16	2.59	2.02
		27°C	5.49	3.66	1.33	5.30	3.58	1.44	5.11	3.49	1.56	4.91	3.41	1.69	4.51	3.19	1.84	4.17	3.02	2.02
		30°C	5.50	4.51	1.33	5.31	4.42	1.44	5.13	4.32	1.56	4.93	4.22	1.69	4.54	3.94	1.84	4.21	3.73	2.03
		33°C	5.57	5.57	1.33	5.39	5.39	1.45	5.21	5.21	1.57	5.03	5.03	1.70	4.66	4.66	1.85	4.36	4.36	2.04
	22°C	27°C	6.04	3.13	1.35	5.83	3.05	1.47	5.62	2.98	1.59	5.40	2.90	1.73	4.97	2.70	1.87	4.60	2.54	2.06
		30°C	6.04	3.81	1.35	5.83	3.73	1.47	5.62	3.65	1.59	5.40	3.56	1.73	4.97	3.33	1.87	4.60	3.16	2.06
		33°C	6.05	4.45	1.35	5.84	4.37	1.47	5.62	4.28	1.59	5.41	4.19	1.73	4.97	3.94	1.87	4.61	3.74	2.06
		36°C	6.07	5.05	1.36	5.87	4.95	1.47	5.66	4.85	1.59	5.46	4.74	1.73	5.03	4.44	1.88	4.68	4.22	2.07
410	16°C	21°C	5.18	3.57	1.32	4.99	3.48	1.43	4.80	3.39	1.55	4.61	3.29	1.68	4.23	3.07	1.82	3.90	2.88	2.01
		24°C	5.20	4.34	1.32	5.01	4.23	1.43	4.82	4.13	1.55	4.63	4.03	1.68	4.25	3.76	1.82	3.93	3.55	2.01
		27°C	5.26	4.92	1.33	5.08	4.81	1.43	4.91	4.69	1.55	4.73	4.55	1.69	4.37	4.22	1.83	4.07	3.95	2.02
		30°C	5.48	5.48	1.33	5.32	5.32	1.45	5.16	5.16	1.57	4.99	4.99	1.70	4.62	4.62	1.85	4.32	4.32	2.04
	19°C	24°C	5.71	3.38	1.34	5.50	3.29	1.45	5.30	3.21	1.58	5.08	3.12	1.71	4.67	2.91	1.85	4.31	2.74	2.04
		27°C	5.72	3.89	1.34	5.51	3.81	1.45	5.31	3.72	1.58	5.09	3.63	1.71	4.68	3.40	1.85	4.33	3.21	2.04
		30°C	5.74	4.80	1.35	5.54	4.70	1.46	5.35	4.59	1.58	5.14	4.48	1.71	4.73	4.19	1.86	4.39	3.96	2.05
		33°C	5.84	5.84	1.35	5.66	5.66	1.46	5.48	5.48	1.59	5.30	5.30	1.72	4.91	4.91	1.87	4.59	4.59	2.07
	22°C	27°C	6.27	3.31	1.37	6.05	3.23	1.48	5.82	3.15	1.61	5.59	3.06	1.74	5.14	2.86	1.89	4.75	2.70	2.08
		30°C	6.28	4.06	1.37	6.06	3.98	1.48	5.83	3.89	1.61	5.60	3.80	1.74	5.15	3.56	1.89	4.76	3.37	2.08
		33°C	6.29	4.76	1.37	6.07	4.67	1.48	5.85	4.57	1.61	5.62	4.47	1.74	5.17	4.20	1.89	4.79	3.98	2.08
		36°C	6.33	5.38	1.37	6.12	5.28	1.49	5.91	5.17	1.61	5.70	5.05	1.75	5.25	4.72	1.90	4.90	4.45	2.09
450	16°C	21°C	5.37	3.73	1.33	5.17	3.63	1.44	4.98	3.54	1.56	4.77	3.44	1.69	4.37	3.20	1.83	4.03	3.01	2.02
		24°C	5.40	4.53	1.33	5.20	4.42	1.44	5.01	4.31	1.56	4.81	4.20	1.69	4.41	3.92	1.84	4.08	3.70	2.03
		27°C	5.49	5.19	1.34	5.31	5.06	1.45	5.13	4.91	1.57	4.94	4.76	1.70	4.57	4.41	1.85	4.26	4.12	2.04
		30°C	5.76	5.76	1.35	5.59	5.59	1.46	5.42	5.42	1.59	5.24	5.24	1.72	4.85	4.85	1.87	4.53	4.53	2.06
	19°C	24°C	5.91	3.57	1.35	5.70	3.49	1.47	5.48	3.40	1.59	5.26	3.30	1.72	4.83	3.08	1.87	4.46	2.91	2.06
		27°C	5.93	4.14	1.36	5.72	4.04	1.47	5.50	3.95	1.59	5.28	3.85	1.72	4.85	3.60	1.87	4.48	3.41	2.06
		30°C	5.98	5.09	1.36	5.77	4.98	1.47	5.56	4.86	1.59	5.35	4.74	1.73	4.92	4.43	1.88	4.57	4.18	2.07
		33°C	6.11	6.11	1.36	5.93	5.93	1.48	5.75	5.75	1.60	5.56	5.56	1.74	5.15	5.15	1.89	4.81	4.81	2.09
	22°C	27°C	6.49	3.50	1.38	6.26	3.42	1.49	6.02	3.33	1.62	5.78	3.25	1.76	5.31	3.03	1.90	4.91	2.86	2.10
		30°C	6.50	4.31	1.38	6.27	4.23	1.50	6.03	4.14	1.62	5.79	4.04	1.76	5.32	3.79	1.91	4.92	3.59	2.10
		33°C	6.52	5.05	1.38	6.30	4.96	1.50	6.07	4.86	1.62	5.83	4.75	1.76	5.36	4.45	1.91	4.97	4.23	2.10
		36°C	6.58	5.70	1.39	6.38	5.60	1.50	6.16	5.48	1.63	5.93	5.34	1.77	5.48	4.98	1.92	5.11	4.69	2.12

**Model: FFQN50CXV1- RYN50CXV1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	3.278	3.278	3.710	3.710	3.854	3.854	5.438	5.438	6.302	6.302	6.735	6.735	7.167	7.167
17°C	3.192	3.192	3.680	3.680	3.770	3.770	5.432	5.432	6.228	6.228	6.662	6.662	7.096	7.096
19°C	3.106	3.106	3.649	3.649	3.686	3.686	5.425	5.425	6.154	6.154	6.589	6.589	7.025	7.025
21°C	3.020	3.020	3.573	3.573	3.603	3.603	5.358	5.358	6.080	6.080	6.517	6.517	6.954	6.954
23°C	2.934	2.934	3.450	3.450	3.519	3.519	5.229	5.229	6.005	6.005	6.444	6.444	6.883	6.883
25°C	2.848	2.848	3.327	3.327	3.435	3.435	5.101	5.101	5.931	5.931	6.371	6.371	6.812	6.812
27°C	2.762	2.762	3.204	3.204	3.352	3.352	4.973	4.973	5.857	5.857	6.299	6.299	6.741	6.741

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FCQN50EXV1 - RYN50CXV1**  
**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
430	16°C	21°C	5.05	3.81	1.32	4.87	3.71	1.43	4.69	3.61	1.55	4.50	3.51	1.68	4.14	3.27	1.82	3.82	3.07	2.01
		24°C	5.06	4.57	1.32	4.88	4.46	1.43	4.70	4.36	1.55	4.51	4.25	1.68	4.14	3.97	1.82	3.83	3.74	2.01
		27°C	5.10	5.10	1.32	4.93	4.93	1.43	4.76	4.76	1.55	4.58	4.58	1.68	4.22	4.22	1.83	3.93	3.93	2.02
		30°C	5.26	5.26	1.33	5.11	5.11	1.44	4.95	4.95	1.56	4.79	4.79	1.70	4.44	4.44	1.84	4.16	4.16	2.04
	19°C	24°C	5.57	3.56	1.34	5.38	3.47	1.45	5.18	3.38	1.58	4.98	3.28	1.71	4.57	3.06	1.85	4.23	2.88	2.04
		27°C	5.58	4.07	1.34	5.38	3.98	1.45	5.18	3.89	1.58	4.98	3.80	1.71	4.58	3.55	1.85	4.23	3.36	2.04
		30°C	5.59	5.03	1.34	5.39	4.92	1.45	5.20	4.81	1.58	5.01	4.69	1.71	4.61	4.39	1.86	4.28	4.15	2.05
		33°C	5.65	5.65	1.35	5.47	5.47	1.46	5.29	5.29	1.58	5.11	5.11	1.72	4.73	4.73	1.86	4.42	4.42	2.06
	22°C	27°C	6.13	3.48	1.37	5.92	3.40	1.48	5.70	3.32	1.61	5.48	3.22	1.74	5.04	3.00	1.89	4.67	2.83	2.08
		30°C	6.13	4.25	1.37	5.92	4.16	1.48	5.70	4.06	1.61	5.48	3.97	1.74	5.04	3.71	1.89	4.67	3.52	2.08
		33°C	6.14	4.96	1.37	5.92	4.87	1.48	5.71	4.77	1.61	5.49	4.67	1.74	5.05	4.38	1.89	4.68	4.16	2.08
		36°C	6.16	5.62	1.37	5.95	5.51	1.48	5.75	5.40	1.61	5.54	5.28	1.75	5.11	4.95	1.89	4.75	4.69	2.09
530	16°C	21°C	5.26	3.98	1.33	5.07	3.88	1.44	4.88	3.77	1.56	4.68	3.67	1.69	4.29	3.41	1.84	3.96	3.21	2.03
		24°C	5.27	4.83	1.33	5.08	4.72	1.44	4.89	4.60	1.56	4.70	4.49	1.70	4.31	4.19	1.84	3.99	3.95	2.03
		27°C	5.34	5.34	1.34	5.16	5.16	1.45	4.98	4.98	1.57	4.80	4.80	1.70	4.43	4.43	1.85	4.13	4.13	2.04
		30°C	5.56	5.56	1.35	5.40	5.40	1.46	5.23	5.23	1.58	5.06	5.06	1.72	4.69	4.69	1.87	4.39	4.39	2.06
	19°C	24°C	5.79	3.76	1.36	5.59	3.67	1.47	5.38	3.57	1.59	5.16	3.47	1.72	4.74	3.24	1.87	4.38	3.05	2.06
		27°C	5.80	4.33	1.36	5.60	4.24	1.47	5.39	4.14	1.59	5.17	4.04	1.72	4.75	3.78	1.87	4.39	3.58	2.06
		30°C	5.83	5.35	1.36	5.63	5.23	1.47	5.43	5.11	1.59	5.22	4.99	1.73	4.81	4.67	1.87	4.46	4.41	2.07
		33°C	5.93	5.93	1.36	5.75	5.75	1.48	5.56	5.56	1.60	5.38	5.38	1.74	4.98	4.98	1.89	4.66	4.66	2.09
	22°C	27°C	6.37	3.68	1.38	6.14	3.60	1.50	5.91	3.51	1.62	5.68	3.41	1.76	5.22	3.18	1.91	4.83	3.00	2.10
		30°C	6.37	4.52	1.38	6.15	4.43	1.50	5.92	4.33	1.62	5.68	4.23	1.76	5.22	3.96	1.91	4.83	3.76	2.10
		33°C	6.38	5.30	1.38	6.16	5.20	1.50	5.94	5.09	1.62	5.70	4.98	1.76	5.25	4.67	1.91	4.86	4.44	2.10
		36°C	6.42	5.99	1.38	6.22	5.88	1.50	6.00	5.75	1.63	5.78	5.62	1.77	5.33	5.26	1.92	4.97	4.96	2.11
600	16°C	21°C	5.45	4.15	1.34	5.25	4.05	1.45	5.05	3.94	1.57	4.84	3.83	1.71	4.44	3.57	1.85	4.09	3.36	2.04
		24°C	5.48	5.04	1.35	5.28	4.92	1.46	5.08	4.80	1.58	4.88	4.68	1.71	4.48	4.36	1.85	4.14	4.12	2.04
		27°C	5.57	5.57	1.35	5.39	5.39	1.46	5.21	5.21	1.58	5.02	5.02	1.72	4.64	4.64	1.87	4.32	4.32	2.06
		30°C	5.85	5.85	1.36	5.68	5.68	1.48	5.50	5.50	1.60	5.32	5.32	1.74	4.93	4.93	1.89	4.60	4.60	2.08
	19°C	24°C	6.00	3.98	1.37	5.78	3.88	1.48	5.57	3.78	1.60	5.34	3.68	1.74	4.90	3.43	1.89	4.52	3.24	2.08
		27°C	6.02	4.61	1.37	5.80	4.50	1.48	5.59	4.40	1.60	5.36	4.29	1.74	4.92	4.01	1.89	4.55	3.79	2.08
		30°C	6.07	5.67	1.37	5.85	5.55	1.48	5.64	5.42	1.61	5.43	5.28	1.74	5.00	4.93	1.89	4.64	4.64	2.09
		33°C	6.20	6.20	1.38	6.02	6.02	1.49	5.83	5.83	1.62	5.64	5.64	1.76	5.23	5.23	1.91	4.89	4.89	2.11
	22°C	27°C	6.59	3.89	1.39	6.35	3.81	1.51	6.11	3.71	1.64	5.87	3.62	1.77	5.39	3.37	1.92	4.98	3.19	2.12
		30°C	6.60	4.80	1.39	6.36	4.71	1.51	6.13	4.61	1.64	5.88	4.50	1.77	5.40	4.22	1.92	5.00	4.00	2.12
		33°C	6.62	5.63	1.39	6.39	5.53	1.51	6.16	5.41	1.64	5.92	5.29	1.78	5.44	4.96	1.93	5.04	4.71	2.12
		36°C	6.68	6.35	1.40	6.47	6.24	1.52	6.25	6.10	1.64	6.02	5.95	1.78	5.57	5.55	1.94	5.19	5.19	2.14

**Model: FCQN50EXV1 - RYN50CXV1**  
**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	3.075	3.075	3.481	3.481	3.616	3.616	5.103	5.103	5.913	5.913	6.319	6.319	6.724	6.724
17°C	2.995	2.995	3.475	3.475	3.538	3.538	5.096	5.096	5.847	5.847	6.255	6.255	6.662	6.662
19°C	2.914	2.914	3.470	3.470	3.460	3.460	5.090	5.090	5.781	5.781	6.191	6.191	6.601	6.601
21°C	2.834	2.834	3.402	3.402	3.382	3.382	5.029	5.029	5.715	5.715	6.127	6.127	6.539	6.539
23°C	2.753	2.753	3.271	3.271	3.305	3.305	4.913	4.913	5.649	5.649	6.063	6.063	6.477	6.477
25°C	2.672	2.672	3.140	3.140	3.227	3.227	4.797	4.797	5.583	5.583	5.999	5.999	6.415	6.415
27°C	2.592	2.592	3.010	3.010	3.149	3.149	4.682	4.682	5.518	5.518	5.935	5.935	6.353	6.353
<b>Frost Region</b>														

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FCQN60EXV1 - RYN60CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
530	16°C	21°C	6.14	4.34	1.47	5.92	4.23	1.59	5.70	4.11	1.73	5.47	4.00	1.87	5.03	3.72	2.03	4.64	3.50	2.24
		24°C	6.15	5.20	1.47	5.93	5.08	1.59	5.71	4.96	1.73	5.48	4.84	1.87	5.04	4.52	2.03	4.66	4.26	2.24
		27°C	6.20	5.89	1.48	5.99	5.76	1.60	5.78	5.62	1.73	5.56	5.48	1.88	5.13	5.10	2.04	4.77	4.77	2.25
		30°C	6.39	6.39	1.48	6.20	6.20	1.61	6.01	6.01	1.74	5.82	5.82	1.89	5.40	5.40	2.06	5.05	5.05	2.27
	19°C	24°C	6.77	4.05	1.50	6.53	3.95	1.62	6.29	3.85	1.76	6.04	3.74	1.90	5.56	3.48	2.07	5.14	3.28	2.28
		27°C	6.78	4.64	1.50	6.54	4.53	1.62	6.30	4.43	1.76	6.05	4.32	1.91	5.56	4.04	2.07	5.14	3.83	2.28
		30°C	6.79	5.72	1.50	6.55	5.60	1.62	6.32	5.48	1.76	6.08	5.34	1.91	5.60	5.00	2.07	5.19	4.73	2.28
		33°C	6.87	6.87	1.50	6.64	6.64	1.63	6.43	6.43	1.76	6.21	6.21	1.91	5.74	5.74	2.08	5.37	5.37	2.30
	22°C	27°C	7.45	3.97	1.52	7.19	3.87	1.65	6.93	3.77	1.79	6.66	3.67	1.94	6.12	3.42	2.11	5.67	3.22	2.32
		30°C	7.45	4.83	1.52	7.19	4.73	1.65	6.93	4.62	1.79	6.66	4.51	1.94	6.12	4.23	2.11	5.67	4.01	2.32
		33°C	7.46	5.65	1.52	7.20	5.54	1.65	6.94	5.43	1.79	6.66	5.32	1.94	6.13	4.99	2.11	5.68	4.74	2.32
		36°C	7.48	6.40	1.53	7.23	6.27	1.65	6.98	6.14	1.79	6.73	6.01	1.95	6.20	5.63	2.11	5.77	5.34	2.33
600	16°C	21°C	6.39	4.53	1.49	6.16	4.41	1.61	5.92	4.29	1.74	5.68	4.17	1.89	5.21	3.88	2.05	4.81	3.66	2.26
		24°C	6.41	5.50	1.49	6.18	5.37	1.61	5.94	5.24	1.74	5.70	5.11	1.89	5.24	4.76	2.05	4.84	4.50	2.26
		27°C	6.48	6.24	1.49	6.27	6.10	1.61	6.05	5.94	1.75	5.83	5.76	1.90	5.38	5.35	2.06	5.02	5.01	2.27
		30°C	6.75	6.75	1.50	6.56	6.56	1.63	6.36	6.36	1.76	6.15	6.15	1.92	5.70	5.70	2.08	5.33	5.33	2.30
	19°C	24°C	7.04	4.28	1.51	6.79	4.18	1.64	6.53	4.07	1.77	6.27	3.95	1.92	5.76	3.69	2.08	5.32	3.47	2.30
		27°C	7.05	4.93	1.51	6.80	4.82	1.64	6.54	4.71	1.77	6.28	4.60	1.92	5.77	4.30	2.09	5.33	4.07	2.30
		30°C	7.08	6.09	1.51	6.84	5.95	1.64	6.59	5.82	1.78	6.34	5.68	1.93	5.84	5.31	2.09	5.41	5.02	2.30
		33°C	7.20	7.20	1.52	6.98	6.98	1.65	6.76	6.76	1.79	6.53	6.53	1.94	6.05	6.05	2.11	5.66	5.66	2.32
	22°C	27°C	7.73	4.19	1.54	7.46	4.09	1.67	7.18	3.99	1.81	6.90	3.88	1.96	6.34	3.62	2.13	5.86	3.42	2.34
		30°C	7.74	5.15	1.54	7.47	5.04	1.67	7.19	4.93	1.81	6.90	4.81	1.96	6.35	4.51	2.13	5.87	4.28	2.34
		33°C	7.75	6.03	1.54	7.48	5.91	1.67	7.21	5.79	1.81	6.93	5.67	1.96	6.37	5.32	2.13	5.91	5.05	2.35
		36°C	7.80	6.82	1.54	7.55	6.69	1.67	7.29	6.55	1.81	7.02	6.40	1.97	6.48	5.98	2.14	6.04	5.65	2.36
680	16°C	21°C	6.62	4.72	1.50	6.38	4.60	1.62	6.14	4.48	1.76	5.88	4.36	1.90	5.39	4.06	2.06	4.97	3.82	2.28
		24°C	6.66	5.74	1.50	6.42	5.60	1.62	6.17	5.47	1.76	5.92	5.32	1.91	5.44	4.97	2.07	5.03	4.68	2.28
		27°C	6.76	6.58	1.51	6.54	6.41	1.63	6.32	6.23	1.77	6.10	6.04	1.92	5.63	5.59	2.08	5.25	5.22	2.30
		30°C	7.10	7.10	1.52	6.90	6.90	1.65	6.68	6.68	1.78	6.46	6.46	1.94	5.98	5.98	2.10	5.59	5.59	2.32
	19°C	24°C	7.29	4.53	1.52	7.03	4.42	1.65	6.76	4.31	1.79	6.48	4.19	1.94	5.95	3.91	2.10	5.49	3.68	2.32
		27°C	7.31	5.24	1.53	7.05	5.12	1.65	6.78	5.00	1.79	6.51	4.88	1.94	5.98	4.56	2.10	5.52	4.32	2.32
		30°C	7.37	6.45	1.53	7.11	6.31	1.65	6.86	6.17	1.79	6.59	6.01	1.94	6.07	5.61	2.11	5.64	5.29	2.33
		33°C	7.53	7.53	1.54	7.31	7.31	1.66	7.09	7.09	1.81	6.85	6.85	1.96	6.35	6.35	2.13	5.94	5.94	2.35
	22°C	27°C	8.00	4.43	1.55	7.71	4.34	1.68	7.42	4.23	1.82	7.13	4.12	1.98	6.55	3.84	2.14	6.05	3.63	2.36
		30°C	8.02	5.46	1.55	7.73	5.36	1.68	7.44	5.24	1.82	7.14	5.12	1.98	6.56	4.80	2.15	6.07	4.55	2.36
		33°C	8.04	6.40	1.56	7.77	6.29	1.69	7.48	6.16	1.83	7.19	6.02	1.98	6.61	5.65	2.15	6.12	5.36	2.37
		36°C	8.11	7.23	1.56	7.86	7.10	1.69	7.59	6.94	1.83	7.32	6.77	1.99	6.76	6.32	2.16	6.31	5.95	2.38

**Model: FCQN60EXV1 - RYN60CXV1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	3.497	3.497	3.958	3.958	4.112	4.112	5.802	5.802	6.724	6.724	7.185	7.185	7.646	7.646
17°C	3.405	3.405	4.080	4.080	4.016	4.016	5.795	5.795	6.613	6.613	7.071	7.071	7.529	7.529
19°C	3.314	3.314	4.201	4.201	3.921	3.921	5.788	5.788	6.501	6.501	6.956	6.956	7.412	7.412
21°C	3.222	3.222	4.138	4.138	3.825	3.825	5.697	5.697	6.389	6.389	6.842	6.842	7.294	7.294
23°C	3.130	3.130	3.889	3.889	3.730	3.730	5.520	5.520	6.278	6.278	6.727	6.727	7.177	7.177
25°C	3.039	3.039	3.640	3.640	3.634	3.634	5.343	5.343	6.166	6.166	6.613	6.613	7.060	7.060
27°C	2.947	2.947	3.391	3.391	3.539	3.539	5.167	5.167	6.055	6.055	6.498	6.498	6.942	6.942

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FCQN71EXV1 - RQ71CXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
620	16°C	21°C	7.46	5.49	2.12	7.19	5.34	2.29	6.93	5.20	2.48	6.65	5.05	2.69	6.10	4.70	2.92	5.64	4.42	3.22
		24°C	7.47	6.57	2.12	7.20	6.42	2.29	6.94	6.27	2.48	6.66	6.11	2.69	6.12	5.71	2.92	5.66	5.39	3.22
		27°C	7.53	7.45	2.12	7.28	7.28	2.30	7.02	7.02	2.49	6.76	6.76	2.70	6.23	6.23	2.93	5.80	5.80	3.23
		30°C	7.76	7.76	2.13	7.54	7.54	2.31	7.31	7.31	2.51	7.07	7.07	2.72	6.55	6.55	2.96	6.13	6.13	3.26
	19°C	24°C	8.23	5.12	2.15	7.94	4.99	2.33	7.65	4.86	2.53	7.34	4.72	2.74	6.75	4.40	2.97	6.24	4.14	3.28
		27°C	8.23	5.86	2.15	7.94	5.73	2.33	7.65	5.60	2.53	7.35	5.46	2.74	6.76	5.11	2.97	6.25	4.84	3.28
		30°C	8.24	7.23	2.15	7.96	7.08	2.33	7.68	6.92	2.53	7.39	6.76	2.74	6.80	6.32	2.98	6.31	5.98	3.28
		33°C	8.34	8.34	2.16	8.07	8.07	2.34	7.81	7.81	2.54	7.54	7.54	2.75	6.98	6.98	2.99	6.52	6.52	3.30
	22°C	27°C	9.05	5.01	2.19	8.74	4.89	2.38	8.42	4.77	2.57	8.09	4.64	2.79	7.44	4.32	3.03	6.89	4.08	3.34
		30°C	9.05	6.11	2.19	8.74	5.98	2.38	8.42	5.84	2.58	8.09	5.71	2.79	7.44	5.34	3.03	6.89	5.06	3.34
		33°C	9.06	7.14	2.19	8.74	7.00	2.38	8.43	6.86	2.58	8.10	6.72	2.79	7.45	6.31	3.03	6.91	5.99	3.34
		36°C	9.09	8.09	2.19	8.79	7.93	2.38	8.48	7.77	2.58	8.17	7.59	2.80	7.54	7.12	3.04	7.01	6.75	3.35
725	16°C	21°C	7.76	5.72	2.14	7.48	5.58	2.31	7.20	5.43	2.51	6.90	5.27	2.72	6.33	4.91	2.95	5.84	4.62	3.25
		24°C	7.78	6.95	2.14	7.50	6.78	2.31	7.22	6.62	2.51	6.93	6.46	2.72	6.37	6.02	2.95	5.89	5.68	3.25
		27°C	7.88	7.88	2.15	7.61	7.61	2.32	7.35	7.35	2.51	7.09	7.09	2.73	6.54	6.54	2.96	6.09	6.09	3.27
		30°C	8.21	8.21	2.16	7.97	7.97	2.34	7.72	7.72	2.54	7.47	7.47	2.75	6.92	6.92	2.99	6.47	6.47	3.30
	19°C	24°C	8.55	5.41	2.17	8.24	5.28	2.35	7.93	5.14	2.55	7.62	5.00	2.76	6.99	4.66	3.00	6.46	4.39	3.30
		27°C	8.56	6.24	2.17	8.26	6.10	2.35	7.95	5.96	2.55	7.63	5.82	2.77	7.01	5.44	3.00	6.48	5.15	3.31
		30°C	8.60	7.69	2.18	8.31	7.53	2.36	8.01	7.36	2.55	7.70	7.18	2.77	7.09	6.71	3.01	6.58	6.34	3.31
		33°C	8.75	8.75	2.18	8.48	8.48	2.37	8.21	8.21	2.57	7.94	7.94	2.79	7.35	7.35	3.03	6.87	6.87	3.34
	22°C	27°C	9.39	5.30	2.21	9.06	5.18	2.40	8.73	5.05	2.60	8.38	4.91	2.82	7.70	4.58	3.06	7.12	4.32	3.37
		30°C	9.40	6.50	2.21	9.07	6.37	2.40	8.73	6.23	2.60	8.39	6.08	2.82	7.71	5.70	3.06	7.13	5.41	3.37
		33°C	9.42	7.62	2.22	9.09	7.48	2.40	8.76	7.32	2.60	8.42	7.17	2.82	7.74	6.72	3.06	7.18	6.38	3.37
		36°C	9.48	8.62	2.22	9.17	8.45	2.41	8.85	8.28	2.61	8.53	8.09	2.83	7.87	7.57	3.07	7.34	7.14	3.39
860	16°C	21°C	8.05	5.97	2.16	7.75	5.82	2.33	7.45	5.67	2.53	7.15	5.51	2.74	6.55	5.13	2.97	6.04	4.83	3.27
		24°C	8.09	7.26	2.16	7.80	7.09	2.33	7.50	6.91	2.53	7.20	6.73	2.74	6.61	6.28	2.97	6.11	5.92	3.28
		27°C	8.22	8.22	2.17	7.95	7.95	2.34	7.68	7.68	2.54	7.41	7.41	2.76	6.84	6.84	2.99	6.38	6.38	3.30
		30°C	8.63	8.63	2.18	8.38	8.38	2.37	8.12	8.12	2.57	7.85	7.85	2.79	7.27	7.27	3.03	6.79	6.79	3.34
	19°C	24°C	8.86	5.73	2.19	8.54	5.59	2.37	8.21	5.44	2.57	7.88	5.30	2.79	7.23	4.94	3.02	6.67	4.66	3.33
		27°C	8.88	6.63	2.19	8.56	6.48	2.37	8.24	6.32	2.57	7.91	6.17	2.79	7.26	5.77	3.03	6.71	5.46	3.33
		30°C	8.96	8.16	2.20	8.64	7.98	2.38	8.33	7.80	2.58	8.01	7.60	2.80	7.38	7.10	3.03	6.85	6.69	3.35
		33°C	9.15	9.15	2.21	8.88	8.88	2.39	8.61	8.61	2.60	8.33	8.33	2.82	7.71	7.71	3.06	7.21	7.21	3.38
	22°C	27°C	9.72	5.60	2.23	9.37	5.48	2.42	9.02	5.34	2.62	8.66	5.20	2.84	7.95	4.86	3.08	7.35	4.58	3.39
		30°C	9.74	6.91	2.23	9.39	6.78	2.42	9.04	6.63	2.62	8.68	6.48	2.84	7.97	6.07	3.08	7.37	5.75	3.40
		33°C	9.77	8.10	2.24	9.44	7.96	2.42	9.09	7.79	2.63	8.73	7.62	2.85	8.03	7.14	3.09	7.44	6.77	3.40
		36°C	9.86	9.14	2.24	9.55	8.98	2.43	9.22	8.78	2.64	8.89	8.56	2.86	8.21	7.99	3.11	7.66	7.52	3.43

**Model: FCQN71EXV1 - RQ71CXV1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	4.889	4.889	5.534	5.534	5.749	5.749	8.112	8.112	9.401	9.401	10.046	10.046	10.690	10.690
17°C	4.761	4.761	5.326	5.326	5.631	5.631	8.102	8.102	9.328	9.328	9.981	9.981	10.633	10.633
19°C	4.633	4.633	5.119	5.119	5.513	5.513	8.093	8.093	9.255	9.255	9.915	9.915	10.576	10.576
21°C	4.505	4.505	4.986	4.986	5.396	5.396	8.015	8.015	9.182	9.182	9.850	9.850	10.518	10.518
23°C	4.377	4.377	4.928	4.928	5.278	5.278	7.870	7.870	9.109	9.109	9.785	9.785	10.461	10.461
25°C	4.248	4.248	4.870	4.870	5.160	5.160	7.725	7.725	9.036	9.036	9.720	9.720	10.404	10.404
27°C	4.120	4.120	4.812	4.812	5.043	5.043	7.579	7.579	8.963	8.963	9.655	9.655	10.347	10.347
<b>Frost Region</b>														

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FCQN100EXV1- RQ90DXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
740	16°C	21°C	8.07	6.17	2.14	7.78	6.00	2.32	7.50	5.84	2.51	7.19	5.68	2.72	6.61	5.28	2.95	6.10	4.97	3.25
		24°C	8.08	7.38	2.14	7.79	7.21	2.32	7.51	7.05	2.51	7.21	6.87	2.72	6.62	6.42	2.95	6.12	6.05	3.26
		27°C	8.14	8.14	2.15	7.87	7.87	2.32	7.60	7.60	2.52	7.31	7.31	2.73	6.75	6.75	2.96	6.28	6.28	3.27
		30°C	8.40	8.40	2.16	8.15	8.15	2.34	7.91	7.91	2.53	7.65	7.65	2.75	7.09	7.09	2.99	6.64	6.64	3.30
	19°C	24°C	8.90	5.76	2.18	8.59	5.61	2.36	8.27	5.46	2.55	7.95	5.31	2.77	7.30	4.94	3.00	6.75	4.65	3.31
		27°C	8.91	6.59	2.18	8.59	6.44	2.36	8.28	6.29	2.55	7.95	6.14	2.77	7.31	5.74	3.00	6.76	5.44	3.31
		30°C	8.92	8.13	2.18	8.61	7.95	2.36	8.31	7.78	2.56	7.99	7.59	2.77	7.36	7.10	3.01	6.83	6.72	3.32
		33°C	9.03	9.03	2.18	8.73	8.73	2.36	8.45	8.45	2.56	8.16	8.16	2.78	7.55	7.55	3.02	7.06	7.06	3.34
	22°C	27°C	9.79	5.63	2.22	9.45	5.50	2.40	9.11	5.36	2.60	8.75	5.21	2.82	8.05	4.86	3.06	7.45	4.58	3.37
		30°C	9.80	6.87	2.22	9.46	6.72	2.40	9.11	6.57	2.60	8.76	6.41	2.82	8.05	6.00	3.06	7.45	5.69	3.37
		33°C	9.80	8.02	2.22	9.46	7.87	2.40	9.12	7.71	2.60	8.76	7.55	2.82	8.06	7.09	3.06	7.47	6.73	3.38
		36°C	9.83	9.09	2.22	9.51	8.91	2.40	9.18	8.73	2.61	8.84	8.53	2.83	8.16	8.00	3.07	7.58	7.58	3.39
860	16°C	21°C	8.40	6.43	2.16	8.09	6.26	2.34	7.79	6.10	2.53	7.47	5.93	2.75	6.85	5.52	2.98	6.32	5.19	3.28
		24°C	8.42	7.81	2.16	8.12	7.62	2.34	7.82	7.44	2.53	7.50	7.25	2.75	6.89	6.77	2.98	6.37	6.37	3.29
		27°C	8.52	8.52	2.17	8.24	8.24	2.35	7.95	7.95	2.54	7.67	7.67	2.76	7.08	7.08	2.99	6.59	6.59	3.30
		30°C	8.88	8.88	2.18	8.62	8.62	2.36	8.36	8.36	2.56	8.09	8.09	2.78	7.49	7.49	3.03	7.00	7.00	3.34
	19°C	24°C	9.25	6.08	2.20	8.92	5.93	2.38	8.59	5.78	2.58	8.24	5.62	2.79	7.57	5.23	3.03	6.99	4.93	3.34
		27°C	9.27	7.01	2.20	8.94	6.85	2.38	8.60	6.70	2.58	8.26	6.54	2.80	7.59	6.11	3.03	7.01	5.79	3.34
		30°C	9.31	8.64	2.20	8.99	8.46	2.38	8.67	8.27	2.58	8.33	8.07	2.80	7.67	7.54	3.04	7.12	7.12	3.35
		33°C	9.47	9.47	2.21	9.18	9.18	2.39	8.89	8.89	2.60	8.59	8.59	2.82	7.96	7.96	3.06	7.44	7.44	3.38
	22°C	27°C	10.16	5.96	2.24	9.81	5.82	2.42	9.44	5.67	2.63	9.07	5.52	2.85	8.33	5.15	3.09	7.71	4.85	3.40
		30°C	10.18	7.31	2.24	9.82	7.16	2.42	9.45	7.00	2.63	9.08	6.84	2.85	8.34	6.40	3.09	7.72	6.07	3.41
		33°C	10.20	8.57	2.24	9.84	8.40	2.43	9.48	8.23	2.63	9.11	8.05	2.85	8.38	7.56	3.10	7.77	7.17	3.41
		36°C	10.26	9.68	2.24	9.93	9.50	2.43	9.58	9.30	2.64	9.23	9.08	2.86	8.52	8.50	3.11	7.94	7.94	3.43
1030	16°C	21°C	8.71	6.71	2.18	8.39	6.54	2.36	8.07	6.37	2.55	7.73	6.19	2.77	7.09	5.77	3.00	6.54	5.43	3.31
		24°C	8.75	8.15	2.18	8.44	7.96	2.36	8.12	7.77	2.56	7.79	7.56	2.77	7.16	7.06	3.01	6.61	6.61	3.31
		27°C	8.90	8.90	2.19	8.60	8.60	2.37	8.31	8.31	2.57	8.02	8.02	2.79	7.41	7.41	3.02	6.90	6.90	3.34
		30°C	9.34	9.34	2.21	9.07	9.07	2.39	8.79	8.79	2.59	8.50	8.50	2.82	7.87	7.87	3.06	7.35	7.35	3.38
	19°C	24°C	9.59	6.44	2.22	9.24	6.28	2.40	8.89	6.12	2.60	8.53	5.95	2.82	7.82	5.55	3.06	7.22	5.23	3.37
		27°C	9.61	7.45	2.22	9.27	7.28	2.40	8.92	7.11	2.60	8.56	6.93	2.82	7.86	6.48	3.06	7.26	6.13	3.37
		30°C	9.69	9.17	2.22	9.35	8.97	2.41	9.01	8.76	2.61	8.67	8.54	2.83	7.98	7.98	3.07	7.41	7.41	3.38
		33°C	9.90	9.90	2.23	9.61	9.61	2.42	9.32	9.32	2.62	9.01	9.01	2.85	8.35	8.35	3.10	7.81	7.81	3.42
	22°C	27°C	10.52	6.30	2.26	10.14	6.16	2.45	9.76	6.00	2.65	9.37	5.85	2.87	8.61	5.46	3.12	7.95	5.15	3.43
		30°C	10.54	7.76	2.26	10.16	7.62	2.45	9.78	7.45	2.65	9.39	7.28	2.88	8.63	6.82	3.12	7.98	6.46	3.43
		33°C	10.58	9.10	2.26	10.21	8.94	2.45	9.84	8.75	2.66	9.45	8.56	2.88	8.69	8.02	3.12	8.05	7.61	3.44
		36°C	10.67	10.27	2.27	10.34	10.09	2.46	9.98	9.86	2.66	9.62	9.62	2.89	8.89	8.89	3.14	8.29	8.29	3.46

**Model: FCQN100EXV1- RQ90DXV1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	5.527	5.527	6.256	6.256	6.499	6.499	9.171	9.171	10.628	10.628	11.357	11.357	12.085	12.085
17°C	5.382	5.382	5.751	5.751	6.382	6.382	9.160	9.160	10.633	10.633	11.383	11.383	12.133	12.133
19°C	5.238	5.238	5.247	5.247	6.266	6.266	9.149	9.149	10.637	10.637	11.409	11.409	12.180	12.180
21°C	5.093	5.093	5.069	5.069	6.150	6.150	9.115	9.115	10.642	10.642	11.435	11.435	12.228	12.228
23°C	4.948	4.948	5.217	5.217	6.033	6.033	9.057	9.057	10.647	10.647	11.461	11.461	12.275	12.275
25°C	4.803	4.803	5.366	5.366	5.917	5.917	9.000	9.000	10.652	10.652	11.487	11.487	12.323	12.323
27°C	4.658	4.658	5.515	5.515	5.800	5.800	8.942	8.942	10.656	10.656	11.513	11.513	12.370	12.370

Frost Region

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FCQN100EXV1- RQ90DXY1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
740	16°C	21°C	8.57	6.14	2.10	8.27	5.98	2.28	7.96	5.82	2.47	7.64	5.66	2.67	7.02	5.26	2.90	6.48	4.95	3.20
		24°C	8.58	7.36	2.11	8.28	7.19	2.28	7.97	7.02	2.47	7.65	6.85	2.67	7.03	6.39	2.90	6.50	6.03	3.20
		27°C	8.65	8.34	2.11	8.36	8.15	2.28	8.07	7.96	2.47	7.76	7.76	2.68	7.16	7.16	2.91	6.66	6.66	3.21
		30°C	8.92	8.92	2.12	8.66	8.66	2.29	8.40	8.40	2.49	8.13	8.13	2.70	7.53	7.53	2.93	7.05	7.05	3.24
	19°C	24°C	9.45	5.74	2.14	9.12	5.59	2.31	8.79	5.44	2.51	8.44	5.29	2.72	7.76	4.93	2.95	7.17	4.64	3.25
		27°C	9.46	6.56	2.14	9.13	6.41	2.31	8.79	6.27	2.51	8.45	6.12	2.72	7.76	5.72	2.95	7.18	5.42	3.25
		30°C	9.47	8.10	2.14	9.15	7.93	2.32	8.82	7.75	2.51	8.49	7.56	2.72	7.82	7.07	2.95	7.25	6.69	3.26
		33°C	9.59	9.59	2.14	9.27	9.27	2.32	8.97	8.97	2.52	8.67	8.67	2.73	8.02	8.02	2.97	7.50	7.50	3.28
	22°C	27°C	10.40	5.61	2.18	10.04	5.48	2.36	9.67	5.34	2.56	9.30	5.19	2.77	8.55	4.84	3.01	7.91	4.56	3.31
		30°C	10.40	6.84	2.18	10.04	6.70	2.36	9.68	6.54	2.56	9.30	6.39	2.77	8.55	5.98	3.01	7.92	5.67	3.31
		33°C	10.41	7.99	2.18	10.05	7.84	2.36	9.68	7.68	2.56	9.30	7.52	2.77	8.56	7.06	3.01	7.94	6.71	3.32
		36°C	10.44	9.06	2.18	10.10	8.88	2.36	9.75	8.69	2.56	9.39	8.50	2.78	8.66	7.97	3.02	8.05	7.56	3.33
860	16°C	21°C	8.92	6.41	2.12	8.60	6.24	2.30	8.27	6.08	2.49	7.93	5.91	2.70	7.28	5.50	2.92	6.71	5.18	3.22
		24°C	8.94	7.78	2.12	8.62	7.60	2.30	8.30	7.41	2.49	7.96	7.23	2.70	7.32	6.74	2.93	6.76	6.36	3.23
		27°C	9.05	8.83	2.13	8.75	8.63	2.30	8.45	8.41	2.50	8.14	8.14	2.71	7.52	7.52	2.94	7.00	7.00	3.25
		30°C	9.43	9.43	2.14	9.16	9.16	2.32	8.88	8.88	2.52	8.59	8.59	2.74	7.96	7.96	2.97	7.44	7.44	3.28
	19°C	24°C	9.82	6.06	2.16	9.47	5.91	2.34	9.12	5.76	2.53	8.75	5.60	2.74	8.04	5.22	2.98	7.42	4.92	3.28
		27°C	9.84	6.98	2.16	9.49	6.83	2.34	9.14	6.67	2.53	8.77	6.52	2.75	8.06	6.09	2.98	7.45	5.77	3.28
		30°C	9.89	8.61	2.16	9.54	8.43	2.34	9.20	8.24	2.54	8.85	8.04	2.75	8.15	7.51	2.98	7.56	7.10	3.29
		33°C	10.05	10.05	2.17	9.75	9.75	2.35	9.44	9.44	2.55	9.12	9.12	2.77	8.45	8.45	3.01	7.90	7.90	3.32
	22°C	27°C	10.79	5.94	2.20	10.41	5.80	2.38	10.03	5.65	2.58	9.63	5.50	2.80	8.85	5.13	3.04	8.18	4.84	3.34
		30°C	10.81	7.28	2.20	10.43	7.13	2.38	10.04	6.97	2.58	9.64	6.81	2.80	8.86	6.38	3.04	8.20	6.05	3.34
		33°C	10.83	8.53	2.20	10.45	8.37	2.38	10.07	8.20	2.58	9.67	8.03	2.80	8.90	7.53	3.04	8.25	7.15	3.35
		36°C	10.89	9.65	2.20	10.54	9.47	2.39	10.17	9.27	2.59	9.80	9.05	2.81	9.04	8.47	3.05	8.43	7.99	3.37
1030	16°C	21°C	9.25	6.69	2.14	8.91	6.52	2.32	8.57	6.35	2.51	8.21	6.17	2.72	7.53	5.74	2.95	6.94	5.41	3.25
		24°C	9.30	8.13	2.14	8.96	7.93	2.32	8.62	7.74	2.51	8.27	7.54	2.72	7.60	7.03	2.95	7.02	6.63	3.25
		27°C	9.45	9.31	2.15	9.14	9.07	2.33	8.83	8.82	2.52	8.51	8.51	2.74	7.87	7.87	2.97	7.33	7.33	3.28
		30°C	9.92	9.92	2.17	9.63	9.63	2.35	9.33	9.33	2.55	9.03	9.03	2.77	8.36	8.36	3.01	7.80	7.80	3.32
	19°C	24°C	10.18	6.41	2.18	9.81	6.26	2.36	9.44	6.10	2.55	9.05	5.93	2.77	8.31	5.53	3.00	7.67	5.21	3.31
		27°C	10.21	7.42	2.18	9.84	7.25	2.36	9.47	7.08	2.55	9.09	6.91	2.77	8.35	6.46	3.00	7.71	6.11	3.31
		30°C	10.29	9.13	2.18	9.93	8.93	2.36	9.57	8.73	2.56	9.21	8.51	2.78	8.48	7.95	3.01	7.87	7.49	3.32
		33°C	10.52	10.52	2.19	10.21	10.21	2.38	9.89	9.89	2.58	9.57	9.57	2.80	8.86	8.86	3.04	8.29	8.29	3.36
	22°C	27°C	11.17	6.27	2.22	10.77	6.14	2.40	10.37	5.98	2.60	9.95	5.83	2.82	9.14	5.44	3.06	8.45	5.13	3.37
		30°C	11.19	7.74	2.22	10.79	7.59	2.40	10.39	7.42	2.60	9.97	7.26	2.82	9.16	6.79	3.06	8.47	6.44	3.37
		33°C	11.23	9.07	2.22	10.84	8.91	2.41	10.44	8.72	2.61	10.03	8.53	2.83	9.23	7.99	3.07	8.55	7.59	3.38
		36°C	11.33	10.24	2.23	10.98	10.05	2.41	10.60	9.83	2.62	10.22	9.59	2.84	9.44	8.94	3.08	8.80	8.42	3.40

**Model: FCQN100EXV1- RQ90DXY1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	5.807	5.807	6.573	6.573	6.828	6.828	9.635	9.635	11.167	11.167	11.932	11.932	12.698	12.698
17°C	5.655	5.655	6.419	6.419	6.672	6.672	9.624	9.624	10.993	10.993	11.755	11.755	12.518	12.518
19°C	5.503	5.503	6.265	6.265	6.515	6.515	9.612	9.612	10.819	10.819	11.578	11.578	12.338	12.338
21°C	5.351	5.351	6.110	6.110	6.359	6.359	9.467	9.467	10.645	10.645	11.401	11.401	12.157	12.157
23°C	5.198	5.198	5.954	5.954	6.203	6.203	9.188	9.188	10.471	10.471	11.224	11.224	11.977	11.977
25°C	5.046	5.046	5.797	5.797	6.046	6.046	8.908	8.908	10.297	10.297	11.047	11.047	11.797	11.797
27°C	4.894	4.894	5.641	5.641	5.890	5.890	8.629	8.629	10.123	10.123	10.870	10.870	11.617	11.617

Frost Region

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

**Model: FCQN100EXV1- RQ100DXV1**

**Cooling Mode**

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
740	16°C	21°C	10.75	7.10	2.98	10.37	6.91	3.22	9.98	6.73	3.49	9.58	6.53	3.78	8.80	6.08	4.10	8.12	5.72	4.52
		24°C	10.76	8.50	2.98	10.38	8.30	3.22	10.00	8.11	3.49	9.60	7.91	3.78	8.82	7.39	4.11	8.15	6.97	4.53
		27°C	10.85	9.63	2.98	10.49	9.42	3.23	10.12	9.19	3.50	9.74	8.96	3.79	8.98	8.34	4.12	8.36	7.83	4.54
		30°C	11.18	11.18	3.00	10.86	10.86	3.25	10.53	10.53	3.52	10.19	10.19	3.82	9.45	9.45	4.15	8.84	8.84	4.59
	19°C	24°C	11.85	6.63	3.03	11.44	6.46	3.28	11.02	6.29	3.55	10.58	6.11	3.85	9.73	5.69	4.18	8.99	5.36	4.60
		27°C	11.86	7.58	3.03	11.44	7.41	3.28	11.03	7.24	3.55	10.59	7.06	3.85	9.74	6.61	4.18	9.00	6.26	4.60
		30°C	11.88	9.35	3.03	11.47	9.16	3.28	11.07	8.95	3.55	10.65	8.74	3.85	9.80	8.17	4.18	9.09	7.73	4.61
		33°C	12.02	12.02	3.03	11.63	11.63	3.29	11.25	11.25	3.56	10.87	10.87	3.87	10.06	10.06	4.20	9.40	9.40	4.64
	22°C	27°C	13.04	6.49	3.08	12.59	6.33	3.34	12.13	6.17	3.62	11.66	6.00	3.92	10.72	5.59	4.26	9.92	5.27	4.69
		30°C	13.05	7.90	3.08	12.60	7.73	3.34	12.13	7.56	3.62	11.66	7.38	3.92	10.72	6.91	4.26	9.93	6.55	4.69
		33°C	13.05	9.23	3.08	12.60	9.05	3.34	12.14	8.87	3.62	11.67	8.69	3.93	10.74	8.16	4.26	9.95	7.75	4.69
		36°C	13.10	10.47	3.08	12.66	10.26	3.34	12.22	10.04	3.62	11.78	9.82	3.93	10.86	9.21	4.27	10.10	8.74	4.71
860	16°C	21°C	11.18	7.40	3.01	10.78	7.21	3.25	10.37	7.02	3.52	9.95	6.82	3.82	9.13	6.35	4.14	8.42	5.98	4.56
		24°C	11.22	8.98	3.01	10.81	8.77	3.25	10.41	8.56	3.52	9.99	8.35	3.82	9.18	7.79	4.14	8.48	7.35	4.57
		27°C	11.35	10.20	3.01	10.97	9.97	3.26	10.59	9.71	3.53	10.21	9.42	3.83	9.43	8.75	4.16	8.78	8.19	4.59
		30°C	11.83	11.83	3.03	11.48	11.48	3.29	11.13	11.13	3.56	10.77	10.77	3.87	9.98	9.98	4.21	9.33	9.33	4.64
	19°C	24°C	12.32	7.00	3.05	11.88	6.83	3.31	11.44	6.65	3.58	10.98	6.47	3.88	10.08	6.03	4.21	9.31	5.68	4.64
		27°C	12.34	8.07	3.06	11.90	7.89	3.31	11.46	7.71	3.58	11.00	7.53	3.89	10.10	7.04	4.21	9.34	6.66	4.64
		30°C	12.40	9.95	3.06	11.97	9.73	3.31	11.54	9.52	3.59	11.10	9.28	3.89	10.22	8.68	4.22	9.48	8.20	4.66
		33°C	12.61	12.61	3.07	12.22	12.22	3.33	11.83	11.83	3.61	11.44	11.44	3.92	10.60	10.60	4.26	9.91	9.91	4.70
	22°C	27°C	13.54	6.86	3.11	13.06	6.70	3.37	12.57	6.53	3.65	12.07	6.35	3.96	11.10	5.92	4.30	10.26	5.59	4.73
		30°C	13.55	8.41	3.11	13.08	8.24	3.37	12.59	8.05	3.65	12.09	7.87	3.96	11.11	7.37	4.30	10.28	6.99	4.73
		33°C	13.58	9.86	3.11	13.11	9.67	3.37	12.62	9.47	3.66	12.13	9.27	3.97	11.16	8.70	4.30	10.34	8.26	4.74
		36°C	13.66	11.14	3.12	13.22	10.93	3.38	12.76	10.71	3.67	12.29	10.46	3.98	11.34	9.79	4.32	10.58	9.23	4.76
1030	16°C	21°C	11.60	7.72	3.03	11.17	7.53	3.28	10.74	7.33	3.55	10.30	7.12	3.85	9.45	6.64	4.17	8.71	6.25	4.60
		24°C	11.66	9.39	3.03	11.23	9.16	3.28	10.81	8.94	3.55	10.38	8.70	3.85	9.53	8.12	4.18	8.80	7.66	4.60
		27°C	11.85	10.76	3.04	11.46	10.48	3.29	11.07	10.19	3.57	10.67	9.87	3.87	9.86	9.14	4.20	9.19	8.54	4.64
		30°C	12.44	12.44	3.07	12.08	12.08	3.32	11.70	11.70	3.61	11.32	11.32	3.91	10.48	10.48	4.25	9.79	9.79	4.69
	19°C	24°C	12.77	7.41	3.08	12.30	7.23	3.33	11.84	7.04	3.61	11.35	6.85	3.92	10.42	6.39	4.25	9.62	6.02	4.68
		27°C	12.80	8.57	3.08	12.34	8.38	3.34	11.88	8.18	3.61	11.40	7.98	3.92	10.47	7.46	4.25	9.67	7.06	4.68
		30°C	12.91	10.55	3.09	12.45	10.32	3.34	12.01	10.08	3.62	11.55	9.83	3.93	10.63	9.18	4.26	9.87	8.65	4.70
		33°C	13.19	13.19	3.10	12.80	12.80	3.36	12.41	12.41	3.65	12.00	12.00	3.96	11.12	11.12	4.30	10.40	10.40	4.75
	22°C	27°C	14.01	7.25	3.14	13.51	7.09	3.40	13.00	6.91	3.68	12.48	6.73	3.99	11.46	6.28	4.33	10.59	5.93	4.77
		30°C	14.04	8.94	3.14	13.54	8.77	3.40	13.03	8.58	3.69	12.50	8.38	4.00	11.49	7.85	4.33	10.63	7.44	4.77
		33°C	14.09	10.47	3.14	13.60	10.29	3.41	13.10	10.07	3.69	12.58	9.85	4.00	11.58	9.23	4.34	10.72	8.76	4.78
		36°C	14.21	11.82	3.15	13.77	11.61	3.42	13.29	11.35	3.70	12.81	11.07	4.02	11.84	10.33	4.36	11.04	9.72	4.81

**Model: FCQN100EXV1- RQ100DXV1**

**Heating Mode**

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	6.860	6.860	7.764	7.764	8.065	8.065	11.381	11.381	13.189	13.189	14.094	14.094	14.998	14.998
17°C	6.680	6.680	7.612	7.612	7.912	7.912	11.367	11.367	13.151	13.151	14.075	14.075	14.999	14.999
19°C	6.500	6.500	7.460	7.460	7.759	7.759	11.354	11.354	13.112	13.112	14.056	14.056	15.001	15.001
21°C	6.320	6.320	7.302	7.302	7.606	7.606	11.284	11.284	13.073	13.073	14.038	14.038	15.003	15.003
23°C	6.140	6.140	7.136	7.136	7.453	7.453	11.158	11.158	13.034	13.034	14.019	14.019	15.004	15.004
25°C	5.960	5.960	6.971	6.971	7.300	7.300	11.032	11.032	12.995	12.995	14.001	14.001	15.006	15.006
27°C	5.781	5.781	6.806	6.806	7.147	7.147	10.906	10.906	12.957	12.957	13.982	13.982	15.007	15.007

Frost Region

**Remark:**

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

**Notes:**

1. Ratings shown are net capacities.
2. ■ shows nominal capacities.
3. Direct interpolation is permissible. Do not extrapolate.
4. Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

Performance Data

Model: FCQN125EXV1- RQ125DXY1

Cooling Mode

AFR (CFM)	EWB	EDB	Outdoor temperature																	
			19°C			25°C			30°C			35°C			40°C			46°C		
			TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI	TC	SC	PI
930	16°C	21°C	11.88	8.18	3.34	11.46	7.97	3.61	11.03	7.75	3.91	10.59	7.53	4.24	9.73	7.01	4.60	8.98	6.59	5.07
		24°C	11.90	9.80	3.34	11.47	9.57	3.61	11.05	9.35	3.91	10.61	9.12	4.24	9.75	8.52	4.60	9.01	8.04	5.07
		27°C	11.99	11.11	3.34	11.59	10.86	3.61	11.18	10.60	3.92	10.76	10.33	4.25	9.93	9.61	4.61	9.24	9.03	5.09
		30°C	12.36	12.36	3.36	12.00	12.00	3.64	11.64	11.64	3.94	11.27	11.27	4.28	10.44	10.44	4.65	9.77	9.77	5.14
	19°C	24°C	13.11	7.64	3.39	12.65	7.45	3.67	12.18	7.25	3.97	11.70	7.04	4.31	10.75	6.56	4.68	9.94	6.18	5.15
		27°C	13.11	8.74	3.39	12.65	8.54	3.67	12.19	8.35	3.98	11.71	8.15	4.31	10.76	7.62	4.68	9.95	7.22	5.16
		30°C	13.13	10.79	3.39	12.68	10.56	3.67	12.23	10.32	3.98	11.77	10.07	4.32	10.84	9.42	4.68	10.05	8.92	5.16
		33°C	13.29	13.29	3.40	12.86	12.86	3.68	12.44	12.44	3.99	12.02	12.02	4.33	11.12	11.12	4.71	10.39	10.39	5.20
	22°C	27°C	14.42	7.48	3.45	13.92	7.30	3.74	13.41	7.11	4.05	12.89	6.92	4.39	11.85	6.45	4.77	10.97	6.08	5.25
		30°C	14.42	9.11	3.45	13.92	8.92	3.74	13.41	8.72	4.05	12.89	8.51	4.40	11.85	7.96	4.77	10.97	7.55	5.25
		33°C	14.43	10.64	3.45	13.93	10.44	3.74	13.42	10.23	4.05	12.90	10.02	4.40	11.87	9.41	4.77	11.00	8.94	5.26
		36°C	14.48	12.07	3.45	14.00	11.83	3.74	13.51	11.58	4.06	13.02	11.32	4.40	12.01	10.62	4.78	11.16	10.07	5.27
1030	16°C	21°C	12.36	8.53	3.37	11.91	8.31	3.64	11.46	8.09	3.94	10.99	7.86	4.27	10.09	7.32	4.63	9.31	6.89	5.11
		24°C	12.40	10.36	3.37	11.95	10.11	3.64	11.51	9.87	3.95	11.04	9.62	4.28	10.14	8.98	4.64	9.38	8.47	5.11
		27°C	12.55	11.76	3.38	12.13	11.49	3.65	11.71	11.19	3.96	11.29	10.86	4.29	10.42	10.09	4.66	9.71	9.44	5.14
		30°C	13.07	13.07	3.40	12.69	12.69	3.68	12.31	12.31	3.99	11.91	11.91	4.33	11.03	11.03	4.71	10.31	10.31	5.20
	19°C	24°C	13.62	8.07	3.42	13.13	7.87	3.70	12.64	7.66	4.01	12.13	7.45	4.35	11.14	6.95	4.72	10.29	6.55	5.20
		27°C	13.64	9.30	3.42	13.15	9.09	3.70	12.66	8.89	4.01	12.15	8.68	4.35	11.17	8.11	4.72	10.32	7.68	5.20
		30°C	13.71	11.47	3.43	13.23	11.22	3.71	12.76	10.97	4.02	12.27	10.70	4.36	11.30	10.01	4.73	10.48	9.45	5.22
		33°C	13.94	13.94	3.44	13.51	13.51	3.72	13.08	13.08	4.04	12.65	12.65	4.39	11.71	11.71	4.77	10.95	10.95	5.26
	22°C	27°C	14.96	7.90	3.48	14.44	7.72	3.77	13.90	7.52	4.09	13.35	7.32	4.44	12.26	6.83	4.81	11.34	6.44	5.30
		30°C	14.98	9.70	3.48	14.45	9.50	3.77	13.91	9.29	4.09	13.36	9.07	4.44	12.28	8.49	4.81	11.36	8.06	5.30
		33°C	15.01	11.36	3.49	14.49	11.15	3.78	13.95	10.92	4.10	13.41	10.69	4.44	12.33	10.02	4.82	11.43	9.52	5.31
		36°C	15.10	12.85	3.49	14.61	12.60	3.79	14.10	12.34	4.10	13.59	12.05	4.45	12.54	11.28	4.83	11.69	10.64	5.33
1200	16°C	21°C	12.82	8.90	3.39	12.35	8.68	3.67	11.87	8.45	3.97	11.38	8.21	4.31	10.44	7.65	4.67	9.62	7.20	5.15
		24°C	12.89	10.82	3.40	12.42	10.56	3.67	11.95	10.30	3.98	11.47	10.03	4.31	10.53	9.36	4.68	9.73	8.83	5.16
		27°C	13.09	12.40	3.41	12.67	12.08	3.69	12.24	11.74	4.00	11.80	11.38	4.34	10.90	10.54	4.71	10.16	9.84	5.20
		30°C	13.75	13.75	3.44	13.35	13.35	3.72	12.94	12.94	4.04	12.51	12.51	4.38	11.58	11.58	4.76	10.82	10.82	5.26
	19°C	24°C	14.11	8.54	3.45	13.60	8.33	3.73	13.08	8.12	4.04	12.55	7.90	4.39	11.52	7.36	4.76	10.63	6.94	5.24
		27°C	14.15	9.88	3.45	13.64	9.65	3.74	13.13	9.43	4.05	12.60	9.20	4.39	11.57	8.60	4.76	10.69	8.14	5.25
		30°C	14.27	12.16	3.46	13.76	11.89	3.74	13.27	11.62	4.06	12.76	11.33	4.40	11.75	10.58	4.77	10.91	9.98	5.26
		33°C	14.58	14.58	3.47	14.15	14.15	3.77	13.71	13.71	4.09	13.26	13.26	4.44	12.29	12.29	4.82	11.49	11.49	5.32
	22°C	27°C	15.48	8.35	3.51	14.93	8.17	3.81	14.37	7.97	4.13	13.79	7.76	4.47	12.67	7.24	4.85	11.71	6.84	5.34
		30°C	15.51	10.30	3.52	14.96	10.10	3.81	14.40	9.88	4.13	13.82	9.66	4.48	12.70	9.05	4.85	11.74	8.58	5.35
		33°C	15.57	12.07	3.52	15.03	11.86	3.81	14.48	11.61	4.13	13.91	11.35	4.48	12.80	10.64	4.86	11.85	10.10	5.36
		36°C	15.71	13.63	3.53	15.21	13.38	3.82	14.69	13.09	4.15	14.16	12.76	4.50	13.08	11.90	4.89	12.20	11.21	5.39

Model: FCQN125EXV1- RQ125DXY1

Heating Mode

ID DB	Outdoor WB													
	-9°C		-6°C		-5°C		6°C		12°C		15°C		18°C	
	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC	TC	SC
15°C	8.209	8.209	9.291	9.291	9.651	9.651	13.619	13.619	15.783	15.783	16.865	16.865	17.947	17.947
17°C	7.993	7.993	9.403	9.403	9.434	9.434	13.603	13.603	15.559	15.559	16.639	16.639	17.720	17.720
19°C	7.778	7.778	9.515	9.515	9.217	9.217	13.587	13.587	15.334	15.334	16.414	16.414	17.493	17.493
21°C	7.563	7.563	9.345	9.345	9.000	9.000	13.394	13.394	15.110	15.110	16.188	16.188	17.266	17.266
23°C	7.348	7.348	8.894	8.894	8.783	8.783	13.025	13.025	14.885	14.885	15.962	15.962	17.039	17.039
25°C	7.133	7.133	8.443	8.443	8.566	8.566	12.657	12.657	14.661	14.661	15.736	15.736	16.811	16.811
27°C	6.917	6.917	7.991	7.991	8.350	8.350	12.288	12.288	14.436	14.436	15.510	15.510	16.584	16.584

Frost Region

Remark:

- AFR: Air flow rate (CFM)
- EWB: Entering Wet Bulb Temp. (°C)
- EDB: Entering Dry Bulb Temp. (°C)
- TC: Total Cooling / Heating Capacity (kW)
- SC: Sensible Cooling / Heating Capacity (kW)
- PI: Power Input (kW)

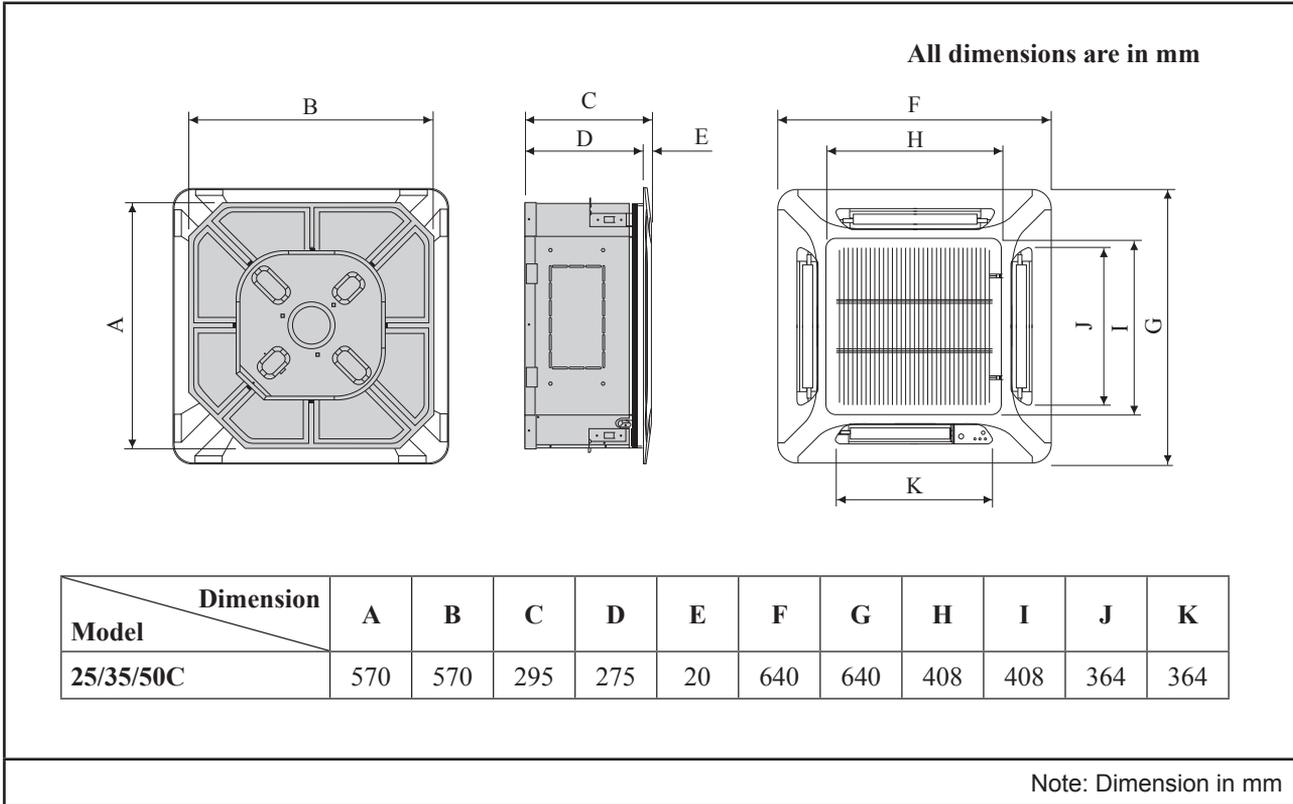
Notes:

- Ratings shown are net capacities.
- shows nominal capacities.
- Direct interpolation is permissible. Do not extrapolate.
- Unit is able to operate at ambient from 19°C to 46°C DB (cooling) / -9°C to 18°C WB (heating) without pressure trip.

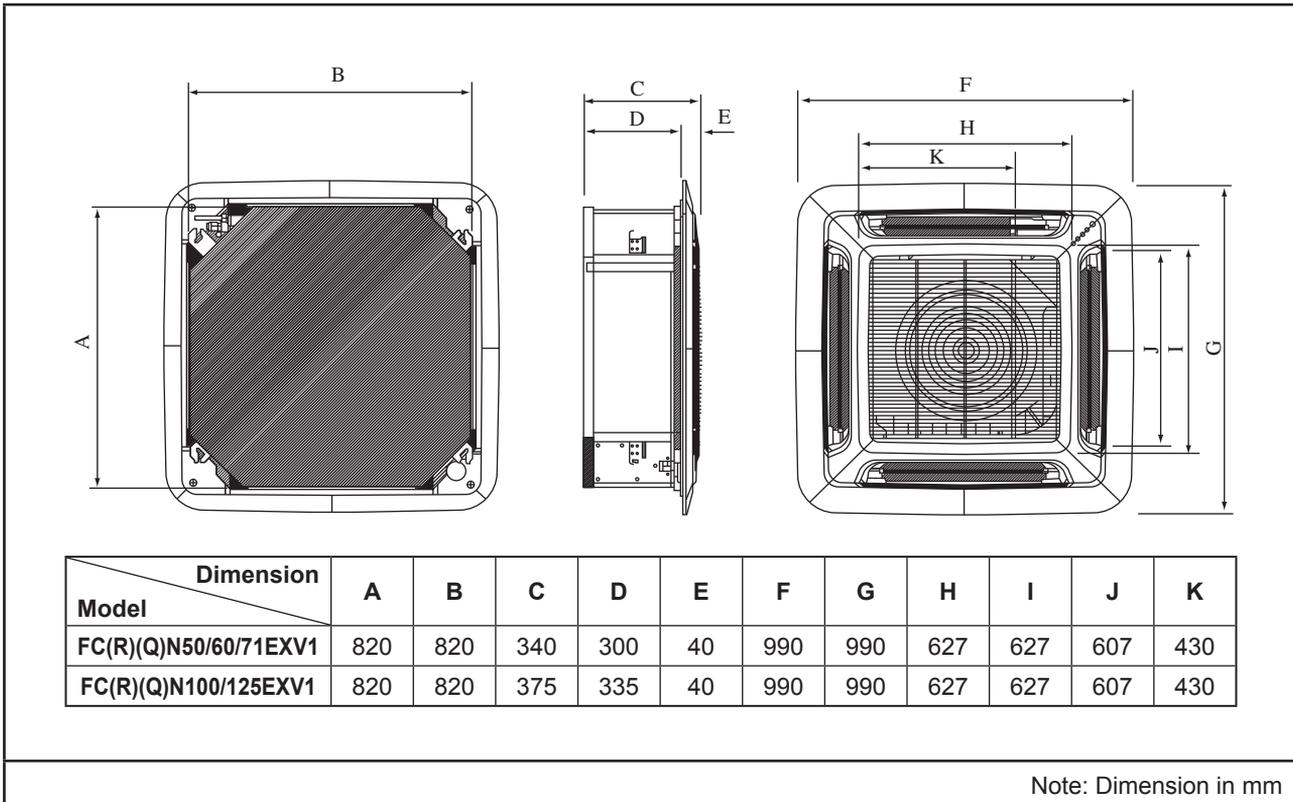
# Outline & Dimension

## Indoor Unit

Model: FF(R)(Q)N25/35/50CXV1

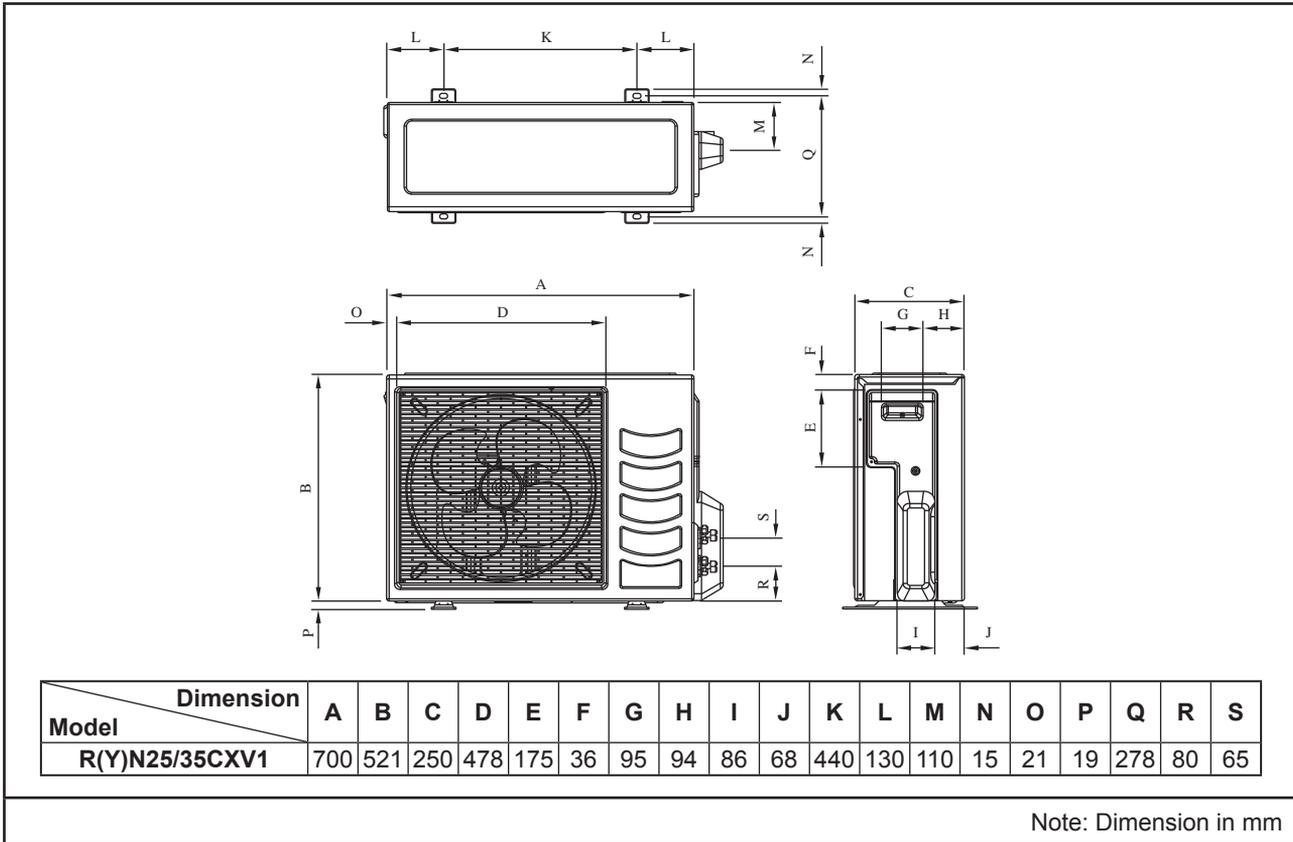


Model: FC(R)(Q)N50/60/71/100/125EXV1

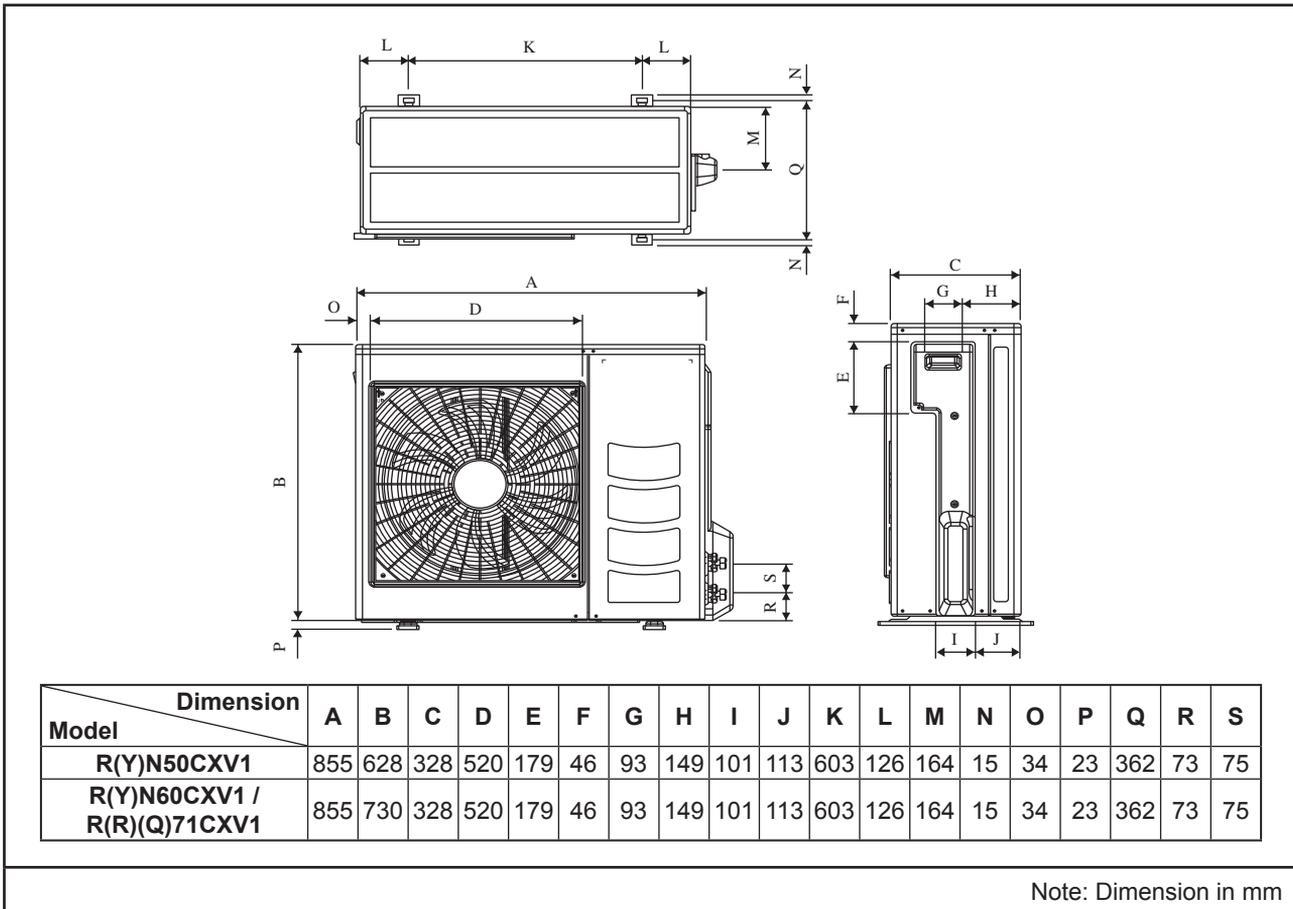


### Outdoor Unit

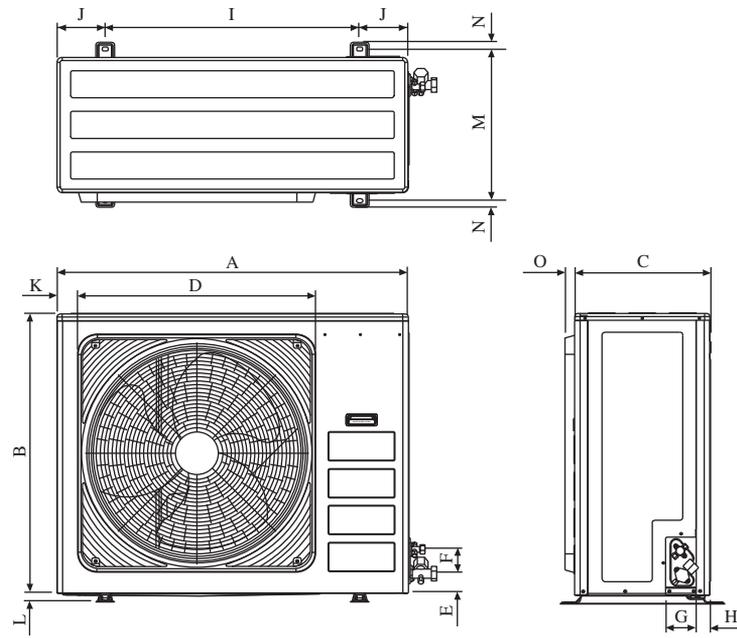
Model: R(Y)N25/35CXV1



Model: R(Y)N50/60CXV1 / R(R)(Q)71CXV1



Model: R(R)(Q)90/100DXV1 / R(R)(Q)100/125DXY1



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Model R(R)(Q)90/100DXV1 / R(R)(Q)100/125DXY1	1030	826	400	410	57	72	90	40	746	142	60	26	448	22	28

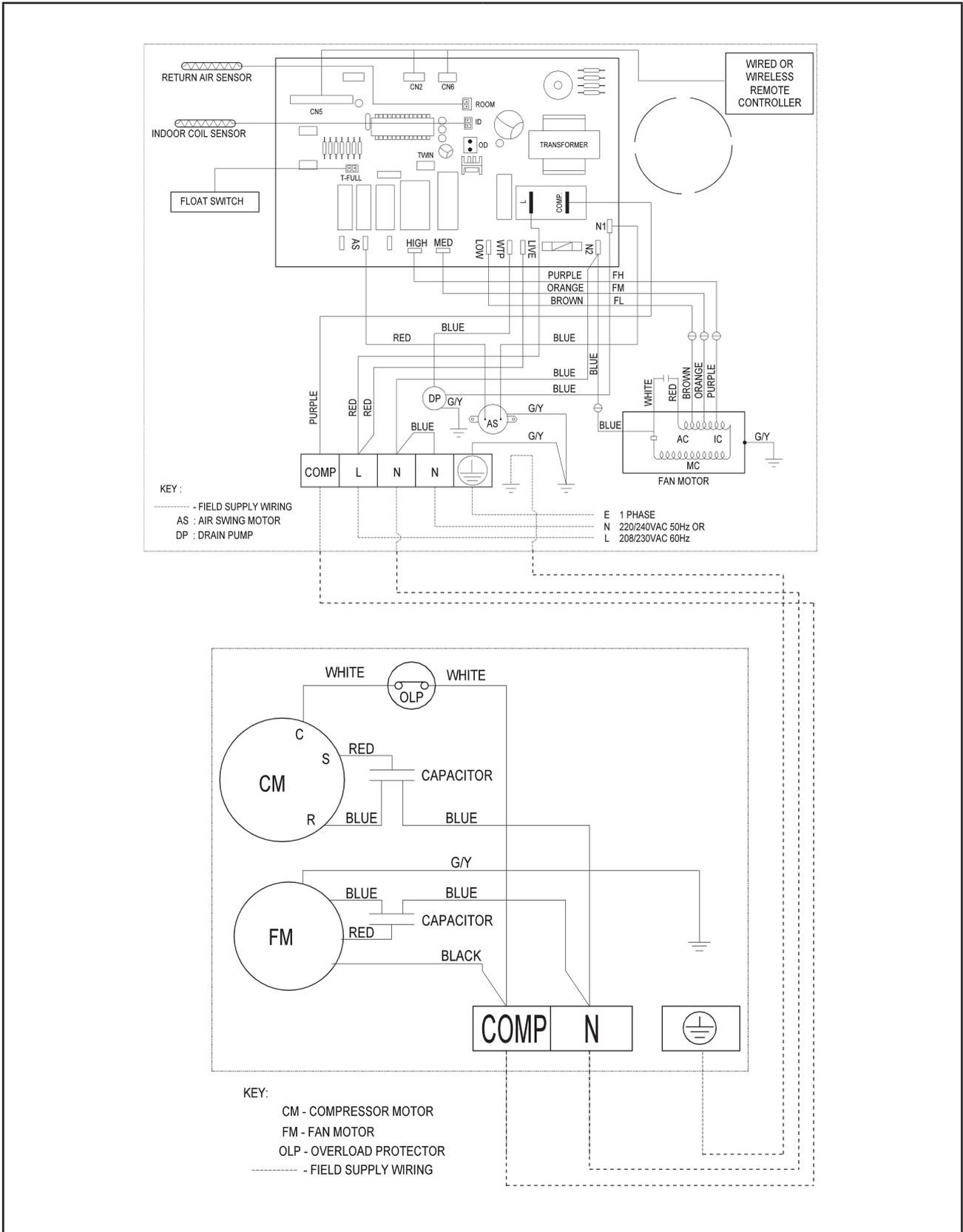
Note: Dimension in mm

# Wiring Diagram

## Cooling Only

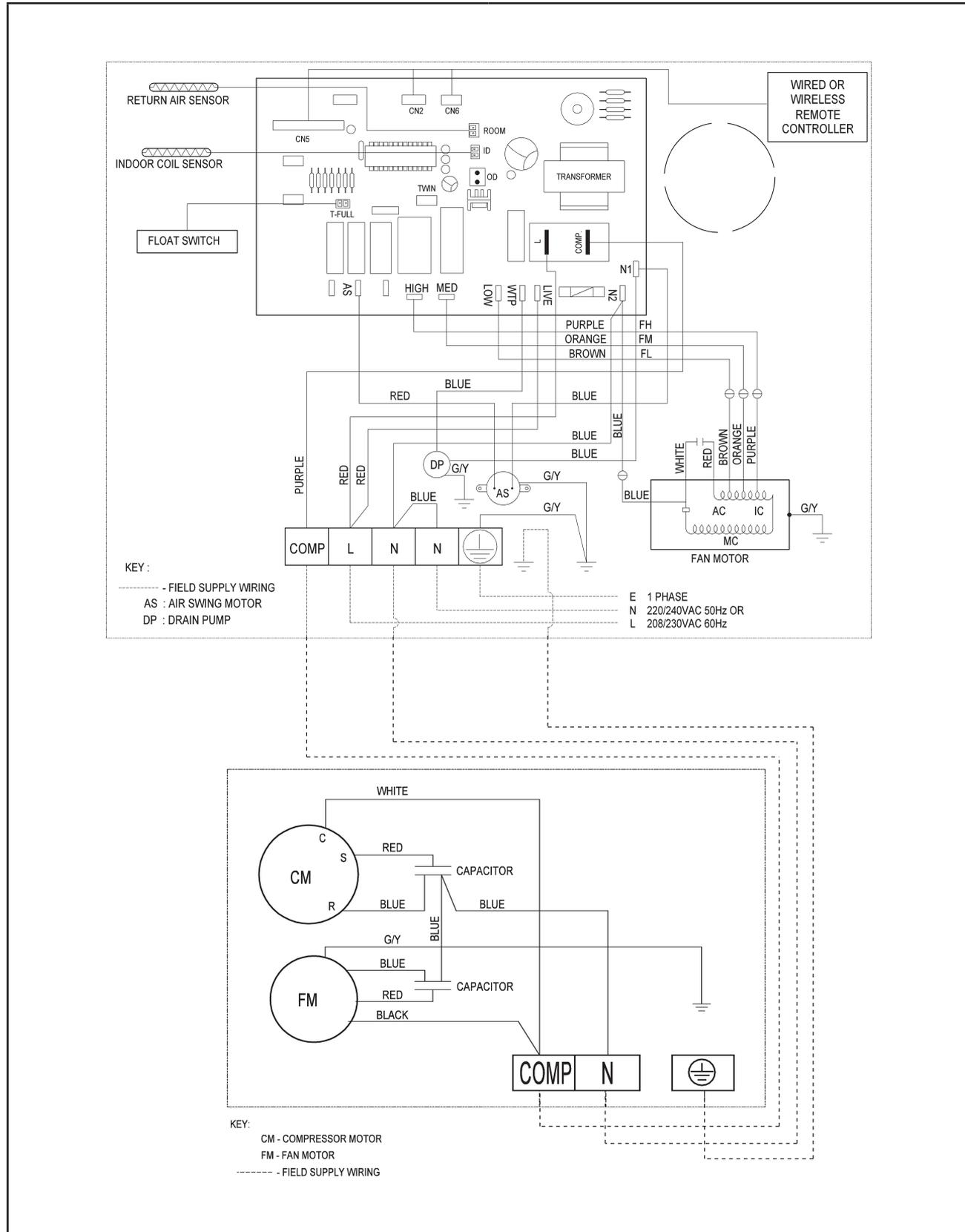
Indoor Unit  
Model: FFRN25/35CXV1

Outdoor Unit  
Model: RN25/35CXV1



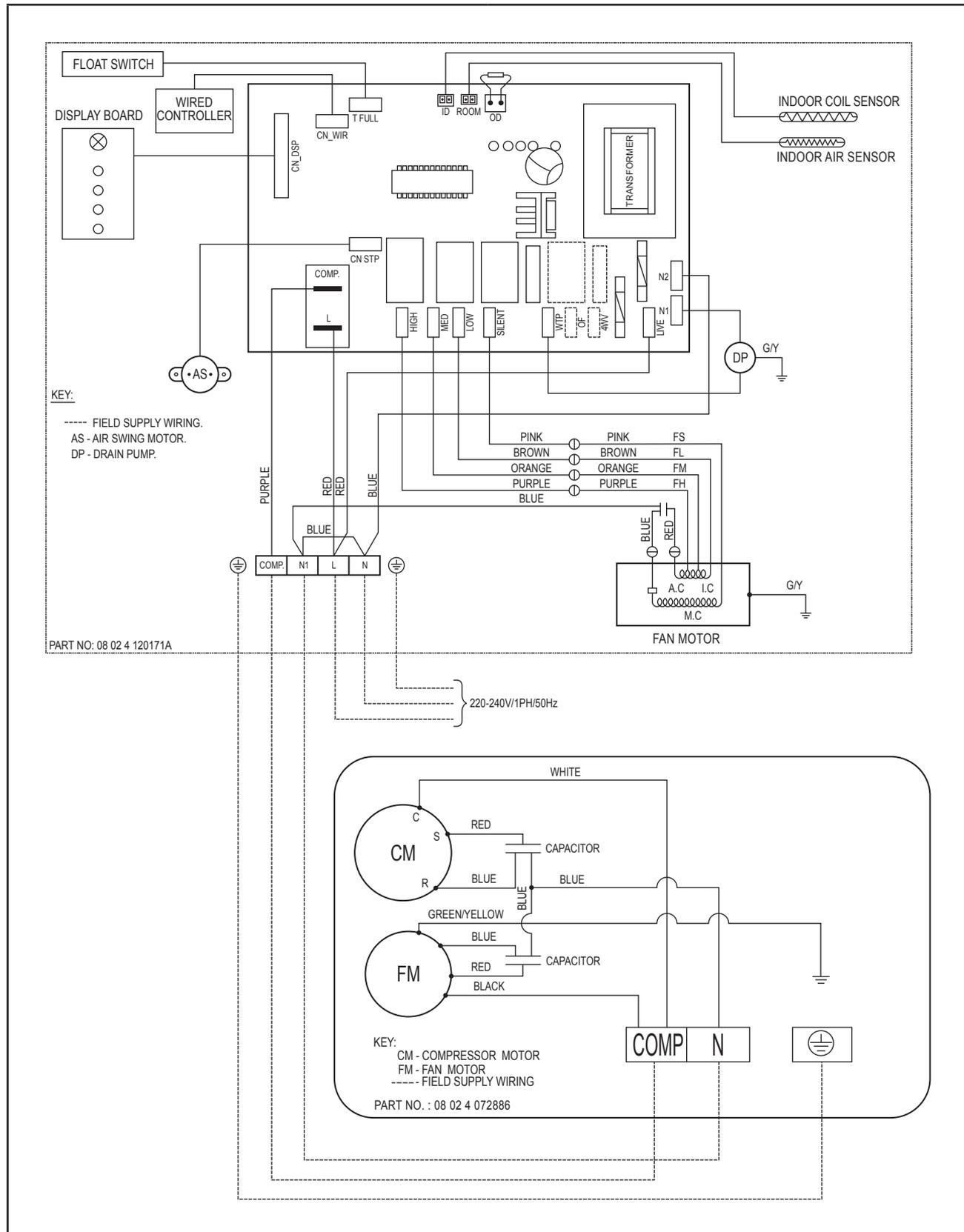
**Indoor Unit**  
Model: FFRN50CXV1

**Outdoor Unit**  
Model: RN50CXV1



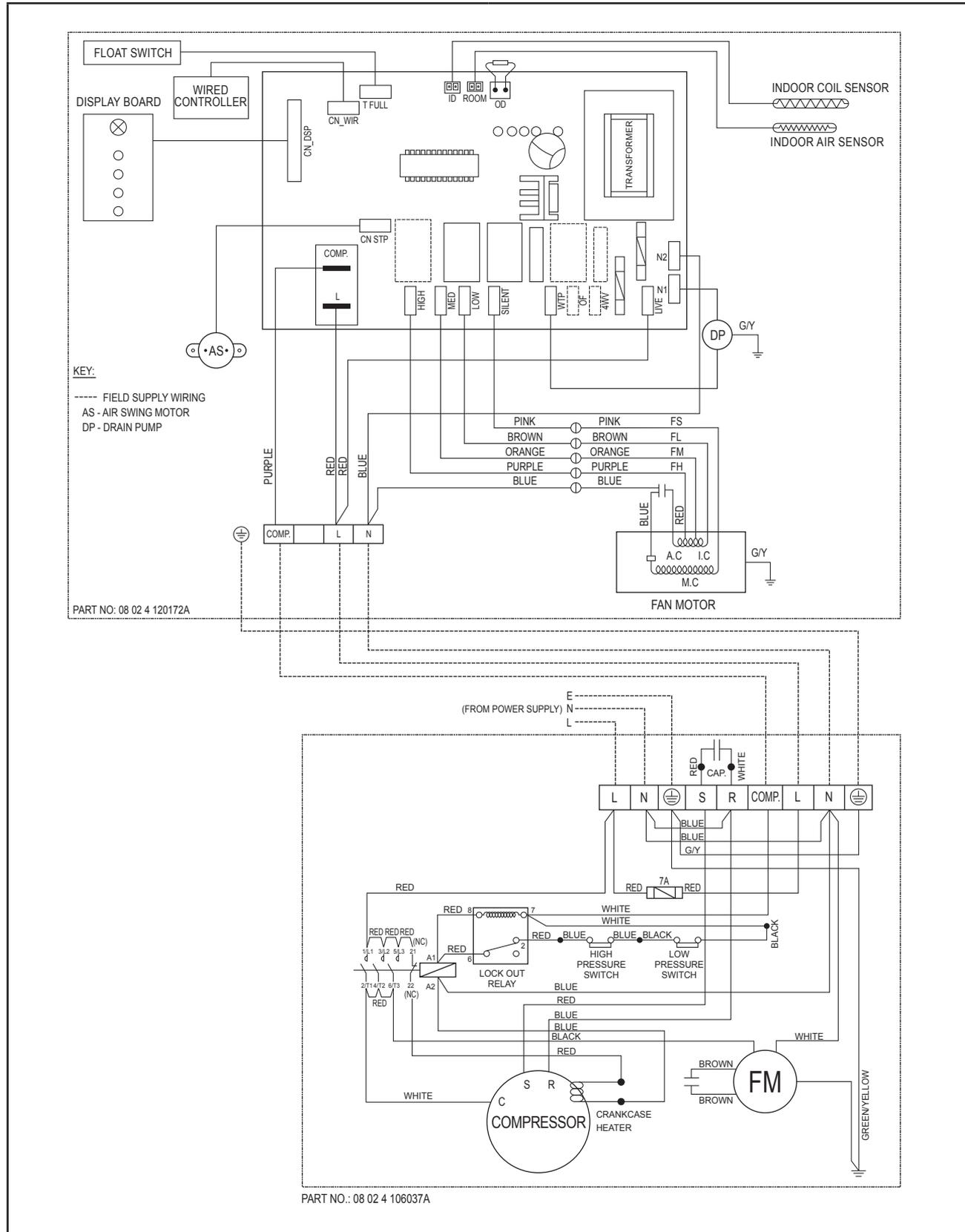
**Indoor Unit**  
Model: FCRN50/60/71EXV1

**Outdoor Unit**  
Model: RN50/60CXV1 / RR71CXV1



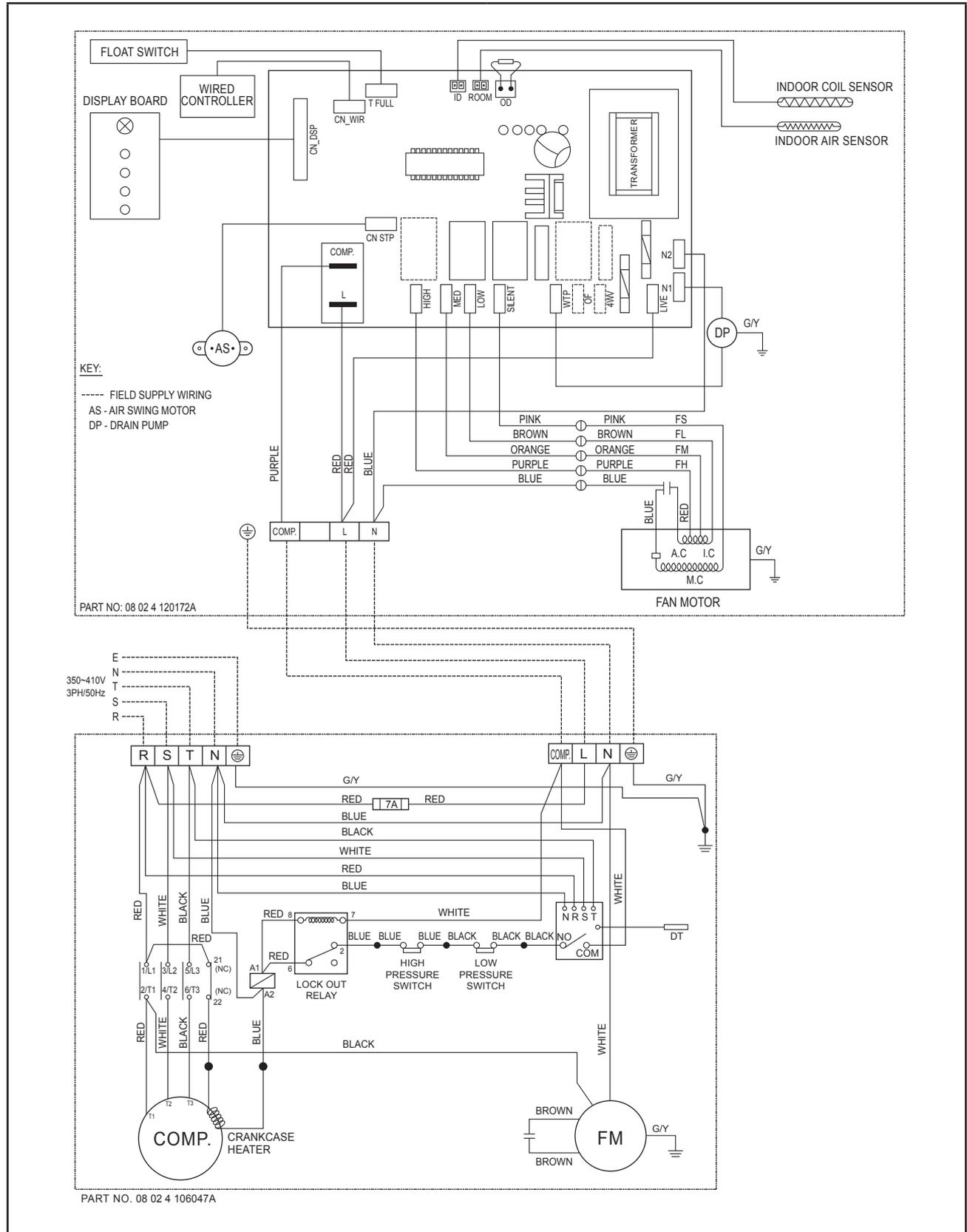
**Indoor Unit**  
Model: FCRN100EXV1

**Outdoor Unit**  
Model: RR90/100DXV1



**Indoor Unit**  
Model: FCRN100/125EXV1

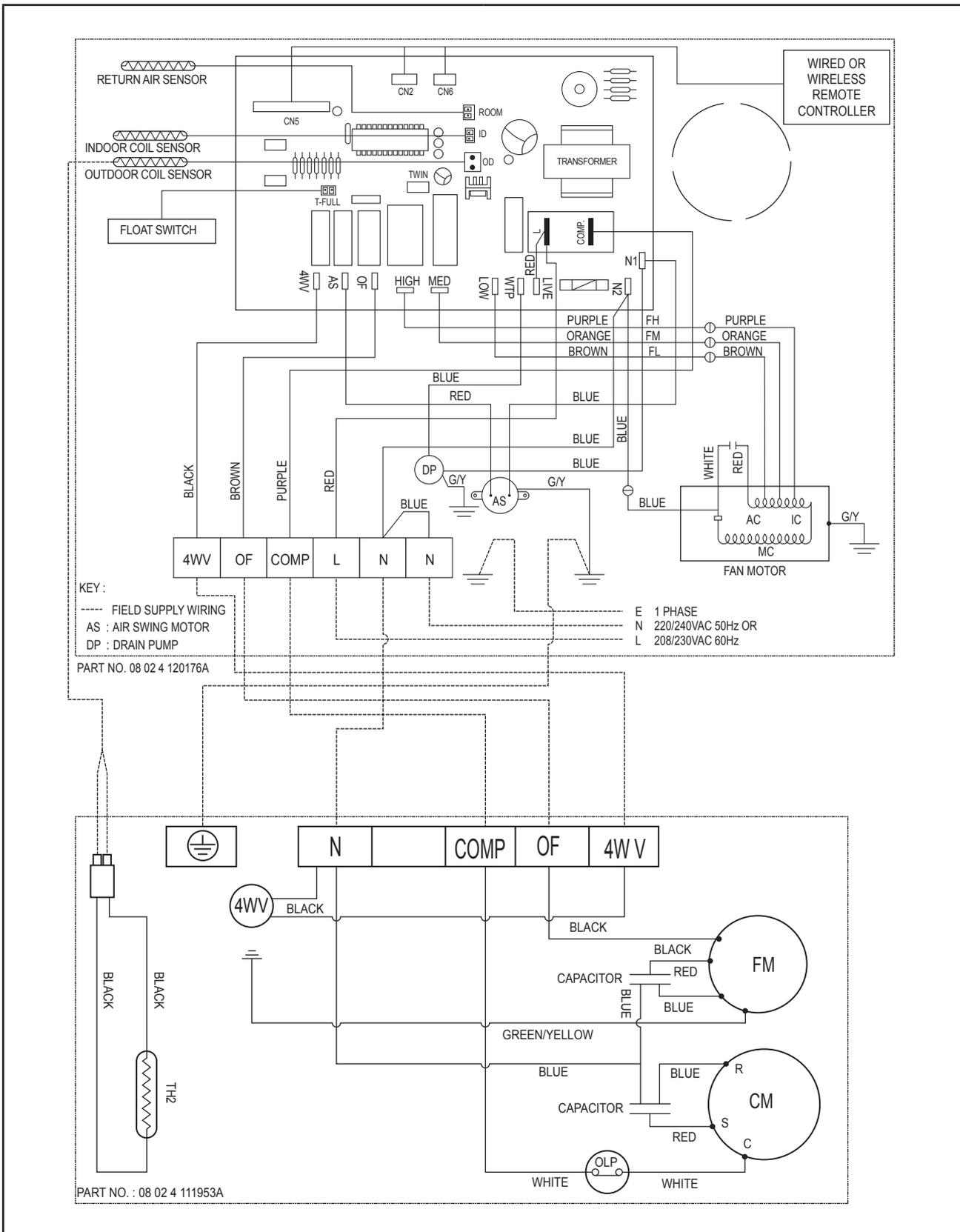
**Outdoor Unit**  
Model: RR100/125DXY1



# Heatpump

**Indoor Unit**  
**Model: FFQN25/35CXV1**

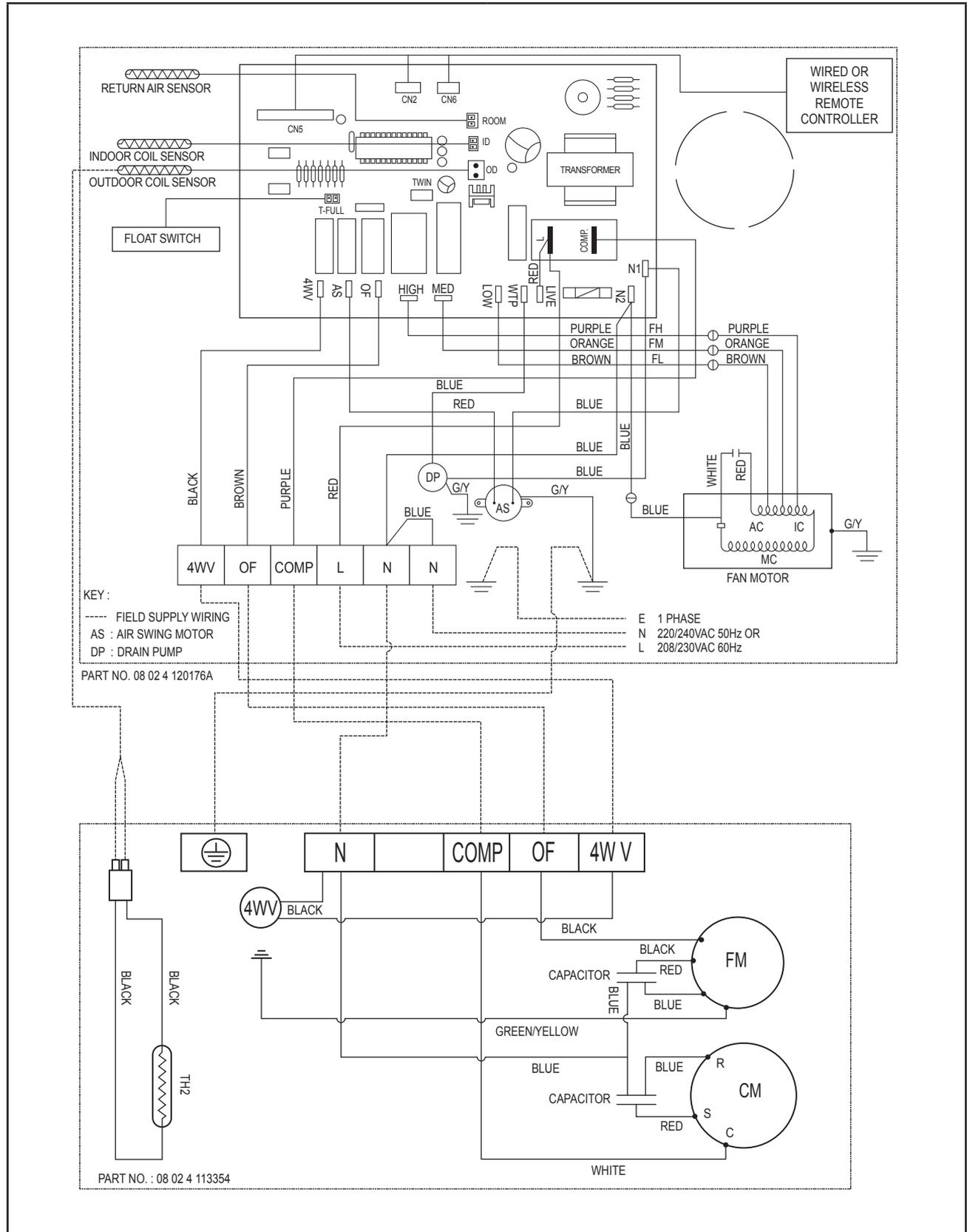
**Outdoor Unit**  
**Model: RYN25/35CXV1**



Wiring Diagram

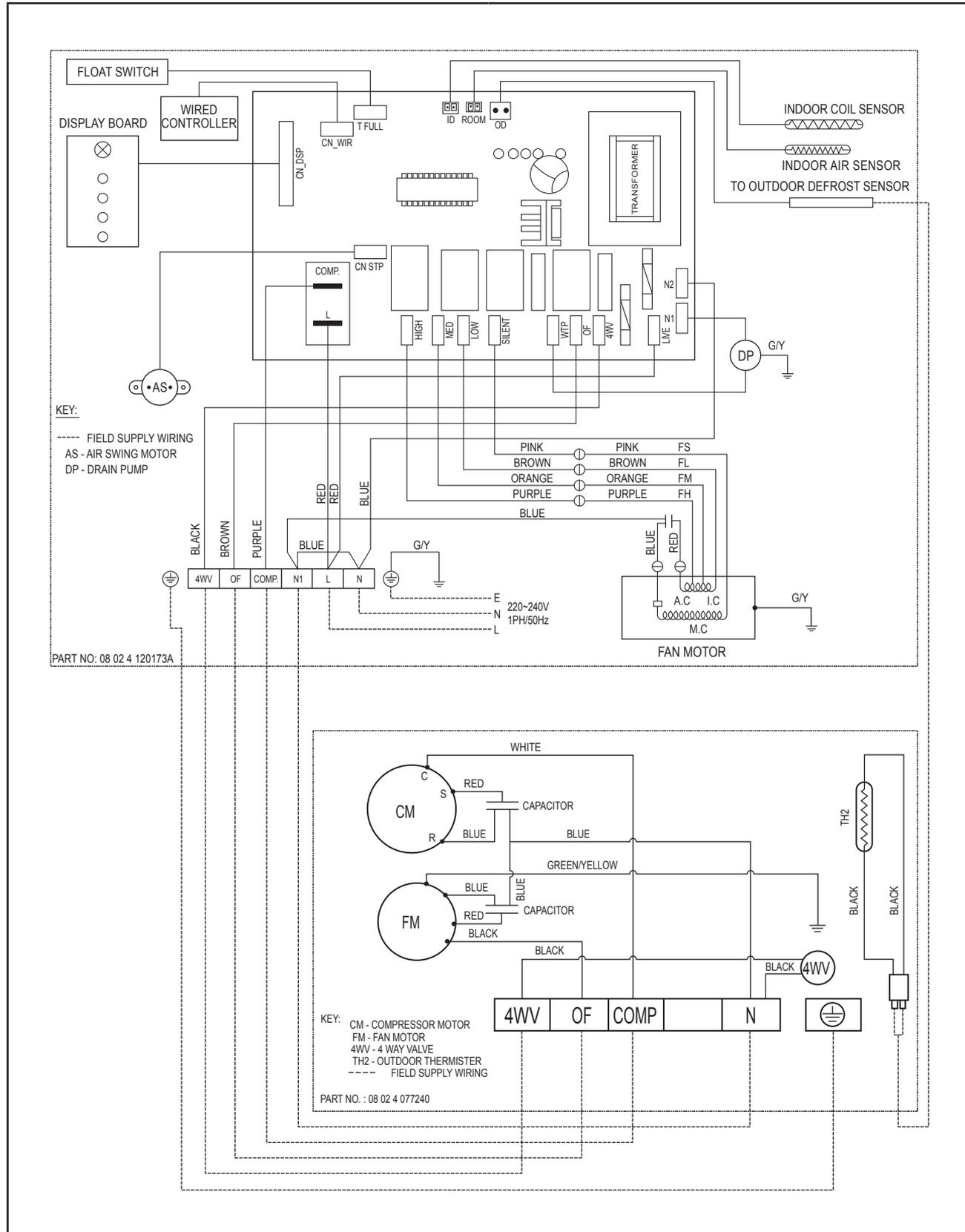
**Indoor Unit**  
**Model: FFQN50CXV1**

**Outdoor Unit**  
**Model: RYN50CXV1**



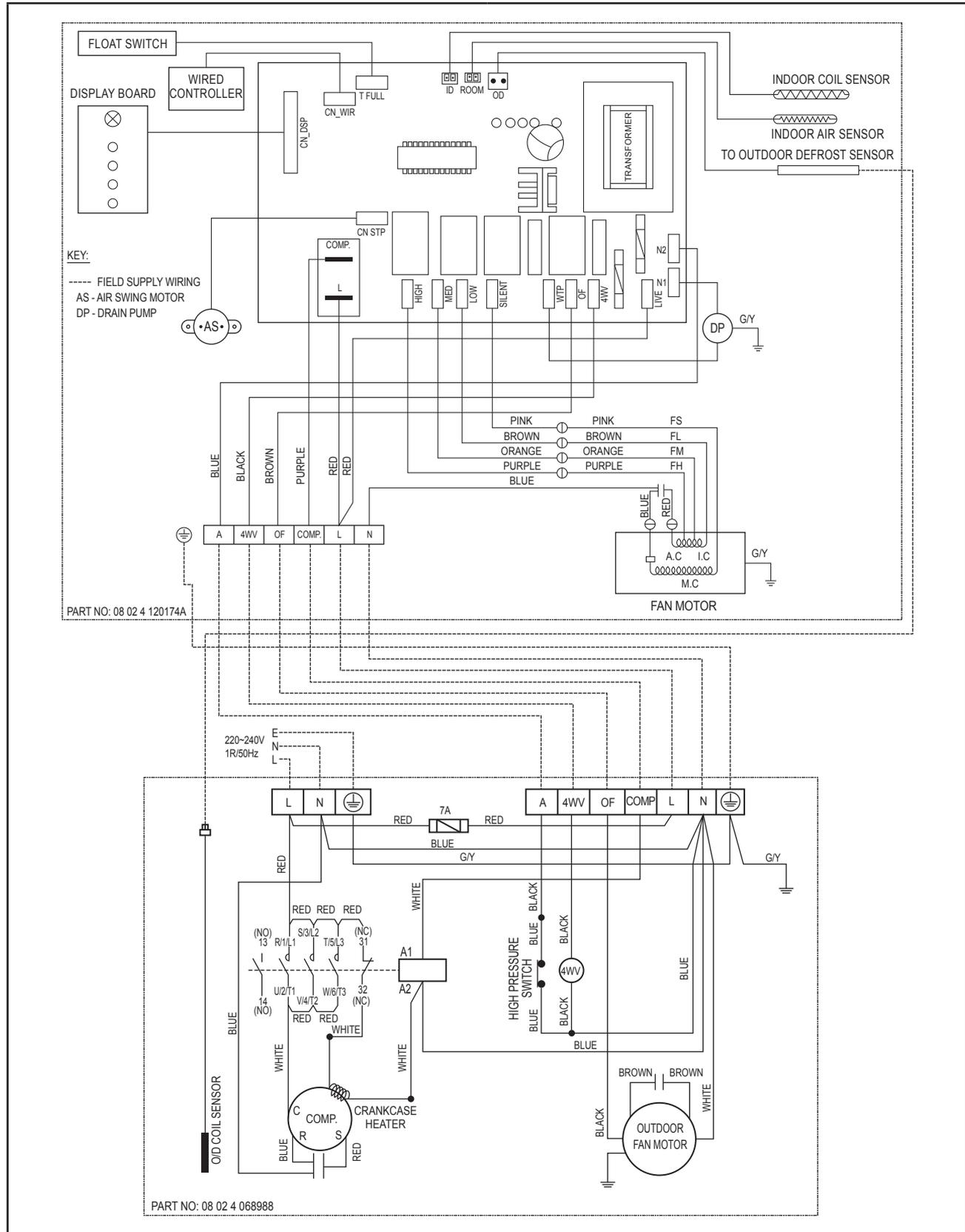
**Indoor Unit**  
Model: FCQN50/60/71EXV1

**Outdoor Unit**  
Model: RYN50/60CXV1 / RQ71CXV1



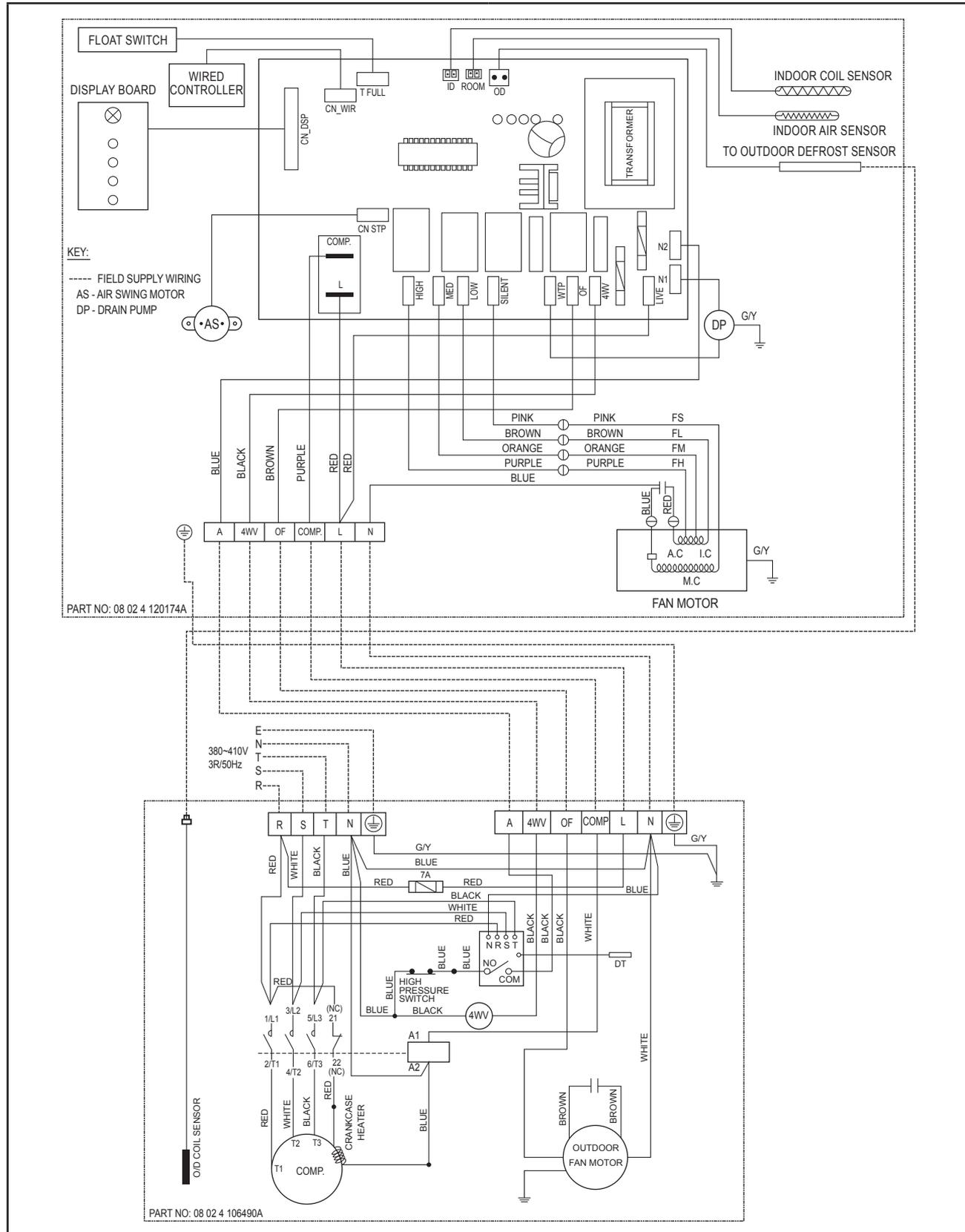
**Indoor Unit**  
Model: FCQN100EXV1

**Outdoor Unit**  
Model: RQ90/100DXV1



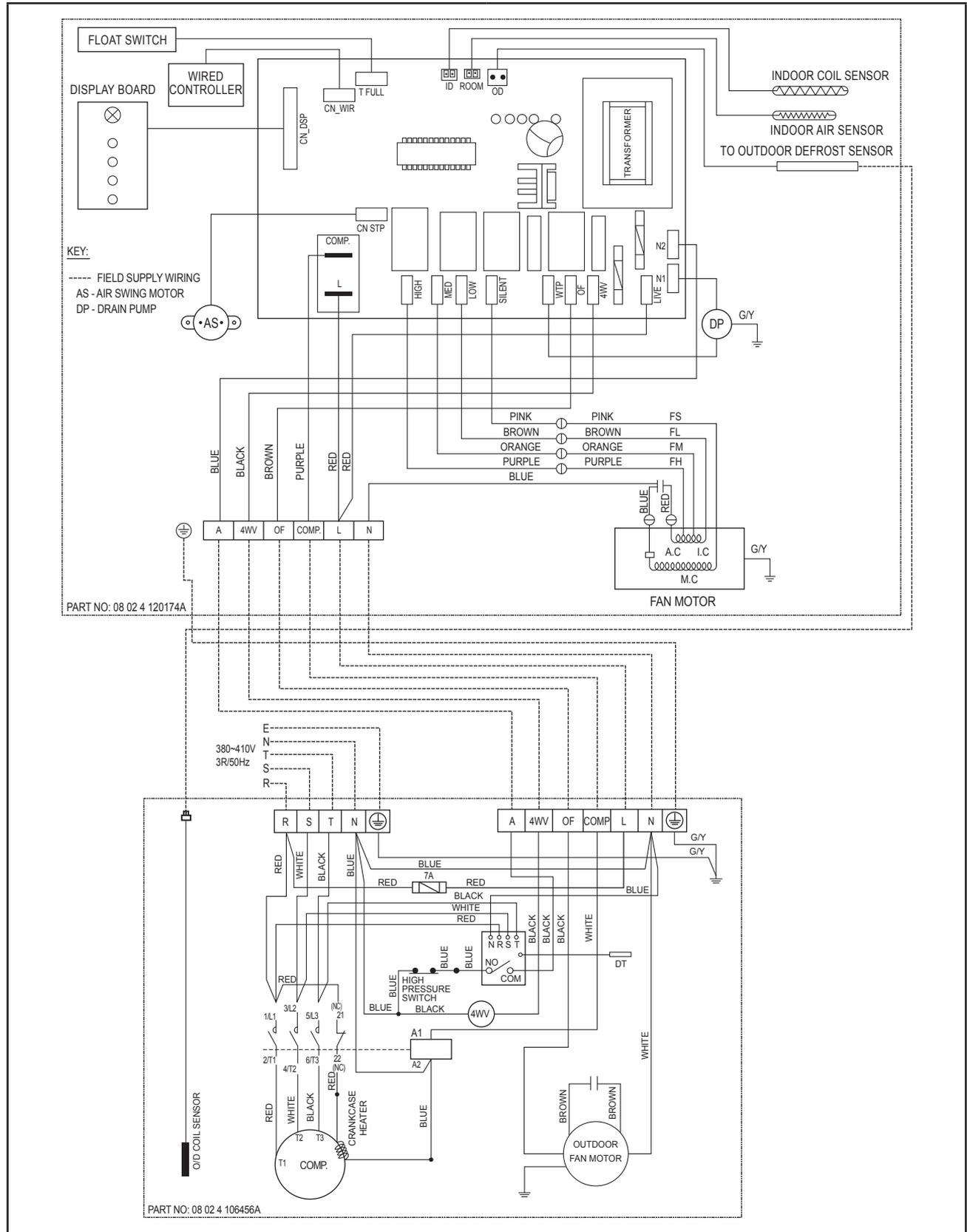
**Indoor Unit**  
Model: FCQN100EXV1

**Outdoor Unit**  
Model: RQ100DXY1



**Indoor Unit**  
Model: FCQN125EXV1

**Outdoor Unit**  
Model: RQ125DXY1



# Service & Maintenance



## Warning

- Disconnect from main supply before servicing the air conditioner.
- The unit is designed to give long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

Components	Maintenance Procedures	Period
Air Filter (Indoor Unit)	<ol style="list-style-type: none"> <li>1. Remove any dust adhering to the filter by using a vacuum cleaner or wash in lukewarm water (below 40°C) with a neutral cleaning detergent.</li> <li>2. Rinse the filter well and dry before placing it back onto the unit.</li> <li>3. Note: Never use gasoline, volatile substances or chemicals to clean the filter.</li> </ol>	At least once every 2 weeks. More frequently if necessary.
Indoor Unit	<ol style="list-style-type: none"> <li>1. Clean any dirt or dust on the grille or panel by wiping it with a soft cloth soaked in lukewarm water (below 40°C) and a neutral detergent solution.</li> <li>2. Note: Never use gasoline, volatile substances or chemicals to clean the indoor unit.</li> </ol>	At least once every 2 weeks. More frequently if necessary.
Condense Drain Pan & Pipe	<ol style="list-style-type: none"> <li>1. Check the cleanliness and clean it if necessary.</li> <li>2. Check the condensate water flow.</li> </ol>	Every 3 months.
Indoor Fan	Check if there is any abnormal noise.	If necessary.
Indoor / Outdoor Coil	<ol style="list-style-type: none"> <li>1. Check and remove the dirt between the fins.</li> <li>2. Check and remove any obstacles which hinder air flow through the indoor or outdoor.</li> </ol>	Every month.
Power Supply	<ol style="list-style-type: none"> <li>1. Check the running current and voltage for indoor and outdoor unit.</li> <li>2. Check the electrical wiring and tighten the wire onto the terminal block if necessary.</li> </ol>	Every 2 months. Every year.
Compressor	No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joint and fitting.	Every 6 months.



## Caution

- Don't touch the metal parts of the indoor unit. It may cause an injury.
- When removing or attaching the front panel, use a robust and stable stool and watch your steps carefully.
- When removing or attaching the front panel, support the panel securely with hand to prevent from it falling.
- For cleansing, do not use hot water above 40°C, benzene, gasoline, thinner, nor other volatile oils, polishing compound, scrubbing brushes, nor other hand stuff.
  - After cleaning, make sure that the front panel is securely fixed.

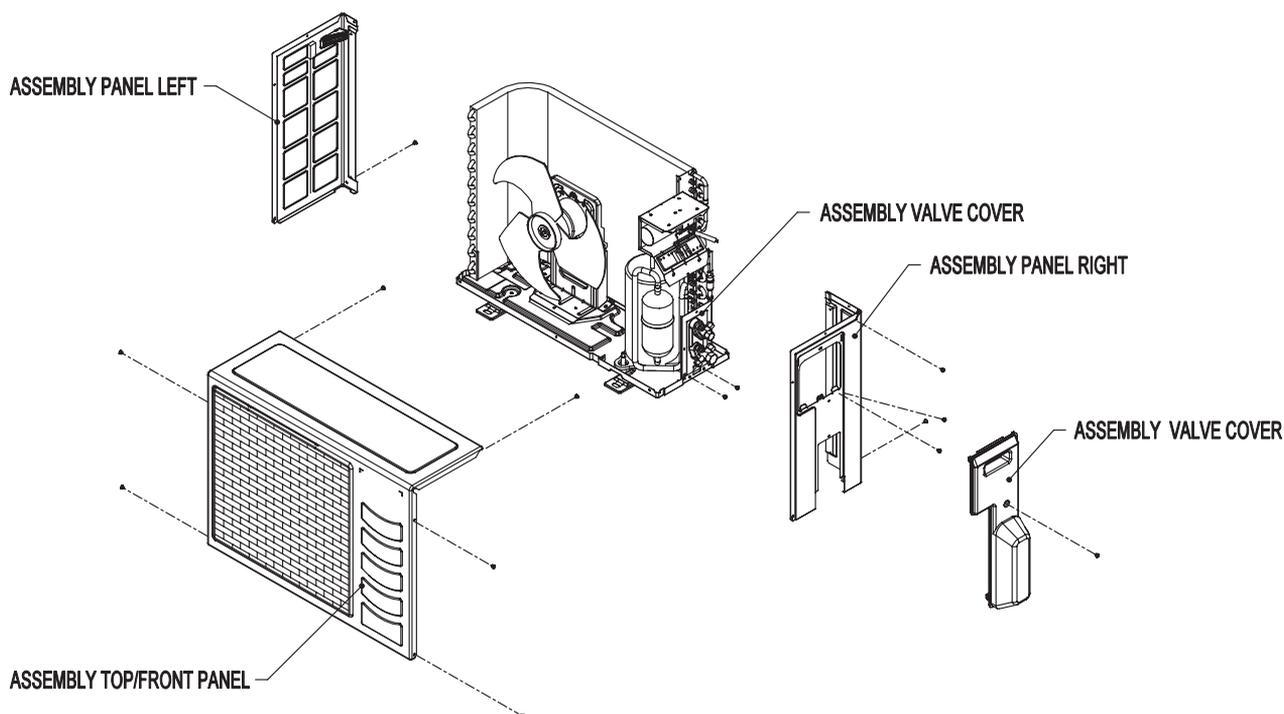
## Pre Start Up Maintenance

(After Extended Shutdown)

- ☒ Inspect thoroughly and clean indoor and outdoor units.
- ☒ Clean or replace air filters.
- ☒ Clean condensates drain line.
- ☒ Clean clogged indoor and outdoor coils.
- ☒ Check fan imbalance before operation.
- ☒ Tighten all wiring connections and panels.
- ☒ Check for refrigerant leakage.

## Outdoor Models

The design of the RN/RYN/RR/RQ-C/D outdoor series allows servicing to be carried out easily. The removal of the top, front and side panels makes almost every part accessible.



Under normal circumstances, these outdoor units only require a check and cleaning of air intake coil surface once every 3 months. However, if a unit is installed in areas subjected to much oil mist and dust, the coils must be regularly cleaned by qualified Air Conditioner Service Technicians to ensure sufficient heat exchange and proper operation. Otherwise, the systems life span may be shortened.



### Caution

- Do not charge **OXYGEN, ACETYLENE OR OTHER FLAMMABLE** and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.
- It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

# Troubleshooting

## Indicator Lights

### LED Indicator Light Display - Cooling Only



### LED Indicator Light Display - Heatpump



### LED Light Diagnostic Table

 GREEN	 ORANGE	 RED	 RED	Error Code	Operation / Faulty Indication	Action
				-	Cooling mode	-
				-	Timer On	-
				-	Sleep mode On	-
				-	Heating mode	-
				-	Auto Mode in cooling operation	-
				-	Auto Mode in heating operation	-
				E1	Room air sensor contact loose / short	Check room sensor connection / change room air sensor
				E2	Indoor coil sensor contact open	Check indoor coil sensor connection / change indoor coil sensor
				E3	Outdoor coil sensor contact open	Check outdoor coil sensor connection / change outdoor coil sensor
				E4	Compressor overload protection / Indoor or Outdoor coil sensor short	If running ampere highly increase, change the compressor. If not, replace the coil sensor.
				E6	Pump fault	Clear the clogging at drain pipe. If pump is not working, change the pump.
				E5	Gas leak	Top up refrigerant / check for leakage

 ON

 BLINKING

## Phase Sequencer

The unit with Scroll Compressor only can rotate in one direction. For this reason, a protective device (phase sequencer) is fitted to prevent incorrect wiring of the electrical phases. When the three phases are not connected correctly, the phase sequencer operates, and the unit will not start.

This device is located in the control box of the outdoor unit.

The following table shows the LED indicator light for phase sequencer under normal operation and fault conditions.

Description	LED	PW (Red)	P_R (Yellow)	P_S (Yellow)	P_T (Yellow)	Actions
Normal Operation		○	●	●	●	-
Reverse Phase		◐	◐	◐	◐	Switch off the unit. Check the 3 phase wiring.
T Phase Missing		◐	●	●	◐	Switch off the unit. Check the 3 phase wiring.
S Phase Missing		◐	●	◐	●	Switch off the unit. Check the 3 phase wiring.
R Phase Missing		●	●	●	●	Switch off the unit. Check the 3 phase wiring.
S & T Phase Missing*		◐	●	◐	◐	Switch off the unit. Check the 3 phase wiring.
Overload*		◐	●	●	●	High discharge temperature. Check refrigerant system.
Sensor Missing*		◐	○	○	○	Switch off the unit. Plug in sensor.

○ ON    ● OFF    ◐ BLINK

Note:

1. “ \* ” indicates additional function for PP01 phase sequencer.
2. When R phase missing, no LED or buzzer will indicate the error, but relay 71 (COMMON) and 81 (NO) will cut off.
3. The unit will check discharge sensor availability only during power up.
4. All errors can only recover through manually reset.

### Error Code / Fault Condition

When a malfunction of the air conditioner unit is detected, immediately switch off the main power supply before proceeding with the following troubleshooting procedures.

The following are common fault conditions and simple troubleshooting tips. If any other fault conditions which are not listed occur, contact your nearest local dealer. DO NOT attempt to troubleshoot the unit by yourself.

No	Fault conditions	Possible causes / corrective actions
1	The air conditioner unit will not resume after power failure.	<ul style="list-style-type: none"> <li>The auto restart function is not functioning. Please turn on the unit with the wireless / wired controller.</li> </ul>
2	The compressor does not operate 3 minutes after the air conditioner unit is started.	<ul style="list-style-type: none"> <li>Protection against frequent starting.</li> <li>Wait for 3 or 4 minutes for the compressor to start operating by itself.</li> </ul>
3	The airflow is too slow or room cannot be cooled sufficiently.	<ul style="list-style-type: none"> <li>The air filter is dirty.</li> <li>The doors and windows are opened.</li> <li>The air suction and discharge of both indoor and outdoor units are clogged or blocked.</li> <li>The regulated temperature or temperature setting is not low enough.</li> </ul>
4	Discharge airflow has bad odor.	<ul style="list-style-type: none"> <li>Cigarettes, smoke particles, perfume and others, which might have adhered onto the coil, may cause odor.</li> <li>Contact your nearest dealer.</li> </ul>
5	Condensation on the front air grille of the indoor unit.	<ul style="list-style-type: none"> <li>This is caused by air humidity after an extended period of operation.</li> <li>The set temperature is too low. Increase the temperature setting and operate the unit at high fan speed.</li> </ul>
6	Water flowing out from the air conditioner.	<ul style="list-style-type: none"> <li>Switch off the unit and contact your nearest dealer. This might be due to tilted installation.</li> </ul>
7	Hissing airflow sound from the air conditioner unit during operation.	<ul style="list-style-type: none"> <li>Liquid refrigerant flowing into the evaporator coil.</li> </ul>
8	The wireless controller display is dim.	<ul style="list-style-type: none"> <li>The batteries are discharged.</li> <li>The batteries are not correctly inserted.</li> <li>The assembly is not good.</li> </ul>
9	Compressor operates continuously.	<ul style="list-style-type: none"> <li>Dirty air filter. Clean the air filter.</li> <li>Temperature setting too low (cooling). Use higher temperature setting.</li> <li>Temperature setting too high (heating). Use lower temperature setting.</li> </ul>
10	No cool air comes out during cooling cycle, or no hot air comes out during heating cycle.	<ul style="list-style-type: none"> <li>Temperature setting too high (cooling). Use lower temperature setting.</li> <li>Temperature setting too low (heating). Use higher temperature setting.</li> </ul>
11	On heating cycle, warm air does not come out.	<ul style="list-style-type: none"> <li>Unit is in defrost mode. Heating operation will resume after defrost cycle ends.</li> </ul>

## Diagnostic Guidelines

By means of pressure readings:

Circuit	Data	Pressure					Probable cause
		Too low	A little low	Normal	A little high	Too high	
High side Low side						<ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul>	<ol style="list-style-type: none"> <li>1. Overcharged with refrigerant.</li> <li>2. Non-condensable gases in refrigerant circuit (e.g. air).</li> <li>3. Obstructed air-intake / discharge.</li> <li>4. Hot air short circuiting in outdoor unit.</li> </ol>
High side Low side	•					•	<ol style="list-style-type: none"> <li>1. Poor compression /no compression (compressor defective)</li> <li>2. Reversing valve leaking.</li> </ol>
High side Low side	•		•				<ol style="list-style-type: none"> <li>1. Undercharged with refrigerant.</li> <li>2. Refrigerant leakage.</li> <li>3. Air filter clogged / dirty (indoor unit).</li> <li>4. Indoor fan locked / seized.</li> <li>5. Defective defrost control, outdoor coil freeze up (heating).</li> <li>6. Outdoor fan locked / seized (heating).</li> </ol>
High side Low side					•	•	<ol style="list-style-type: none"> <li>1. Outdoor fan blocked (cooling).</li> <li>2. Outdoor coil dirty (cooling).</li> <li>3. Indoor fan locked / seized (heating).</li> <li>4. Indoor air filter clogged / dirty (heating).</li> <li>5. Non-condensable gases in refrigerant circuit (e.g. air).</li> </ol>
High side Low side					•	•	<ol style="list-style-type: none"> <li>1. Air intake temperature of indoor unit too high.</li> </ol>

