

TECHNICAL MANUAL

Split Unit Air Conditioner Ceiling Concealed Series

FDMRN-C, FDMQN-C Series

— Cooling only & Heatpump [50Hz] —

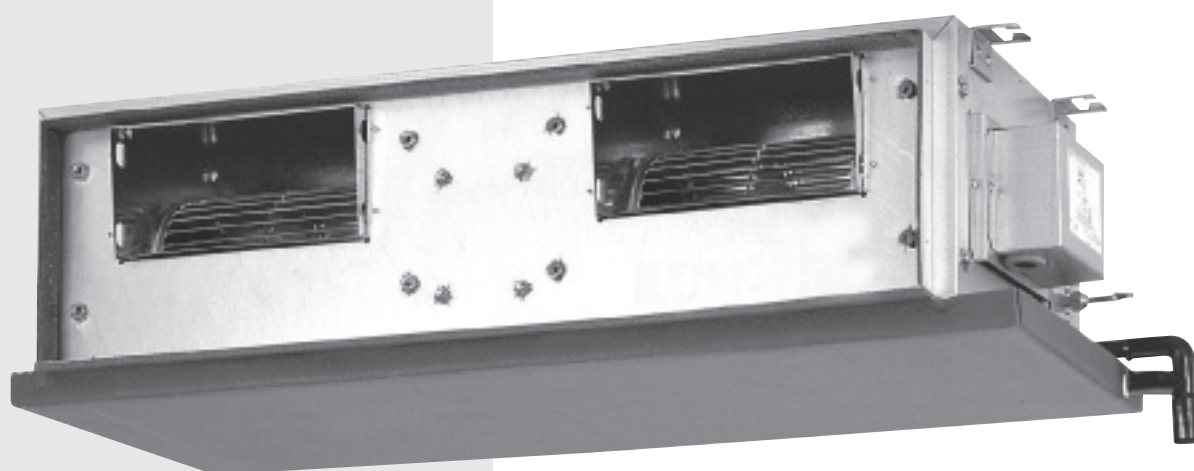


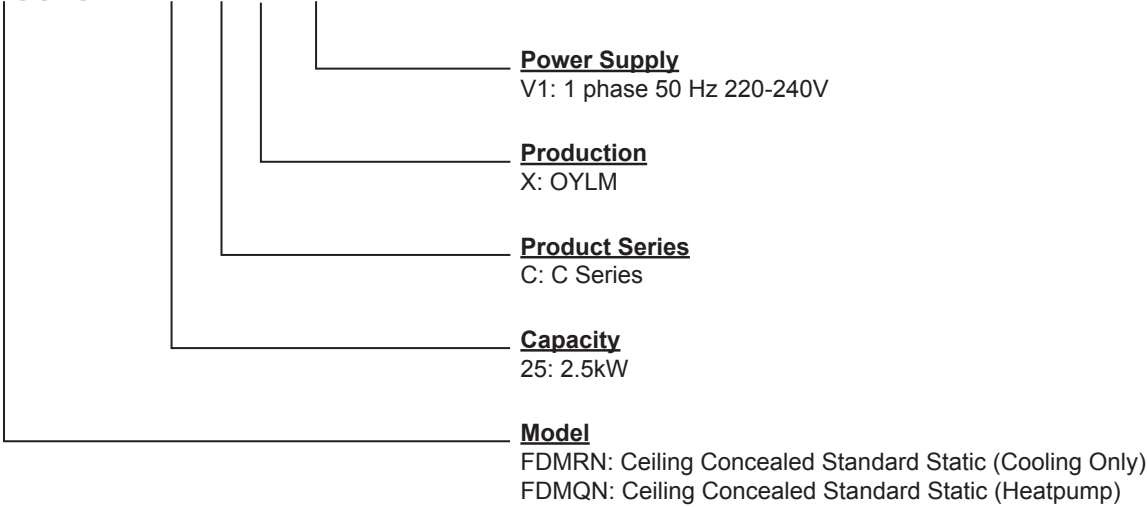
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Nomenclature

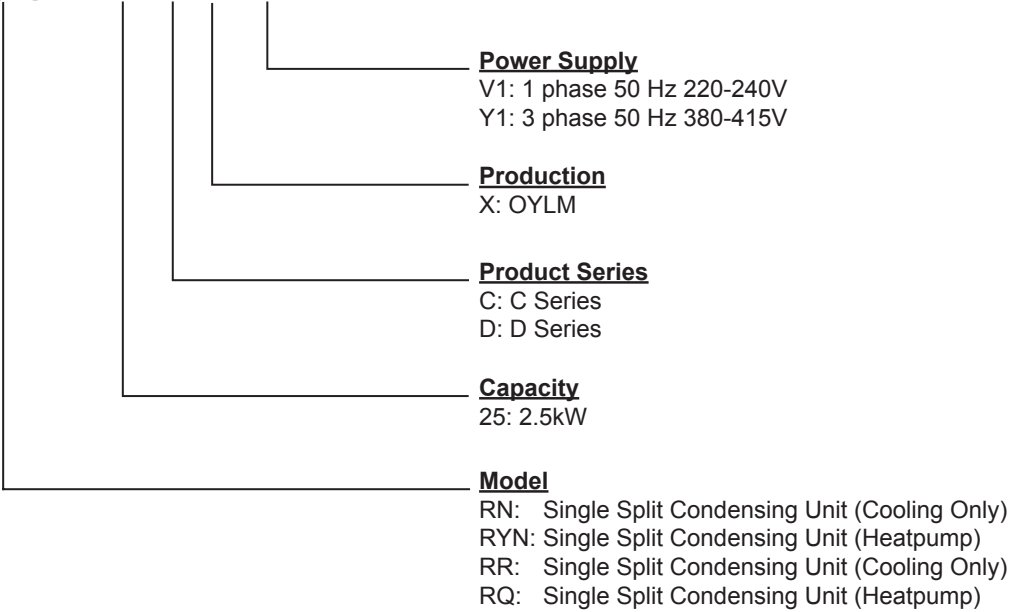
Indoor

FDM(R)(Q)N 25 C X V1



Outdoor

R(Y)N 25 C X V1



Product Line-Up

Indoor Unit FDMRN / FDMQN

Nomenclature		Classification							
		Handset		PCB		Fin	Refrigerant Control		Air Purification
		BRC51A62	BRC51A61	L208A EC	L208A AP	Bare Aluminium	Cap Tube	Without Cap Tube	Air Filter
COOLING	FDMRN25CXV1	X		X		X		X	X
	FDMRN35CXV1	X		X		X		X	X
	FDMRN50CXV1	X		X		X		X	X
	FDMRN60CXV1	X		X		X		X	X
	FDMRN71CXV1	X		X		X		X	X
	FDMRN100CXV1	X		X		X		X	X
	FDMRN125CXV1	X		X		X		X	X
	FDMRN140CXV1	X		X		X		X	X
HEATPUMP	FDMQN25CXV1		X		X	X		X	X
	FDMQN35CXV1		X		X	X		X	X
	FDMQN50CXV1		X		X	X		X	X
	FDMQN60CXV1		X		X	X		X	X
	FDMQN71CXV1		X		X	X		X	X
	FDMQN100CXV1		X		X	X		X	X
	FDMQN125CXV1		X		X	X		X	X
	FDMQN140CXV1		X		X	X		X	X

Outdoor Unit
R(Y)N / RR / RQ

Nomenclature		Classification										
		Refrigerant Control		Fin			Safety Devices				Compressor	
		Cap Tube	TXV	Hydrophilic (Blue)	Hydrophilic (Gold)	Bare Aluminium	Contact	High Pressure Switch	Low Pressure Switch	Phase Sequencer	Scroll	Rotary
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
	RN50CXY1	X				X	X			X		X
	RN50CGXY1	X			X		X			X		X
	RN60CXV1	X				X						X
	RN60CGXV1	X			X							X
	RN60CXY1	X				X	X			X		X
	RN60CGXY1	X			X		X			X		X
	RR71CXV1	X				X						X
	RR71CGXV1	X			X							X
	RR71CXY1	X				X	X			X		X
	RR71CGXY1	X			X		X			X		X
	RR90DXV1	X				X		X	X		X	
	RR90DGXV1	X			X			X	X		X	
	RR90DXY1	X				X	X	X	X	X	X	
	RR90DGXY1	X			X		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	
	RR140DXY1	X				X	X	X	X	X	X	
	RR140DGXY1	X			X		X	X	X	X	X	

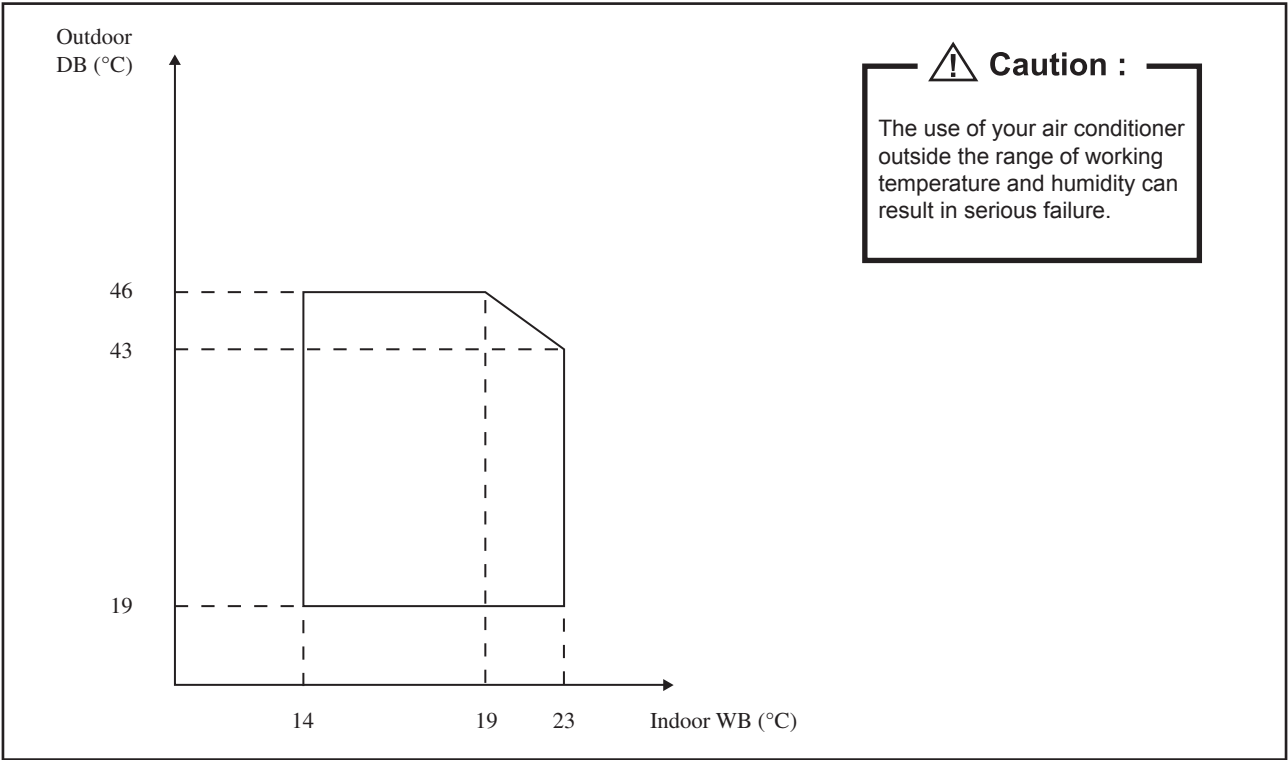
Nomenclature		Classification											
		Refrigerant Control		Fin			Safety Devices				Compressor		Others
Cap Tube	TXV	Hydrophilic (Blue)	Hydrophilic (Gold)	Bare Aluminium	Contact	High Pressure Switch	Low Pressure Switch	Phase Sequencer	Scroll	Rotary	Drain Elbow		
HEATPUMP	RYN25CXV1	X				X						X	X
	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
	RYN50CXY1	X				X			X			X	X
	RYN50CGXY1	X			X		X		X			X	X
	RYN60CXV1	X				X						X	X
	RYN60CGXV1	X			X							X	X
	RYN60CXY1	X				X			X			X	X
	RYN60CGXY1	X			X		X		X			X	X
	RQ71CXV1	X				X						X	X
	RQ71CGXV1	X			X							X	X
	RQ71CXY1	X				X			X			X	X
	RQ71CGXY1	X			X		X		X			X	X
	RQ90DXV1	X				X		X	X		X		X
	RQ90DGXV1	X			X			X	X		X		X
	RQ90DXY1	X				X		X	X	X	X		X
	RQ90DGXY1	X			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
	RQ100DGXY1	X			X		X		X	X	X		X
	RQ125DXY1	X				X		X	X	X	X		X
	RQ125DGXY1	X			X		X		X	X	X		X
	RQ140DXY1	X				X		X	X	X	X		X
	RQ140DGXY1	X			X		X		X	X	X		X

Application Information

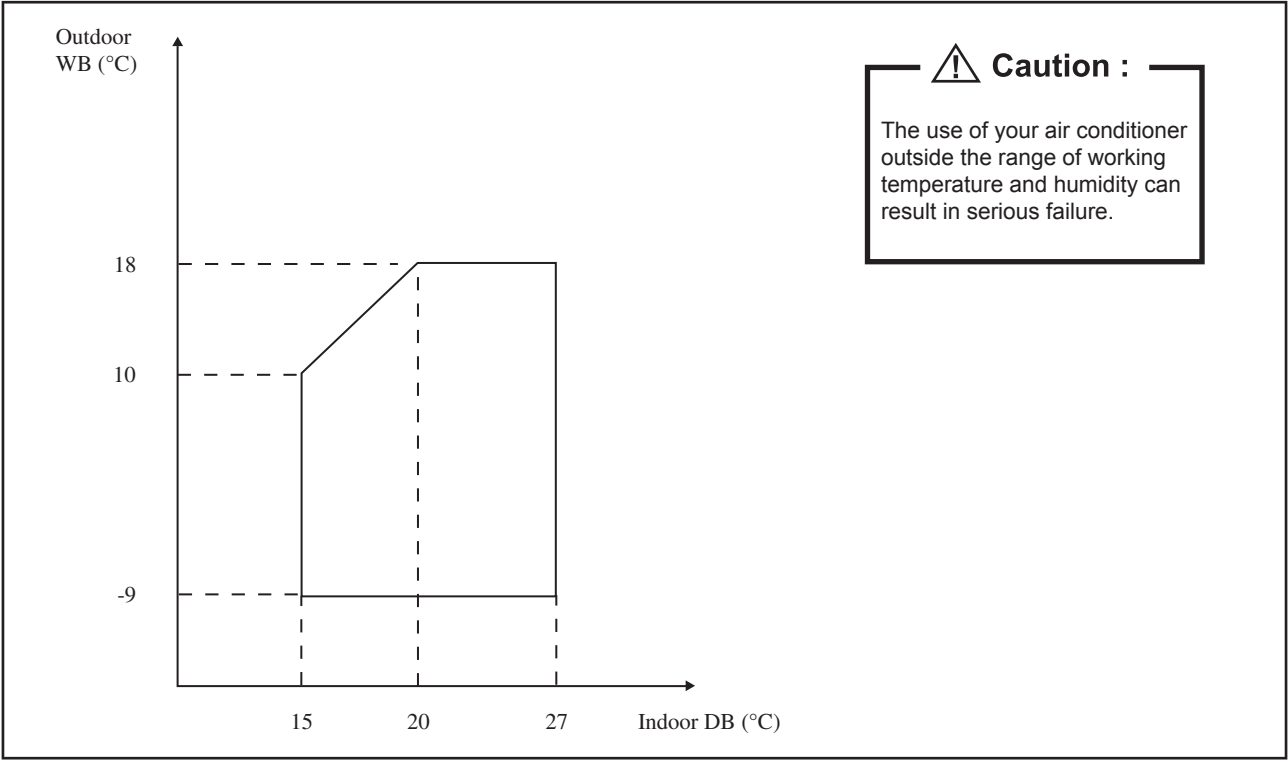
Operating Range

Ensure the operating temperature is in allowable range.

Cooling

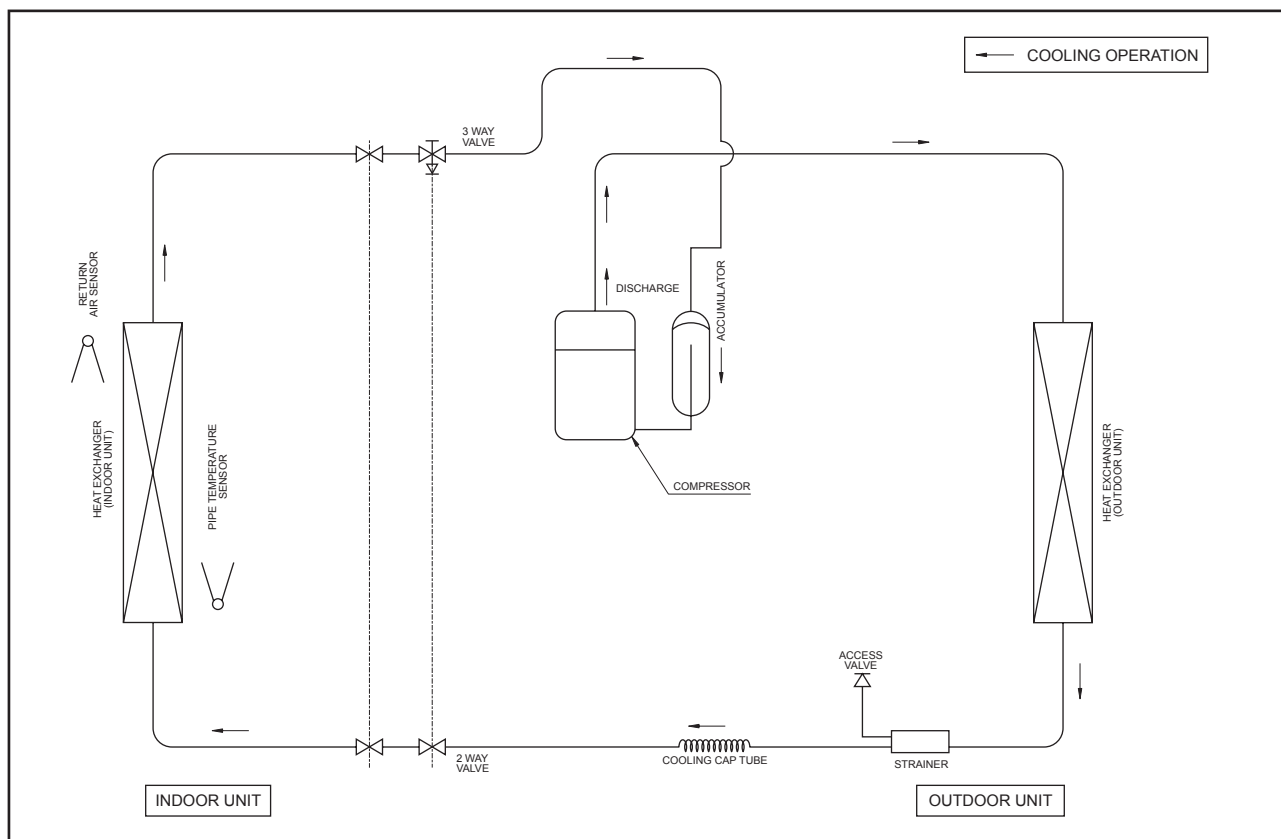


Heating

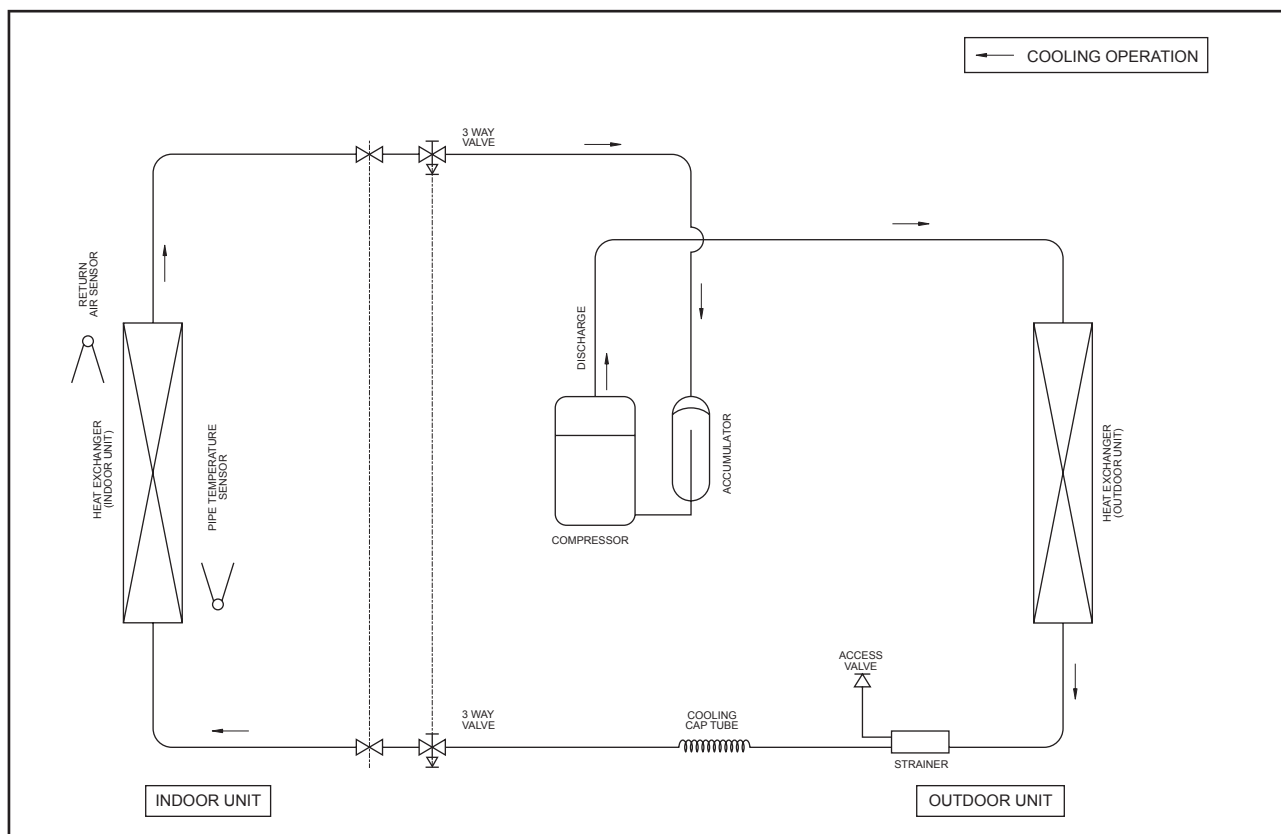


Refrigerant Circuit Diagrams

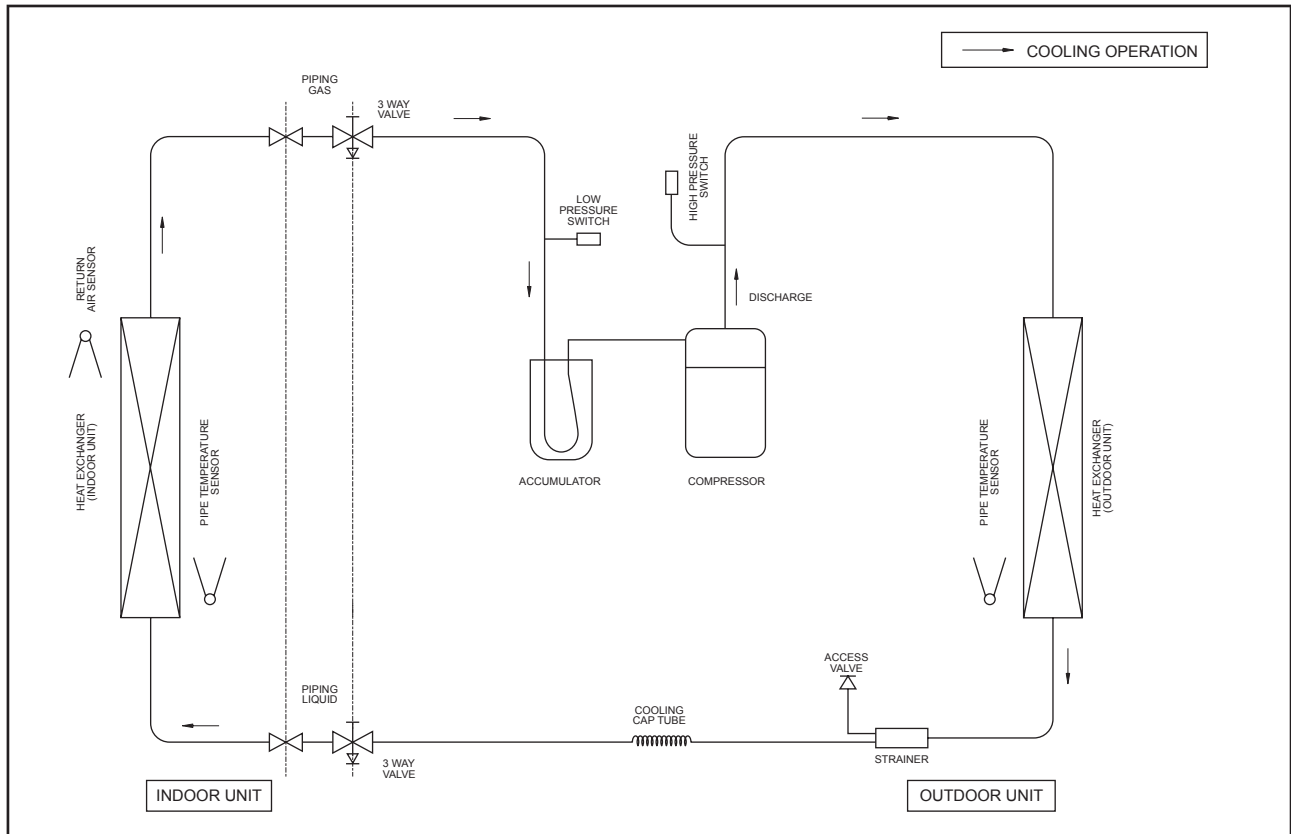
Model: FDMRN25/35/50/60CXV1 – RN25/35/50/60CXV1
FDMRN50/60CXV1 – RN50/60CXY1



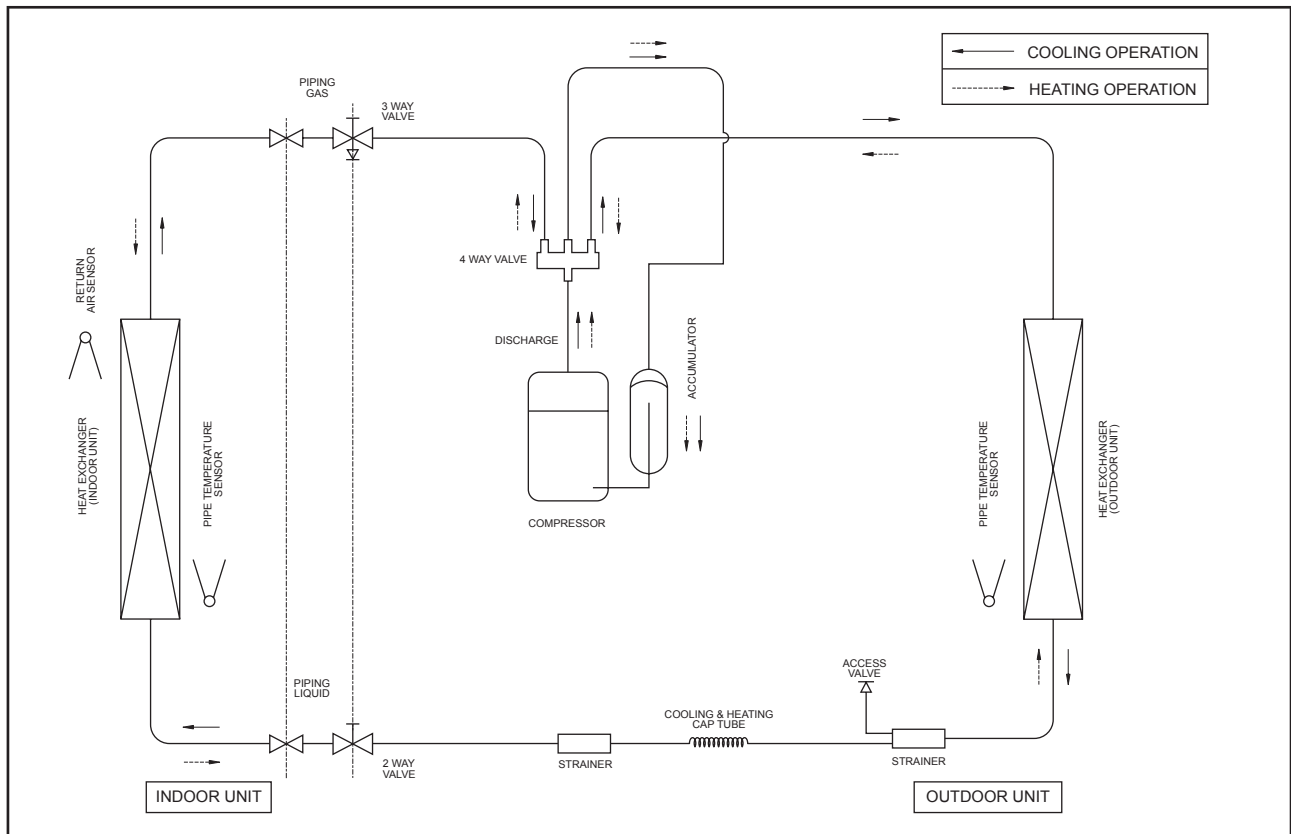
Model: FDMRN71CXV1 – RR71CXV1
FDMRN71CXV1 – RR71CXY1



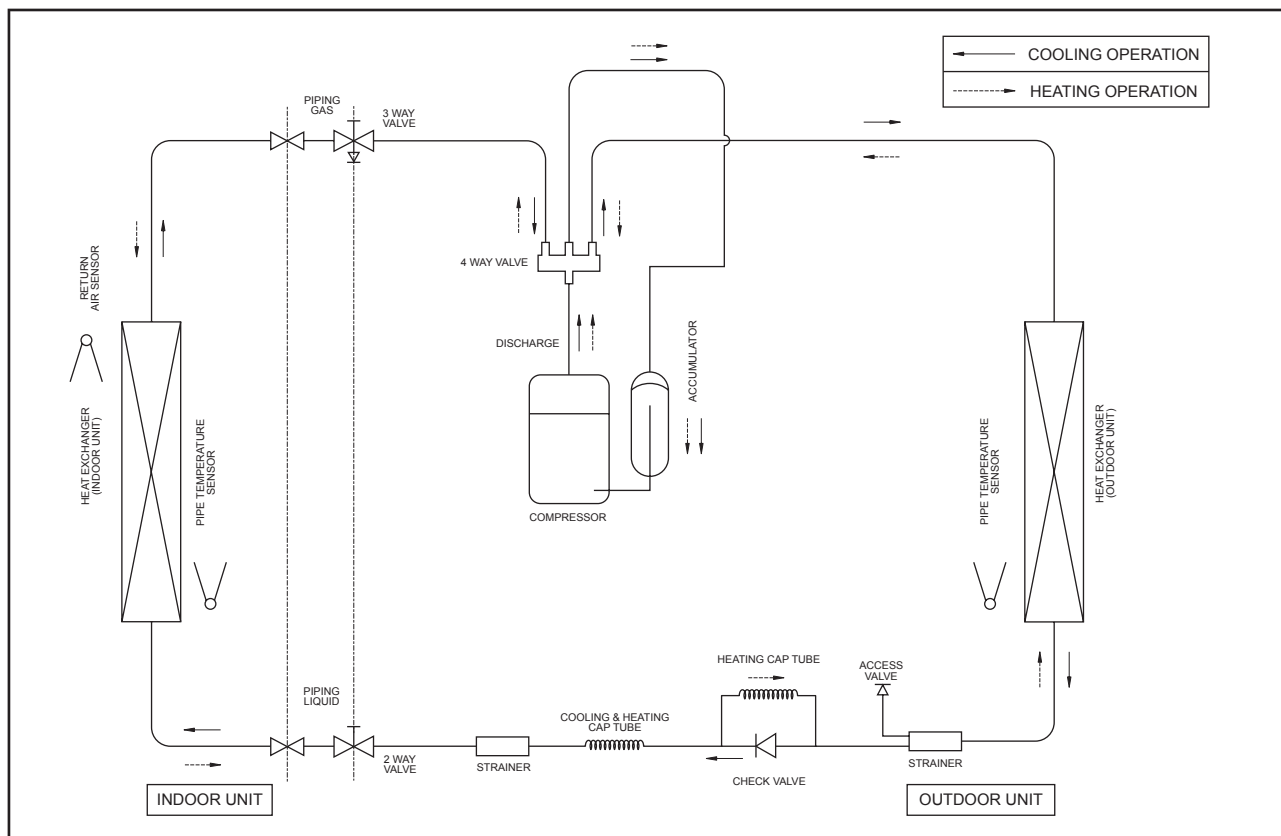
Model: FDMRN100CXV1 – RR90/100DXV1
FDMRN100/125/140CXV1 – RR90/100/125/140DXV1



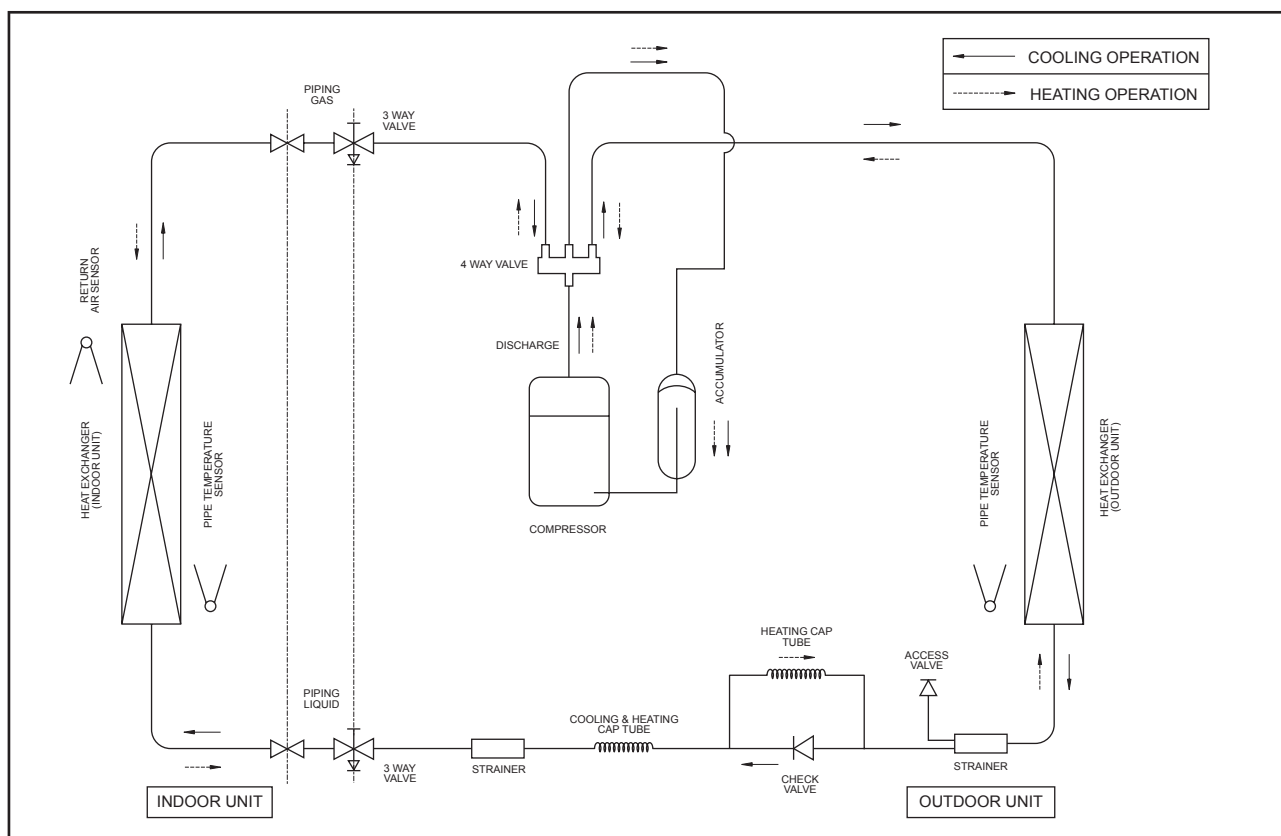
Model: FDMQN25CXV1 – RYN25CXV1



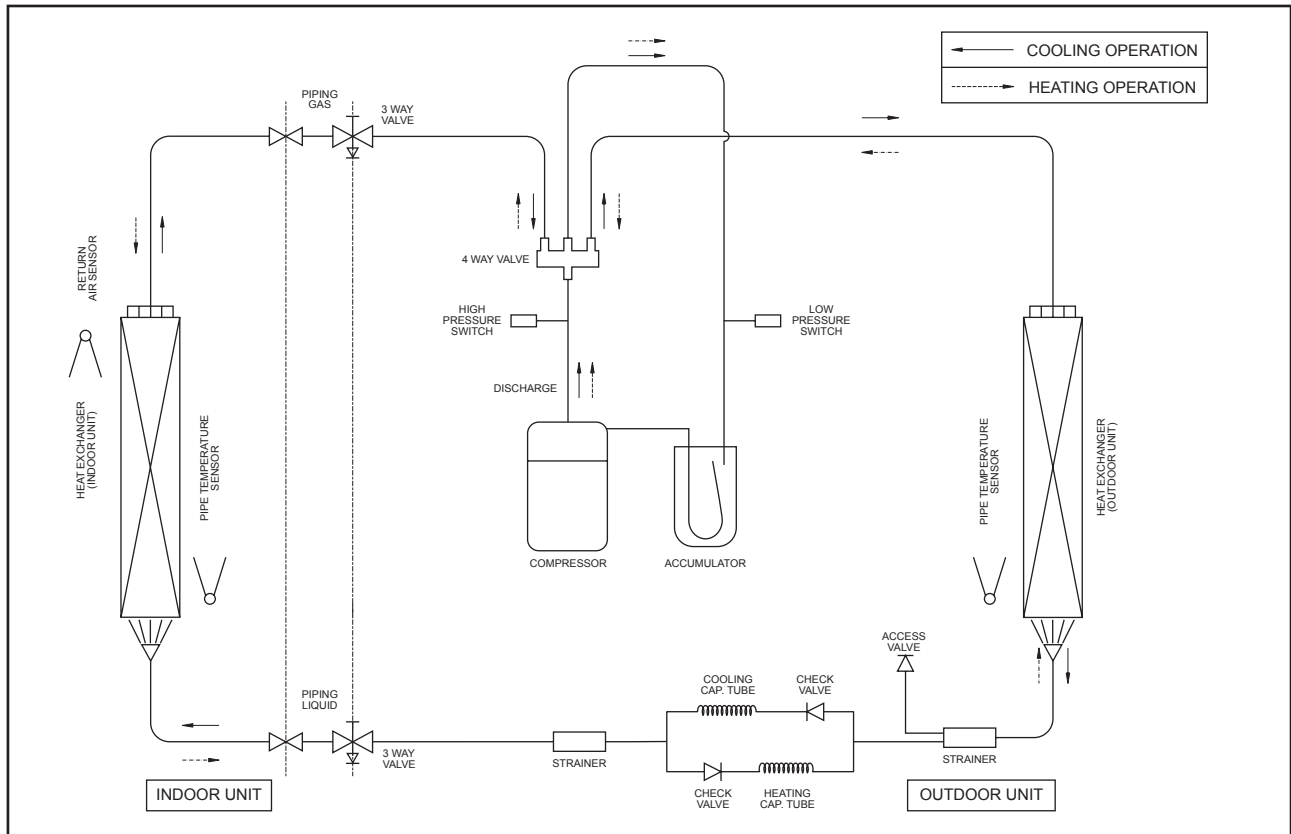
Model: FDMQN35/50/60CXV1 – RYN35/50/60CXV1
FDMQN50/60CXV1 – RYN50/60CXY1



Model: FDMQN71CXV1 – RQ71CXV1
FDMQN71CXV1 – RQ71CXY1



Model: FDMQN100CXV1 – RQ90/100DXV1
FDMQN100/125/140CXV1 – RQ90/100/125/140DXV1



Installation Guideline



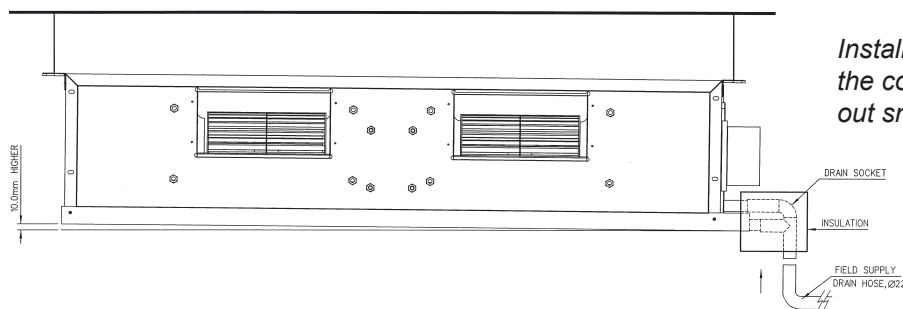
Caution

Sharp edges and coil surfaces are potential injury hazard. Avoid from contact with them.

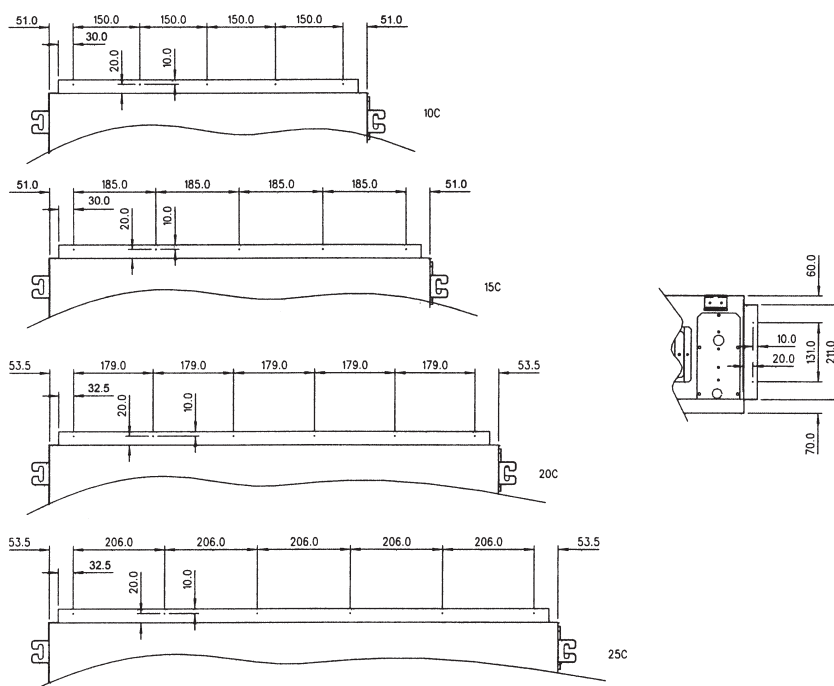
(1) Installation of Indoor Unit

Preliminary Survey

- Electrical supply and installation is to confirm to local authority's (e.g. National Electrical Board) codes and regulations.
- Voltage supply fluctuation must not exceed $\pm 10\%$ of rated voltage. Electricity supply lines must be independent of welding transformers which can cause high supply fluctuation.
- Ensure that the location is convenient for wiring, piping and drainage.
- The indoor unit must be installed in such that free from any obstacles in path of cool air discharge and warm air return, and must allow spreading of air throughout the room (near the centre of the room).
- Clearance must be provided for the indoor unit from the wall and obstacles as shown in the figure.
- Use the hanger supplied with the unit.
- Ensure the support is strong enough to withstand the weight of the unit.
- Use the supplied drain socket to connect the drain pipe (the drain socket is only available for FDMRN25CXV1 / FDMQN25CXV1 to FDMRN60CXV1 / FDMQN60CXV1)



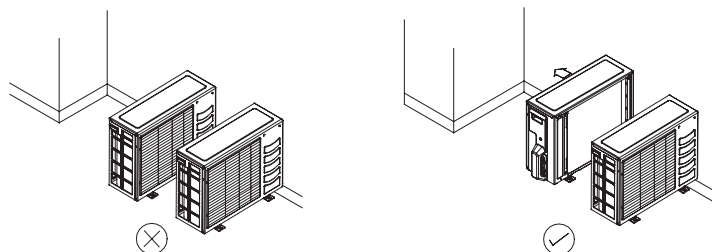
The diagrams below show the screws position for duct work connection.



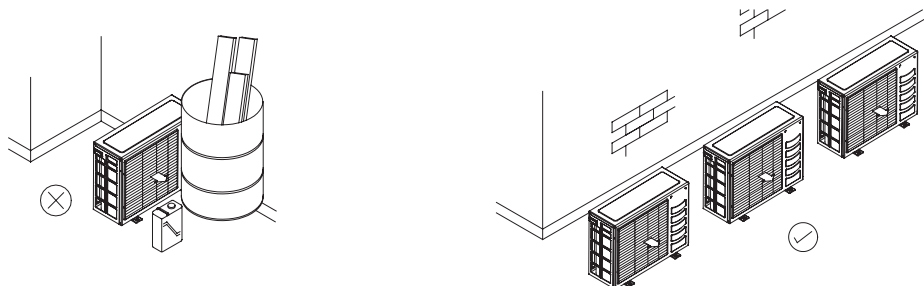
(2) Installation of Outdoor Unit

As condensing temperature rises, evaporating temperature rises and cooling capacity drops. In order to achieve maximum cooling capacity, the location selected for outdoor unit should fulfill the following requirements:

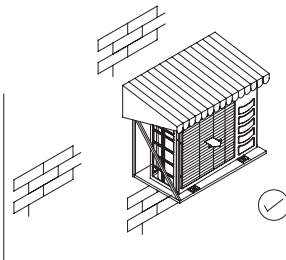
- Install the condensing (outdoor) unit in a way such that hot air distributed by the outdoor condensing unit cannot be drawn in again (as in the case of short circuit of hot discharge air). Allow sufficient space for maintenance around the unit.



- Ensure that there is no obstruction of air flow into or out of the unit. Remove obstacles which block air intake or discharge.
- The location must be well ventilated, so that the unit can draw in and distribute plenty of air thus lowering the condensing temperature.



- A place capable of bearing the weight of the outdoor unit and isolating noise and vibration.
- A place protected from direct sunlight. Otherwise use an awning for protection, if necessary.



- The location must not be susceptible to dust or oil mist.

Installation Clearance

- Outdoor units 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 be hotter than the outside temperature (max. 45°C).



ALL MODEL	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 of the unit.

(3) Cable Size

Model	Unit	FDMRN25CXV1	FDMRN35CXV1	FDMRN50CXV1	FDMRN60CXV1	FDMRN71CXV1
		RN25CXV1	RN35CXV1	RN50CXV1	RN60CXV1	RR71CXV1
Power supply cable size	mm ²	1.5	1.5	2.5	2.5	2.5
Number of wire		3	3	3	3	3
Interconnection cable size	mm ²	1.5	1.5	2.5	2.5	2.5
Number of wire		3	3	3	3	3
Recommended fuse	A	10	10	16	20	20

Model	Unit	FDMRN50CXV1	FDMRN60CXV1	FDMRN71CXV1	FDMRN100CXV1	FDMRN100CXV1
		RN50CXV1	RN60CXV1	RR71CXV1	RR90DXV1	RR100DXV1
Power supply cable size	mm ²	1.5	1.5	2.5	4.0	4.0
Number of wire		5	5	5	3	3
Interconnection cable size	mm ²	1.0	1.0	1.0	2.5	2.5
Number of wire		4	4	4	4	4
Recommended fuse	A	6	6	8	25	25

Model	Unit	FDMRN100CXV1	FDMRN100CXV1	FDMRN125CXV1	FDMRN140CXV1
		RR90DXV1	RR100DXV1	RR125DXV1	RR140DXV1
Power supply cable size	mm ²	1.5	1.5	2.5	2.5
Number of wire		5	5	5	5
Interconnection cable size	mm ²	1.5	1.5	2.5	2.5
Number of wire		4	4	4	4
Recommended fuse	A	10	10	16	20

Model	Unit	FDMQN25CXV1	FDMQN35CXV1	FDMQN50CXV1	FDMQN60CXV1	FDMQN71CXV1
		RYN25CXV1	RYN35CXV1	RYN50CXV1	RYN60CXV1	RQ71CXV1
Power supply cable size	mm ²	1.5	1.5	2.5	2.5	2.5
Number of wire		3	3	3	3	3
Interconnection cable size	mm ²	1.5	1.5	2.5	2.5	2.5
Number of wire		5	5	5	5	5
Recommended fuse	A	10	10	16	20	20

Model	Unit	FDMQN50CXV1	FDMQN60CXV1	FDMQN71CXV1	FDMQN100CXV1	FDMQN100CXV1
		RYN50CXV1	RYN60CXV1	RQ71CXV1	RQ90DXV1	RQ100DXV1
Power supply cable size	mm ²	1.5	1.5	2.5	4.0	4.0
Number of wire		5	5	5	3	3
Interconnection cable size	mm ²	1.0	1.0	1.0	2.5	2.5
Number of wire		6	6	6	4 & 3	4 & 3
Recommended fuse	A	6	6	6	25	25

Model	Unit	FDMQN100CXV1	FDMQN100CXV1	FDMQN125CXV1	FDMQN140CXV1
		RQ90DXV1	RQ100DXV1	RQ125DXV1	RQ140DXV1
Power supply cable size	mm ²	1.5	1.5	2.5	2.5
Number of wire		5	5	5	5
Interconnection cable size	mm ²	1.5	1.5	1.5	1.5
Number of wire		4 & 3	4 & 3	4 & 3	4 & 3
Recommended fuse	A	10	10	16	16

(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 front compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below:

Model	Indoor	FDMRN25/35CXV1 FDMQN25/35CXV1	FDMRN50/60CXV1 FDMQN50/60CXV1	FDMRN71CXV1 FDMQN71CXV1	
	Outdoor	R(Y)N25/35CXV1	R(Y)N50/60CXV1 R(Y)N50/60CXY1	RR71CXV1 RQ71CXV1	RR71CXY1 RQ71CXY1
Max. Length, m		12	15	15	15
Max. Elevation, m		5	8	8	8

Model	Indoor	FDMRN100CXV1 FDMQN100CXV1		FDMRN125CXV1 FDMQN125CXV1	FDMRN140CXV1 FDMQN140CXV1
	Outdoor	RR90/100DXV1 RQ90/100DXV1	RR90/100DXY1 RQ90/100DXY1	RR125DXY1 RQ125DXY1	RR140DXY1 RQ140DXY1
Max. Length, m		45	45	45	35
Max. Elevation, m		25	25	25	15

Piping Sizes (Flare connection type)

Piping sizes are as follows:

R410A

Model	R(Y)N25CXV1	R(Y)N35/50CXV1 R(Y)N50CXY1	R(Y)N60CXV1 R(Y)N60CXY1	RR71CXV1 RQ71CXV1
Liquid, mm / in	6.35 / 1/4	6.35 / 1/4	6.35 / 1/4	9.52 / 3/8
Suction, mm / in	9.52 / 3/8	12.70 / 1/2	15.88 / 5/8	15.88 / 5/8

Model	RR71CXY1 RQ71CXY1	RR90/100DXV1 RQ90/100DXV1	RR90/100/125DXY1 RQ90/100/125DXY1	RR140DXY1 RQ140DXY1
Liquid, mm / in	9.52 / 3/8	9.52 / 3/8	9.52 / 3/8	9.52 / 3/8
Suction, mm / in	15.88 / 5/8	15.88 / 5/8	15.88 / 5/8	19.05 / 3/4

(5) Additional Charge

- The refrigerant charge has already charged into the outdoor unit. For the piping length of 7.5m, additional refrigerant charge after vacuuming is not necessary.
- When the piping length is more than 7.5m, please use the table below (unit in gram).

R410A – Cooling Only

Indoor	FDMRN25CXV1	FDMRN35CXV1	FDMRN50CXV1	FDMRN60CXV1	FDMRN71CXV1
Outdoor	RN25CXV1	RN35CXV1	RN50CXV1 RN50CXY1	RN60CXV1 RN60CXY1	RR71CXV1 RR71CXY1
Add. Charge, g/m	13	13	15	15	33

Indoor	FDMRN100CXV1		FDMRN125CXV1	FDMRN140CXV1
Outdoor	RR90DXV1 RR90DXY1	RR100DXV1 RR100DXY1	RR125DXY1	RR140DXY1
Add. Charge, g/m	23	26	23	32

R410A – Heatpump

Indoor	FDMQN25CXV1	FDMQN35CXV1	FDMQN50CXV1	FDMQN60CXV1	FDMQN71CXV1
Outdoor	RYN25CXV1	RYN35CXV1	RYN50CXV1 RYN50CXY1	RYN60CXV1 RYN60CXY1	RQ71CXV1 RQ71CXY1
Add. Charge, g/m	20	20	20	20	46

Indoor	FDMQN100CXV1		FDMQN125CXV1	FDMQN140CXV1
Outdoor	RQ90DXV1 RQ90DXY1	RQ100DXV1 RQ100DXY1	RQ125DXY1	RQ140DXY1
Add. Charge, g/m	33	37	33	46

The additional refrigerant charge amount recommended is a guideline for longer piping application. The actual charge required may be different from the guideline due to different application and variation in site conditions.

(6) Special Precautions When Dealing With R410A Unit

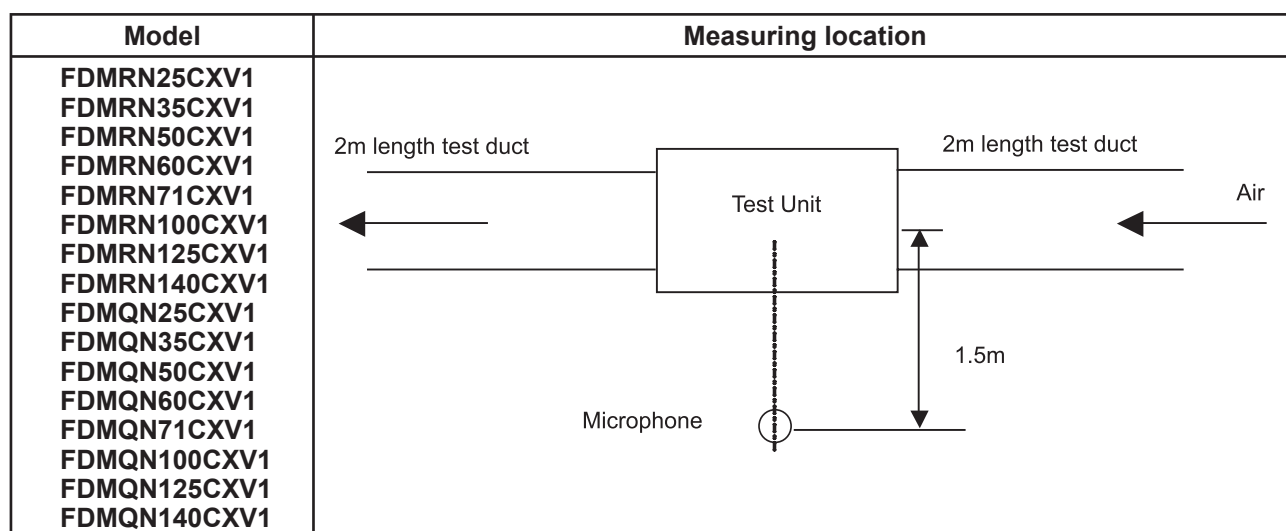
R410A is a new HFC refrigerant which does not damage the ozone layer. The working pressure of this new refrigerant is 1.6 times higher than conventional refrigerant (R22), thus proper installation / servicing is essential.

- Never use refrigerant other than R410A in an air conditioner which is designed to operate with R410A.
- POE or PVE oil is used as lubricant for R410A compressor, which is different from the mineral oil used for R22 compressor. During installation or servicing, extra precaution must be taken not to expose the R410A system too long to moist air. Residual POE or PVE oil in the piping and components can absorb moisture from the air.
- To prevent mischarging, the diameter of the service port on the flare valve is different from that of R22.
- Use tools and materials exclusively for refrigerant R410A. Tools exclusively for R410A are manifold valve, charging hose, pressure gauge, gas leak detector, flare tools, torque wrench, vacuum pump and refrigerant cylinder.
- As an R410A air conditioner incurs higher pressure than R22 units, it is essential to choose the copper pipes correctly. Never use copper pipes thinner than 0.8mm even though they are available in the market.
- If the refrigerant gas leakage occurs during installation / servicing, be sure to ventilate fully. If the refrigerant gas comes into contact with fire, a poisonous gas may occur.
- When installing or removing an air conditioner, do not allow air or moisture to remain in the refrigerant cycle.

Sound Data

Sound Pressure Level

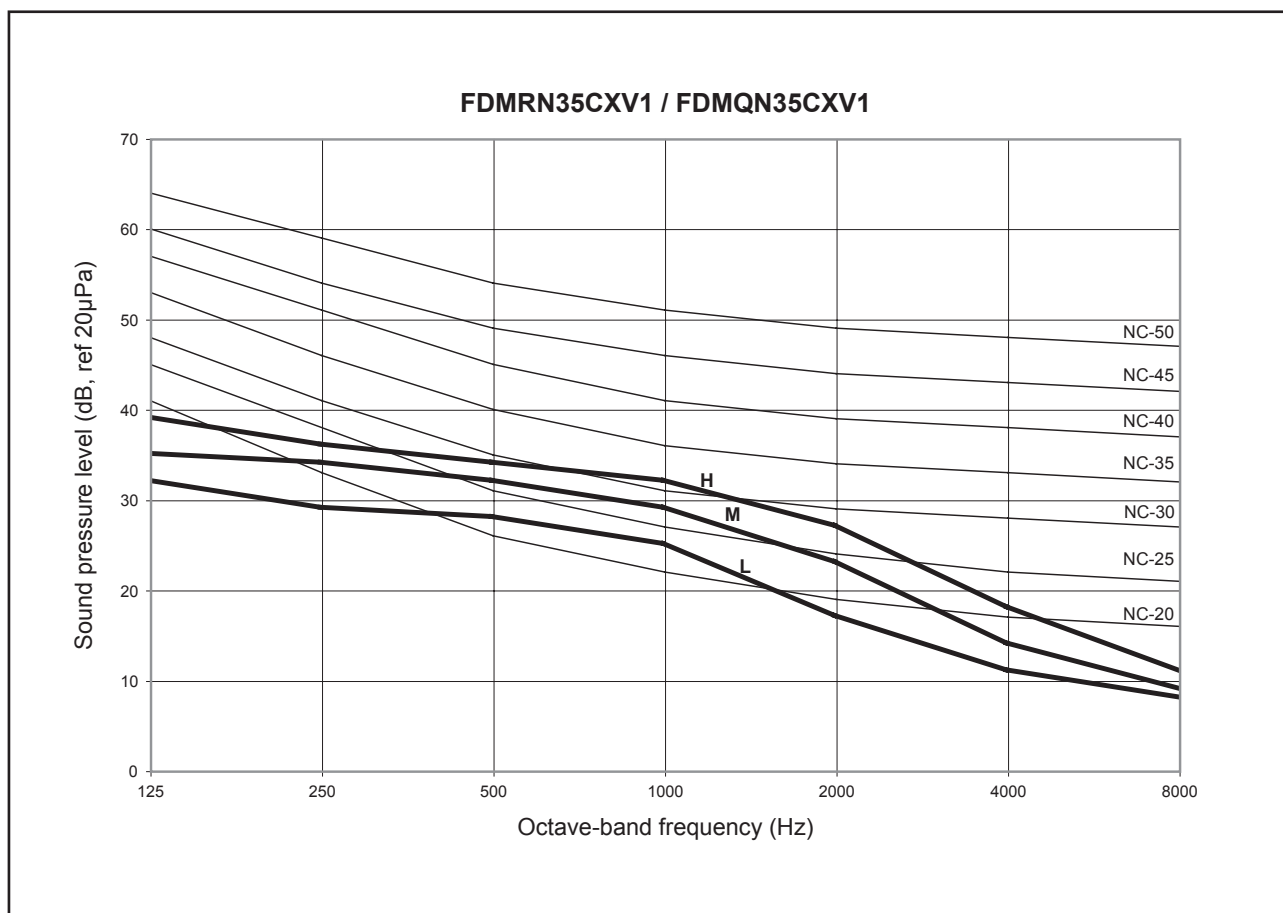
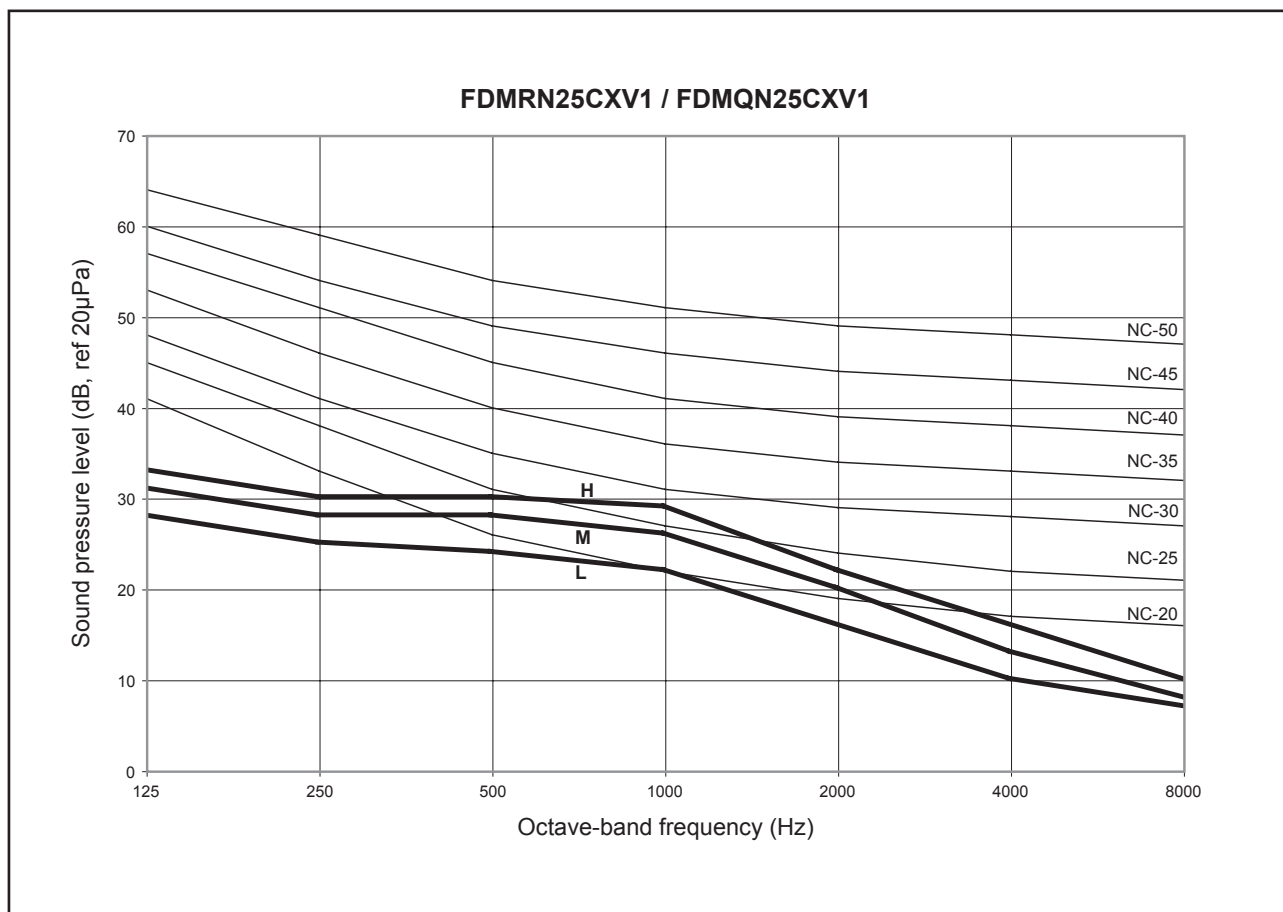
Model	Speed	1/1 Octave Sound Pressure (dB, ref 20μPa)							Overall (dBA)	Noise Criteria
		125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
FDMRN25CXV1 FDMQN25CXV1	High	33	30	30	29	22	16	10	33	27
	Med	31	28	28	26	20	13	8	30	24
	Low	28	25	24	22	16	10	7	26	20
FDMRN35CXV1 FDMQN35CXV1	High	39	36	34	32	27	18	11	37	31
	Med	35	34	32	29	23	14	9	34	27
	Low	32	29	28	25	17	11	8	29	23
FDMRN50CXV1 FDMQN50CXV1	High	42	39	36	34	28	22	17	38	33
	Med	41	37	34	31	26	20	15	36	30
	Low	40	36	32	29	23	18	13	34	27
FDMRN60CXV1 FDMQN60CXV1	High	42	41	37	34	31	29	23	40	33
	Med	41	40	36	33	29	28	22	39	32
	Low	36	35	33	31	26	27	21	36	30
FDMRN71CXV1 FDMQN71CXV1	S. High	48	45	42	38	34	29	26	44	37
	High	45	42	39	35	31	26	22	41	34
	Med	42	38	37	32	28	22	17	38	32
	Low	36	33	33	27	23	16	11	34	27
FDMRN100CXV1 FDMQN100CXV1	S. High	60	50	50	45	42	38	32	52	46
	High	55	47	47	43	39	35	29	49	43
	Med	54	45	46	41	37	32	26	47	41
	Low	51	42	44	39	34	29	23	45	39
FDMRN125CXV1 FDMQN125CXV1	S. High	53	46	50	51	45	38	30	54	50
	High	52	45	49	50	43	36	28	53	49
	Med	51	43	49	49	42	34	26	52	48
	Low	48	42	48	47	39	32	23	51	46
FDMRN140CXV1 FDMQN140CXV1	S. High	56	50	51	48	47	41	38	54	48
	High	54	48	50	47	44	38	35	52	46
	Med	55	45	48	45	41	35	31	50	44
	Low	50	43	45	41	37	31	27	46	40

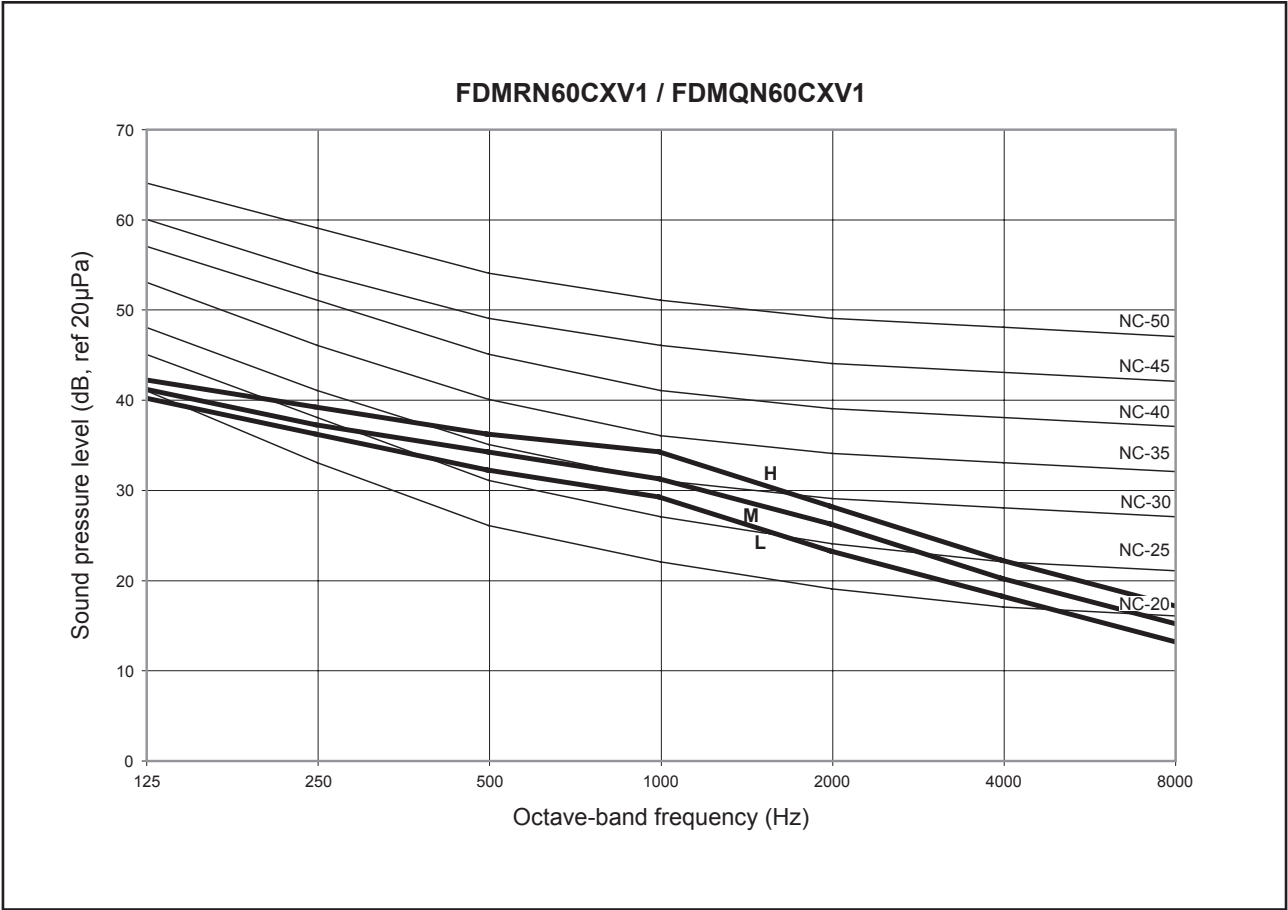
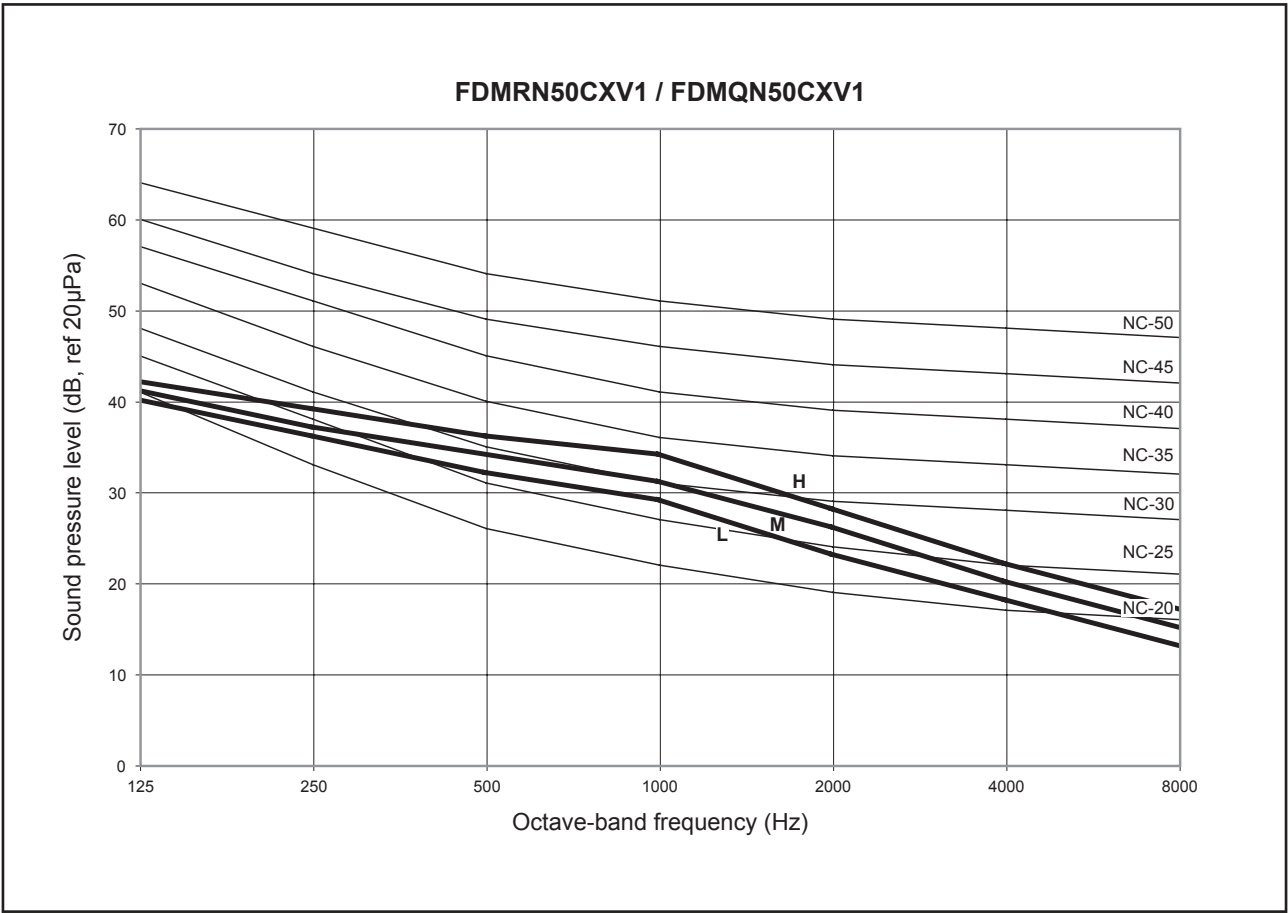


Sound Power Level

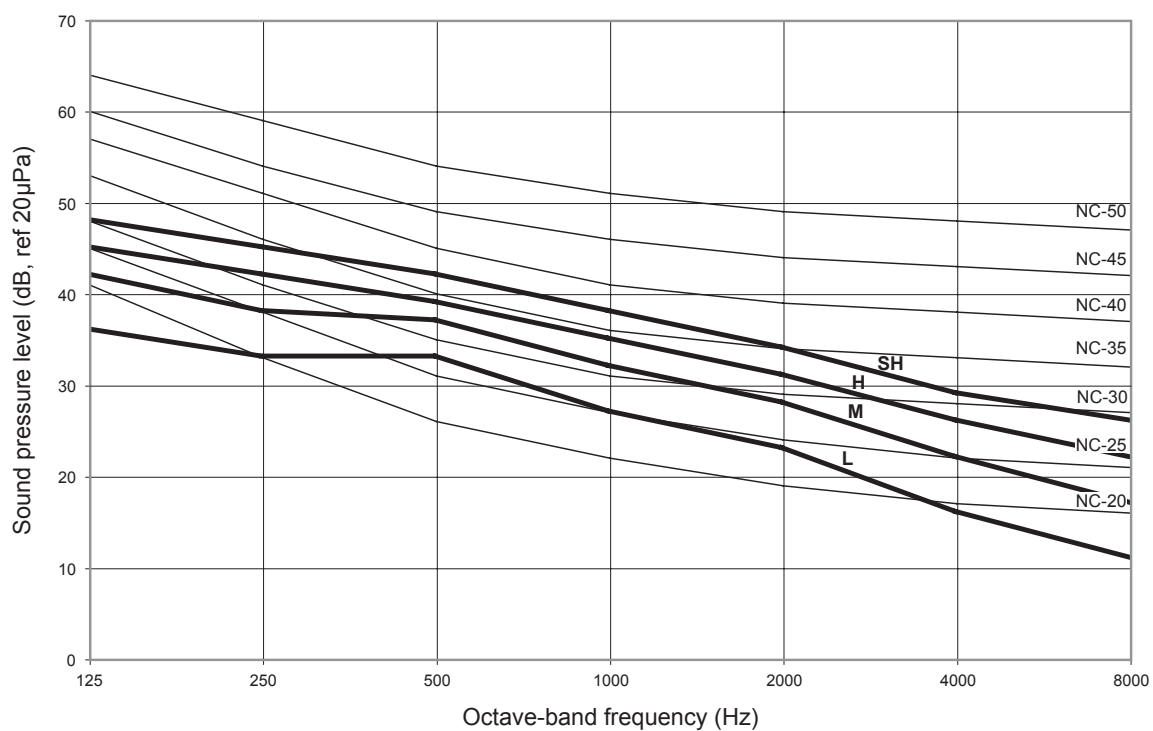
Model	Ext. Static (mmAq)	Speed	1/1 Octave Sound Power (dB, ref 1pW)							Overall (dBA)
			125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
FDMRN25CXV1 FDMQN25CXV1	5	High	57	54	52	52	51	46	44	57
	4	Med	54	51	50	49	48	43	39	54
	3	Low	51	48	47	46	44	39	35	51
FDMRN35CXV1 FDMQN35CXV1	5	High	60	58	57	56	54	48	44	61
	4	Med	56	55	54	53	50	44	40	58
	3	Low	52	50	49	48	44	37	34	52
FDMRN50CXV1 FDMQN50CXV1	6.5	High	63	62	61	61	59	55	51	65
	6	Med	61	61	59	60	58	53	49	64
	3.5	Low	57	56	56	56	53	48	44	60
FDMRN60CXV1 FDMQN60CXV1	5.5	High	63	52	61	62	59	56	53	66
	4	Med	61	60	59	60	57	53	50	64
	3	Low	58	57	56	57	54	49	47	61
FDMRN71CXV1 FDMQN71CXV1	10	S. High	62	65	61	63	60	57	56	67
	7	High	59	61	58	61	57	54	52	64
	5	Med	56	57	55	57	54	50	48	61
	3	Low	52	53	51	53	50	45	41	57
FDMRN100CXV1 FDMQN100CXV1	12	S. High	72	74	72	72	69	66	64	77
	8.6	High	69	72	70	70	66	63	61	74
	6.4	Med	66	69	67	68	63	60	57	71
	4.5	Low	63	66	64	65	60	56	54	68
FDMRN125CXV1 FDMQN125CXV1	18	S. High	70	71	72	74	71	68	67	78
	16	High	67	69	71	72	69	66	64	76
	14	Med	66	66	69	69	66	63	61	73
	11	Low	63	64	66	67	62	60	57	70
FDMRN140CXV1 FDMQN140CXV1	18	S. High	70	71	73	75	73	70	68	79
	16	High	69	70	72	74	71	69	68	78
	14	Med	69	68	70	71	67	65	63	75
	10	Low	64	65	67	67	63	61	59	71

NC Curve

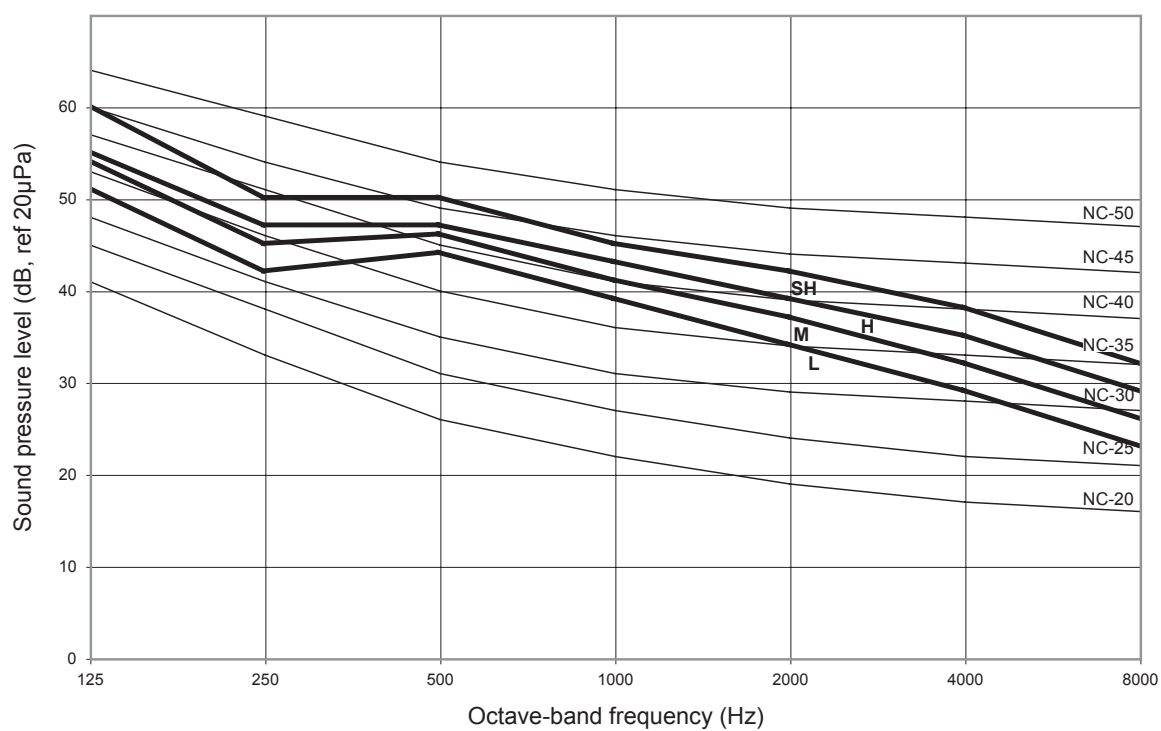


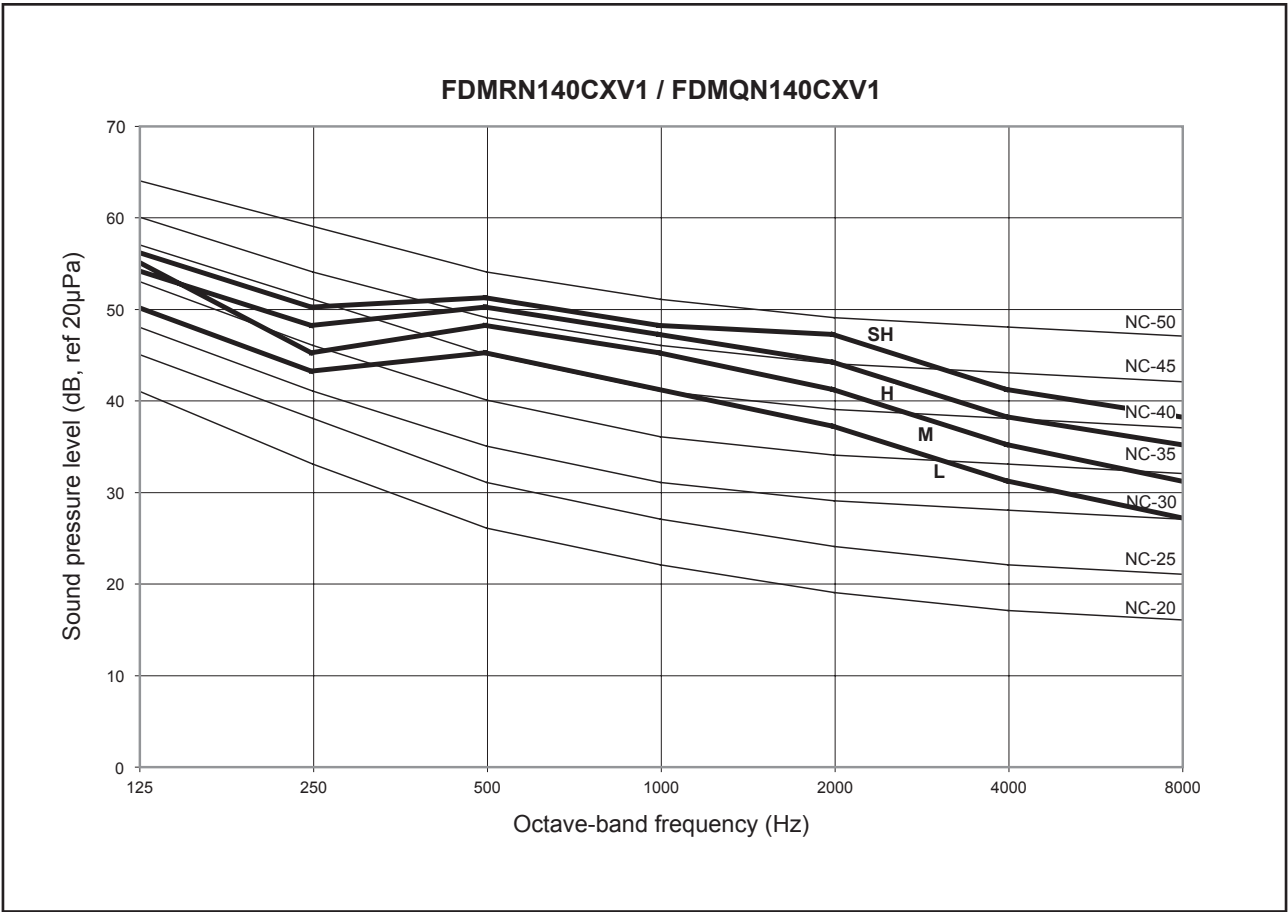
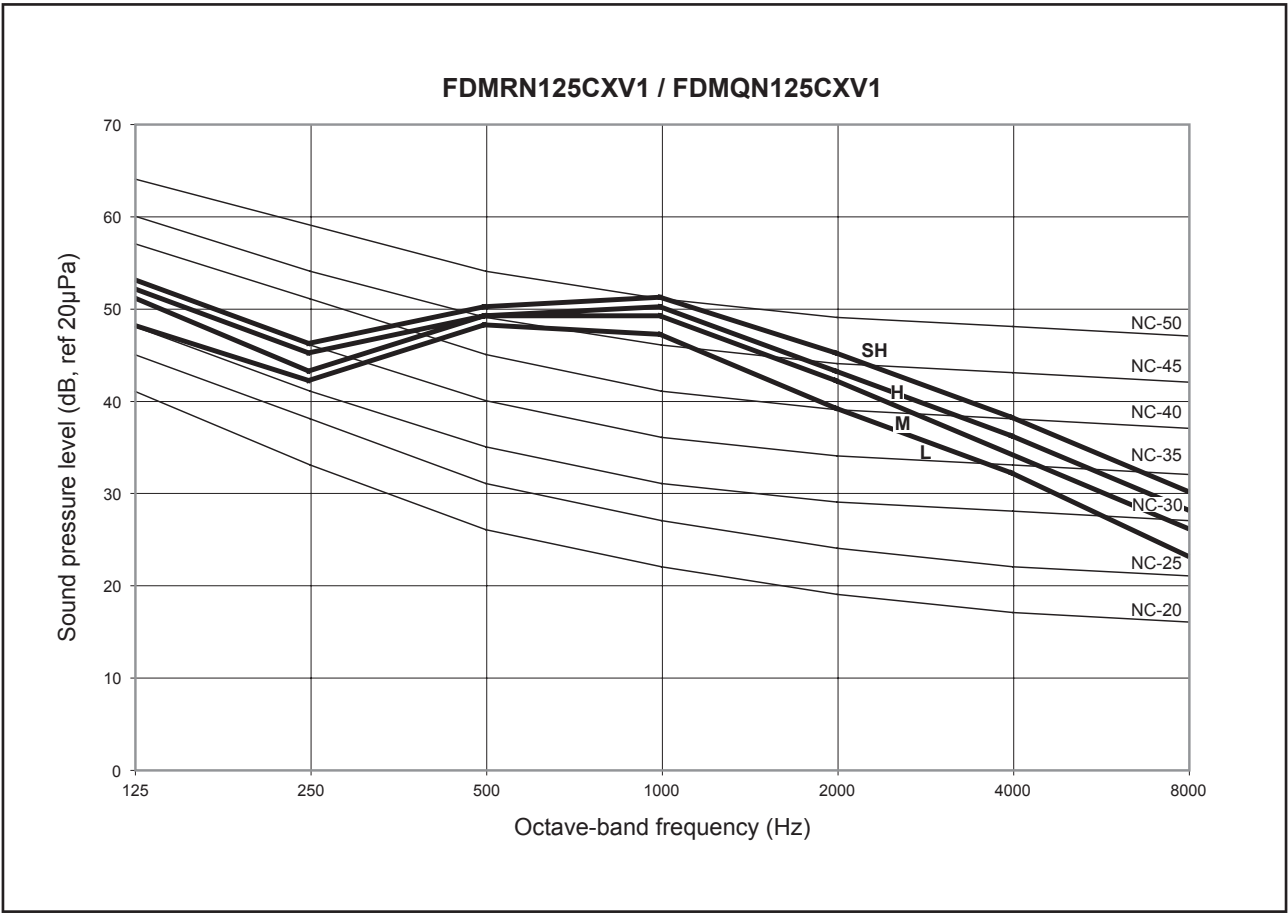


FDMRN71CXV1 / FDMQN71CXV1



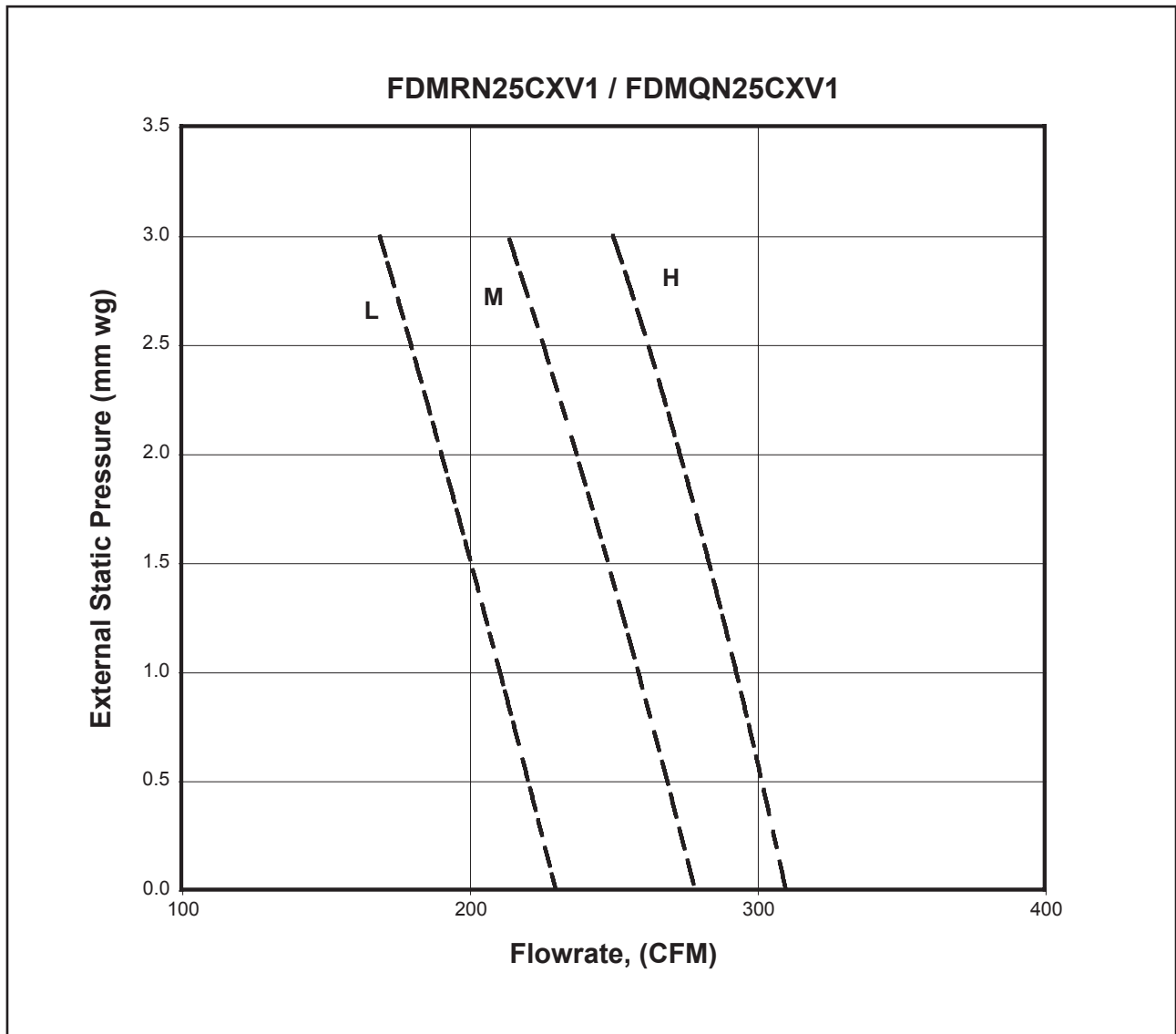
FDMRN100CXV1 / FDMQN100CXV1

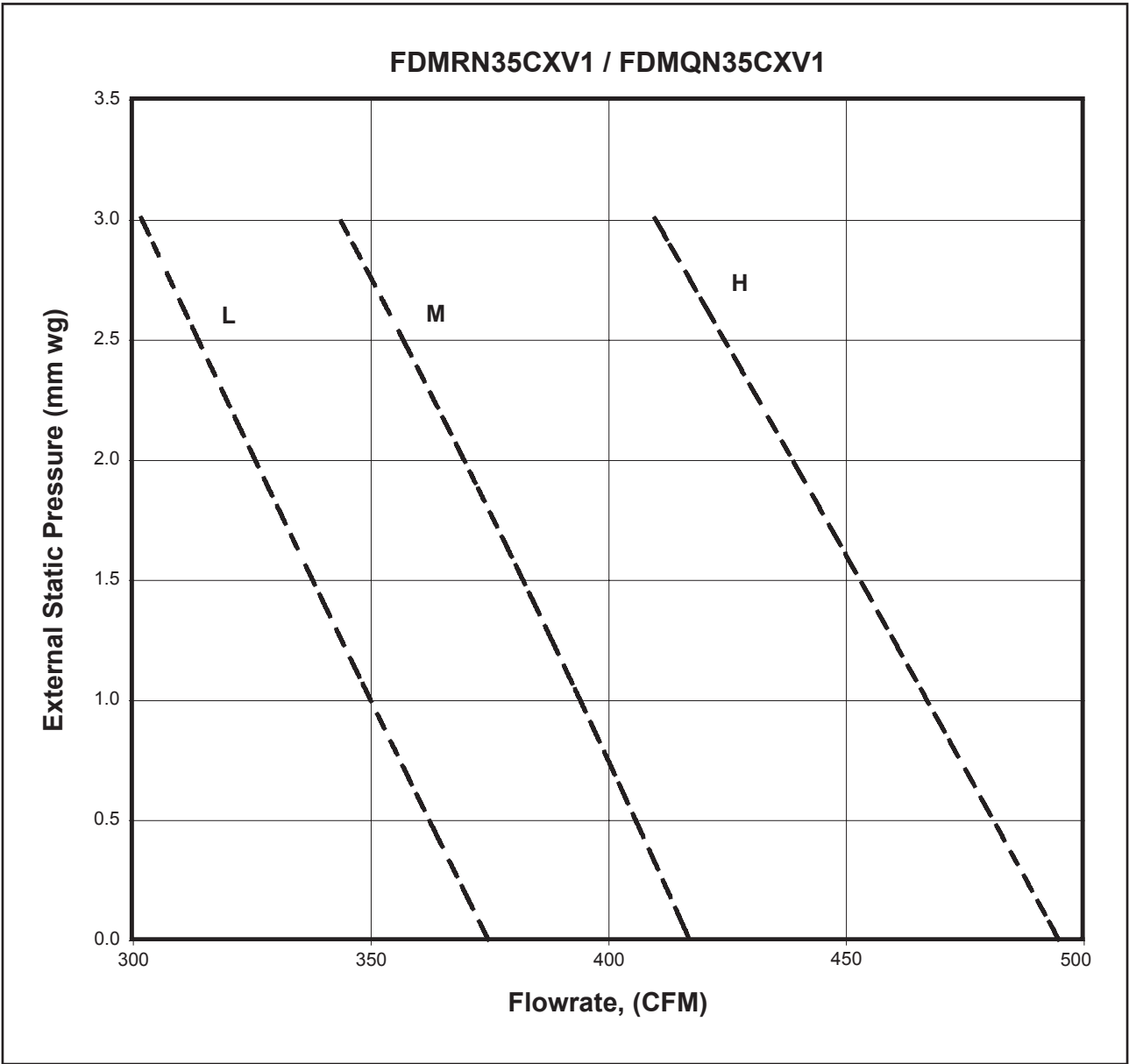


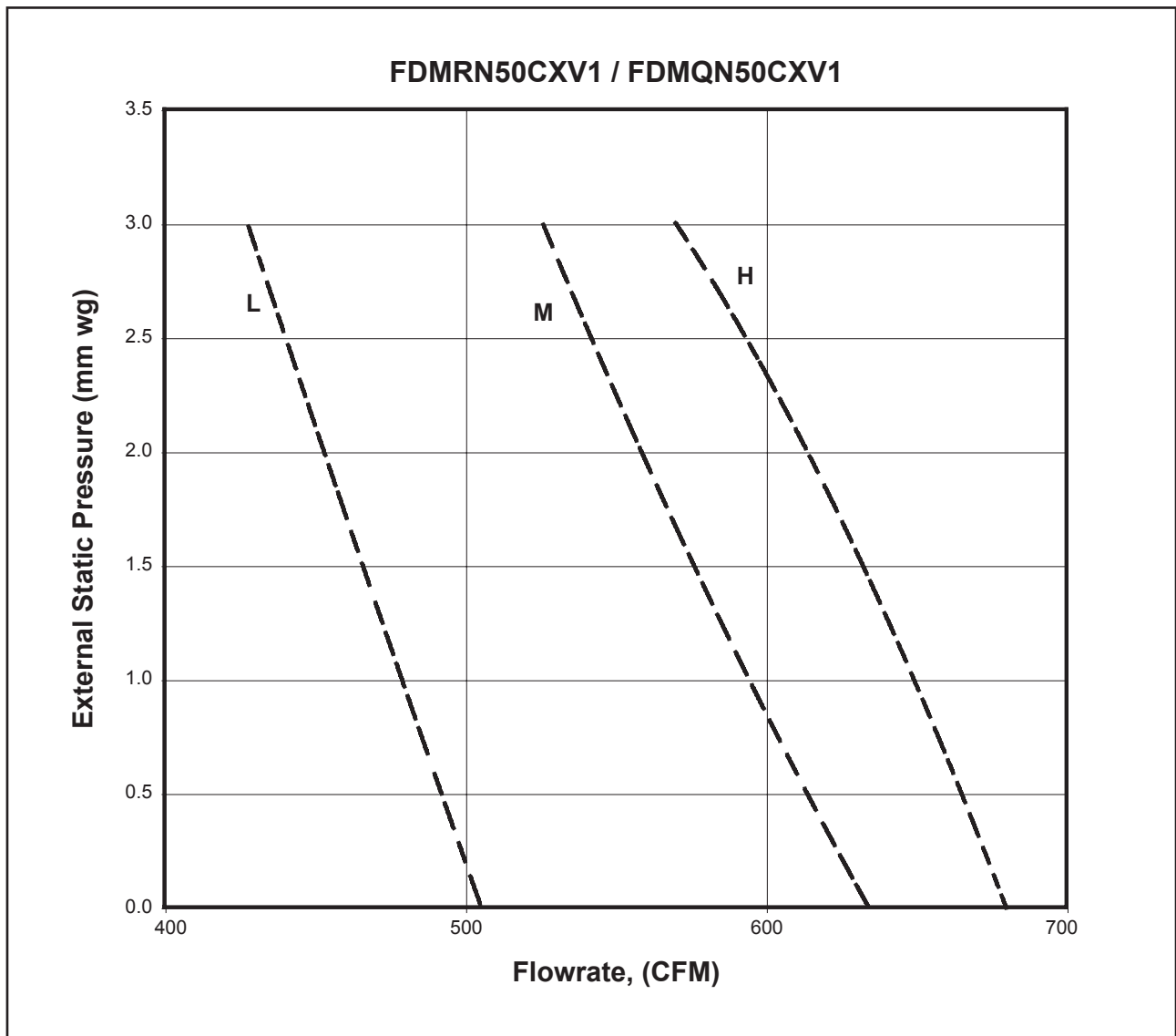


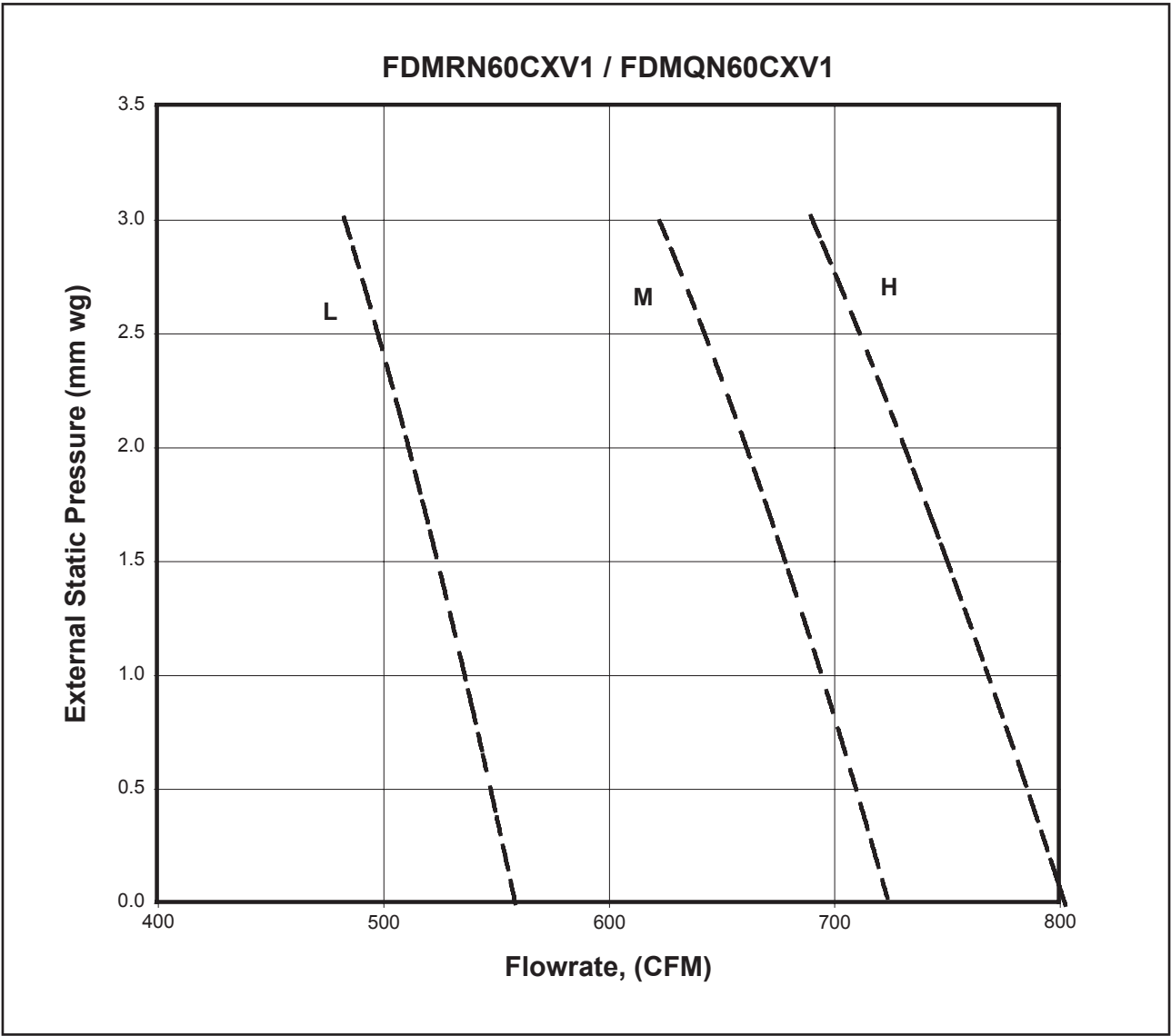
Selection Process

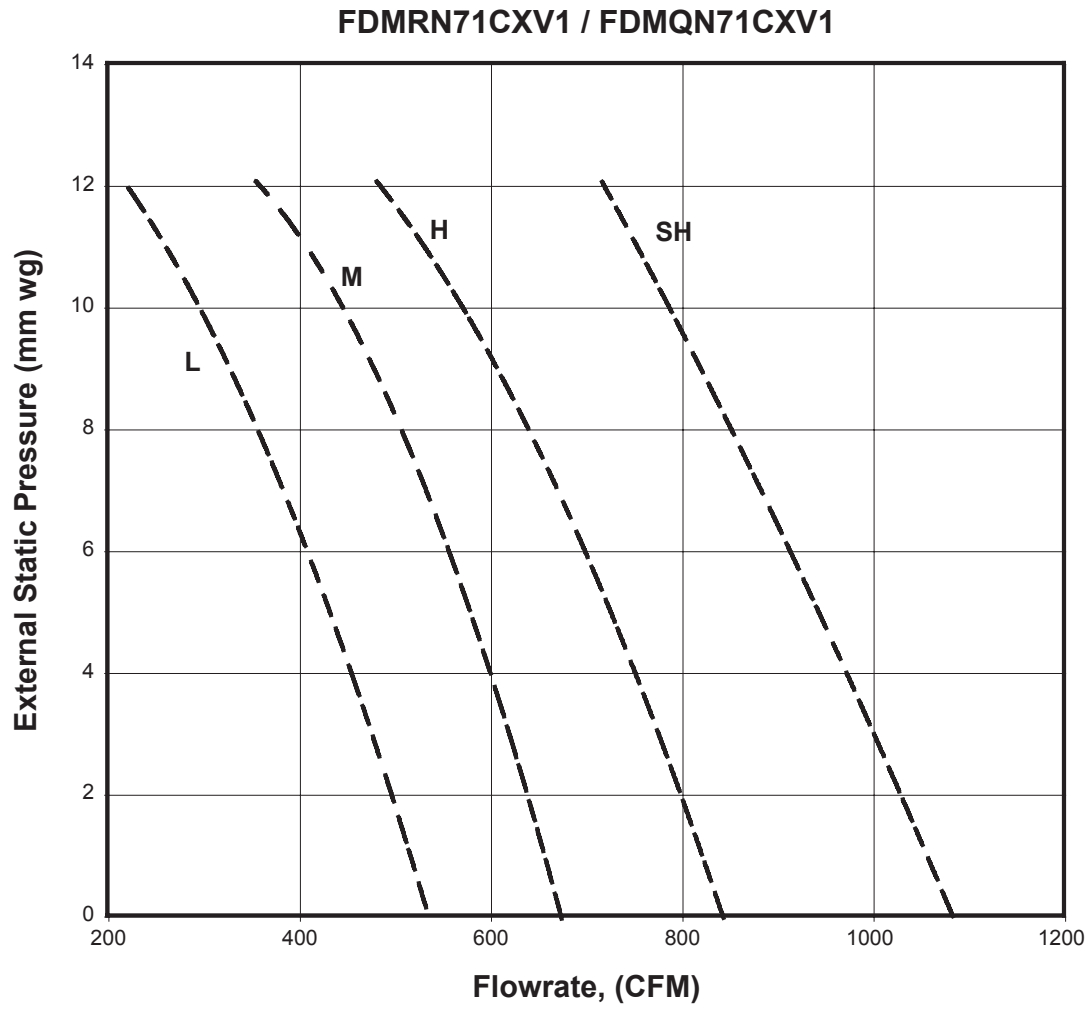
Blower Performance Curve

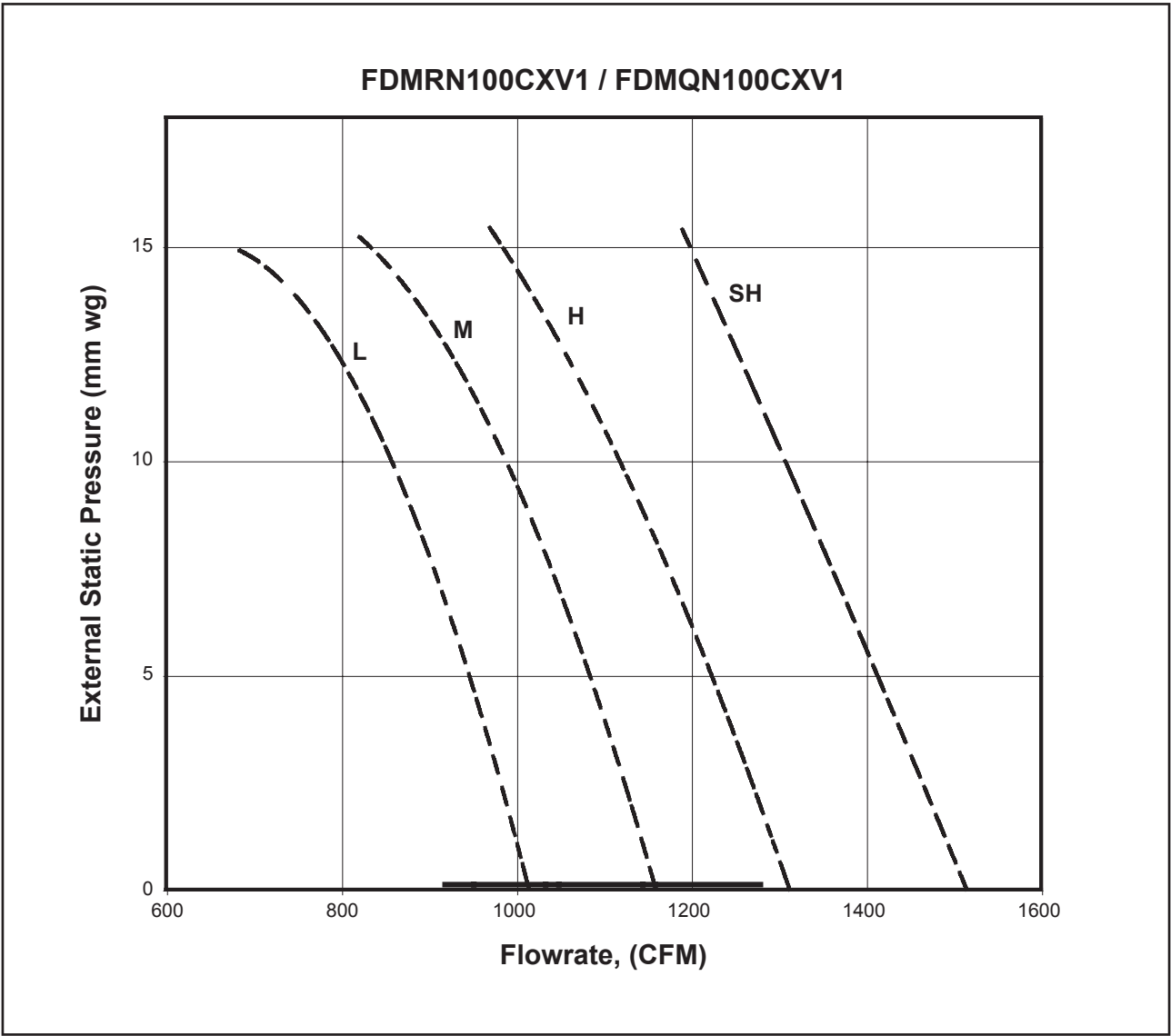


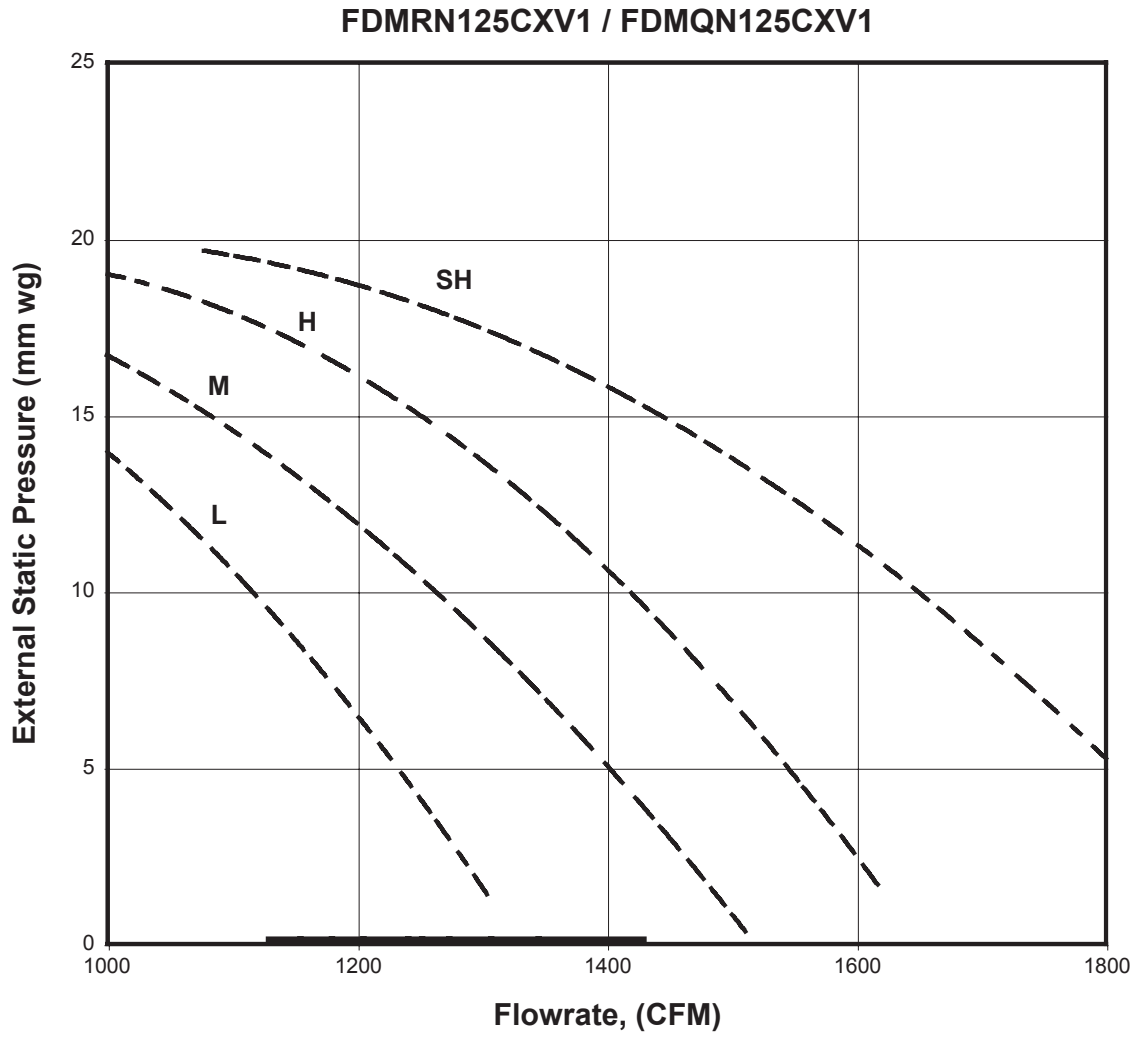


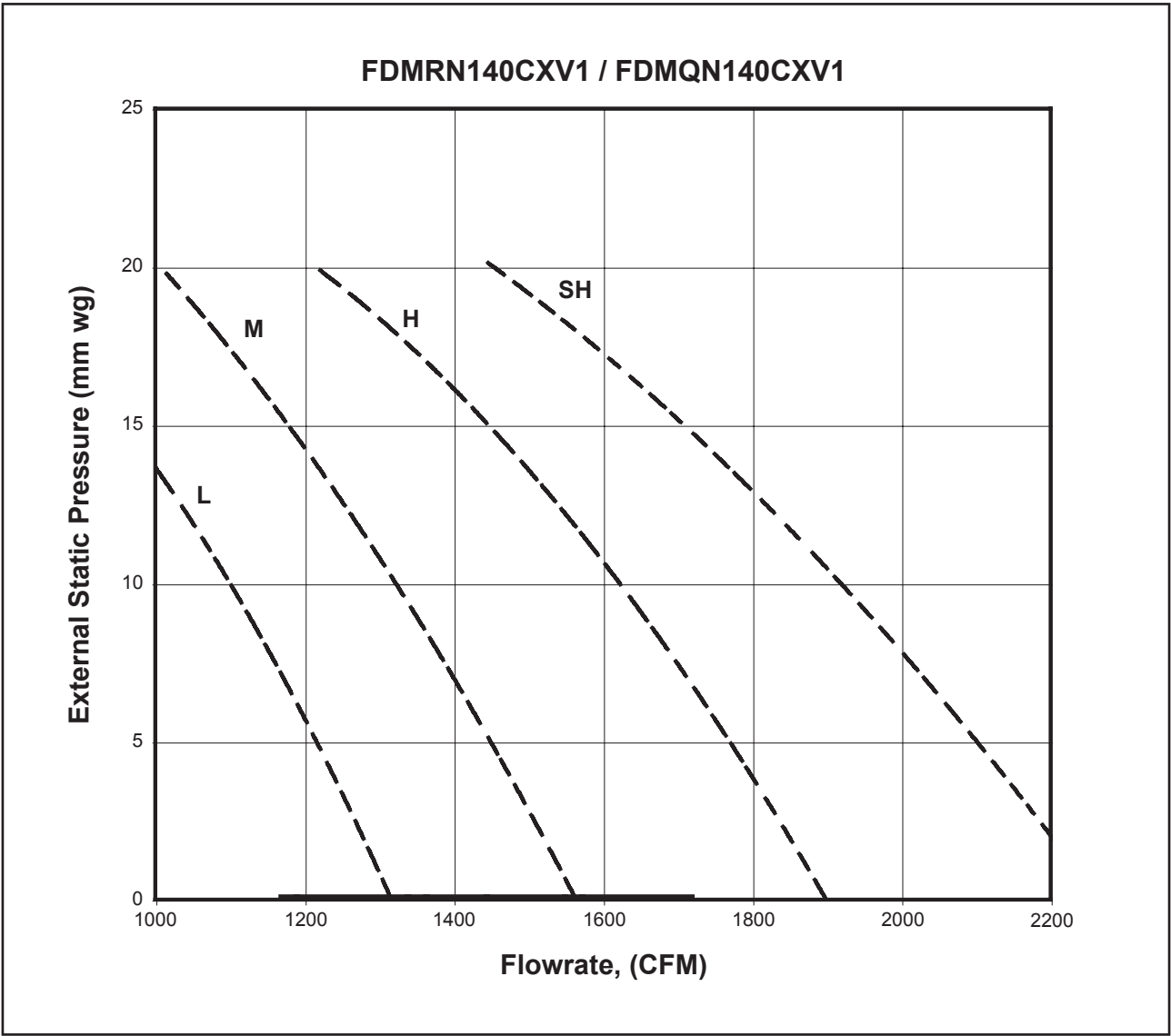












Engineering & Physical Data

Engineering Data – R410A MODEL

MODEL	INDOOR UNIT		FDMRN25CXV1	FDMRN35CXV1	FDMRN50CXV1	FDMRN50CXV1
	OUTDOOR UNIT		RN25CXV1	RN35CXV1	RN50CXV1	RN50CXV1
NOMINAL COOLING CAPACITY	Btu/h		9500	12500	18000	18000
	W		2780	3660	5280	5280
NOMINAL TOTAL INPUT POWER (COOLING)	W		961	1297	1757	1791
NOMINAL RUNNING CURRENT (COOLING)	A		4.30	5.70	7.80	3.40
EER	W/W		2.96	2.91	3.13	3.04
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAP. TUBE			
REFRIGERANT CHARGE	kg		0.73	0.83	1.38	1.38
MODEL	INDOOR UNIT		FDMQN25CXV1	FDMQN35CXV1	FDMQN50CXV1	FDMQN50CXV1
	OUTDOOR UNIT		RYN25CXV1	RYN35CXV1	RYN50CXV1	RYN50CXV1
NOMINAL COOLING CAPACITY	Btu/h		9500	12500	18000	18000
	W		2780	3660	5280	5280
NOMINAL HEATING CAPACITY	Btu/h		9500	12000	18500	18500
	W		2780	3520	5420	5420
NOMINAL TOTAL INPUT POWER (COOLING)	W		961	1297	1757	1791
NOMINAL TOTAL INPUT POWER (HEATING)	W		813	1147	1597	1568
NOMINAL RUNNING CURRENT (COOLING)	A		4.30	5.70	7.80	3.40
NOMINAL RUNNING CURRENT (HEATING)	A		3.70	5.20	7.40	2.82
EER	W/W		2.96	2.91	3.13	3.04
COP	W/W		3.52	3.18	3.55	3.59
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAP. TUBE			
REFRIGERANT CHARGE	kg		0.73	0.83	1.38	1.38
POWER SOURCE	V/Ph/Hz		220-240/1/50			380-415/3/50
REFRIGERANT TYPE			R410A			
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION	DUCTED			
			SLM WIRED HANDSET			
	AIR FLOW	HIGH	l/s / CFM	118/250	193/410	269/570
		MEDIUM	l/s / CFM	111/235	175/370	263/558
		LOW	l/s / CFM	99/210	118/250	227/480
	EXTERNAL STATIC PRESSURE (H/M/L)		Pa (in.wg.)	29/20/10 (0.11/0.08/0.04)	29/20/10 (0.11/0.08/0.04)	29/20/10 (0.11/0.08/0.04)
	SOUND PRESSURE LEVEL (H/M/L)		dBA	33/30/26	37/34/29	38/36/34
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	261 x 765 x 411	261 x 905 x 411	261 x 1065 x 411
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	376 x 951 x 541	376 x 1091 x 541	376 x 1251 x 541
	UNIT WEIGHT		kg	18	22	24
	CONDENSATE DRAIN SIZE		mm	19.05	19.05	19.05
	FAN	TYPE		CENTRIFUGAL		
		DRIVE		DIRECT		
		TYPE		INDUCTION		
	FAN MOTOR	INDEX OF PROTECTION (IP)		N/A	N/A	N/A
		INSULATION GRADE		CLASS E	CLASS B	CLASS B
		RATED INPUT POWER	W	61	107	133
		RATED RUNNING CURRENT	A	0.27	0.48	0.61
		MOTOR OUTPUT	W	30	50	80
	COIL	POLES		4	4	4
		TUBE		COPPER		
		DIAMETER	mm	7	7	7
		FIN		ALUMINIUM		
	AIR QUALITY	FACE AREA	m ²	0.115	0.143	0.176
		ROW		3	3	3
		TYPE		WASHABLE SARANET FILTER		
	CASING	QUANTITY	pc	1	1	1
		COLOUR		WITHOUT POWDER PAINT		
OUTDOOR UNIT	AIR FLOW	l/s / CFM		396/840	453/960	614/1300
	SOUND PRESSURE LEVEL	dBA		46	49	52
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	540 x 700 x 250	540 x 700 x 250	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
	UNIT WEIGHT		kg	28	30	47
	PIPE CONNECTION	TYPE		FLARE VALVE		
		SIZE				
		LIQUID	mm	6.35	6.35	6.35
	FAN	GAS	mm	9.52	12.70	12.70
		TYPE		PROPELLER		
		DRIVE		DIRECT		
	FAN MOTOR	TYPE		INDUCTION		
		INDEX OF PROTECTION (IP)		IP22	IP22	IP23
		INSULATION GRADE		CLASS B	CLASS B	CLASS F
		RATED INPUT POWER	W	57	70	80
		RATED RUNNING CURRENT	A	0.25	0.31	0.36
		MOTOR OUTPUT	W	24	35	42
		POLES		6	6	6
	COMPRESSOR	TYPE		ROTARY		
		OIL TYPE		RB68A or FREOL ALPHA68M		
		OIL AMOUNT	cm ³	350	430	670
		RATED INPUT POWER (COOLING)	W	843	1120	1544
		RATED INPUT POWER (HEATING)	W	695	970	1384
		RATED RUNNING CURRENT (COOLING)	A	3.78	4.91	6.83
		RATED RUNNING CURRENT (HEATING)	A	3.18	4.41	6.43
		LOCKED ROTOR AMP.	A	19	24	26
	COIL	TUBE		COPPER		
		DIAMETER	mm	7	7	7
		FIN		ALUMINIUM		
		FACE AREA	m ²	0.360	0.360	0.510
	CASING	ROW		1	1	2
		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

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

Engineering Data - R410A MODEL

MODEL	INDOOR UNIT		FDMRN60CXV1	FDMRN60CXV1	FDMRN71CXV1	FDMRN71CXV1
	OUTDOOR UNIT		RN60CXV1	RN60CXV1	RR71CXV1	RR71CXV1
NOMINAL COOLING CAPACITY	Btu/h		21000	22860	26000	27000
	W		6155	6700	7620	7910
NOMINAL TOTAL INPUT POWER (COOLING)	W		2003	2274	2892	2876
NOMINAL RUNNING CURRENT (COOLING)	A		8.90	4.20	12.80	4.90
EER	W/W		3.15	3.03	2.73	2.88
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAP. TUBE			
REFRIGERANT CHARGE	kg		1.54	1.46	2.03	1.80
MODEL	INDOOR UNIT		FDMQN60CXV1	FDMQN60CXV1	FDMQN71CXV1	FDMQN71CXV1
	OUTDOOR UNIT		RYN60CXV1	RYN60CXV1	RQ71CXV1	RQ71CXV1
NOMINAL COOLING CAPACITY	Btu/h		21000	22860	26000	27000
	W		6155	6700	7620	7910
NOMINAL HEATING CAPACITY	Btu/h		22000	23200	26000	28000
	W		6450	6800	7620	8210
NOMINAL TOTAL INPUT POWER (COOLING)	W		2003	2274	2892	2876
NOMINAL TOTAL INPUT POWER (HEATING)	W		1953	2153	2429	2487
NOMINAL RUNNING CURRENT (COOLING)	A		8.90	4.20	12.80	4.90
NOMINAL RUNNING CURRENT (HEATING)	A		8.80	3.99	11.20	4.50
EER	W/W		3.15	3.03	2.73	2.88
COP	W/W		3.39	3.23	3.27	3.43
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAP. TUBE			
REFRIGERANT CHARGE	kg		1.54	1.46	2.03	1.80
POWER SOURCE	V/Ph/Hz		220-240/1/50	380-415/3/50	220-240/1/50	380-415/3/50
REFRIGERANT TYPE			R410A			
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION	DUCTED			
			SLM WIRED HANDSET			
	AIR FLOW	SUPER HIGH	l/s / CFM	-	401/850	401/850
		HIGH	l/s / CFM	326/690	382/810	382/810
		MEDIUM	l/s / CFM	312/660	363/770	363/770
		LOW	l/s / CFM	253/535	335/710	335/710
	EXTERNAL STATIC PRESSURE (SH/H/M/L)	Pa (in.wg.)	-29/20/10 (-0.11/0.08/0.04)	-29/20/10 (-0.11/0.08/0.04)	98/78/68/59 (0.39/0.31/0.27/0.24)	98/78/68/59 (0.39/0.31/0.27/0.24)
	SOUND PRESSURE LEVEL (SH/H/M/L)	dBA	40/39/36	40/39/36	44/41/38/34	44/41/38/34
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	261 x 1200 x 411	285 x 932 x 600	285 x 932 x 600
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	376 x 1386 x 541	343 x 1138 x 690	343 x 1138 x 690
	UNIT WEIGHT	kg	26	26	40	40
	CONDENSATE DRAIN SIZE	mm	19.05	19.05	19.05	19.05
	FAN	TYPE	CENTRIFUGAL			
		DRIVE	DIRECT			
		TYPE	INDUCTION			
	FAN MOTOR	INDEX OF PROTECTION (IP)	N/A	N/A	IP20	IP20
		INSULATION GRADE	CLASS E	CLASS E	CLASS B	CLASS B
		RATED INPUT POWER	W	164	269	269
		RATED RUNNING CURRENT	A	0.74	1.28	1.28
		MOTOR OUTPUT	W	100	320	320
		POLES	4	4	4	4
	COIL	TUBE	COPPER			
		DIAMETER	mm	7	7	7
		FIN	ALUMINIUM			
		FACE AREA	m ²	0.203	0.240	0.240
	AIR QUALITY	ROW	3	3	3	3
		TYPE	WASHABLE SARANET FILTER			
		QUANTITY	pc	1	2	2
	CASING	COLOUR	WITHOUT POWDER PAINT			
OUTDOOR UNIT	AIR FLOW	l/s / CFM	689/1460	689/1460	684/1450	684/1450
	SOUND PRESSURE LEVEL	dBA	52	52	58	58
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	753 x 855 x 328	753 x 855 x 328	753 x 855 x 328
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	810 x 990 x 415	810 x 990 x 415	810 x 990 x 415
	UNIT WEIGHT	kg	50	50	57	57
	PIPE CONNECTION	TYPE	FLARE VALVE			
		SIZE				
		LIQUID	mm	6.35	6.35	9.52
		GAS	mm	15.88	15.88	15.88
	FAN	TYPE	PROPELLER			
		DRIVE	DIRECT			
		TYPE	INDUCTION			
	FAN MOTOR	INDEX OF PROTECTION (IP)	IP23	IP23	IP23	IP23
		INSULATION GRADE	CLASS F	CLASS F	CLASS F	CLASS F
		RATED INPUT POWER	W	97	124	124
		RATED RUNNING CURRENT	A	0.43	0.54	0.54
		MOTOR OUTPUT	W	64	75	75
		POLES	6	6	6	6
	COMPRESSOR	TYPE	ROTARY			
		OIL TYPE	RB68A or FREOL ALPHA68M			
		OIL AMOUNT	cm ³	1130	1242	1242
		RATED INPUT POWER (COOLING)	W	1742	2499	2483
		RATED INPUT POWER (HEATING)	W	1692	2036	2094
		RATED RUNNING CURRENT (COOLING)	A	7.73	11.00	4.29
		RATED RUNNING CURRENT (HEATING)	A	7.63	9.38	3.90
		LOCKED ROTOR AMP.	A	63	26	26
	COIL	TUBE	COPPER			
		DIAMETER	mm	7	7	7
		FIN	ALUMINIUM			
		FACE AREA	m ²	0.620	0.620	0.620
		ROW	2	2	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

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

Engineering Data - R410A MODEL

MODEL			INDOOR UNIT	FDMRN100CXV1	FDMRN100CXV1	FDMRN100CXV1	FDMRN100CXV1	
			OUTDOOR UNIT	RR90DXV1	RR90DXY1	RR100DXV1	RR100DXY1	
NOMINAL COOLING CAPACITY			Btu/h	32000	33000	39000	39000	
			W	9380	9670	11430	11430	
NOMINAL TOTAL INPUT POWER (COOLING)			W	3287	3427	4287	4287	
NOMINAL RUNNING CURRENT (COOLING)			A	15.20	5.90	19.00	7.40	
EER			W/W	3.07	3.03	2.82	2.82	
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE				
REFRIGERANT CHARGE			kg	2.60	2.60	2.10	2.10	
MODEL		INDOOR UNIT		FDMRN100CXV1	FDMRN100CXV1	FDMRN100CXV1	FDMRN100CXV1	
		OUTDOOR UNIT		RQ90DXV1	RQ90DXY1	RQ100DXV1	RQ100DXY1	
NOMINAL COOLING CAPACITY			Btu/h	32000	33000	39000	39000	
			W	9380	9670	11430	11430	
NOMINAL HEATING CAPACITY			Btu/h	34000	36000	41000	41000	
			W	9960	10550	12020	12020	
NOMINAL TOTAL INPUT POWER (COOLING)			W	3287	3427	4287	4287	
NOMINAL TOTAL INPUT POWER (HEATING)			W	2987	3137	3937	3937	
NOMINAL RUNNING CURRENT (COOLING)			A	15.20	5.90	19.00	7.40	
NOMINAL RUNNING CURRENT (HEATING)			A	14.00	5.50	17.60	7.00	
EER			W/W	3.07	3.03	2.82	2.82	
COP			W/W	3.62	3.64	3.25	3.25	
REFRIGERANT CONTROL (EXPANSION DEVICE)				OUTDOOR CAP. TUBE				
REFRIGERANT CHARGE			kg	2.60	2.60	2.10	2.10	
POWER SOURCE			V/Ph/Hz	220-240/1/50	380-415/3/50	220-240/1/50	380-415/3/50	
REFRIGERANT TYPE				R410A				
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION		DUCTED				
				SLM WIRED HANDSET				
	AIR FLOW	SUPER HIGH	l/s / CFM	604/1280	604/1280	604/1280	604/1280	
		HIGH	l/s / CFM	547/1160	547/1160	547/1160	547/1160	
		MEDIUM	l/s / CFM	496/1050	496/1050	496/1050	496/1050	
		LOW	l/s / CFM	434/920	434/920	434/920	434/920	
	EXTERNAL STATIC PRESSURE (SH/H/M/L)		Pa (in.wg.)	118/96/78/61 (0.47/0.38/0.31/0.24)	118/96/78/61 (0.47/0.38/0.31/0.24)	118/96/78/61 (0.47/0.38/0.31/0.24)	118/96/78/61 (0.47/0.38/0.31/0.24)	
	SOUND PRESSURE LEVEL (SH/H/M/L)		dBA	52/49/47/45	52/49/47/45	52/49/47/45	52/49/47/45	
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	315 x 1257 x 638	315 x 1257 x 638	315 x 1257 x 638	315 x 1257 x 638	
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	355 x 1461 x 727	355 x 1461 x 727	355 x 1461 x 727	355 x 1461 x 727	
	UNIT WEIGHT		kg	49	49	49	49	
	CONDENSATE DRAIN SIZE		mm	19.05	19.05	19.05	19.05	
	FAN	TYPE		CENTRIFUGAL				
		DRIVE		DIRECT				
	FAN MOTOR	TYPE		INDUCTION				
		INDEX OF PROTECTION (IP)		IP21	IP21	IP21	IP21	
		INSULATION GRADE		CLASS B	CLASS B	CLASS B	CLASS B	
		RATED INPUT POWER	W	503	503	503	503	
		RATED RUNNING CURRENT	A	2.27	2.27	2.27	2.27	
		MOTOR OUTPUT	W	470	470	470	470	
	COIL	POLES		4	4	4	4	
		TUBE	MATERIAL	COPPER				
			DIAMETER	mm	7	7	7	7
		FIN	MATERIAL	ALUMINIUM				
	FACE AREA		m²	0.340	0.340	0.340	0.340	
	AIR QUALITY	FILTER	ROW	3	3	3	3	
			TYPE	WASHABLE SARANET FILTER				
		QUANTITY	pc	2	2	2	2	
	CASING			COLOUR	WITHOUT POWDER PAINT			
OUTDOOR UNIT	AIR FLOW		l/s / CFM	1605/3400	1605/3400	1605/3400	1605/3400	
	SOUND PRESSURE LEVEL		dBA	58	58	58	58	
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH	mm	852 x 1030 x 400	852 x 1030 x 400	852 x 1030 x 400	852 x 1030 x 400	
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH	mm	1010 x 1180 x 514	1010 x 1180 x 514	1010 x 1180 x 514	1010 x 1180 x 514	
	UNIT WEIGHT		kg	86	86	95	95	
	PIPE CONNECTION	TYPE		FLARE VALVE				
		SIZE	LIQUID	mm	9.52	9.52	9.52	9.52
			GAS	mm	15.88	15.88	15.88	15.88
	FAN	TYPE		PROPELLER				
		DRIVE		DIRECT				
	FAN MOTOR	TYPE		INDUCTION				
		INDEX OF PROTECTION (IP)		N/A	N/A	N/A	N/A	
		INSULATION GRADE		CLASS B	CLASS B	CLASS B	CLASS B	
		RATED INPUT POWER	W	257	257	257	257	
		RATED RUNNING CURRENT	A	1.10	1.10	1.10	1.10	
		MOTOR OUTPUT	W	145	145	145	145	
	COMPRESSOR	POLES		8	8	8	8	
		TYPE		SCROLL				
		OIL TYPE		MOBIL EAL ARCTIC 22CC				
		OIL AMOUNT	cm³	1242	1242	1951	1951	
		RATED INPUT POWER (COOLING)	W	2527	2667	3527	3527	
		RATED INPUT POWER (HEATING)	W	2227	2377	3177	3177	
		RATED RUNNING CURRENT (COOLING)	A	11.80	4.78	15.60	6.28	
		RATED RUNNING CURRENT (HEATING)	A	10.60	4.38	14.20	5.88	
	COIL	LOCKED ROTOR AMP.		A	97	48	136	64
		TUBE	MATERIAL	COPPER				
			DIAMETER	mm	7	7	7	7
		FIN	MATERIAL	ALUMINIUM				
	FACE AREA		m²	0.870	0.870	0.870	0.870	
	CASING			COLOUR	LIGHT GREY			
				2	2	2	2	

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	

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Engineering Data - R410A MODEL

MODEL		INDOOR UNIT		FDMRN125CXV1		FDMRN140CXV1		
		OUTDOOR UNIT		RR125DXY1		RR140DXY1		
NOMINAL COOLING CAPACITY			Btu/h		45000		55000	
			W		13190		16120	
NOMINAL TOTAL INPUT POWER (COOLING)			W		4931		5758	
NOMINAL RUNNING CURRENT (COOLING)			A		8.50		9.40	
EER			W/W		2.87		3.01	
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAP. TUBE					
REFRIGERANT CHARGE			kg		2.25		2.90	
MODEL		INDOOR UNIT		FDMQN125CXV1		FDMQN140CXV1		
		OUTDOOR UNIT		RQ125DXY1		RQ140DXY1		
NOMINAL COOLING CAPACITY			Btu/h		45000		55000	
			W		13190		16120	
NOMINAL HEATING CAPACITY			Btu/h		47000		55000	
			W		13770		16120	
NOMINAL TOTAL INPUT POWER (COOLING)			W		4931		5758	
NOMINAL TOTAL INPUT POWER (HEATING)			W		4371		5128	
NOMINAL RUNNING CURRENT (COOLING)			A		8.50		9.40	
NOMINAL RUNNING CURRENT (HEATING)			A		7.80		8.60	
EER			W/W		2.87		3.01	
COP			W/W		3.41		3.41	
REFRIGERANT CONTROL (EXPANSION DEVICE)			OUTDOOR CAP. TUBE					
REFRIGERANT CHARGE			kg		2.25		2.90	
POWER SOURCE			V/Ph/Hz		380-415/3/50		380-415/3/50	
REFRIGERANT TYPE			R410A					
INDOOR UNIT	CONTROL	AIR DISCHARGE OPERATION			DUCTED			
					SLM WIRED HANDSET			
	AIR FLOW	SUPER HIGH		I/s / CFM	675/1430		812/1720	
		HIGH		I/s / CFM	623/1320		732/1550	
		MEDIUM		I/s / CFM	580/1230		632/1340	
		LOW		I/s / CFM	533/1130		552/1170	
	EXTERNAL STATIC PRESSURE (SH/H/M/L)			Pa (in.wg.)	147/126/109/92 (0.59/0.51/0.44/0.37)		147/120/90/69 (0.59/0.48/0.36/0.28)	
	SOUND PRESSURE LEVEL (SH/H/M/L)			dBA	54/53/52/51		54/52/50/46	
	UNIT DIMENSION	HEIGHT X WIDTH X DEPTH		mm	378 x 1299 x 541		378 x 1499 x 541	
	PACKING DIMENSION	HEIGHT X WIDTH X DEPTH		mm	415 x 1497 x 631		415 x 1701 x 631	
	UNIT WEIGHT			kg	50		56	
	CONDENSATE DRAIN SIZE			mm	19.05		19.05	
	FAN	TYPE			CENTRIFUGAL			
		DRIVE			DIRECT			
	FAN MOTOR	TYPE			INDUCTION			
		INDEX OF PROTECTION (IP)			IP20		IP20	
		INSULATION GRADE			CLASS B		CLASS B	
		RATED INPUT POWER		W	515		659	
		RATED RUNNING CURRENT		A	2.32		2.91	
		MOTOR OUTPUT		W	480		600	
		POLES			4		4	
	COIL	TUBE	MATERIAL		COPPER			
			DIAMETER		mm	7		
		FIN	MATERIAL		ALUMINIUM			
			FACE AREA		m²	0.400		
			ROW			3		
	AIR QUALITY	FILTER	TYPE		WASHABLE SARANET FILTER			
			QUANTITY		pc	2		
	CASING			COLOUR	WITHOUT POWDER PAINT			
AIR FLOW			I/s / CFM	2171/4600		2171/4600		
SOUND PRESSURE LEVEL			dBA	60		65		
UNIT DIMENSION	HEIGHT X WIDTH X DEPTH		mm	852 x 1030 x 400		852 x 1030 x 400		
PACKING DIMENSION	HEIGHT X WIDTH X DEPTH		mm	1010 x 1180 x 514		1010 x 1180 x 514		
UNIT WEIGHT			kg	98		105		
OUTDOOR UNIT	PIPE CONNECTION	TYPE		FLARE VALVE				
		SIZE	LIQUID	mm	9.52			
			GAS	mm	15.88			
	FAN	TYPE			PROPELLER			
		DRIVE			DIRECT			
	FAN MOTOR	TYPE			INDUCTION			
		INDEX OF PROTECTION (IP)			IP20		IP54	
		INSULATION GRADE			CLASS F		CLASS F	
		RATED INPUT POWER		W	276		496	
		RATED RUNNING CURRENT		A	1.34		2.18	
		MOTOR OUTPUT		W	145		400	
		POLES			8		6	
	COMPRESSOR	TYPE			SCROLL			
		OIL TYPE			MOBIL EAL ARCTIC 22CC			
		OIL AMOUNT		cm³	1656		1591	
		RATED INPUT POWER (COOLING)		W	4140		4603	
		RATED INPUT POWER (HEATING)		W	3580		3973	
		RATED RUNNING CURRENT (COOLING)		A	7.28		7.70	
		RATED RUNNING CURRENT (HEATING)		A	6.58		6.90	
		LOCKED ROTOR AMP.		A	74		74	
	COIL	TUBE	MATERIAL		COPPER			
			DIAMETER		mm	7		
		FIN	MATERIAL		ALUMINIUM			
			FACE AREA		m²	0.870		
			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	

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Safety Device

MODEL	INDOOR			FDMRN25CXV1	FDMRN35CXV1	FDMRN50CXV1
	OUTDOOR			RN25CXV1	RN35CXV1	RN50CXV1
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		
	DISCHARGE THERMOSTAT SETTING			°C / °F		

MODEL	INDOOR			FDMRN60CXV1	FDMRN50CXV1	FDMRN60CXV1
	OUTDOOR			RN60CXV1	RN50CXY1	RN60CXY1
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	YES	
	DISCHARGE THERMOSTAT SETTING			N/A	130 / 266	

MODEL	INDOOR			FDMRN71CXV1		FDMRN100CXV1
	OUTDOOR			RR71CXV1	RR71CXY1	RR90DXV1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A		NC
		OPEN	kPa / psi	N/A		4137 / 600
		CLOSE	kPa / psi	N/A		3310 / 480
	LOW PRESSURE SWITCH	TYPE		N/A		NC
		OPEN	kPa / psi	N/A		48 / 7
		CLOSE	kPa / psi	N/A		152 / 22
	PHASE SEQUENCER			N/A	YES	N/A
	DISCHARGE THERMOSTAT SETTING			N/A	130 / 266	N/A

MODEL	INDOOR			FDMRN100CXV1	FDMRN100CXV1	
	OUTDOOR			RR90DXY1	RR100DXV1	RR100DXY1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC		
		OPEN	kPa / psi	4137 / 600		
		CLOSE	kPa / psi	3310 / 480		
	LOW PRESSURE SWITCH	TYPE		NC		
		OPEN	kPa / psi	48 / 7		
		CLOSE	kPa / psi	152 / 22		
	PHASE SEQUENCER			YES	N/A	YES
	DISCHARGE THERMOSTAT SETTING			130 / 266	N/A	130 / 266

MODEL	INDOOR			FDMRN125CXV1	FDMRN140CXV1
	OUTDOOR			RR125DXY1	RR140DXY1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		NC	
		OPEN	kPa / psi	4137 / 600	
		CLOSE	kPa / psi	3310 / 480	
	LOW PRESSURE SWITCH	TYPE		NC	
		OPEN	kPa / psi	48 / 7	
		CLOSE	kPa / psi	152 / 22	
	PHASE SEQUENCER			YES	
	DISCHARGE THERMOSTAT SETTING			130 / 266	

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MODEL	INDOOR		FDMQN25CXV1	FDMQN35CXV1	FDMQN50CXV1
	OUTDOOR		RYN25CXV1	RYN35CXV1	RYN50CXV1
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		
	DISCHARGE THERMOSTAT SETTING		°C / °F		

MODEL	INDOOR		FDMQN60CXV1	FDMQN50CXV1	FDMQN60CXV1
	OUTDOOR		RYN60CXV1	RYN50CXV1	RYN60CXV1
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	YES	
	DISCHARGE THERMOSTAT SETTING		N/A	130 / 266	

MODEL	INDOOR		FDMQN71CXV1		FDMQN100CXV1
	OUTDOOR		RQ71CXV1	RQ71CXY1	RQ90DXV1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE	N/A		NC
		OPEN kPa / psi	N/A		4137 / 600
		CLOSE kPa / psi	N/A		3310 / 480
	LOW PRESSURE SWITCH	TYPE	N/A		NC
		OPEN kPa / psi	N/A		48 / 7
		CLOSE kPa / psi	N/A		152 / 22
	PHASE SEQUENCER		N/A	YES	N/A
	DISCHARGE THERMOSTAT SETTING		N/A	130 / 266	N/A

MODEL	INDOOR		FDMQN100CXV1	FDMQN100CXV1	
	OUTDOOR		RQ90DXY1	RQ100DXY1	RQ100DXY1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE	NC		
		OPEN kPa / psi	4137 / 600		
		CLOSE kPa / psi	3310 / 480		
	LOW PRESSURE SWITCH	TYPE	NC		
		OPEN kPa / psi	48 / 7		
		CLOSE kPa / psi	152 / 22		
	PHASE SEQUENCER		YES	N/A	YES
	DISCHARGE THERMOSTAT SETTING		130 / 266	N/A	130 / 266

MODEL	INDOOR		FDMQN125CXV1	FDMQN140CXV1
	OUTDOOR		RQ125DXY1	RQ140DXY1
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE	NC	
		OPEN kPa / psi	4137 / 600	
		CLOSE kPa / psi	3310 / 480	
	LOW PRESSURE SWITCH	TYPE	NC	
		OPEN kPa / psi	48 / 7	
		CLOSE kPa / psi	152 / 22	
	PHASE SEQUENCER		YES	
	DISCHARGE THERMOSTAT SETTING		130 / 266	

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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: FDMRN25CXV1 – RN25CXV1

Indoor Condition: 25°C DB, 17°C WB

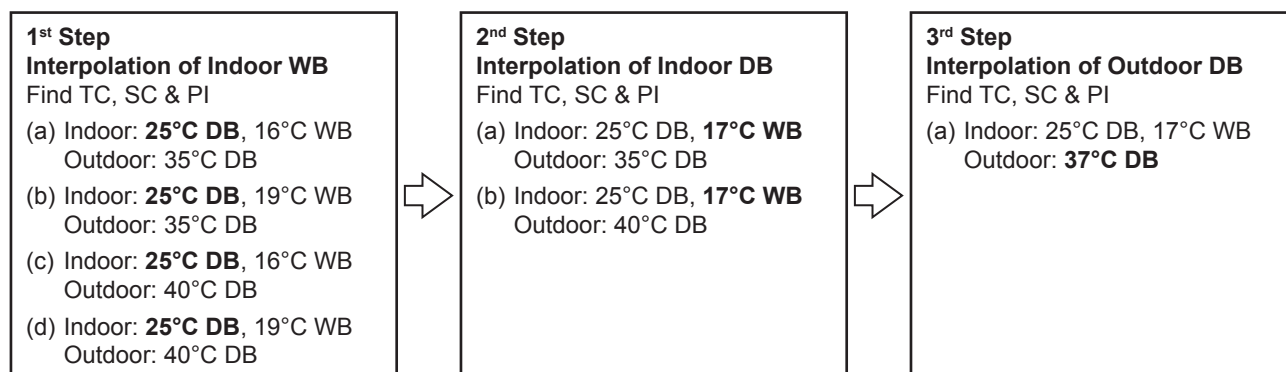
Outdoor Condition: 37°C DB

Fan Speed: High

Solution:

Based on the Performance Table,

1. 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.
2. 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.
3. Refer to the Outdoor DB column,
 - **37°C** is located between 35°C & 40°C.
 - Thus, Interpolation needs to be applied.



Details of Calculation:

1st 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_1	y_1	z_1
	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 ₂	y ₂	z ₂	
	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 1st Step

$$(c) \quad x_3 = 2.98 \text{ kW}; y_3 = 2.98 \text{ kW}; z_3 = 1.38 \text{ kW}$$

$$(d) \quad x_4 = 3.22 \text{ W}; y_4 = 2.53 \text{ kW}; z_4 = 1.40 \text{ kW}$$

2nd 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 ₅	y ₅	z ₅	
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 2nd Step

$$(c) \quad x_6 = 3.06 \text{ kW}; y_6 = 2.83 \text{ kW}; z_6 = 1.39 \text{ kW}$$

3rd 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: FDMRN25CXV1 - 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
210	16°C	21°C	2.62	1.83	0.73	2.53	1.79	0.79	2.44	1.74	0.85	2.34	1.69	0.93	2.15	1.57	1.01	1.98	1.48	1.11
		24°C	2.63	2.20	0.73	2.53	2.15	0.79	2.44	2.10	0.85	2.34	2.04	0.93	2.15	1.91	1.01	1.99	1.80	1.11
		27°C	2.65	2.49	0.73	2.56	2.43	0.79	2.47	2.38	0.86	2.38	2.31	0.93	2.19	2.15	1.01	2.04	2.02	1.11
		30°C	2.73	2.73	0.73	2.65	2.65	0.80	2.57	2.57	0.86	2.49	2.49	0.94	2.30	2.30	1.02	2.16	2.16	1.12
	19°C	24°C	2.89	1.71	0.74	2.79	1.67	0.80	2.69	1.62	0.87	2.58	1.58	0.94	2.37	1.47	1.02	2.19	1.38	1.13
		27°C	2.89	1.96	0.74	2.79	1.91	0.80	2.69	1.87	0.87	2.58	1.83	0.94	2.37	1.71	1.02	2.20	1.62	1.13
		30°C	2.90	2.42	0.74	2.80	2.37	0.80	2.70	2.31	0.87	2.60	2.26	0.94	2.39	2.11	1.02	2.22	2.00	1.13
		33°C	2.93	2.93	0.74	2.84	2.84	0.80	2.75	2.75	0.87	2.65	2.65	0.95	2.45	2.45	1.03	2.29	2.29	1.14
	22°C	27°C	3.18	1.68	0.75	3.07	1.63	0.82	2.96	1.59	0.89	2.84	1.55	0.96	2.62	1.44	1.04	2.42	1.36	1.15
		30°C	3.18	2.04	0.75	3.07	2.00	0.82	2.96	1.95	0.89	2.84	1.91	0.96	2.62	1.78	1.04	2.42	1.69	1.15
		33°C	3.18	2.38	0.75	3.07	2.34	0.82	2.96	2.29	0.89	2.85	2.25	0.96	2.62	2.11	1.04	2.43	2.00	1.15
		36°C	3.19	2.70	0.76	3.09	2.65	0.82	2.98	2.59	0.89	2.87	2.54	0.96	2.65	2.38	1.05	2.46	2.26	1.15
235	16°C	21°C	2.73	1.91	0.74	2.63	1.86	0.80	2.53	1.81	0.86	2.43	1.76	0.93	2.23	1.64	1.01	2.05	1.54	1.12
		24°C	2.74	2.32	0.74	2.64	2.27	0.80	2.54	2.21	0.86	2.44	2.16	0.94	2.24	2.01	1.01	2.07	1.90	1.12
		27°C	2.77	2.64	0.74	2.68	2.57	0.80	2.58	2.51	0.87	2.49	2.43	0.94	2.30	2.26	1.02	2.14	2.11	1.12
		30°C	2.88	2.88	0.74	2.80	2.80	0.81	2.72	2.72	0.87	2.63	2.63	0.95	2.43	2.43	1.03	2.28	2.28	1.14
	19°C	24°C	3.00	1.81	0.75	2.90	1.76	0.81	2.79	1.72	0.88	2.68	1.67	0.95	2.46	1.56	1.03	2.27	1.47	1.14
		27°C	3.01	2.08	0.75	2.90	2.04	0.81	2.79	1.99	0.88	2.68	1.94	0.95	2.46	1.82	1.03	2.28	1.72	1.14
		30°C	3.02	2.57	0.75	2.92	2.51	0.81	2.81	2.46	0.88	2.71	2.40	0.95	2.49	2.24	1.03	2.31	2.12	1.14
		33°C	3.07	3.07	0.75	2.98	2.98	0.81	2.89	2.89	0.88	2.79	2.79	0.96	2.58	2.58	1.04	2.42	2.42	1.15
	22°C	27°C	3.30	1.77	0.76	3.19	1.73	0.83	3.07	1.69	0.89	2.95	1.64	0.97	2.71	1.53	1.05	2.50	1.44	1.16
		30°C	3.31	2.17	0.76	3.19	2.13	0.83	3.07	2.08	0.89	2.95	2.03	0.97	2.71	1.90	1.05	2.51	1.81	1.16
		33°C	3.31	2.55	0.76	3.20	2.50	0.83	3.08	2.45	0.90	2.96	2.39	0.97	2.72	2.25	1.05	2.52	2.13	1.16
		36°C	3.33	2.88	0.76	3.22	2.82	0.83	3.11	2.76	0.90	3.00	2.70	0.97	2.77	2.53	1.06	2.58	2.38	1.17
250	16°C	21°C	2.83	1.99	0.74	2.72	1.94	0.80	2.62	1.89	0.87	2.51	1.84	0.94	2.30	1.71	1.02	2.12	1.61	1.13
		24°C	2.84	2.42	0.74	2.74	2.37	0.80	2.64	2.31	0.87	2.53	2.25	0.94	2.32	2.10	1.02	2.15	1.98	1.13
		27°C	2.89	2.78	0.74	2.79	2.71	0.81	2.70	2.63	0.87	2.60	2.55	0.95	2.41	2.36	1.03	2.24	2.20	1.14
		30°C	3.03	3.03	0.75	2.94	2.94	0.81	2.85	2.85	0.88	2.76	2.76	0.96	2.56	2.56	1.04	2.39	2.39	1.15
	19°C	24°C	3.11	1.91	0.75	3.00	1.87	0.82	2.89	1.82	0.88	2.77	1.77	0.96	2.54	1.65	1.04	2.35	1.55	1.15
		27°C	3.12	2.21	0.75	3.01	2.16	0.82	2.90	2.11	0.89	2.78	2.06	0.96	2.55	1.93	1.04	2.36	1.82	1.15
		30°C	3.15	2.72	0.76	3.04	2.66	0.82	2.93	2.60	0.89	2.82	2.54	0.96	2.59	2.37	1.04	2.41	2.23	1.15
		33°C	3.22	3.22	0.76	3.12	3.12	0.82	3.03	3.03	0.89	2.93	2.93	0.97	2.71	2.71	1.05	2.54	2.54	1.16
	22°C	27°C	3.42	1.87	0.77	3.29	1.83	0.83	3.17	1.78	0.90	3.04	1.74	0.98	2.80	1.62	1.06	2.58	1.53	1.17
		30°C	3.42	2.31	0.77	3.30	2.26	0.83	3.18	2.21	0.90	3.05	2.16	0.98	2.80	2.03	1.06	2.59	1.92	1.17
		33°C	3.43	2.70	0.77	3.32	2.66	0.83	3.19	2.60	0.90	3.07	2.54	0.98	2.82	2.38	1.06	2.62	2.26	1.17
		36°C	3.47	3.05	0.77	3.36	3.00	0.84	3.24	2.93	0.91	3.12	2.86	0.98	2.89	2.67	1.07	2.69	2.51	1.18

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: FDMRN35CXV1 - 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
250	16°C	21°C	3.45	2.37	0.99	3.33	2.31	1.07	3.20	2.25	1.16	3.08	2.18	1.25	2.82	2.03	1.36	2.61	1.91	1.50
		24°C	3.45	2.84	0.99	3.33	2.78	1.07	3.21	2.71	1.16	3.08	2.64	1.25	2.83	2.47	1.36	2.62	2.33	1.50
		27°C	3.48	3.22	0.99	3.37	3.15	1.07	3.25	3.07	1.16	3.12	3.00	1.26	2.88	2.79	1.37	2.68	2.62	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	3.80	2.22	1.00	3.67	2.16	1.09	3.54	2.10	1.18	3.40	2.04	1.28	3.12	1.90	1.38	2.89	1.79	1.53
		27°C	3.81	2.53	1.00	3.67	2.48	1.09	3.54	2.42	1.18	3.40	2.36	1.28	3.12	2.21	1.38	2.89	2.09	1.53
		30°C	3.81	3.13	1.00	3.68	3.06	1.09	3.55	2.99	1.18	3.42	2.92	1.28	3.15	2.73	1.39	2.92	2.59	1.53
		33°C	3.86	3.86	1.01	3.73	3.73	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	2.17	1.02	4.04	2.12	1.11	3.89	2.06	1.20	3.74	2.01	1.30	3.44	1.87	1.41	3.18	1.76	1.56
		30°C	4.19	2.64	1.02	4.04	2.59	1.11	3.89	2.53	1.20	3.74	2.47	1.30	3.44	2.31	1.41	3.19	2.19	1.56
		33°C	4.19	3.09	1.02	4.04	3.03	1.11	3.90	2.97	1.20	3.74	2.91	1.30	3.45	2.73	1.41	3.19	2.59	1.56
		36°C	4.20	3.50	1.02	4.06	3.43	1.11	3.92	3.36	1.20	3.78	3.28	1.30	3.49	3.08	1.42	3.24	2.92	1.56
370	16°C	21°C	3.59	2.48	1.00	3.46	2.41	1.08	3.33	2.35	1.17	3.19	2.28	1.27	2.93	2.13	1.37	2.70	2.00	1.51
		24°C	3.60	3.01	1.00	3.47	2.94	1.08	3.34	2.87	1.17	3.21	2.79	1.27	2.95	2.61	1.37	2.72	2.46	1.51
		27°C	3.64	3.41	1.00	3.52	3.34	1.08	3.40	3.25	1.17	3.28	3.15	1.27	3.03	2.93	1.38	2.82	2.74	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	2.34	1.01	3.81	2.28	1.10	3.67	2.23	1.19	3.52	2.16	1.29	3.24	2.02	1.40	2.99	1.90	1.54
		27°C	3.96	2.70	1.01	3.82	2.64	1.10	3.68	2.58	1.19	3.53	2.52	1.29	3.24	2.35	1.40	3.00	2.23	1.54
		30°C	3.98	3.33	1.01	3.84	3.26	1.10	3.71	3.18	1.19	3.56	3.11	1.29	3.28	2.90	1.40	3.04	2.74	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	2.29	1.03	4.19	2.24	1.12	4.04	2.18	1.21	3.88	2.12	1.31	3.56	1.98	1.42	3.30	1.87	1.57
		30°C	4.35	2.82	1.03	4.20	2.76	1.12	4.04	2.70	1.21	3.88	2.63	1.31	3.57	2.47	1.43	3.30	2.34	1.57
		33°C	4.36	3.30	1.03	4.21	3.24	1.12	4.05	3.17	1.21	3.89	3.10	1.32	3.58	2.91	1.43	3.32	2.76	1.57
		36°C	4.39	3.73	1.03	4.24	3.66	1.12	4.10	3.58	1.22	3.95	3.50	1.32	3.64	3.27	1.43	3.40	3.09	1.58
410	16°C	21°C	3.72	2.58	1.00	3.59	2.52	1.09	3.45	2.45	1.18	3.31	2.38	1.28	3.03	2.22	1.38	2.80	2.09	1.52
		24°C	3.74	3.14	1.01	3.61	3.07	1.09	3.47	2.99	1.18	3.33	2.91	1.28	3.06	2.72	1.39	2.83	2.56	1.53
		27°C	3.80	3.60	1.01	3.68	3.51	1.09	3.55	3.41	1.18	3.43	3.30	1.28	3.17	3.06	1.39	2.95	2.86	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	2.48	1.02	3.95	2.42	1.11	3.80	2.36	1.20	3.65	2.29	1.30	3.35	2.14	1.41	3.09	2.02	1.55
		27°C	4.11	2.87	1.02	3.96	2.80	1.11	3.81	2.74	1.20	3.66	2.67	1.30	3.36	2.50	1.41	3.11	2.36	1.55
		30°C	4.14	3.53	1.02	4.00	3.45	1.11	3.85	3.37	1.20	3.71	3.29	1.30	3.41	3.07	1.41	3.17	2.90	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	2.43	1.04	4.34	2.37	1.13	4.17	2.31	1.22	4.01	2.25	1.32	3.68	2.10	1.44	3.40	1.98	1.58
		30°C	4.51	2.99	1.04	4.35	2.93	1.13	4.18	2.87	1.22	4.01	2.80	1.33	3.69	2.63	1.44	3.41	2.49	1.58
		33°C	4.52	3.50	1.04	4.37	3.44	1.13	4.21	3.37	1.22	4.04	3.30	1.33	3.72	3.09	1.44	3.44	2.93	1.59
		36°C	4.56	3.96	1.04	4.42	3.88	1.13	4.27	3.80	1.23	4.11	3.70	1.33	3.80	3.46	1.45	3.55	3.25	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: FDMRN50CXV1 - 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
480	16°C	21°C	4.98	3.48	1.34	4.80	3.39	1.45	4.63	3.30	1.57	4.44	3.20	1.70	4.08	2.98	1.84	3.76	2.80	2.03
		24°C	4.99	4.17	1.34	4.81	4.07	1.45	4.63	3.98	1.57	4.45	3.88	1.70	4.08	3.62	1.84	3.78	3.42	2.03
		27°C	5.03	4.72	1.34	4.86	4.62	1.45	4.69	4.51	1.57	4.51	4.39	1.70	4.16	4.09	1.85	3.87	3.84	2.04
		30°C	5.18	5.18	1.35	5.03	5.03	1.46	4.88	4.88	1.58	4.72	4.72	1.72	4.38	4.38	1.86	4.10	4.10	2.06
	19°C	24°C	5.49	3.25	1.36	5.30	3.17	1.47	5.11	3.08	1.59	4.90	3.00	1.73	4.51	2.79	1.87	4.17	2.63	2.07
		27°C	5.50	3.72	1.36	5.30	3.63	1.47	5.11	3.55	1.59	4.91	3.46	1.73	4.51	3.24	1.88	4.17	3.07	2.07
		30°C	5.51	4.59	1.36	5.31	4.49	1.47	5.13	4.39	1.59	4.93	4.28	1.73	4.54	4.01	1.88	4.21	3.79	2.07
		33°C	5.57	5.57	1.36	5.39	5.39	1.48	5.21	5.21	1.60	5.04	5.04	1.74	4.66	4.66	1.89	4.36	4.36	2.08
	22°C	27°C	6.04	3.18	1.38	5.83	3.10	1.50	5.62	3.03	1.62	5.40	2.94	1.76	4.97	2.74	1.91	4.60	2.58	2.11
		30°C	6.04	3.88	1.38	5.84	3.79	1.50	5.62	3.71	1.62	5.40	3.62	1.76	4.97	3.39	1.91	4.60	3.21	2.11
		33°C	6.05	4.53	1.38	5.84	4.44	1.50	5.63	4.35	1.62	5.41	4.26	1.76	4.97	4.00	1.91	4.61	3.80	2.11
		36°C	6.07	5.13	1.38	5.87	5.03	1.50	5.66	4.92	1.63	5.46	4.82	1.77	5.03	4.52	1.92	4.68	4.28	2.11
558	16°C	21°C	5.18	3.63	1.35	4.99	3.53	1.46	4.80	3.44	1.58	4.61	3.34	1.71	4.23	3.11	1.86	3.90	2.93	2.05
		24°C	5.20	4.40	1.35	5.01	4.30	1.46	4.82	4.20	1.58	4.63	4.09	1.72	4.25	3.82	1.86	3.93	3.60	2.05
		27°C	5.26	5.00	1.35	5.08	4.89	1.46	4.91	4.76	1.59	4.73	4.62	1.72	4.37	4.29	1.87	4.07	4.01	2.06
		30°C	5.48	5.48	1.36	5.32	5.32	1.48	5.16	5.16	1.60	4.99	4.99	1.74	4.62	4.62	1.89	4.32	4.32	2.08
	19°C	24°C	5.71	3.43	1.37	5.50	3.35	1.48	5.30	3.26	1.61	5.08	3.17	1.74	4.67	2.95	1.89	4.31	2.78	2.08
		27°C	5.72	3.95	1.37	5.51	3.87	1.48	5.31	3.78	1.61	5.09	3.69	1.74	4.68	3.45	1.89	4.33	3.27	2.09
		30°C	5.74	4.88	1.37	5.54	4.77	1.49	5.35	4.66	1.61	5.14	4.55	1.75	4.73	4.26	1.90	4.39	4.02	2.09
		33°C	5.84	5.84	1.38	5.66	5.66	1.49	5.48	5.48	1.62	5.30	5.30	1.76	4.91	4.91	1.91	4.59	4.59	2.11
	22°C	27°C	6.27	3.36	1.40	6.05	3.28	1.51	5.83	3.20	1.64	5.59	3.11	1.78	5.14	2.90	1.93	4.75	2.74	2.12
		30°C	6.28	4.12	1.40	6.06	4.04	1.51	5.83	3.95	1.64	5.60	3.86	1.78	5.15	3.61	1.93	4.76	3.43	2.13
		33°C	6.29	4.83	1.40	6.07	4.74	1.51	5.85	4.64	1.64	5.62	4.54	1.78	5.17	4.26	1.93	4.79	4.05	2.13
		36°C	6.33	5.46	1.40	6.12	5.36	1.52	5.91	5.25	1.65	5.70	5.13	1.79	5.25	4.80	1.94	4.90	4.52	2.14
570	16°C	21°C	5.37	3.78	1.36	5.17	3.69	1.47	4.98	3.59	1.59	4.77	3.49	1.73	4.37	3.25	1.87	4.03	3.06	2.06
		24°C	5.40	4.60	1.36	5.20	4.49	1.47	5.01	4.38	1.60	4.81	4.27	1.73	4.41	3.98	1.88	4.08	3.75	2.07
		27°C	5.49	5.27	1.37	5.31	5.13	1.48	5.13	4.99	1.60	4.94	4.84	1.74	4.57	4.48	1.89	4.26	4.18	2.08
		30°C	5.76	5.76	1.38	5.59	5.59	1.49	5.42	5.42	1.62	5.24	5.24	1.76	4.85	4.85	1.91	4.53	4.53	2.11
	19°C	24°C	5.91	3.63	1.38	5.70	3.54	1.50	5.48	3.45	1.62	5.26	3.36	1.76	4.83	3.13	1.91	4.46	2.95	2.10
		27°C	5.93	4.20	1.38	5.72	4.10	1.50	5.50	4.01	1.62	5.28	3.91	1.76	4.85	3.66	1.91	4.48	3.46	2.10
		30°C	5.98	5.17	1.39	5.77	5.06	1.50	5.56	4.94	1.63	5.35	4.82	1.76	4.92	4.50	1.91	4.57	4.24	2.11
		33°C	6.11	6.11	1.39	5.93	5.93	1.51	5.75	5.75	1.64	5.56	5.56	1.78	5.15	5.15	1.93	4.81	4.81	2.13
	22°C	27°C	6.49	3.55	1.41	6.26	3.47	1.53	6.02	3.39	1.65	5.78	3.30	1.79	5.31	3.08	1.94	4.91	2.91	2.14
		30°C	6.50	4.38	1.41	6.27	4.30	1.53	6.03	4.20	1.65	5.79	4.11	1.79	5.32	3.85	1.95	4.92	3.65	2.14
		33°C	6.52	5.13	1.41	6.30	5.04	1.53	6.07	4.94	1.66	5.83	4.83	1.80	5.36	4.52	1.95	4.97	4.29	2.15
		36°C	6.58	5.79	1.41	6.38	5.69	1.53	6.16	5.56	1.66	5.93	5.43	1.80	5.48	5.06	1.96	5.11	4.76	2.16

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: FDMRN50CXV1 - RN50CXY1**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
480	16°C	21°C	4.98	3.48	1.36	4.80	3.39	1.47	4.63	3.30	1.59	4.44	3.20	1.73	4.08	2.98	1.87	3.76	2.80	2.07
		24°C	4.99	4.17	1.36	4.81	4.07	1.47	4.63	3.98	1.59	4.45	3.88	1.73	4.08	3.62	1.88	3.78	3.42	2.07
		27°C	5.03	4.72	1.36	4.86	4.62	1.47	4.69	4.51	1.60	4.51	4.39	1.73	4.16	4.09	1.88	3.87	3.84	2.08
		30°C	5.18	5.18	1.37	5.03	5.03	1.48	4.88	4.88	1.61	4.72	4.72	1.75	4.38	4.38	1.90	4.10	4.10	2.10
	19°C	24°C	5.49	3.25	1.38	5.30	3.17	1.50	5.11	3.08	1.62	4.90	3.00	1.76	4.51	2.79	1.91	4.17	2.63	2.10
		27°C	5.50	3.72	1.38	5.30	3.63	1.50	5.11	3.55	1.62	4.91	3.46	1.76	4.51	3.24	1.91	4.17	3.07	2.10
		30°C	5.51	4.59	1.38	5.31	4.49	1.50	5.13	4.39	1.62	4.93	4.28	1.76	4.54	4.01	1.91	4.21	3.79	2.11
		33°C	5.57	5.57	1.39	5.39	5.39	1.50	5.21	5.21	1.63	5.04	5.04	1.77	4.66	4.66	1.92	4.36	4.36	2.12
	22°C	27°C	6.04	3.18	1.41	5.83	3.10	1.52	5.62	3.03	1.65	5.40	2.94	1.79	4.97	2.74	1.94	4.60	2.58	2.14
		30°C	6.04	3.88	1.41	5.84	3.79	1.52	5.62	3.71	1.65	5.40	3.62	1.79	4.97	3.39	1.95	4.60	3.21	2.14
		33°C	6.05	4.53	1.41	5.84	4.44	1.53	5.63	4.35	1.65	5.41	4.26	1.79	4.97	4.00	1.95	4.61	3.80	2.14
		36°C	6.07	5.13	1.41	5.87	5.03	1.53	5.66	4.92	1.66	5.46	4.82	1.80	5.03	4.52	1.95	4.68	4.28	2.15
558	16°C	21°C	5.18	3.63	1.37	4.99	3.53	1.48	4.80	3.44	1.61	4.61	3.34	1.74	4.23	3.11	1.89	3.90	2.93	2.08
		24°C	5.20	4.40	1.37	5.01	4.30	1.49	4.82	4.20	1.61	4.63	4.09	1.75	4.25	3.82	1.89	3.93	3.60	2.09
		27°C	5.26	5.00	1.38	5.08	4.89	1.49	4.91	4.76	1.61	4.73	4.62	1.75	4.37	4.29	1.90	4.07	4.01	2.10
		30°C	5.48	5.48	1.39	5.32	5.32	1.50	5.16	5.16	1.63	4.99	4.99	1.77	4.62	4.62	1.92	4.32	4.32	2.12
	19°C	24°C	5.71	3.43	1.40	5.50	3.35	1.51	5.30	3.26	1.64	5.08	3.17	1.77	4.67	2.95	1.92	4.31	2.78	2.12
		27°C	5.72	3.95	1.40	5.51	3.87	1.51	5.31	3.78	1.64	5.09	3.69	1.78	4.68	3.45	1.93	4.33	3.27	2.12
		30°C	5.74	4.88	1.40	5.54	4.77	1.51	5.35	4.66	1.64	5.14	4.55	1.78	4.73	4.26	1.93	4.39	4.02	2.13
		33°C	5.84	5.84	1.40	5.66	5.66	1.52	5.48	5.48	1.65	5.30	5.30	1.79	4.91	4.91	1.94	4.59	4.59	2.15
	22°C	27°C	6.27	3.36	1.42	6.05	3.28	1.54	5.83	3.20	1.67	5.59	3.11	1.81	5.14	2.90	1.96	4.75	2.74	2.16
		30°C	6.28	4.12	1.42	6.06	4.04	1.54	5.83	3.95	1.67	5.60	3.86	1.81	5.15	3.61	1.96	4.76	3.43	2.16
		33°C	6.29	4.83	1.42	6.07	4.74	1.54	5.85	4.64	1.67	5.62	4.54	1.81	5.17	4.26	1.97	4.79	4.05	2.17
		36°C	6.33	5.46	1.42	6.12	5.36	1.54	5.91	5.25	1.67	5.70	5.13	1.82	5.25	4.80	1.97	4.90	4.52	2.18
570	16°C	21°C	5.37	3.78	1.38	5.17	3.69	1.50	4.98	3.59	1.62	4.77	3.49	1.76	4.37	3.25	1.91	4.03	3.06	2.10
		24°C	5.40	4.60	1.39	5.20	4.49	1.50	5.01	4.38	1.62	4.81	4.27	1.76	4.41	3.98	1.91	4.08	3.75	2.10
		27°C	5.49	5.27	1.39	5.31	5.13	1.50	5.13	4.99	1.63	4.94	4.84	1.77	4.57	4.48	1.92	4.26	4.18	2.12
		30°C	5.76	5.76	1.40	5.59	5.59	1.52	5.42	5.42	1.65	5.24	5.24	1.79	4.85	4.85	1.94	4.53	4.53	2.14
	19°C	24°C	5.91	3.63	1.41	5.70	3.54	1.52	5.48	3.45	1.65	5.26	3.36	1.79	4.83	3.13	1.94	4.46	2.95	2.14
		27°C	5.93	4.20	1.41	5.72	4.10	1.52	5.50	4.01	1.65	5.28	3.91	1.79	4.85	3.66	1.94	4.48	3.46	2.14
		30°C	5.98	5.17	1.41	5.77	5.06	1.53	5.56	4.94	1.66	5.35	4.82	1.80	4.92	4.50	1.95	4.57	4.24	2.15
		33°C	6.11	6.11	1.42	5.93	5.93	1.54	5.75	5.75	1.67	5.56	5.56	1.81	5.15	5.15	1.97	4.81	4.81	2.17
	22°C	27°C	6.49	3.55	1.43	6.26	3.47	1.55	6.02	3.39	1.68	5.78	3.30	1.83	5.31	3.08	1.98	4.91	2.91	2.18
		30°C	6.50	4.38	1.43	6.27	4.30	1.55	6.03	4.20	1.68	5.79	4.11	1.83	5.32	3.85	1.98	4.92	3.65	2.18
		33°C	6.52	5.13	1.44	6.30	5.04	1.56	6.07	4.94	1.69	5.83	4.83	1.83	5.36	4.52	1.98	4.97	4.29	2.19
		36°C	6.58	5.79	1.44	6.38	5.69	1.56	6.16	5.56	1.69	5.93	5.43	1.84	5.48	5.06	1.99	5.11	4.76	2.20

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: FDMRN60CXV1 - 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
535	16°C	21°C	5.81	4.05	1.52	5.60	3.94	1.64	5.39	3.84	1.78	5.18	3.73	1.93	4.75	3.47	2.09	4.39	3.26	2.31
		24°C	5.82	4.85	1.52	5.61	4.74	1.64	5.40	4.63	1.78	5.19	4.51	1.93	4.76	4.21	2.09	4.41	3.98	2.31
		27°C	5.86	5.50	1.52	5.67	5.37	1.65	5.47	5.24	1.78	5.26	5.11	1.94	4.86	4.76	2.10	4.52	4.47	2.32
		30°C	6.04	6.04	1.53	5.87	5.87	1.66	5.69	5.69	1.80	5.51	5.51	1.95	5.11	5.11	2.12	4.78	4.78	2.34
	19°C	24°C	6.41	3.78	1.54	6.18	3.68	1.67	5.96	3.59	1.81	5.72	3.48	1.96	5.26	3.24	2.13	4.86	3.06	2.35
		27°C	6.41	4.32	1.54	6.19	4.23	1.67	5.96	4.13	1.81	5.72	4.03	1.96	5.26	3.77	2.13	4.87	3.57	2.35
		30°C	6.42	5.34	1.54	6.20	5.22	1.67	5.98	5.11	1.81	5.75	4.98	1.97	5.30	4.66	2.13	4.91	4.41	2.35
		33°C	6.50	6.50	1.55	6.29	6.29	1.68	6.08	6.08	1.82	5.87	5.87	1.97	5.44	5.44	2.14	5.08	5.08	2.37
	22°C	27°C	7.05	3.70	1.57	6.80	3.61	1.70	6.56	3.52	1.85	6.30	3.42	2.00	5.79	3.19	2.17	5.36	3.01	2.39
		30°C	7.05	4.51	1.57	6.81	4.41	1.70	6.56	4.31	1.85	6.30	4.21	2.00	5.80	3.94	2.17	5.36	3.74	2.39
		33°C	7.05	5.26	1.57	6.81	5.16	1.70	6.56	5.06	1.85	6.31	4.96	2.00	5.80	4.65	2.17	5.38	4.42	2.39
		36°C	7.08	5.97	1.57	6.84	5.85	1.71	6.61	5.73	1.85	6.37	5.60	2.01	5.87	5.25	2.18	5.46	4.98	2.40
660	16°C	21°C	6.04	4.22	1.53	5.83	4.11	1.66	5.60	4.00	1.80	5.38	3.89	1.95	4.93	3.62	2.11	4.55	3.41	2.33
		24°C	6.06	5.12	1.53	5.84	5.00	1.66	5.63	4.88	1.80	5.40	4.76	1.95	4.96	4.44	2.11	4.58	4.19	2.33
		27°C	6.14	5.82	1.54	5.93	5.68	1.66	5.72	5.54	1.80	5.52	5.37	1.96	5.10	4.99	2.12	4.75	4.67	2.34
		30°C	6.39	6.39	1.55	6.21	6.21	1.68	6.02	6.02	1.82	5.82	5.82	1.97	5.39	5.39	2.15	5.04	5.04	2.37
	19°C	24°C	6.66	3.99	1.56	6.42	3.89	1.69	6.18	3.79	1.83	5.93	3.69	1.98	5.45	3.44	2.15	5.03	3.24	2.37
		27°C	6.67	4.60	1.56	6.43	4.50	1.69	6.19	4.40	1.83	5.94	4.29	1.98	5.46	4.01	2.15	5.05	3.80	2.37
		30°C	6.70	5.68	1.56	6.47	5.55	1.69	6.24	5.43	1.83	6.00	5.30	1.99	5.52	4.95	2.16	5.12	4.68	2.38
		33°C	6.81	6.81	1.57	6.61	6.61	1.70	6.40	6.40	1.84	6.18	6.18	2.00	5.73	5.73	2.17	5.35	5.35	2.40
	22°C	27°C	7.32	3.91	1.59	7.06	3.82	1.72	6.80	3.72	1.86	6.53	3.62	2.02	6.00	3.38	2.19	5.55	3.19	2.41
		30°C	7.33	4.80	1.59	7.07	4.70	1.72	6.80	4.59	1.86	6.53	4.49	2.02	6.00	4.20	2.19	5.55	3.99	2.42
		33°C	7.34	5.62	1.59	7.08	5.52	1.72	6.82	5.40	1.87	6.55	5.29	2.02	6.03	4.96	2.20	5.59	4.71	2.42
		36°C	7.38	6.36	1.59	7.15	6.24	1.72	6.90	6.11	1.87	6.64	5.96	2.03	6.13	5.58	2.20	5.72	5.27	2.43
690	16°C	21°C	6.27	4.40	1.55	6.04	4.29	1.67	5.81	4.18	1.81	5.56	4.06	1.96	5.10	3.78	2.13	4.70	3.56	2.35
		24°C	6.30	5.35	1.55	6.07	5.22	1.67	5.84	5.10	1.81	5.61	4.96	1.97	5.15	4.63	2.13	4.76	4.37	2.35
		27°C	6.40	6.13	1.55	6.19	5.97	1.68	5.98	5.81	1.82	5.77	5.63	1.98	5.33	5.21	2.14	4.97	4.87	2.37
		30°C	6.72	6.72	1.57	6.52	6.52	1.70	6.32	6.32	1.84	6.12	6.12	2.00	5.66	5.66	2.17	5.29	5.29	2.40
	19°C	24°C	6.90	4.22	1.57	6.65	4.12	1.70	6.40	4.01	1.84	6.14	3.91	2.00	5.63	3.64	2.17	5.20	3.43	2.39
		27°C	6.92	4.89	1.57	6.67	4.78	1.70	6.42	4.66	1.84	6.16	4.55	2.00	5.66	4.26	2.17	5.23	4.03	2.39
		30°C	6.98	6.01	1.58	6.73	5.88	1.71	6.49	5.75	1.85	6.24	5.61	2.00	5.74	5.24	2.18	5.33	4.93	2.40
		33°C	7.13	7.13	1.58	6.92	6.92	1.72	6.70	6.70	1.86	6.48	6.48	2.02	6.01	6.01	2.20	5.62	5.62	2.42
	22°C	27°C	7.57	4.13	1.60	7.30	4.04	1.73	7.03	3.94	1.88	6.74	3.84	2.04	6.19	3.58	2.21	5.72	3.38	2.43
		30°C	7.58	5.09	1.60	7.31	5.00	1.74	7.04	4.89	1.88	6.76	4.78	2.04	6.21	4.47	2.21	5.74	4.24	2.44
		33°C	7.61	5.97	1.60	7.35	5.87	1.74	7.08	5.74	1.88	6.80	5.62	2.04	6.26	5.26	2.22	5.80	5.00	2.44
		36°C	7.68	6.74	1.61	7.44	6.62	1.74	7.18	6.47	1.89	6.92	6.31	2.05	6.40	5.89	2.23	5.97	5.54	2.46

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: FDMRN60CXV1 - RN60CXY1**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
535	16°C	21°C	6.32	4.40	1.73	6.09	4.29	1.87	5.87	4.17	2.02	5.63	4.05	2.19	5.17	3.77	2.38	4.77	3.55	2.62
		24°C	6.33	5.27	1.73	6.10	5.15	1.87	5.88	5.03	2.02	5.64	4.91	2.20	5.18	4.58	2.38	4.79	4.32	2.63
		27°C	6.38	5.98	1.73	6.16	5.84	1.87	5.95	5.70	2.03	5.72	5.56	2.20	5.28	5.17	2.39	4.91	4.86	2.64
		30°C	6.57	6.57	1.74	6.38	6.38	1.88	6.19	6.19	2.04	5.99	5.99	2.22	5.55	5.55	2.41	5.20	5.20	2.66
	19°C	24°C	6.97	4.11	1.76	6.72	4.01	1.90	6.48	3.90	2.06	6.22	3.79	2.23	5.72	3.53	2.42	5.29	3.32	2.67
		27°C	6.97	4.70	1.76	6.73	4.60	1.90	6.48	4.49	2.06	6.23	4.38	2.23	5.72	4.10	2.42	5.29	3.88	2.67
		30°C	6.98	5.80	1.76	6.74	5.68	1.90	6.50	5.56	2.06	6.26	5.42	2.24	5.76	5.07	2.43	5.35	4.80	2.67
		33°C	7.07	7.07	1.76	6.84	6.84	1.91	6.62	6.62	2.07	6.39	6.39	2.24	5.91	5.91	2.44	5.53	5.53	2.69
	22°C	27°C	7.67	4.02	1.79	7.40	3.93	1.94	7.13	3.83	2.10	6.85	3.72	2.28	6.30	3.47	2.47	5.83	3.27	2.72
		30°C	7.67	4.90	1.79	7.40	4.80	1.94	7.13	4.69	2.10	6.85	4.58	2.28	6.30	4.29	2.47	5.84	4.06	2.72
		33°C	7.67	5.73	1.79	7.41	5.62	1.94	7.14	5.51	2.10	6.86	5.39	2.28	6.31	5.06	2.47	5.85	4.81	2.72
		36°C	7.70	6.49	1.79	7.44	6.36	1.94	7.19	6.23	2.10	6.92	6.09	2.28	6.39	5.71	2.48	5.94	5.42	2.73
660	16°C	21°C	6.57	4.59	1.74	6.34	4.47	1.89	6.10	4.36	2.04	5.85	4.23	2.21	5.37	3.94	2.40	4.95	3.71	2.65
		24°C	6.59	5.58	1.74	6.36	5.44	1.89	6.12	5.31	2.04	5.87	5.18	2.22	5.39	4.83	2.40	4.99	4.56	2.65
		27°C	6.67	6.33	1.75	6.45	6.18	1.89	6.23	6.03	2.05	6.00	5.85	2.22	5.54	5.43	2.41	5.16	5.08	2.66
		30°C	6.95	6.95	1.76	6.75	6.75	1.91	6.54	6.54	2.07	6.33	6.33	2.25	5.87	5.87	2.44	5.48	5.48	2.69
	19°C	24°C	7.24	4.35	1.77	6.98	4.24	1.92	6.72	4.13	2.08	6.45	4.01	2.25	5.93	3.74	2.44	5.47	3.52	2.69
		27°C	7.26	5.00	1.77	7.00	4.89	1.92	6.73	4.78	2.08	6.46	4.67	2.25	5.94	4.37	2.45	5.49	4.13	2.69
		30°C	7.29	6.17	1.77	7.04	6.04	1.92	6.78	5.91	2.08	6.52	5.76	2.26	6.01	5.39	2.45	5.57	5.09	2.70
		33°C	7.41	7.41	1.78	7.19	7.19	1.93	6.96	6.96	2.09	6.73	6.73	2.27	6.23	6.23	2.47	5.82	5.82	2.73
	22°C	27°C	7.96	4.25	1.80	7.68	4.15	1.95	7.39	4.05	2.12	7.10	3.94	2.30	6.52	3.67	2.49	6.03	3.47	2.74
		30°C	7.97	5.22	1.81	7.69	5.11	1.96	7.40	5.00	2.12	7.11	4.88	2.30	6.53	4.57	2.49	6.04	4.34	2.75
		33°C	7.98	6.12	1.81	7.70	6.00	1.96	7.42	5.88	2.12	7.13	5.75	2.30	6.56	5.40	2.50	6.08	5.12	2.75
		36°C	8.03	6.92	1.81	7.77	6.78	1.96	7.50	6.64	2.13	7.23	6.49	2.31	6.67	6.07	2.50	6.22	5.73	2.76
690	16°C	21°C	6.82	4.79	1.76	6.57	4.67	1.90	6.31	4.55	2.06	6.05	4.42	2.23	5.55	4.12	2.42	5.12	3.87	2.67
		24°C	6.85	5.82	1.76	6.60	5.68	1.90	6.35	5.55	2.06	6.10	5.40	2.23	5.60	5.04	2.42	5.17	4.75	2.67
		27°C	6.96	6.67	1.76	6.73	6.50	1.91	6.51	6.32	2.07	6.27	6.12	2.25	5.80	5.67	2.44	5.40	5.30	2.69
		30°C	7.31	7.31	1.78	7.10	7.10	1.93	6.88	6.88	2.09	6.65	6.65	2.27	6.16	6.16	2.47	5.75	5.75	2.72
	19°C	24°C	7.50	4.60	1.79	7.23	4.48	1.93	6.96	4.37	2.10	6.67	4.25	2.27	6.12	3.96	2.46	5.65	3.74	2.71
		27°C	7.52	5.32	1.79	7.25	5.20	1.94	6.98	5.07	2.10	6.70	4.95	2.27	6.15	4.63	2.47	5.69	4.38	2.72
		30°C	7.59	6.54	1.79	7.32	6.40	1.94	7.06	6.25	2.10	6.79	6.10	2.28	6.25	5.70	2.47	5.80	5.37	2.73
		33°C	7.75	7.75	1.80	7.52	7.52	1.95	7.29	7.29	2.12	7.05	7.05	2.30	6.53	6.53	2.50	6.11	6.11	2.76
	22°C	27°C	8.23	4.50	1.82	7.94	4.40	1.97	7.64	4.29	2.14	7.33	4.17	2.32	6.74	3.90	2.51	6.23	3.68	2.77
		30°C	8.25	5.54	1.82	7.96	5.44	1.97	7.66	5.32	2.14	7.35	5.20	2.32	6.75	4.87	2.51	6.24	4.61	2.77
		33°C	8.28	6.50	1.82	7.99	6.38	1.98	7.70	6.25	2.14	7.40	6.11	2.32	6.80	5.73	2.52	6.30	5.44	2.77
		36°C	8.35	7.33	1.83	8.09	7.20	1.98	7.81	7.04	2.15	7.53	6.87	2.33	6.96	6.41	2.53	6.49	6.03	2.79

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: FDMQN71CXV1 - 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	4.607	4.607	5.214	5.214	5.416	5.416	7.643	7.643	8.858	8.858	9.465	9.465	10.072	10.072
17°C	4.486	4.486	5.063	5.063	5.260	5.260	7.634	7.634	8.551	8.551	9.132	9.132	9.712	9.712
19°C	4.365	4.365	4.911	4.911	5.104	5.104	7.625	7.625	8.244	8.244	8.798	8.798	9.352	9.352
21°C	4.244	4.244	4.764	4.764	4.948	4.948	7.406	7.406	7.937	7.937	8.465	8.465	8.993	8.993
23°C	4.124	4.124	4.619	4.619	4.792	4.792	6.978	6.978	7.631	7.631	8.132	8.132	8.633	8.633
25°C	4.003	4.003	4.474	4.474	4.635	4.635	6.550	6.550	7.324	7.324	7.799	7.799	8.273	8.273
27°C	3.882	3.882	4.330	4.330	4.479	4.479	6.122	6.122	7.017	7.017	7.465	7.465	7.913	7.913
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: FDMQN71CXV1 - RQ71CXY1**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	4.961	4.961	5.615	5.615	5.833	5.833	8.231	8.231	9.539	9.539	10.193	10.193	10.847	10.847
17°C	4.831	4.831	5.467	5.467	5.700	5.700	8.221	8.221	9.396	9.396	10.048	10.048	10.700	10.700
19°C	4.701	4.701	5.320	5.320	5.568	5.568	8.211	8.211	9.252	9.252	9.903	9.903	10.553	10.553
21°C	4.571	4.571	5.186	5.186	5.435	5.435	8.090	8.090	9.109	9.109	9.757	9.757	10.406	10.406
23°C	4.441	4.441	5.065	5.065	5.303	5.303	7.858	7.858	8.966	8.966	9.612	9.612	10.259	10.259
25°C	4.311	4.311	4.944	4.944	5.170	5.170	7.626	7.626	8.823	8.823	9.467	9.467	10.112	10.112
27°C	4.181	4.181	4.823	4.823	5.038	5.038	7.394	7.394	8.679	8.679	9.322	9.322	9.965	9.965
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: FDMQN100CXV1 - 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	6.024	6.024	6.818	6.818	7.083	7.083	9.995	9.995	11.583	11.583	12.377	12.377	13.171	13.171
17°C	5.866	5.866	6.764	6.764	6.930	6.930	9.983	9.983	11.451	11.451	12.249	12.249	13.047	13.047
19°C	5.708	5.708	6.709	6.709	6.777	6.777	9.971	9.971	11.320	11.320	12.121	12.121	12.923	12.923
21°C	5.550	5.550	6.570	6.570	6.624	6.624	9.850	9.850	11.188	11.188	11.994	11.994	12.799	12.799
23°C	5.392	5.392	6.344	6.344	6.471	6.471	9.620	9.620	11.057	11.057	11.866	11.866	12.675	12.675
25°C	5.234	5.234	6.119	6.119	6.318	6.318	9.390	9.390	10.925	10.925	11.738	11.738	12.551	12.551
27°C	5.076	5.076	5.893	5.893	6.165	6.165	9.160	9.160	10.793	10.793	11.610	11.610	12.427	12.427
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: FDMQN100CXV1 - 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	6.378	6.378	7.219	7.219	7.499	7.499	10.583	10.583	12.264	12.264	13.105	13.105	13.946	13.946
17°C	6.211	6.211	7.497	7.497	7.331	7.331	10.570	10.570	12.091	12.091	12.931	12.931	13.771	13.771
19°C	6.044	6.044	7.774	7.774	7.163	7.163	10.557	10.557	11.918	11.918	12.757	12.757	13.596	13.596
21°C	5.877	5.877	7.670	7.670	6.994	6.994	10.408	10.408	11.744	11.744	12.583	12.583	13.421	13.421
23°C	5.710	5.710	7.184	7.184	6.826	6.826	10.123	10.123	11.571	11.571	12.408	12.408	13.246	13.246
25°C	5.542	5.542	6.697	6.697	6.658	6.658	9.838	9.838	11.398	11.398	12.234	12.234	13.071	13.071
27°C	5.375	5.375	6.211	6.211	6.489	6.489	9.553	9.553	11.224	11.224	12.060	12.060	12.896	12.896
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: FDMQN100CXV1 - 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	7.264	7.264	8.222	8.222	8.541	8.541	12.052	12.052	13.968	13.968	14.925	14.925	15.883	15.883
17°C	7.074	7.074	8.040	8.040	8.242	8.242	12.038	12.038	13.208	13.208	14.084	14.084	14.960	14.960
19°C	6.883	6.883	7.858	7.858	7.943	7.943	12.024	12.024	12.447	12.447	13.242	13.242	14.037	14.037
21°C	6.693	6.693	7.599	7.599	7.644	7.644	11.510	11.510	11.687	11.687	12.401	12.401	13.114	13.114
23°C	6.503	6.503	7.263	7.263	7.345	7.345	10.496	10.496	10.927	10.927	11.559	11.559	12.192	12.192
25°C	6.312	6.312	6.927	6.927	7.046	7.046	9.482	9.482	10.167	10.167	10.718	10.718	11.269	11.269
27°C	6.122	6.122	6.591	6.591	6.747	6.747	8.468	8.468	9.407	9.407	9.876	9.876	10.346	10.346
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: FDMQN100CXV1 - RQ100DXY1**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	7.264	7.264	8.222	8.222	8.541	8.541	12.052	12.052	13.968	13.968	14.925	14.925	15.883	15.883
17°C	7.074	7.074	8.040	8.040	8.242	8.242	12.038	12.038	13.208	13.208	14.084	14.084	14.960	14.960
19°C	6.883	6.883	7.858	7.858	7.943	7.943	12.024	12.024	12.447	12.447	13.242	13.242	14.037	14.037
21°C	6.693	6.693	7.599	7.599	7.644	7.644	11.510	11.510	11.687	11.687	12.401	12.401	13.114	13.114
23°C	6.503	6.503	7.263	7.263	7.345	7.345	10.496	10.496	10.927	10.927	11.559	11.559	12.192	12.192
25°C	6.312	6.312	6.927	6.927	7.046	7.046	9.482	9.482	10.167	10.167	10.718	10.718	11.269	11.269
27°C	6.122	6.122	6.591	6.591	6.747	6.747	8.468	8.468	9.407	9.407	9.876	9.876	10.346	10.346
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: FDMQN125CXV1 - 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	8.327	8.327	9.425	9.425	9.791	9.791	13.816	13.816	16.012	16.012	17.109	17.109	18.207	18.207
17°C	8.109	8.109	9.324	9.324	9.583	9.583	13.800	13.800	15.848	15.848	16.954	16.954	18.060	18.060
19°C	7.891	7.891	9.224	9.224	9.375	9.375	13.783	13.783	15.685	15.685	16.798	16.798	17.912	17.912
21°C	7.672	7.672	9.029	9.029	9.167	9.167	13.627	13.627	15.522	15.522	16.643	16.643	17.764	17.764
23°C	7.454	7.454	8.740	8.740	8.960	8.960	13.332	13.332	15.358	15.358	16.487	16.487	17.617	17.617
25°C	7.236	7.236	8.451	8.451	8.752	8.752	13.037	13.037	15.195	15.195	16.332	16.332	17.469	17.469
27°C	7.017	7.017	8.162	8.162	8.544	8.544	12.742	12.742	15.032	15.032	16.176	16.176	17.321	17.321
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: FDMQN140CXV1 - RQ140DXY1**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	9.745	9.745	11.029	11.029	11.458	11.458	16.168	16.168	18.737	18.737	20.022	20.022	21.306	21.306
17°C	9.489	9.489	10.920	10.920	11.184	11.184	16.149	16.149	18.388	18.388	19.659	19.659	20.930	20.930
19°C	9.234	9.234	10.811	10.811	10.911	10.911	16.129	16.129	18.039	18.039	19.296	19.296	20.554	20.554
21°C	8.978	8.978	10.565	10.565	10.638	10.638	15.850	15.850	17.689	17.689	18.934	18.934	20.178	20.178
23°C	8.723	8.723	10.182	10.182	10.364	10.364	15.311	15.311	17.340	17.340	18.571	18.571	19.802	19.802
25°C	8.467	8.467	9.799	9.799	10.091	10.091	14.772	14.772	16.991	16.991	18.209	18.209	19.426	19.426
27°C	8.212	8.212	9.416	9.416	9.818	9.818	14.233	14.233	16.642	16.642	17.846	17.846	19.050	19.050
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)

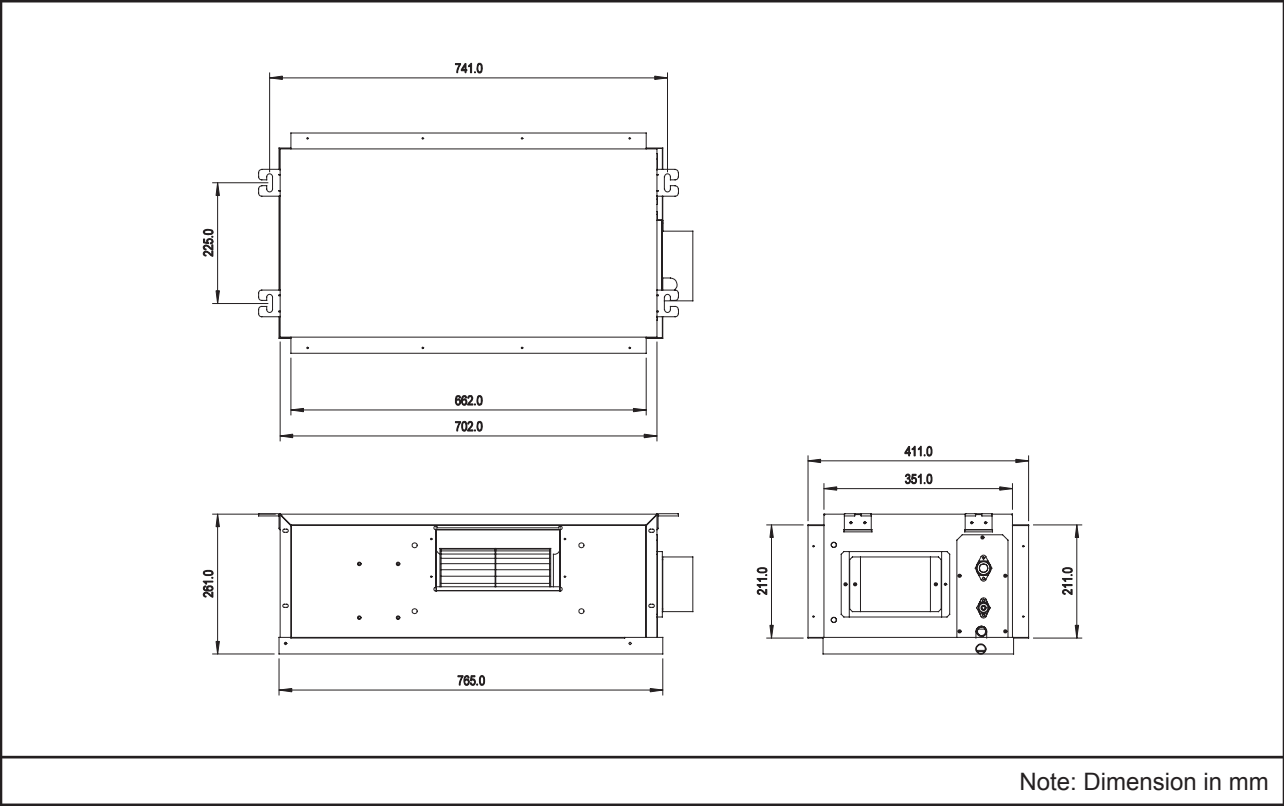
Notes:

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.

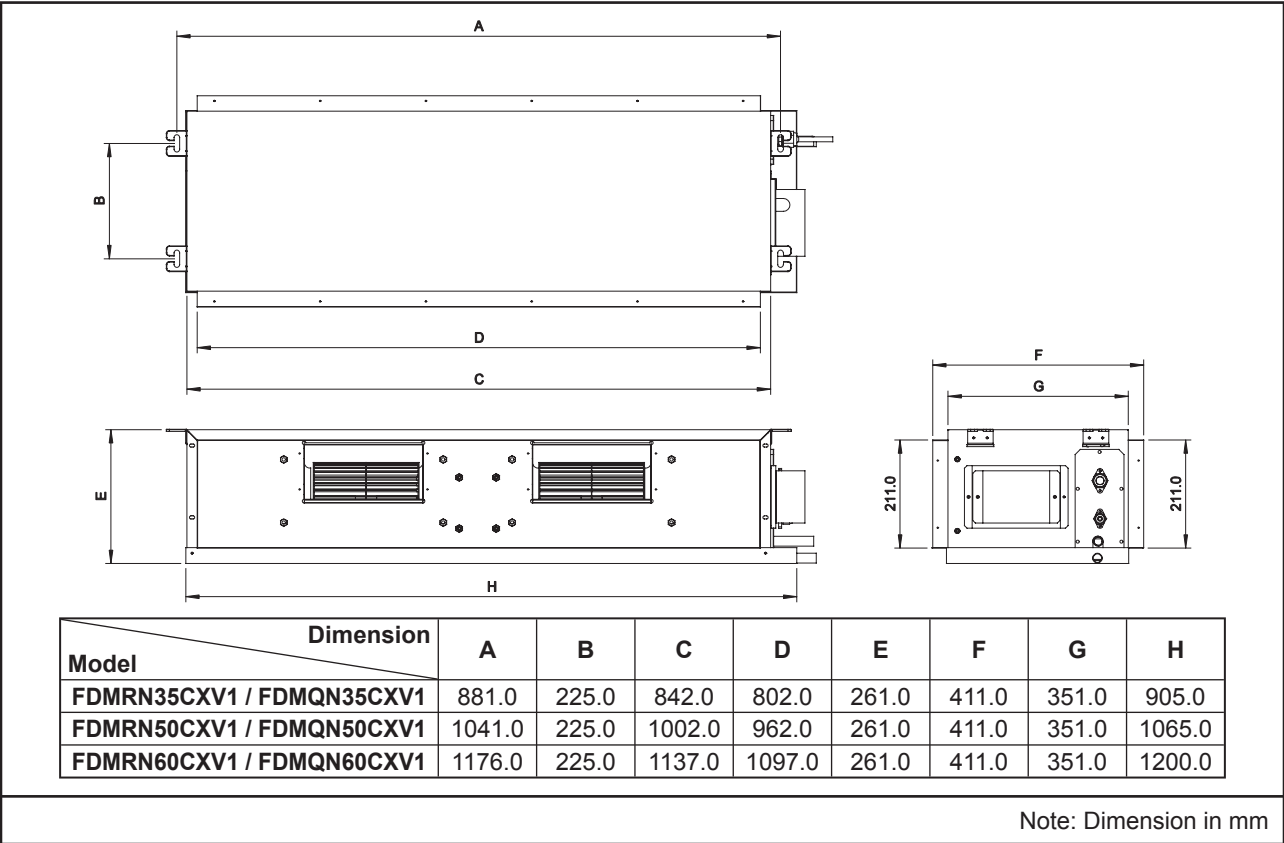
Outlines & Dimensions

Indoor Unit

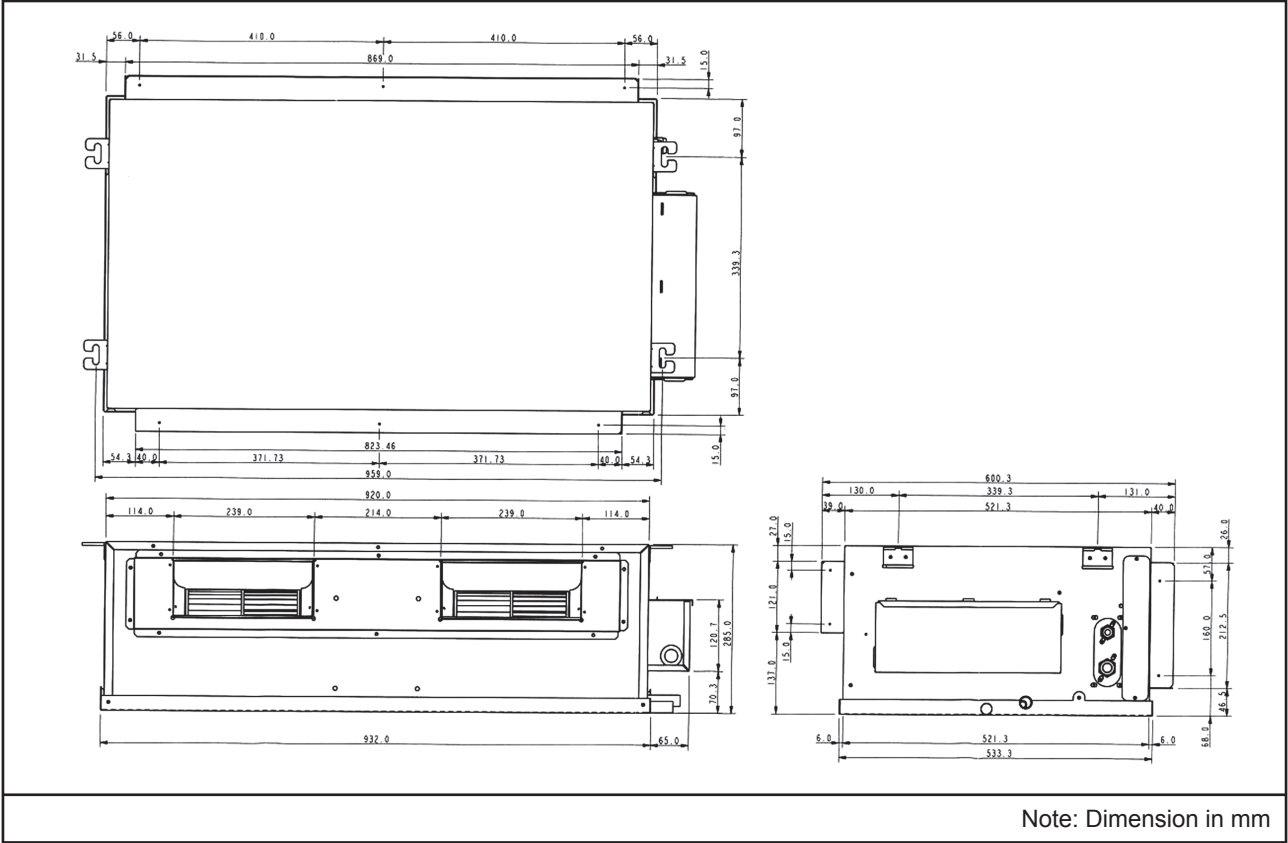
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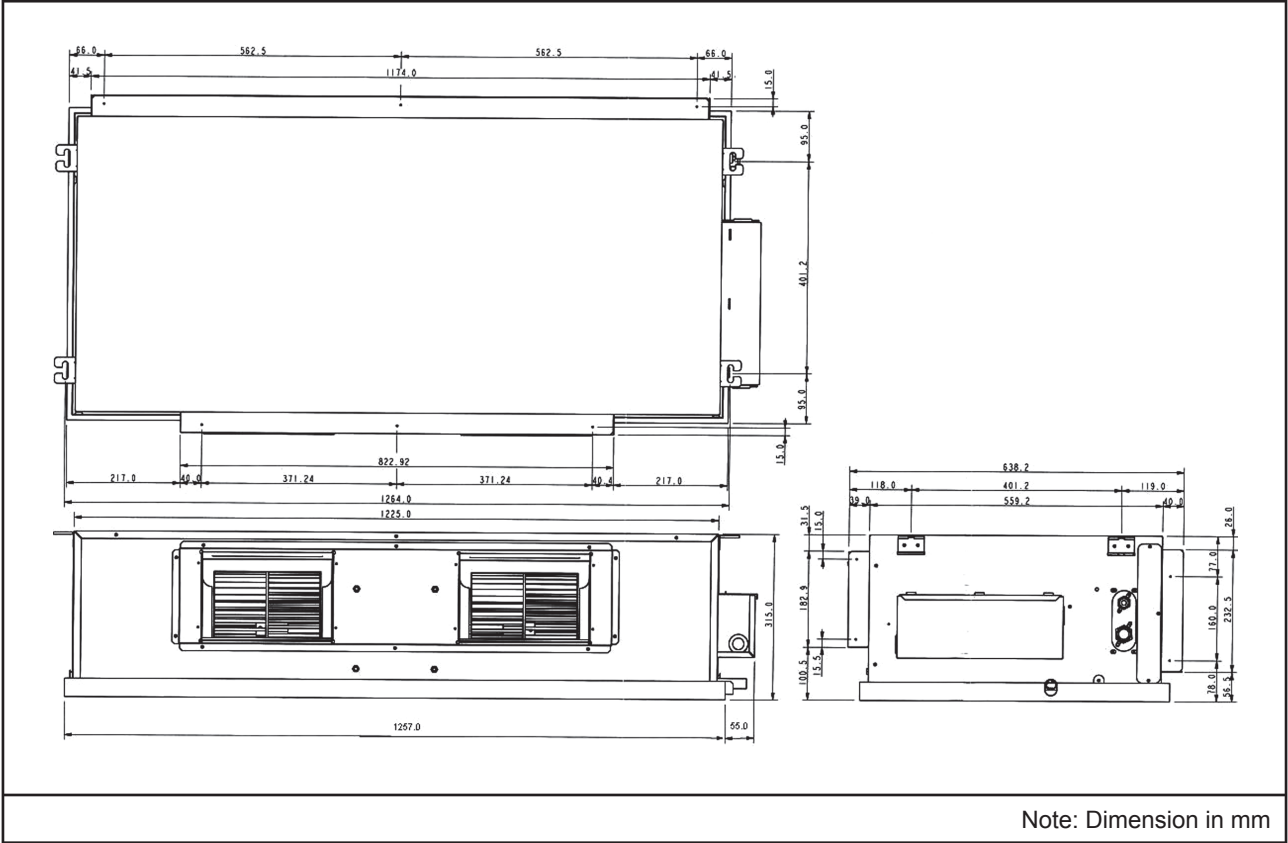
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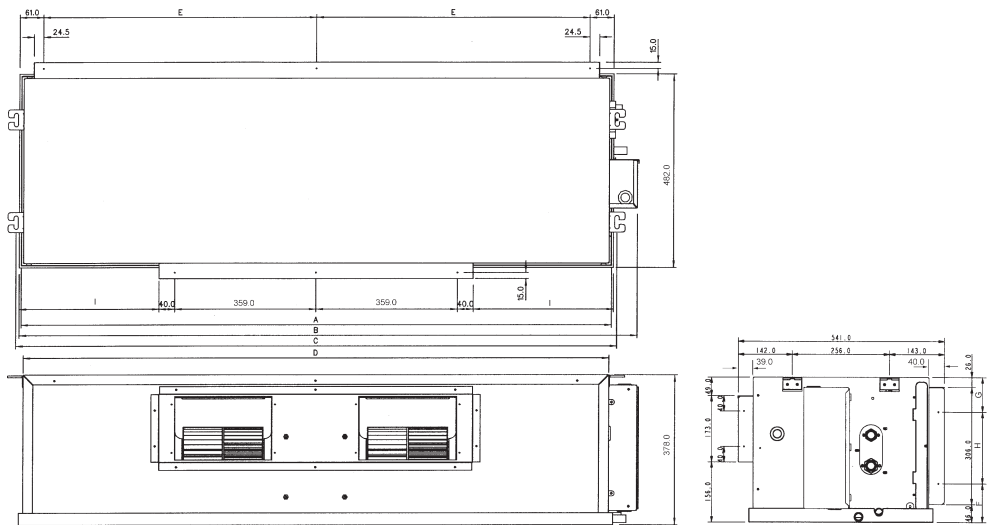
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Model: FDMRN100CXV1 / FDMQN100CXV1



Model: FDMRN125/140CXV1 / FDMQN125/140CXV1

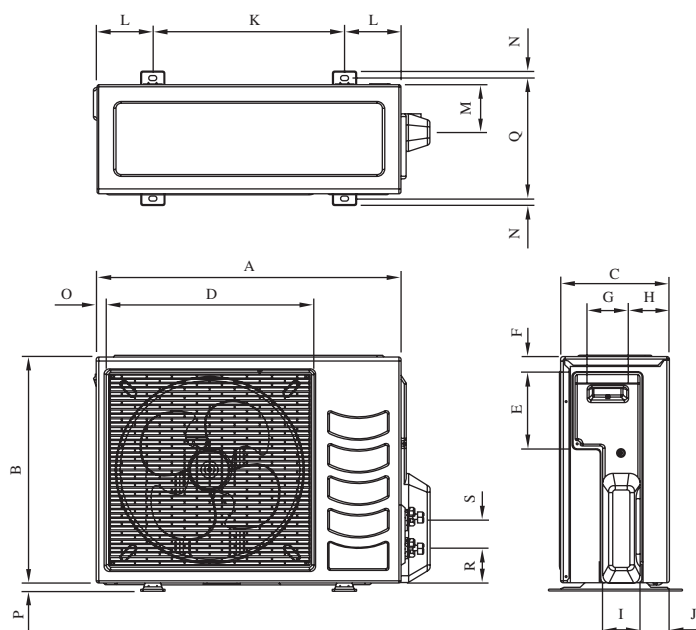


Model \ Dimension	A	B	C	D	E	F	G	H	I
FDMRN125CXV1 / FDMQN125CXV1	1299.0	1369.0	1326.0	1287.0	593.5	105.0	90.5	182.5	255.5
FDMRN140CXV1 / FDMQN140CXV1	1499.0	1569.0	1526.0	1487.0	693.5	100.0	90.5	187.5	355.5

Note: Dimension in mm

Outdoor Unit

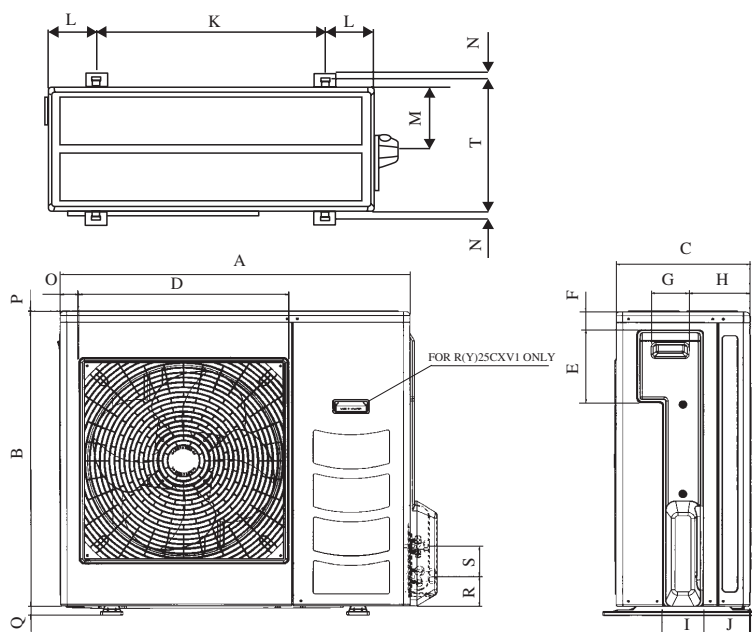
Model: R(Y)N25/35CXV1



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S
Model R(Y)N25/35CXV1	700	521	250	478	175	36	95	94	86	68	440	130	110	15	21	19	278	80	65

Note: Dimension in mm

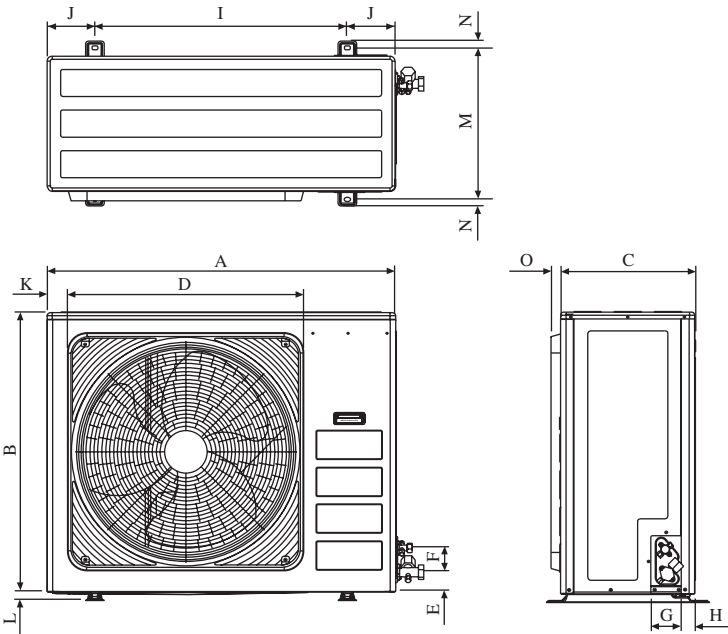
Model: R(Y)N50/60CXV1 / R(Y)N50/60CXY1 / RR71CXV1 / RR71CXY1 / RQ71CXV1 / RQ71CXY1



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
Model R(Y)N50CXV1 / R(Y)N50CXY1	855	628	328	508	181	44	93	149	101	113	603	126	164	15	49	3	23	73	75	362
Model R(Y)N60CXV1 / R(Y)N60CXY1 / RR71CXV1 / RR71CXY1 / RQ71CXV1 / RQ71CXY1	855	730	328	513	182	44	93	149	101	113	603	126	164	15	47	3	23	73	75	362

Note: Dimension in mm

Model: RR90/100DXV1 / RQ90/100DXV1 / RR90/100/125/140DXY1 / RQ90/100/125/140DXY1



Dimension	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
Model															
RR90/100DXV1 / RQ90/100DXV1 / RR90/100/125/140DXY1 / RQ90/100/125/140DXY1	1030	826	400	410	57	72	90	40	746	142	60	26	448	22	28

Note: Dimension in mm

Wiring Diagrams

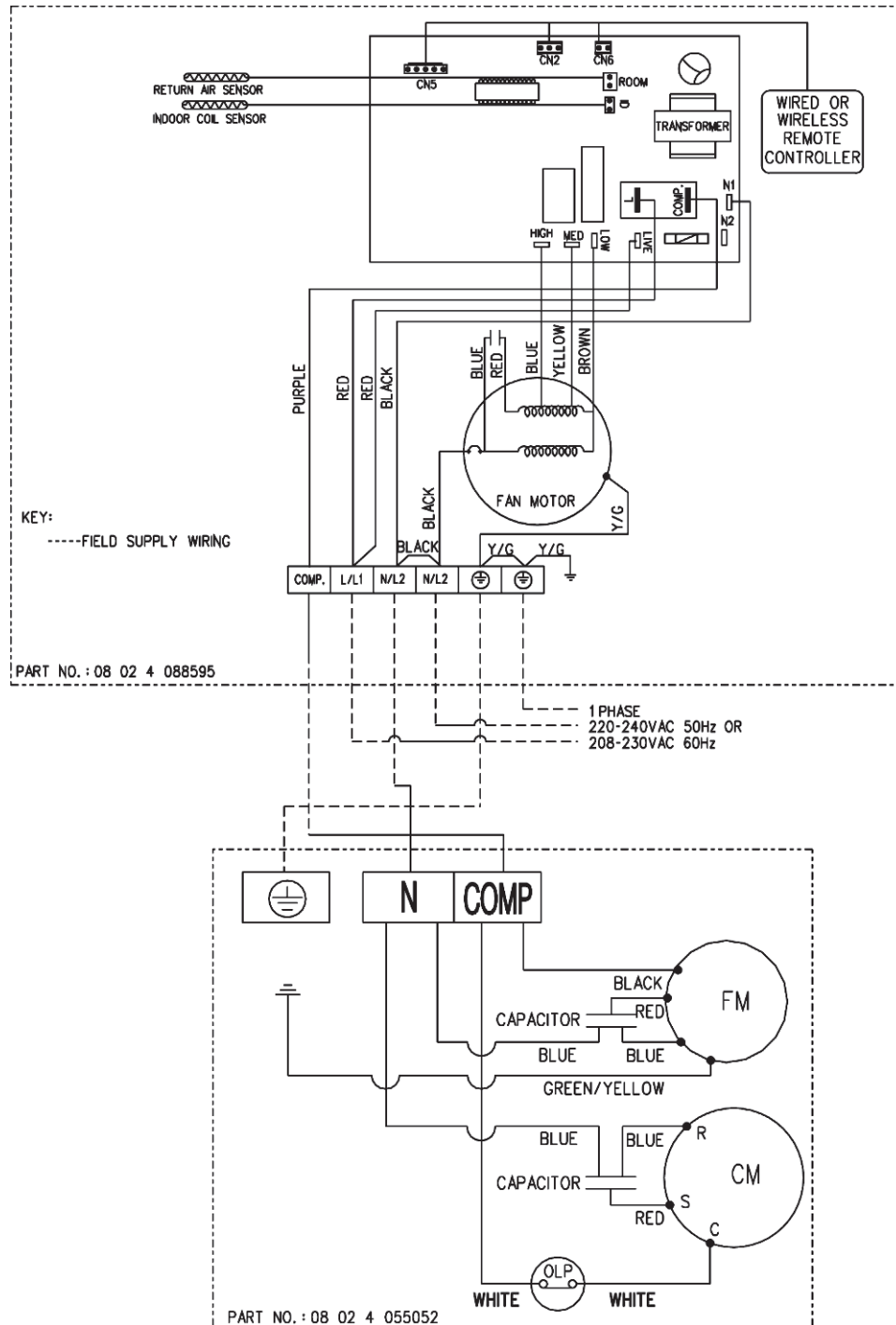
Cooling Only

Indoor Unit

Model: FDMRN25/35CXV1

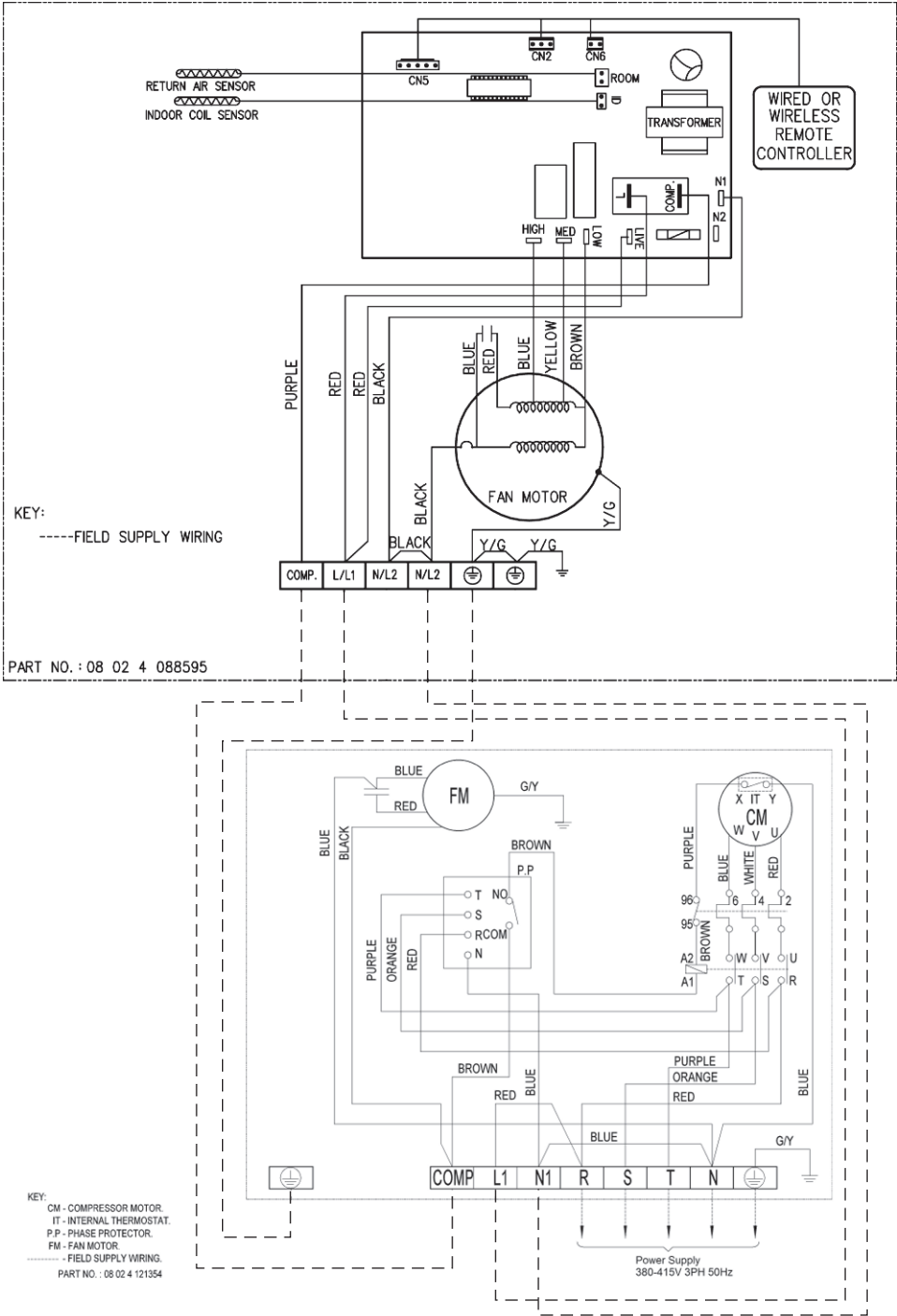
Outdoor Unit

Model: RN25/35CXV1



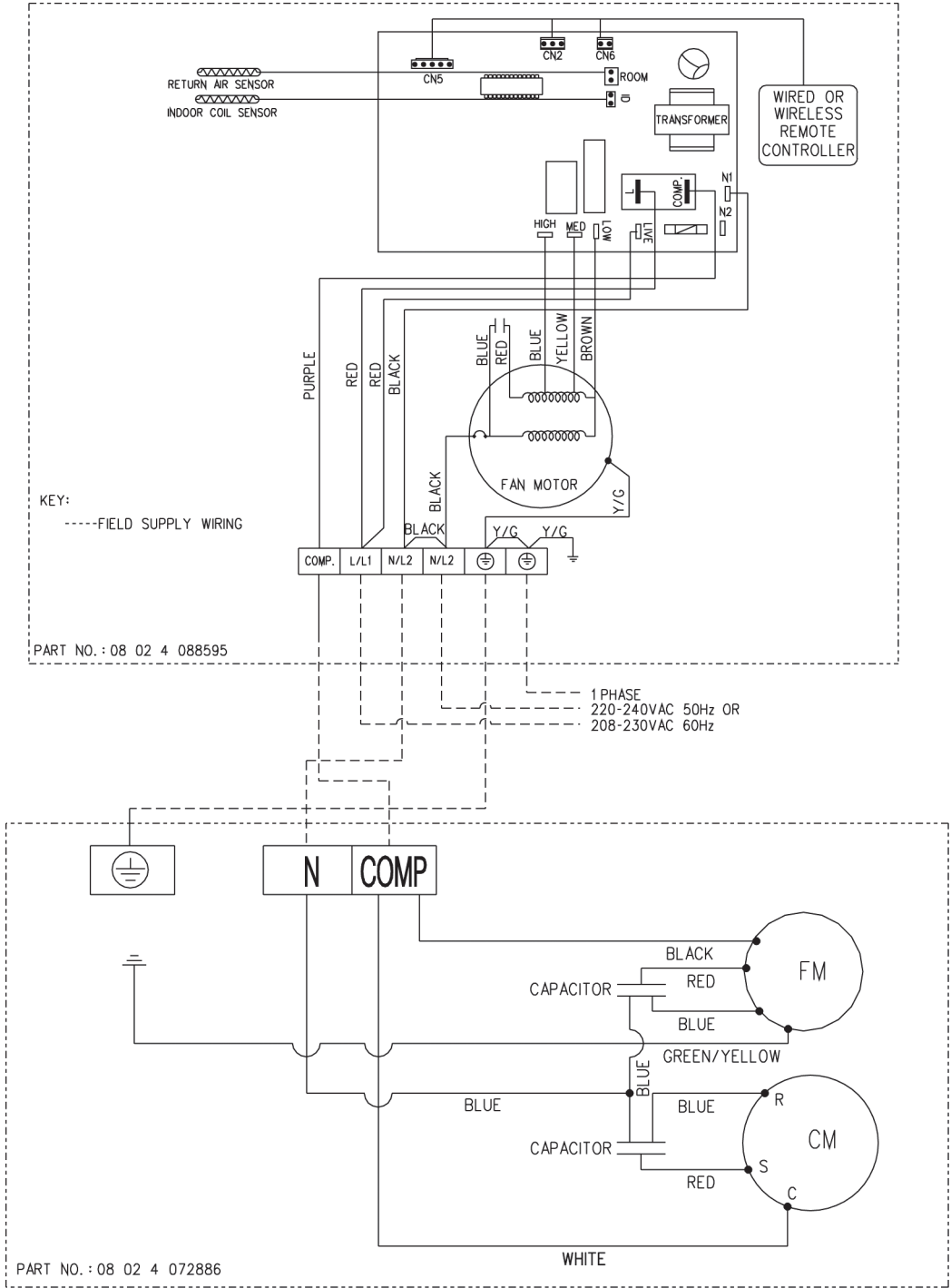
Indoor Unit
Model: FDMRN50/60CXV1

Outdoor Unit
Model: RN50/60CXY1



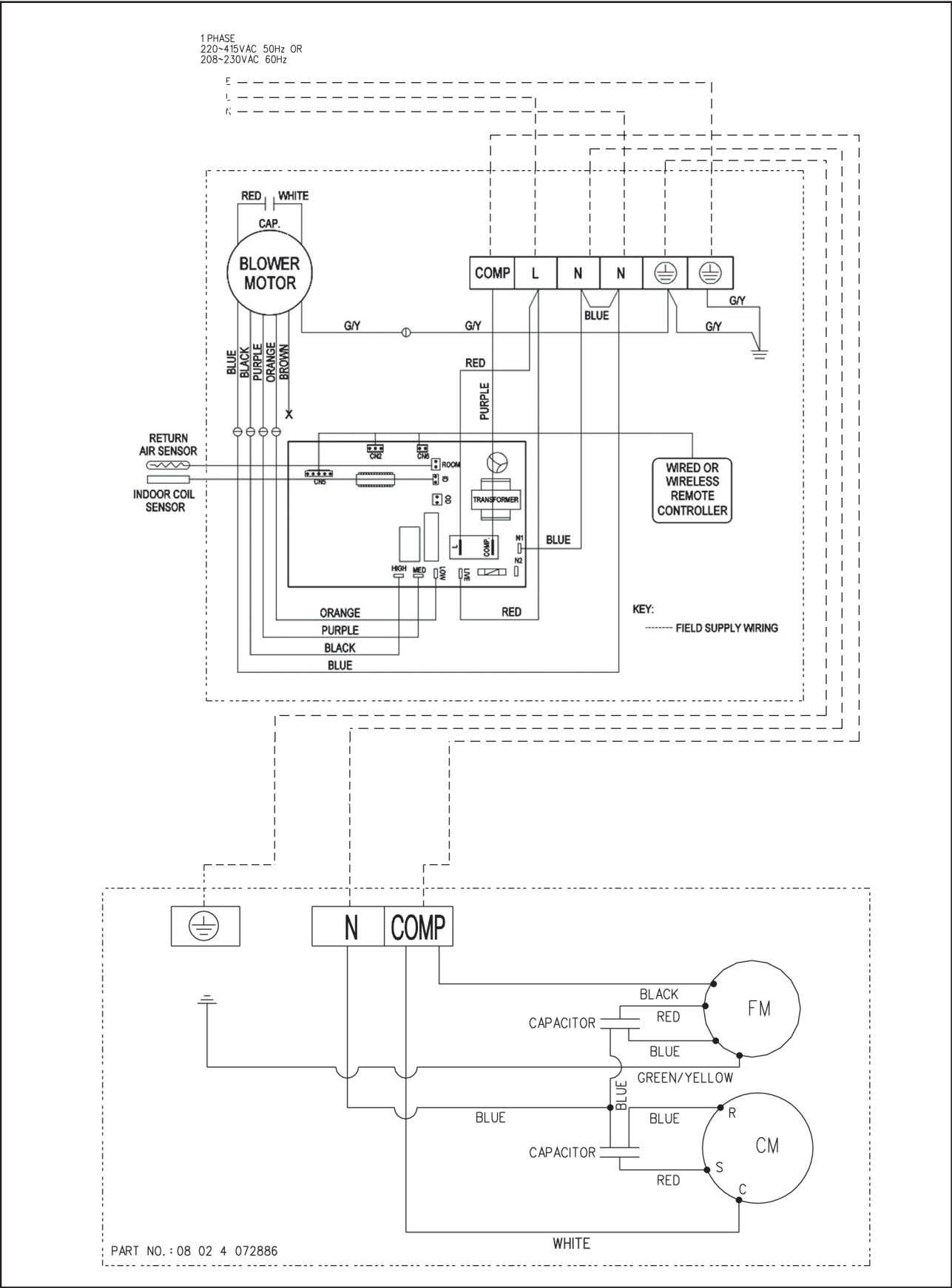
Indoor Unit
Model: FDMRN50/60CXV1

Outdoor Unit
Model: RN50/60CXV1



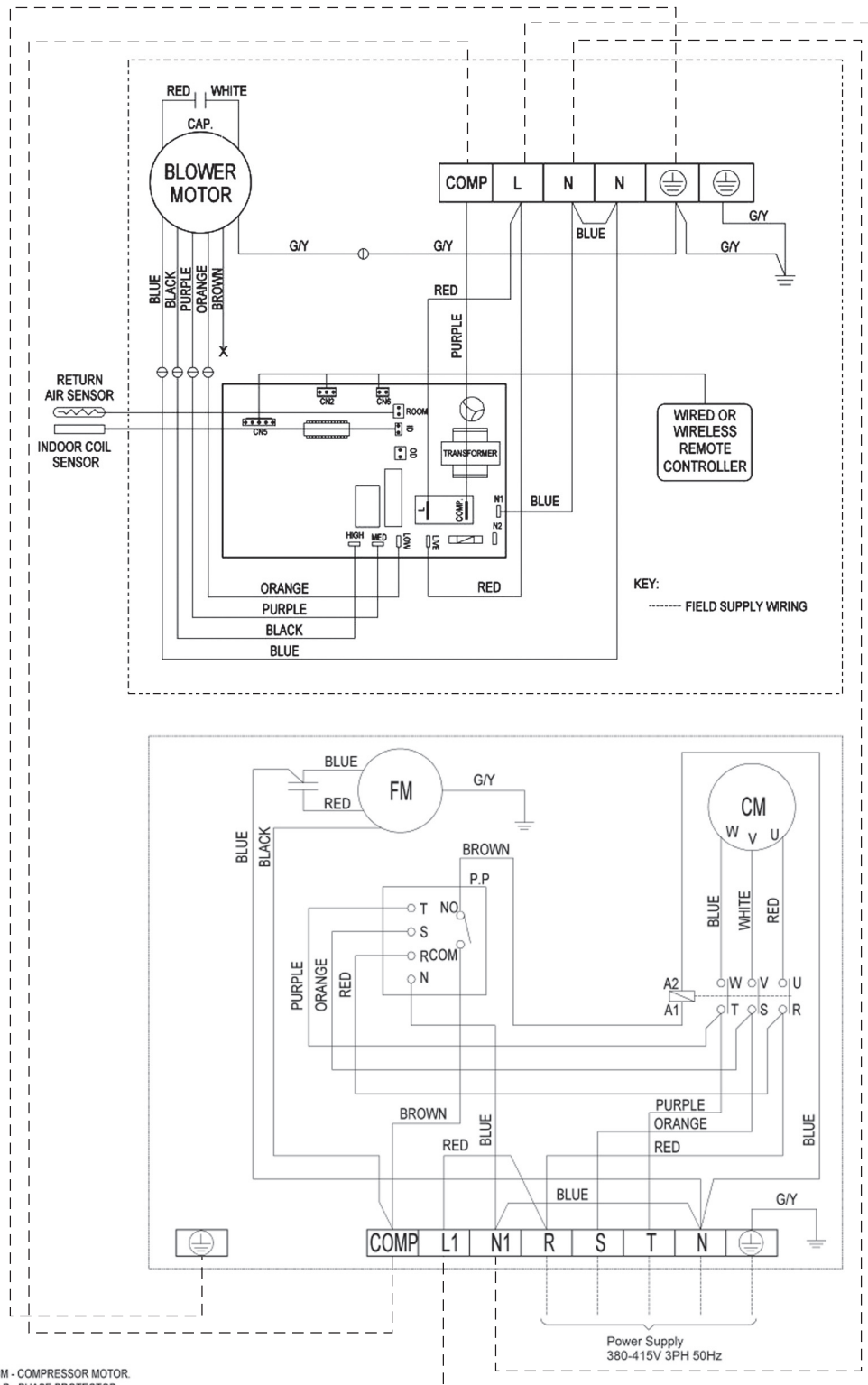
Indoor Unit
Model: FDMRN71CXV1

Outdoor Unit
Model: RR71CXV1



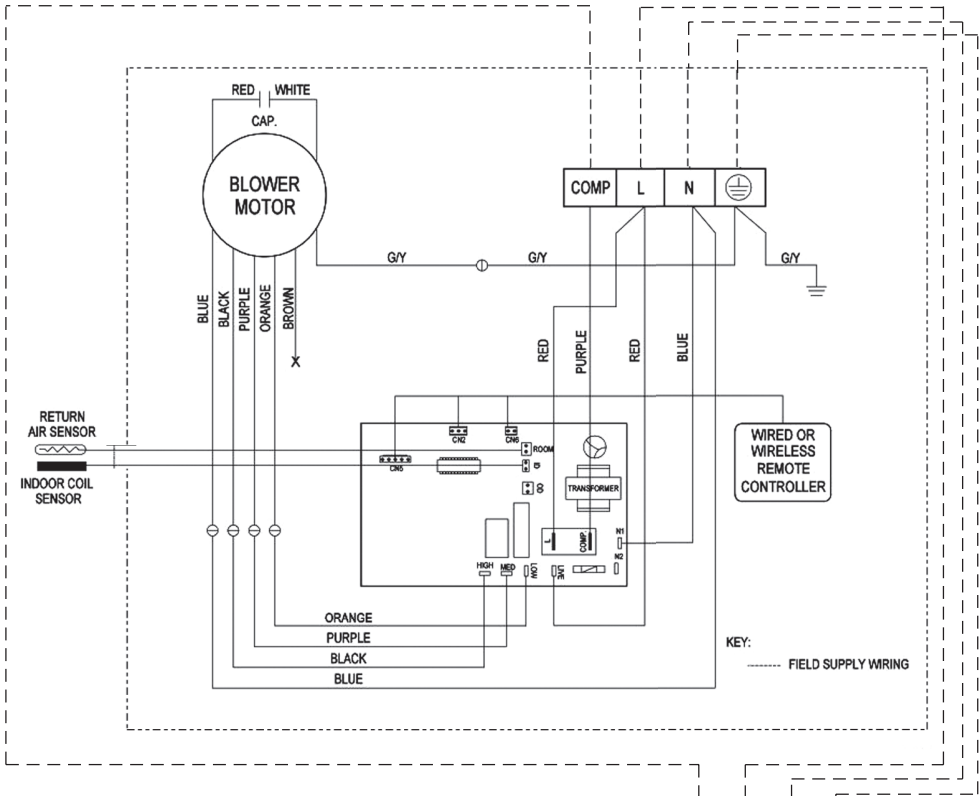
Indoor Unit
Model: FDMRN71CXV1

Outdoor Unit
Model: RR71CXY1



Indoor Unit
Model: FDMRN100CXV1

Outdoor Unit
Model: RR90/100DXV1

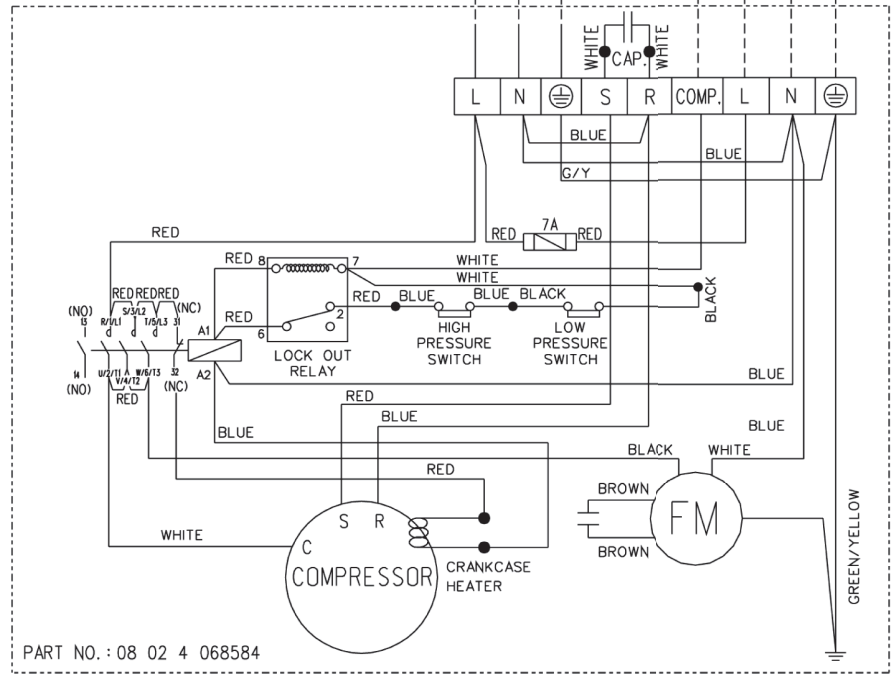


1 PHASE
220~415VAC 50Hz OR
208~230VAC 60Hz

E

N

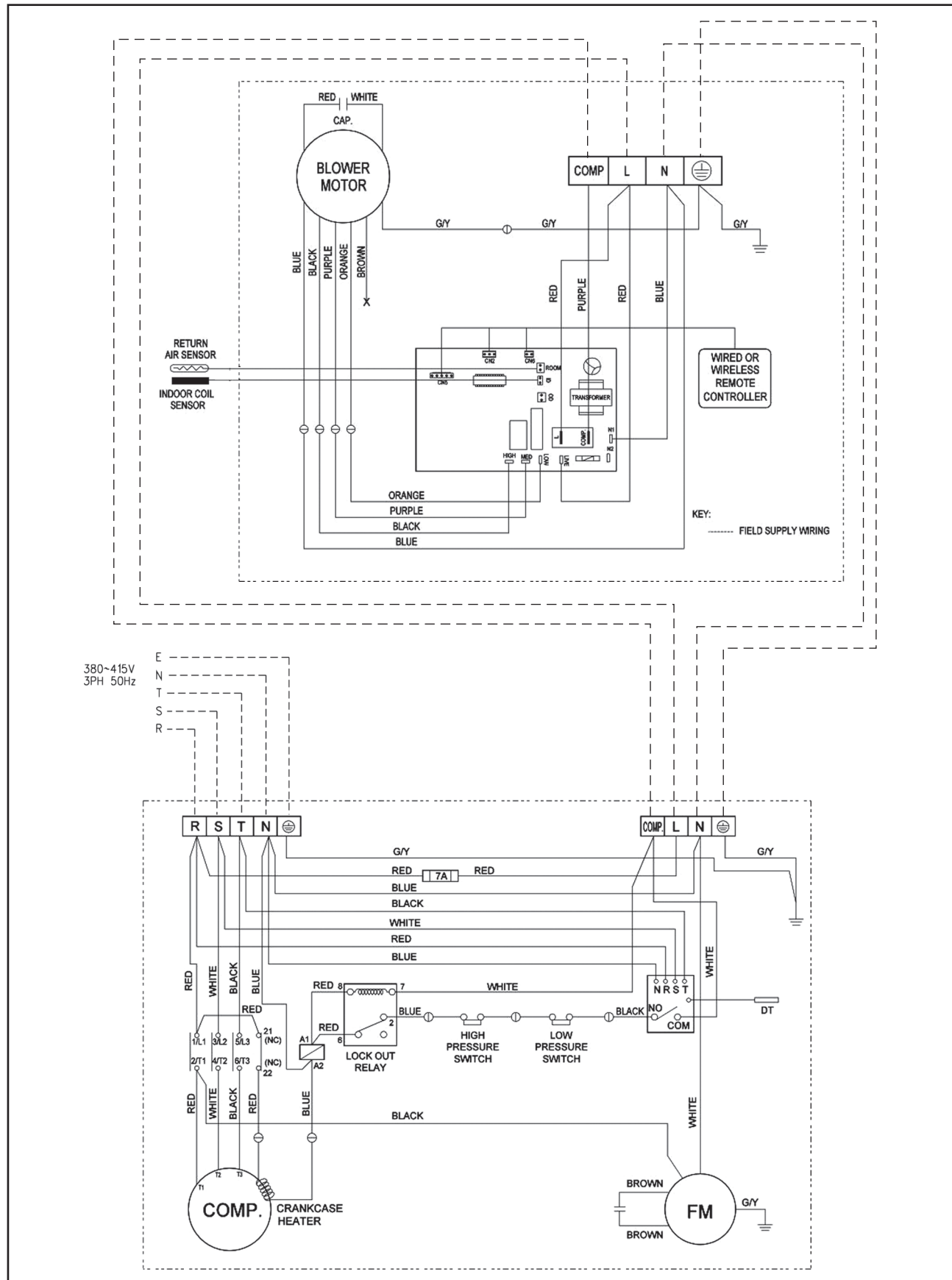
L



PART NO. : 08 02 4 068584

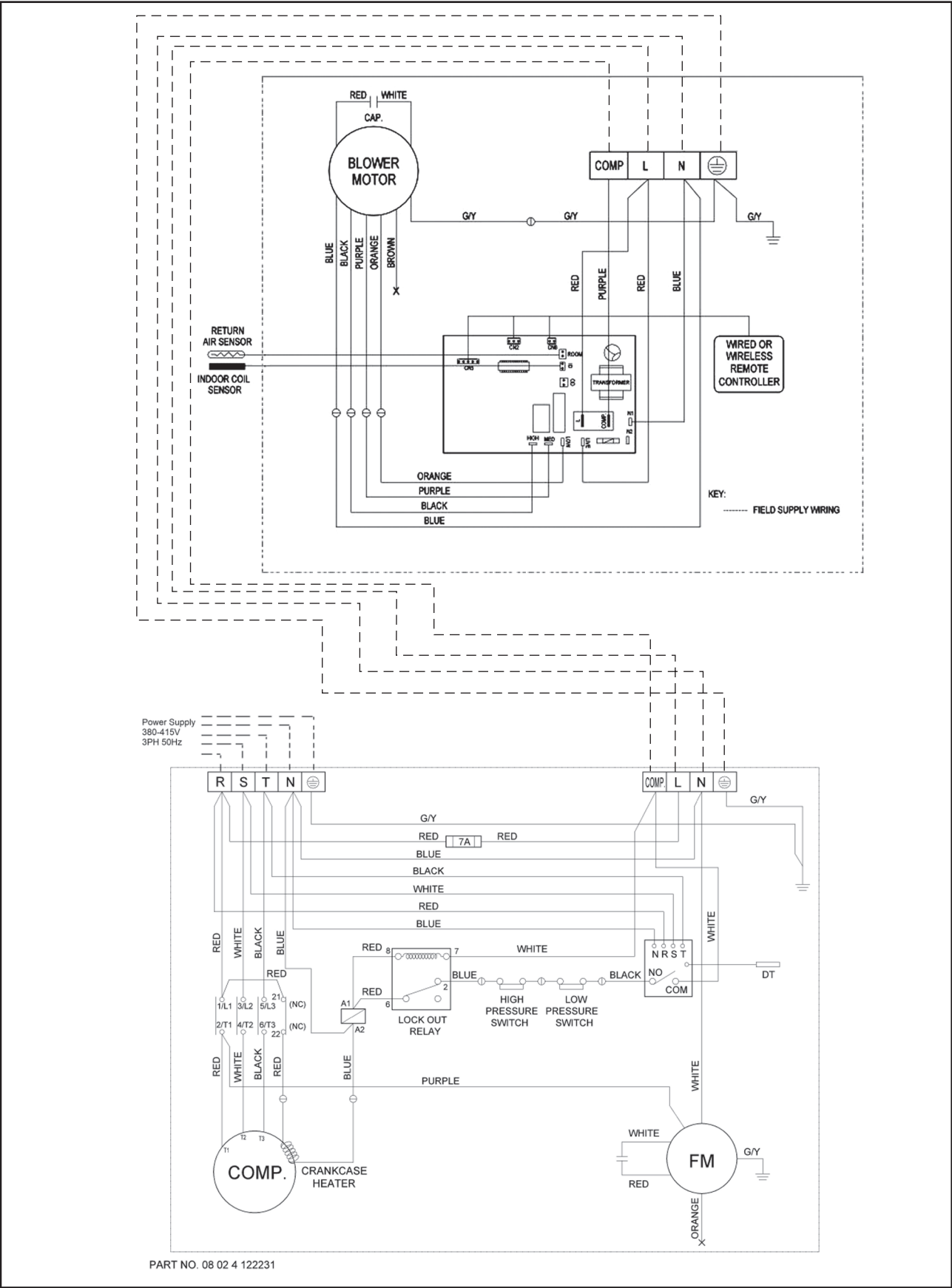
Indoor Unit
Model: FDMRN100/125CXV1

Outdoor Unit
Model: RR90/100/125DXY1



Indoor Unit
Model: FDMRN140CXV1

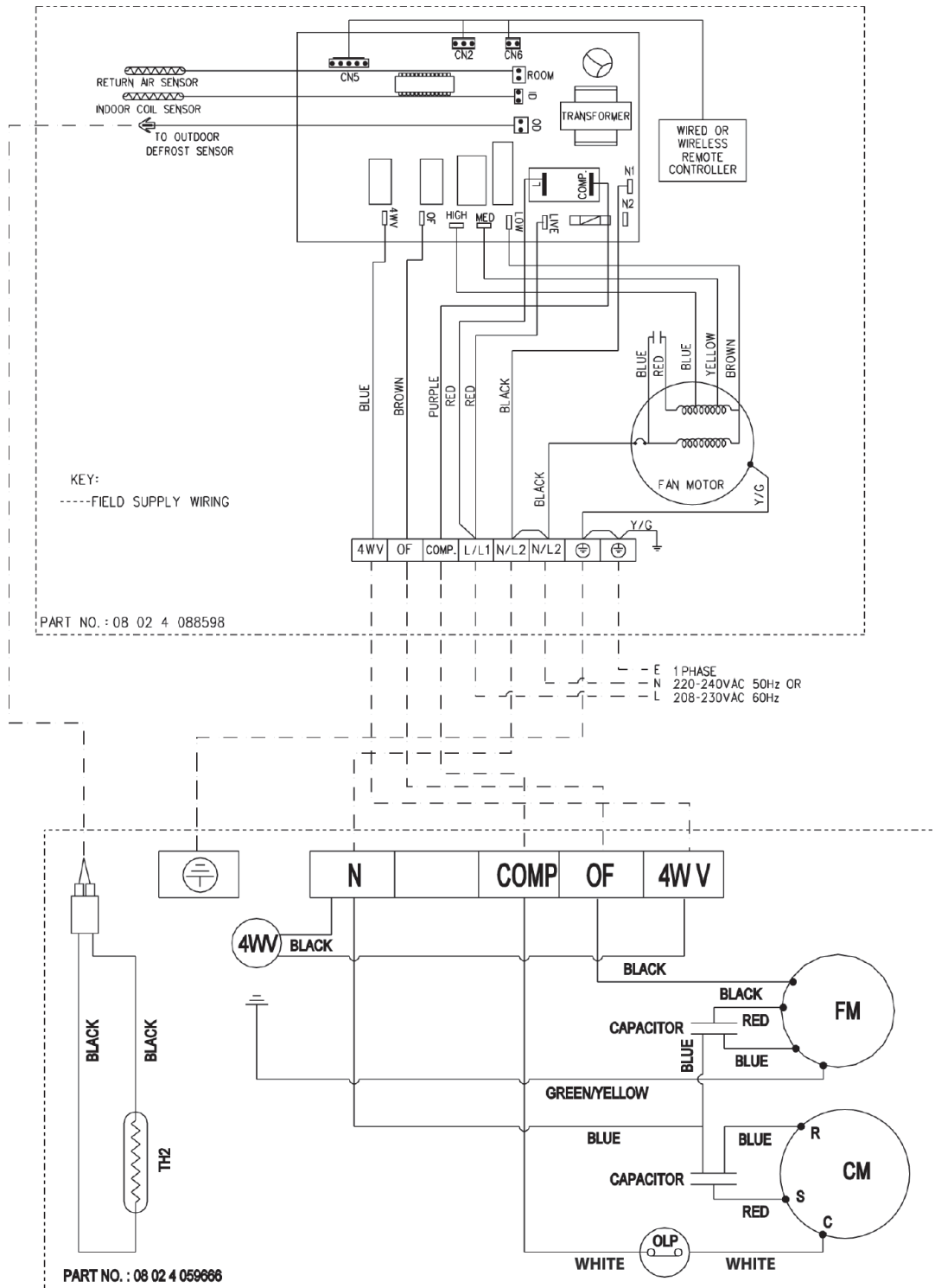
Outdoor Unit
Model: RR140DXY1



Heatpump

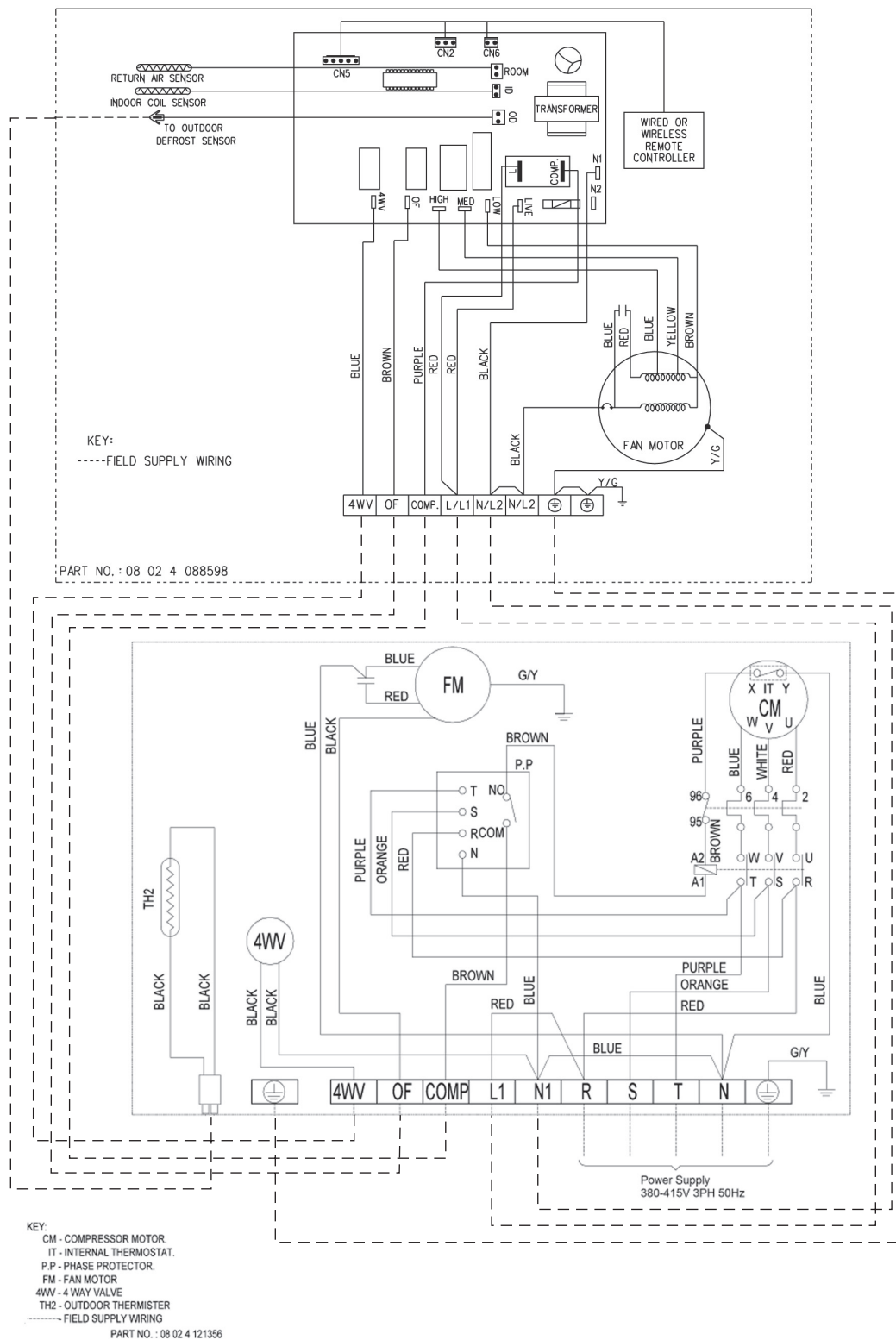
Indoor Unit
Model: FDMQN25/35CXV1

Outdoor Unit
Model: RYN25/35CXV1



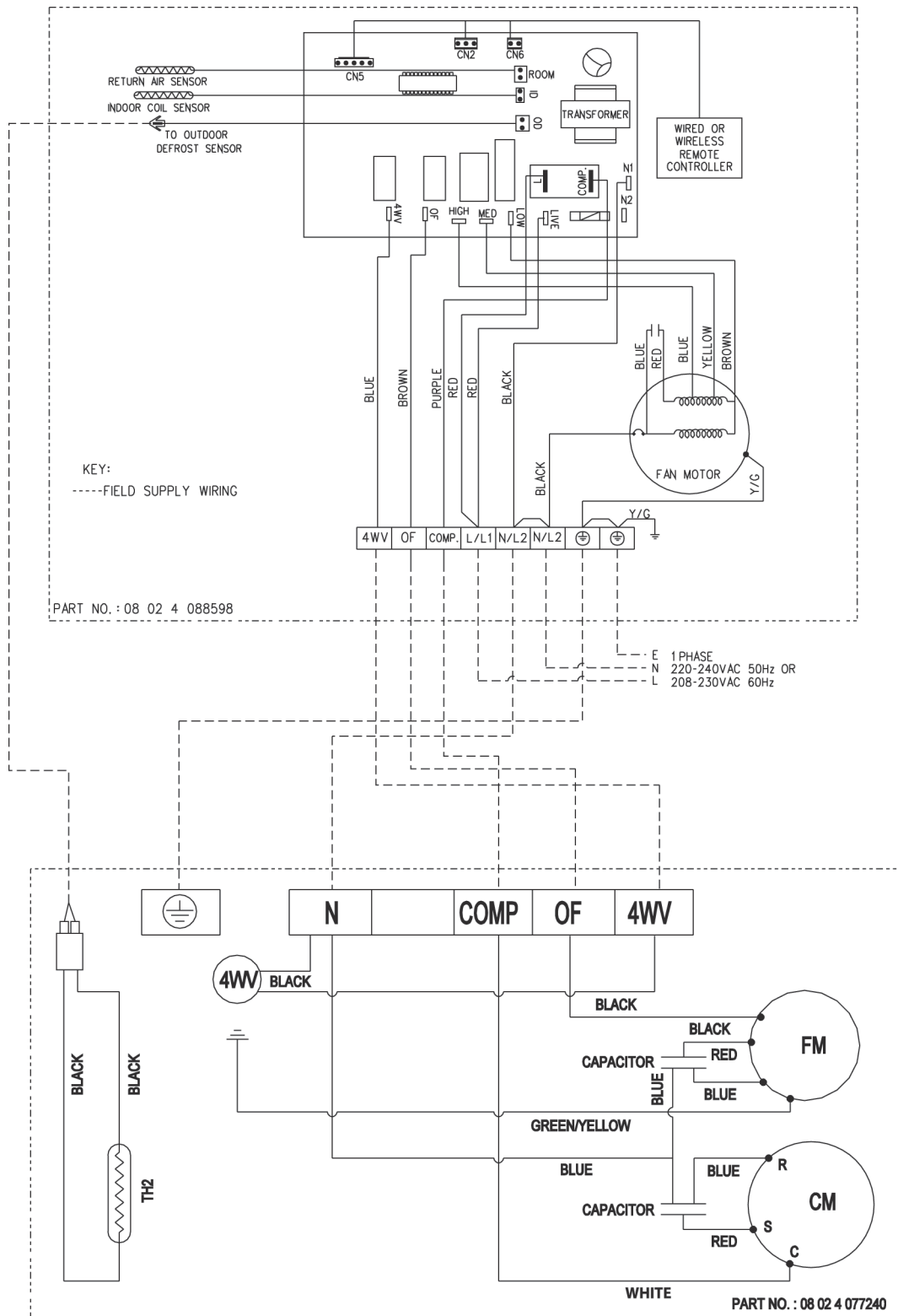
Indoor Unit
Model: FDMQN50/60CXV1

Outdoor Unit
Model: RYN50/60CXY1



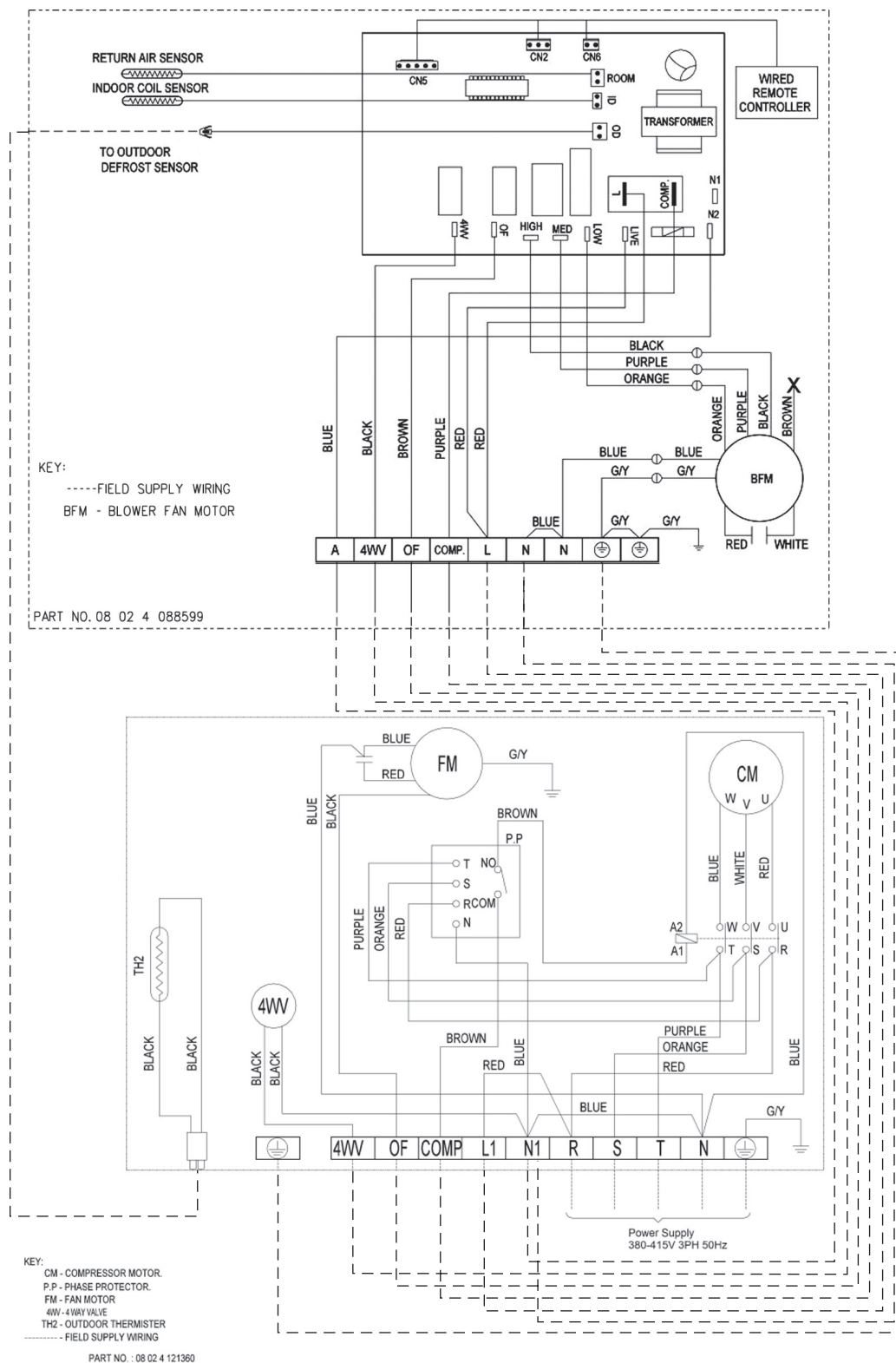
Indoor Unit
Model: FDMQN50/60CXV1

Outdoor Unit
Model: RYN50/60CXV1



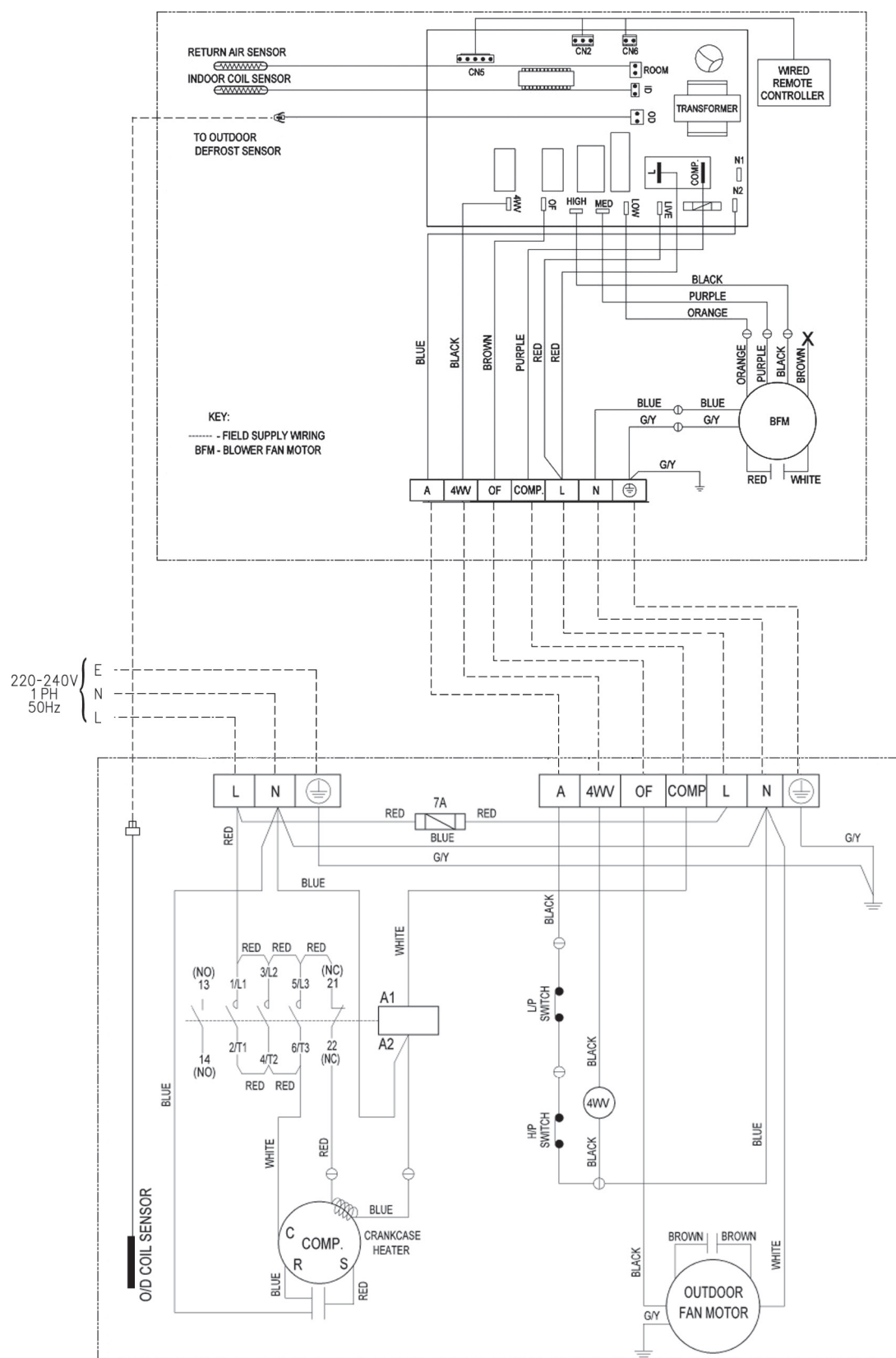
Indoor Unit
Model: FDMQN71CXV1

Outdoor Unit
Model: RR71CXY1



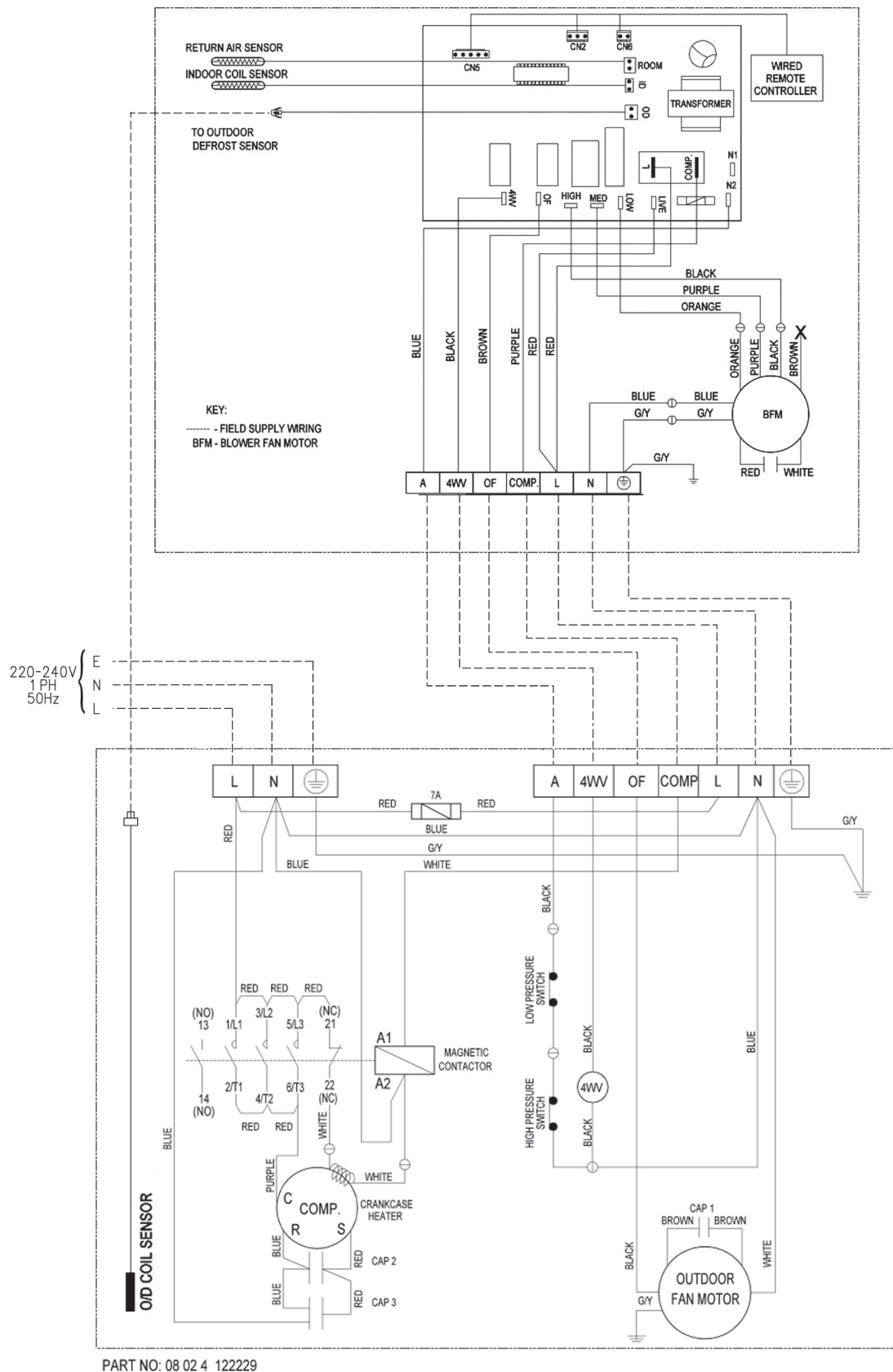
Indoor Unit
Model: FDMQN100CXV1

Outdoor Unit
Model: RQ90DXV1



Indoor Unit
Model: FDMQN100CXV1

Outdoor Unit
Model: RQ100DXV1

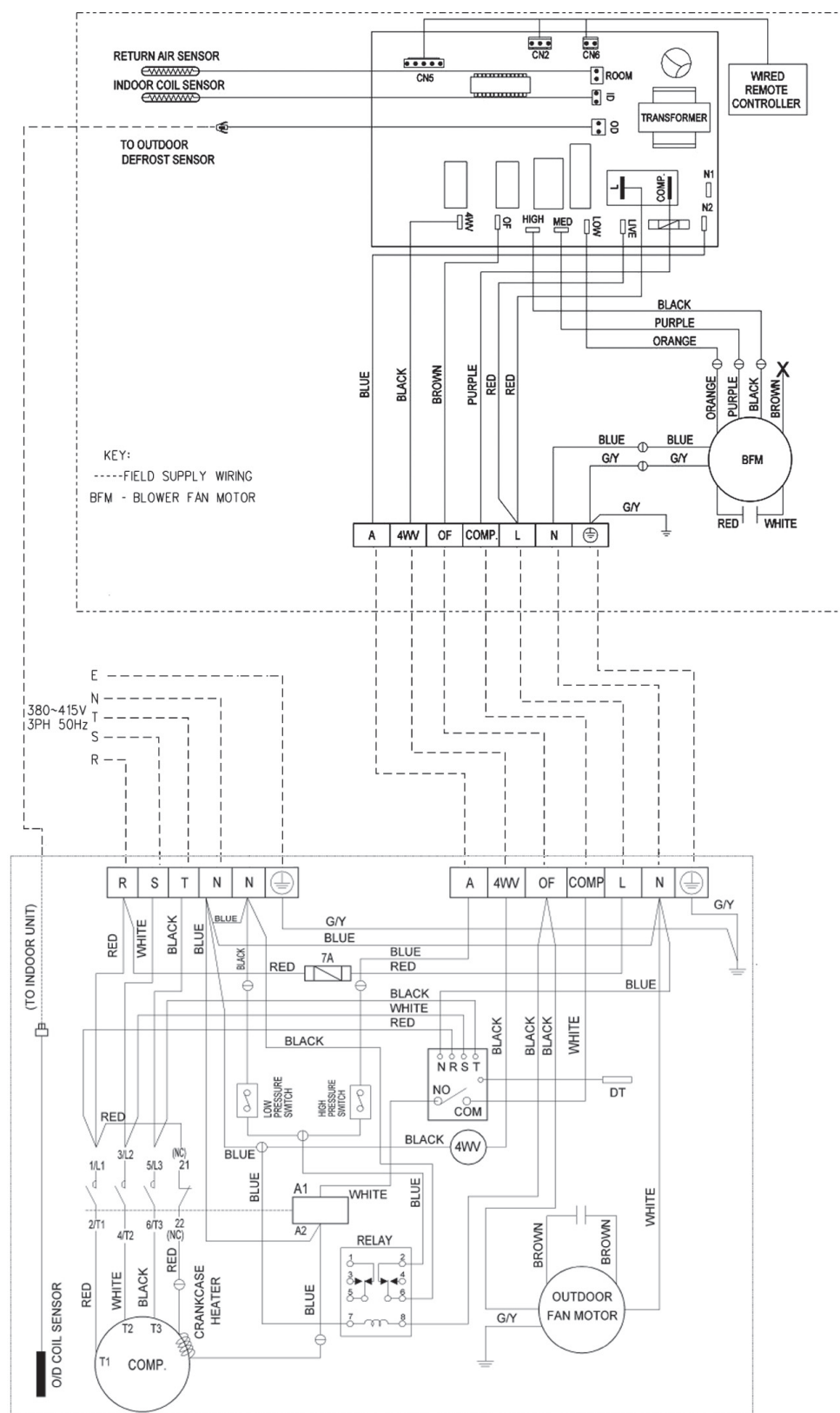


Indoor Unit

Model: FDMQN100/125CXV1

Outdoor Unit

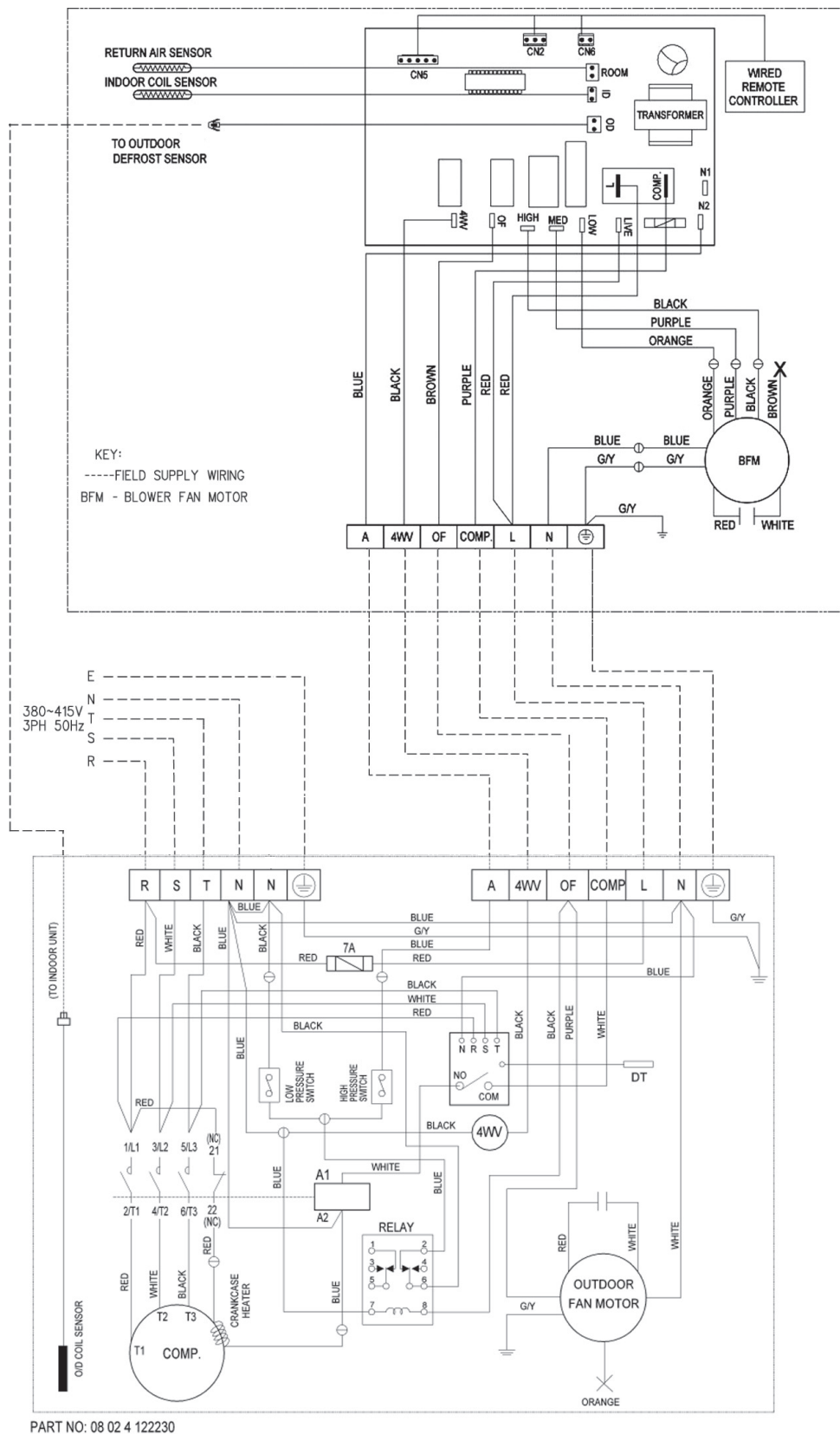
Model: RQ90/100/125DXY1



PART NO: 08 02 4 122228

Indoor Unit
Model: FDMQN140CXV1

Outdoor Unit
Model: RQ140DXY1



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 Procedure	Recommended Schedule
Air filter (Indoor Unit)	1. Remove the ionizer filter before cleaning the filter. 2. Remove the dust adhering on the filter by using a vacuum cleaner or wash using water less than 40°C with a neutral cleaning detergent. 3. Rinse and dry it before fitting back the ionizer filter and set it back to unit. 4. Note : Never use petrol thinner, benzene or any other chemicals.	At least once a month.
Indoor unit	1. Clean away dirt or dust on grille or panel by wiping with soft cloth soaked in lukewarm (or cool) water or neutral detergent solution. 2. Note : Never use petrol, thinner, benzene or other volatile chemicals, which may cause plastic surface to deform.	At least once a month.
Condense Drain Pan & Pipe	1. Check the cleanliness and clean it if necessary. 2. Check the condensate water flow.	Every 3 months.
Indoor Fan	Check if there is any abnormal noise.	If necessary.
Indoor/Outdoor Coil	1. Check and remove the dirt between the fins. 2. Check and remove any obstacles which hinder air flow through the indoor or outdoor.	Every month.
Power Supply	1. Check the running current and voltage for indoor and outdoor unit. 2. Check the electrical wiring and tighten the wire onto the terminal block if necessary.	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.
Compressor Oil	Oil is factory charged. Not necessary to add oil if circuit remains sealed.	No maintenance required.
Fan Motor Oil	All motors are pre-lubricated and sealed at factory.	No maintenance required.

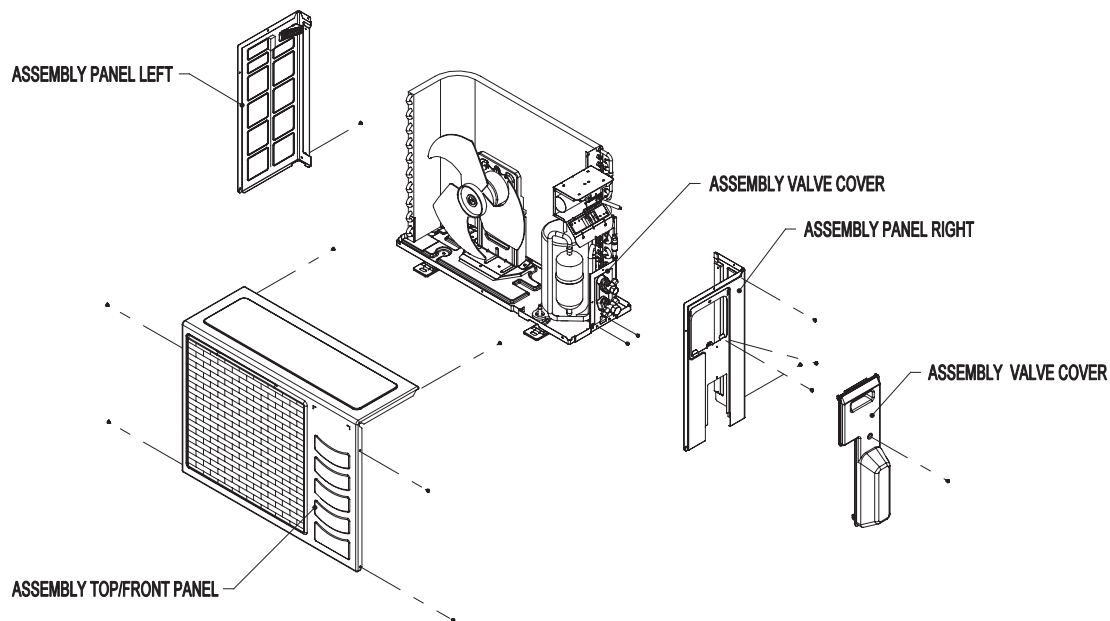
Pre Start Up Maintenance

(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.

For RN/RYN/RR/RQ-C/D 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 air tight test. These gases could cause severe explosion and damage if expose to high temperature and pressure. It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

Troubleshooting

Cooling / Heat pump Model

Seven Segments	Faulty Indication
E1 Blinking	Room air sensor contact loose/short
E2 Blinking	Indoor coil sensor contact loose/short
E3 Blinking	Outdoor coil sensor contact loose/short
E4 Blinking	Compressor overload protection
E5 Blinking	Gas leak
HEAT LED blinking	Defrost mode (BRC51B only)

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.

LED Description	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.	The auto restart function is not functioning. Please turn on the unit with the wireless / wired controller.
2	The compressor does not operate 3 minutes after the air conditioner unit is started.	- Protection against frequent starting. - Wait for 3 or 4 minutes for the compressor to start operating by it self.
3	The airflow is too slow or room cannot be cooled sufficiently.	- The air filter is dirty. - The doors and windows are opened. - The air suction and discharge of both indoor and outdoor units are clogged or blocked. - The regulated temperature or temperature setting is not low enough.
4	Discharge airflow has bad odor.	- Cigarettes, smoke particles, perfume and others, which might have adhered onto the coil, may cause odor. - Contact your nearest dealer.
5	Condensation on the front air grille of the indoor unit.	- This is caused by air humidity after an extended period of operation. - The set temperature is too low. Increase the temperature setting and operate the unit at high fan speed.
6	Water flowing out from the air conditioner.	Switch off the unit and contact your nearest dealer. This might be due to tilted installation.
7	Hissing airflow sound from the air conditioner unit during operation.	Liquid refrigerant flowing into the evaporator coil.
8	The wireless controller display is dim.	- The batteries are discharged. - The batteries are not correctly inserted. - The assembly is not good.
9	Compressor operates continuously.	- Dirty air filter. Clean the air filter. - Temperature setting too low (cooling). Use higher temperature setting. - Temperature setting too high (heating). Use lower temperature setting.
10	No cool air comes out during cooling cycle, or no hot air comes out during heating cycle.	- Temperature setting too high (cooling). Use lower temperature setting. - Temperature setting too low (heating). Use higher temperature setting.
11	On heating cycle, warm air does not come out.	Unit is in defrost mode. Heating operation will resume after defrost cycle ends.

Diagnostic Guidelines

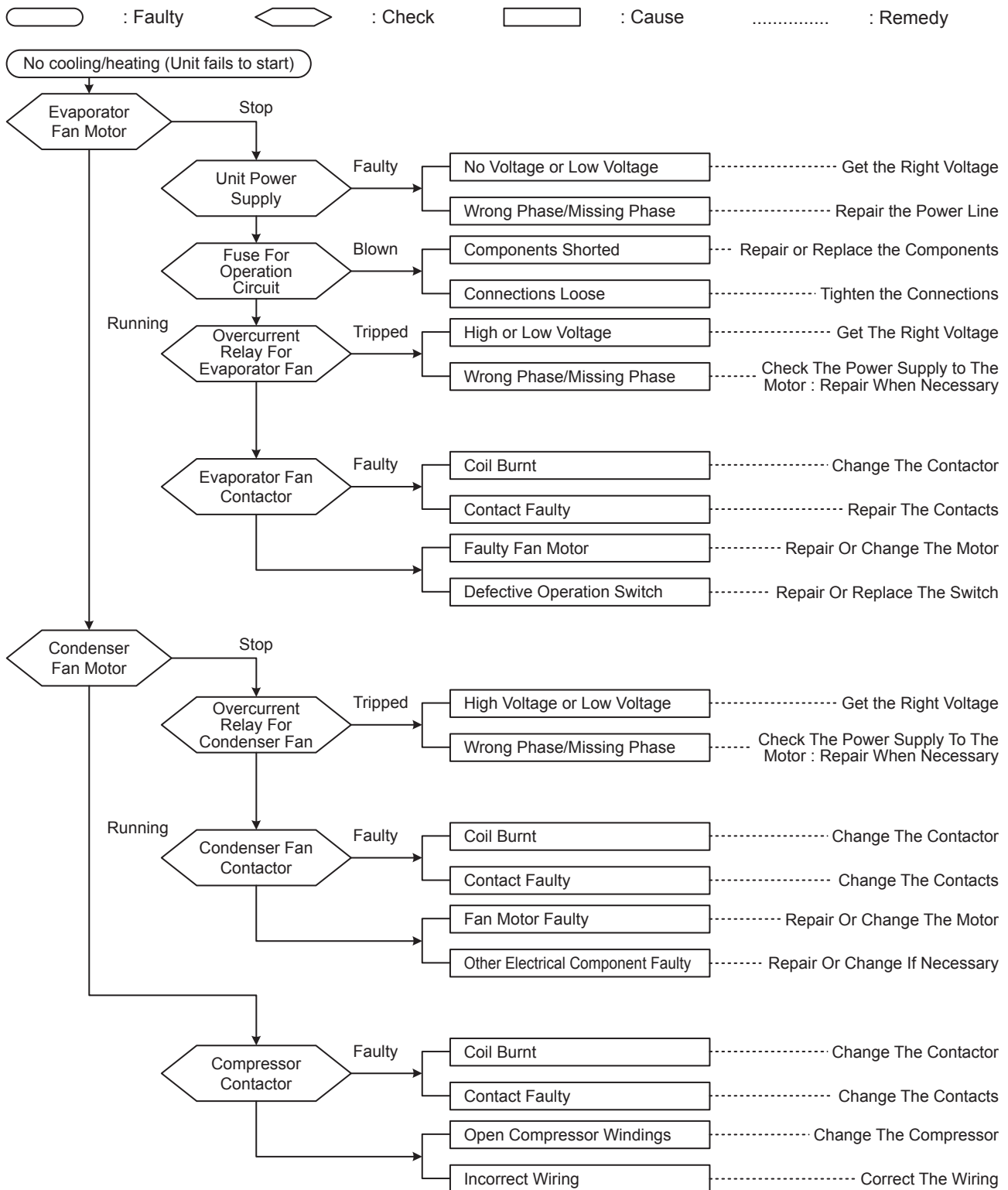
By means of pressure readings:

Data Circuit	Pressure					Probable cause
	Too low	A little low	Normal	A little high	Too high	
High side Low side					•	- Overcharged with refrigerant. - Non-condensable gases in refrigerant circuit (e.g. air) - Obstructed air-intake / discharge. - Hot air short circuiting in outdoor unit.
High side Low side	•				•	- Poor compression / no compression (compressor defective) - Reversing valve leaking.
High side Low side	•	•				Undercharged with refrigerant. - Refrigerant leakage. - Air filter clogged / dirty (indoor unit). - Indoor fan locked / seized. - Defective defrost control, outdoor coil freeze up (heating). - Outdoor fan locked / seized (heating).
High side Low side				•	•	- Outdoor fan blocked (cooling). - Outdoor coil dirty (cooling). - Indoor fan locked / seized (heating). - Indoor air filter clogged / dirty (heating). - Non-condensable gases in refrigerant circuit (e.g. air)
High side Low side				•	•	Air intake temperature of indoor unit too high.

BY MEANS OF DIAGNOSTIC FLOW CHART :

Generally, there are two kinds of problems, i.e. starting failure and insufficient cooling/heating. "Starting failure" is caused by electrical defect while improper application or defects in refrigerant circuit causes "Insufficient cooling / heating".

i) Diagnosis of Electric Circuit



The most common causes of air conditioner failure to "start" are :

- Voltage not within $\pm 10\%$ of rated voltage.
- Power supply interrupted.
- Improper control settings.
- Air conditioner is disconnected from main power source.
- Fuse blown or circuit breaker off.

ii) Diagnosis of Refrigerant Circuit / Application

There might be some causes where the unit starts running but does not perform satisfactorily, i.e. insufficient cooling. Judgement could be made by measuring temperature difference of indoor unit's intake and discharge air as well as running current.

