

RX+DDP (05)

Ducted Mini Split System



50Hz



Nominal Range: 1.5 TR to 5 TR (5.3 kW to 18 kW)



علامة الجودة الإماراتية
Emirates Quality Mark



EWA
هيئة الكهرباء والماء
Electricity & Water Authority
Kingdom of Bahrain



شهادة المطابقة الخليجية

Made in UAE صنع في الامارات

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Legend

The following legends are used throughout this manual:

AFR Air Flow Rate	EER..... Energy Efficiency Ratio
cfm Cubic feet per minute	lbs Pounds weight (British units)
dB Decibels	l/s Liters per second
DB Dry Bulb Temperature	Mbh 1000 Btuh
WB Wet Bulb Temperature	OD Outside Diameter
Hz Hertz	Ph Phase
kW Kilowatts	Pa Pascals
kg Kilograms	SC Sensible Capacity
kPa Kilo Pascals	TC Total Capacity
PSI..... Pounds Per Square Inch	TR Tons of refrigeration = 12 MBH
COP..... Coefficient of Performance	V Volts



SKM reserves the right to change, in part or in whole the specifications of its Air Conditioning Equipment at any time in order to add the latest technology. Therefore, the enclosed information may change without any prior notice.

Introduction

The Ducted Split system from SKM consists of RX (a high efficiency - Side Discharge Air Cooled Condensing Unit); matching with DDP (a low noise, ceiling suspended indoor fan coil unit).

This split systems are ideally suited for apartments, houses, offices, shops, small residences, and in small commercial establishments.

SKM ducted split system are available in different models covering 1.5 TR to 5 TR (5.3 kW to 18 kW) at nominal AHRI condition, which make them ideally suited for a very small foot print for space saving and a pleasant exterior appearance.

SKM ducted split system are designed in accordance with G.C.C regulations. SKM ducted split system are designed to conform to ASHRAE-15, AHRI 340/360 standard, AHRI 210, ESMA, QCC, QSASO, EWA and G-Mark standards.

SKM ducted split units are suitable to operate in a wide range of ambient temperature. (Minimum outdoor operating ambient in cooling mode is 63°F (17°C), maximum is 131°F (55°C).

SKM ducted split units are internally wired and all that required to be done on site is ducting, refrigerant piping, power supply and suitable room thermostat installation and field wiring, which reduces the installation work and consequently keeps to a minimum cost.

SKM ducted split units are made in UAE and SKM provides qualified service and stock of replacement parts in all major cities of the G.C.C. countries, Egypt, Jordan, and Pakistan.

S.K.M Air Conditioning LLC

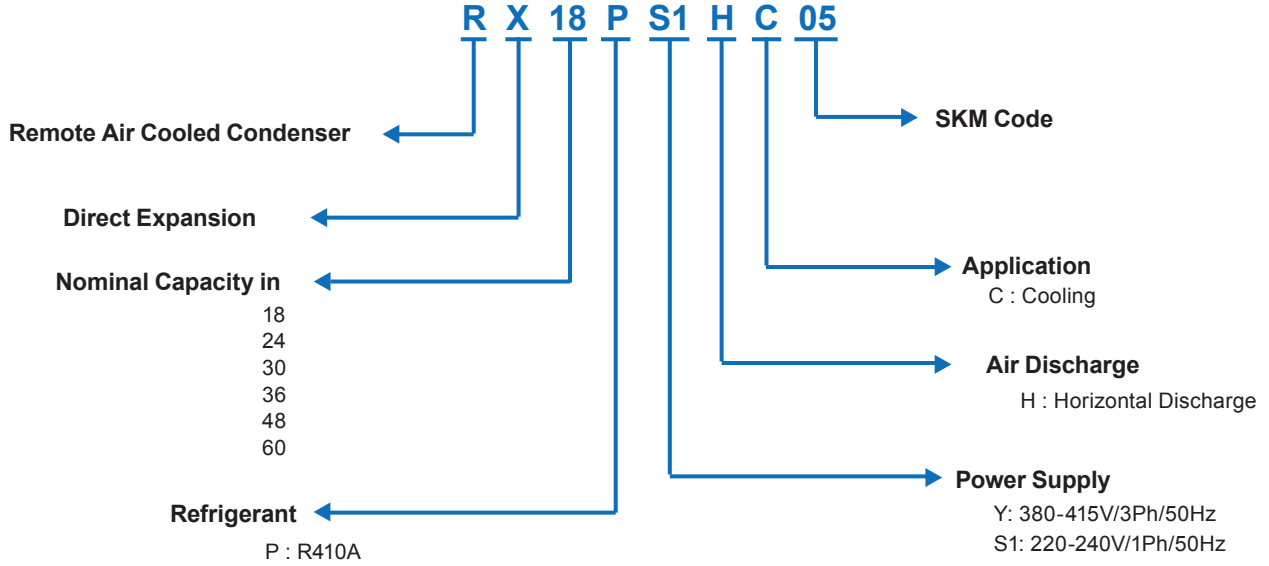


You name it.... We cool it

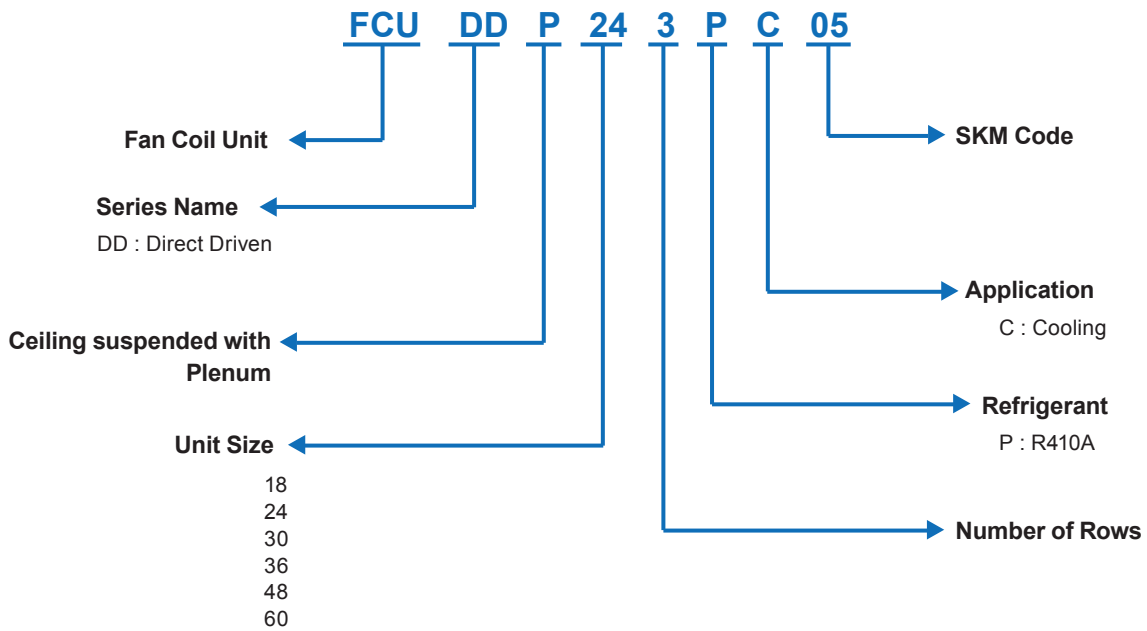


Nomenclature

Ducted Mini Split Nomenclature Outdoor



Ducted Mini Split Nomenclature Indoor



Features

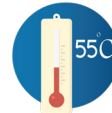
Outdoor Unit Design Features: (Air Cooled units up to 5 Tons of Refrigeration)

- **High Efficiency Hydrophilic Aluminum Fins**

As with all SKM air conditioning units, the RX-DDP Series Outdoor Units are available with Pre Coated Blue Aluminum Fins for the Condenser Coil as a Standard feature.

- **Cooling at High Ambient Temperature**

Enjoy excellent performance even under High ambient temperature up to (55°C).



- **Double Anti-Corrosion**

The housing of outdoor unit is made of galvanized metal, then enhance its corrosion resistance through the powder spraying technology, which can improve its Anti-Corrosion ability 3 times in coastal regions.

- **Auto-restart Function**

Recover the former operation state when power is restored, no need to restart the unit manually.

- **System Protection**

The unit have high and low pressure protection, High temperature protection, Compressor overloading protection, phase sequence protection.



Indoor Unit Design Features

- **Flexible Air Intake**

Air intake from rear as standard, from bottom as optional. The size of the plate from bottom is the same as the flange from back, which makes it convenient to change installation style due to different decoration requirement.

- **Service Friendly Design**

Both left and right side drainage pipe connection are available, service friendly.

- **Many sections Filter**

The filter is make up of many sections, it helps us easy to disassembly and easy to clean.



Standard Features



Wired Control



3D Air Flow



Auto Restart Function



Long-term Filter



Hydrophilic Aluminum



Intelligent Defrosting



Fast Cooling/Heating



Low Ambient Cooling

Special Features



WIFI Control



Touch Controller



Aluminum Filter



Outdoor Specification (Cooling Only)

Model	RX	18	24	30	36	48	60	
Power Supply	V- Hz,Ph	240-220V/1ph/50Hz	240-220V/1ph/50Hz	240-220V/1ph/50Hz	240-220V/1ph/50Hz	415-380V/3ph/50Hz	415-380V/3ph/50Hz	
Max. Input Consumption	W	2050	2800	3750	4200	5600	6200	
Max. Current	A	11.2	14.5	19.4	22.5	11.5	12	
Compressor	Type	ROTARY		ROTARY	ROTARY	SCROLL	SCROLL	SCROLL
	Input	W	1480	1900	2370	2887	3925	4150
	Rated Current (RLA)	A	6.6	8.6	10.75	12.3	6.8	6.8
	Locked Rotor Amp (LRA)	A	33.7	48	62.5	95	63	63
	Thermal Protection temp.	°C	Inside E class 115°C	Inside E class 115°C	Inside E class 115°C	Inside B class 135°C	Inside B class 135°C	Inside B class 135°C
	Capacitor	µF	55	55	60	70	-	-
	Refrigerant Oil	ml	700	480	950	1360	1360	1360
Outdoor fan motor	Output Power	W	30	85	100	60	60	60
	Fan quantity		1	1	1	2	2	2
	Capacitor	µF	2.5	4	/	3.5	3.5	3.5
	Speed	r/min	900	840	840	770	770	770
Fin Material	Fin Material	Hydrophilic aluminum fin		Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin	Hydrophilic aluminum fin
	Tube Outside Dia.And Material	mm	φ7.0 , Inner grooved	φ7.0 , Inner grooved	φ7.0 , Inner grooved	φ7 , Inner grooved	φ7.94 , Inner grooved	φ7.94 , Inner grooved
	Coil Length x Height x Width	mm	853×506×25.4	888×660×25.4	888×660×38.1	984×1320×38.1	973×1320×57.15	973×1320×57.15
	Heat Exchanging Area	m ²	12.83	17.82	22.92	65.12	72.8	72.8
Air Flow Volume	CFM	1529	2059	2059	3765	3765	3765	
Noise Level	dB(A)	56	58	58	58	60	60	
Dimension (W×D×H)	Net	mm	800×286×530	888×318×699	888×318×699	940×368×1366	940×368×1366	940×368×1366
	Packing	mm	920×400×620	1020×430×770	1020×430×770	1080×460×1500	1080×460×1500	1080×460×1500
Weight	Net	kg	39	49	56	100	104	105
	Gross	kg	42	53	60	112	116	121
Refrigerant type/Quantity	Type	R410a		R410a	R410a	R410a	R410a	R410a
	Charged Volume	g	1200	1750	2100	3500	4100	4400
Design Pressure	MPa	4.4	4.4	4.4	4.4	4.4	4.4	
Refrigerant Pipe	Liquid Side	mm	6.35	9.52	9.52	9.52	9.52	9.52
	Gas Side	mm	12.7	15.88	15.88	19.05	19.05	19.05
Operation Temperature Range	°C	32-16	32-16	32-16	32-16	32-16	32-16	
Ambient Temp (Cooling/Heating)	°C	55-17	55-17	55-17	55-17	55-17	55-17	
Connection Wiring	Power Wiring (Indoor)	mm ²	3×2.5mm ²	/	/	/	/	/
	Power Wiring (Outdoor)	mm ²	3×2.5mm ²	3×2.5mm ²	3×6mm ²	3×6mm ²	5×4mm ²	5×4mm ²
	Signal Wiring	mm ²	2×0.75mm ²	5×0.75mm ²	5×1mm ²	5×1mm ²	5×1mm ²	5×1mm ²
Stuffing Quantity	Unit	280/210/102	183/183/87	183/183/87	54/54/27	54/54/27	54/54/27	

Table 1

Notes:

1. The above design and specifications are subject to change without prior notice for product improvement.
2. The values given in the table for the noise level reflect the levels in anechoic chamber.
3. Parameters above are all measured when the connecting pipe is 5 meters

Indoor Specification (Cooling Only)

Indoor Model		FCU	DDP183PC05	DDP243PC05	DDP303PC05	DDP363PC05	DDP483PC05	DDP603PC05
Power Supply		V~,Hz,Ph	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1	220-240,50,1
Indoor Fan Motor	Model		YSK100-4	YSK160-4	YSK160-4	YSK180-4	FP240A	FP250A
	Output Power	W	100	160	160	180	240	280
	Capacitor	μF	3.5	3.5	3.5	8	12	12
	Speed (Hi/Mi./Lo)	r/min	880/780/720	1080/980/880	1080/980/880	1200/1100/1000	1385/1240/1160	1385/1240/1160
Indoor Coil	Number Of Row		3	3	3	3	3	3
	Tube Pitch(a)x Row Pitch(b)	mm	20.5×12.7	20.5×12.7	22×19.05	22×19.05	22×19.05	22×19.05
	Fin Pitch	mm	1.6	1.6	1.6	1.6	1.4	1.4
	Fin Material		Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum	Hydrophilic Aluminum
	Tube Outside Dia. And Material	mm	Φ7,Inner grooved	Φ7,Inner grooved	Φ7.94, Inner grooved	Φ7.94, Inner grooved	Φ7.94, Inner grooved	Φ7.94, Inner grooved
	Coil Length x Height x Width	mm	670×369×38.1	670×369×38.1	985×352×57.15	985×352×57.15	985×396×57.15	1135×484×57.15
	Heat Exchanging Area	m ²	10.58	10.58	22.65	22.65	28.92	40.73
Indoor Unit	Indoor Air Flow (Hi/Mi./Lo)	m ³ /h	1000/800/700	1400/1250/1050	1650/1450/1250	2200/1850/1600	2600/2300/1950	3100/2600/2200
	Noise Level(Hi/Mi./Lo)	dB(A)	43/41/40	45/43/41	45/41/39	47/43/40	49/45/43	53/50/47
	External Static Pressure	Pa	25	25	37	37	50	50
	External Static Pressure(Range)	Pa	0-60	0-60	0-80	0-100	0-150	0-150
	Net Dimension (W*D*H)	mm	890×735×290	890×735×290	1250×735×290	1250×735×290	1250×735×320	1400×820×380
	Packing Dimension (W*D*H)	mm	1070×800×360	1070×800×360	1430×800×360	1430×800×360	1430×800×390	1580×880×450
	Net Weight	Kg	32	33	44	44	47	51.5
	Gross Weight	Kg	35.5	36.5	50	50	53	58.5
Refrigerant Pipe	Liquid Side	mm	Φ6.35 (1/4")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")	9.52 (3/8")
	Gas Side	mm	Φ12.7 (1/2")	15.88 (5/8")	15.88 (5/8")	19.05 (3/4")	19.05 (3/4")	19.05 (3/4")
Operation Temperature Range		℃	16-32	16-32	16-32	16-32	16-32	16-32
Application Area		m ²	21-35	28-47	36-60	42-70	56-93	63-100
Connection Wiring	Power Wiring (Indoor)	mm ²	3×2.5mm ²	/	/	/	/	/
	Power Wiring (Outdoor)	mm ²	3×2.5mm ²	3×2.5mm ²	3×6mm ²	3×6mm ²	5×4mm ²	5×4mm ²
	Signal Wiring	mm ²	2×0.75mm ²	5×0.75mm ²	5×1mm ²	5×1mm ²	5×1mm ²	5×1mm ²
Wired Controller			XK04-G/Q-SYE-20°C	XK04-G/Q-SYE-20°C	XK04-G/Q-SYE-20°C	XK04-G/Q-SYE-20°C	XK04-G/Q-SYE-20°C	XK04-G/Q-SYE-20°C

Table 2

Notes:

1. The above design and specifications are subject to change without prior notice for product improvement.
2. The values given in the table for the noise level reflect the levels in anechoic chamber.
3. Parameters above are all measured when the connecting pipe is 5 meters



Performance Table

Model	Indoor	FCU	DDP183PC05	DDP243PC05	DDP303PC05	DDP363PC05	DDP483PC05	DDP603PC05
Capacity	Cooling(T1)	Btu/h	17500	23500	28000	34500	48000	52000
		TR	1.5	2.0	2.3	2.9	4.0	4.3
		kW	5.13	6.89	8.21	10.11	14.07	15.24
	Cooling(T3)	Btu/h	15200	20500	24500	30500	42000	45500
		TR	1.3	1.7	2.0	2.5	3.5	3.8
		kW	4.45	6.01	7.18	8.94	12.31	13.33
Performance	EER(T1)	W/W	3.47	3.51	3.42	3.51	3.52	3.46
		(Btu/h)/W	11.82	11.99	11.67	11.98	12.00	11.82
	EER(T3)	W/W	2.50	2.56	2.48	2.55	2.56	2.55
		(Btu/h)/W	8.54	8.72	8.45	8.71	8.75	8.70
Electric Data	Rated PI (T1)	kW	1.48	1.96	2.40	2.88	4.00	4.40
	Rated Current(T1)	A	6.55	8.68	10.72	12.75	6.70	7.40
	Rated PI (T3)	kW	1.78	2.35	2.90	3.50	4.80	5.23
	Rated Current(T3)	A	7.85	10.33	12.85	15.50	8.10	8.80

Table 3

Notes:

The design conditions are based as per AHRI standards 210/240:

- The evaporator air entering of 80°F/67°F (26.7°C/19.4°C) db/wb temperature and at 95°F outside air dry bulb for T1 conditions.
- The evaporator entering air conditions of 84.2°F/66.2°F(29.0°C/19.0°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F(46°C) dry bulb for T3 conditions.

High Speed - Combination Ratings - DDP with RX Units (Cooling Only)

Models RX + DDP	Air Flow Rate CFM (L/s)	ESP (Pa)	Indoor Air Temperature		Outdoor Air Temperature - DB - °F (°C)									
					95 °F (35 °C)					109.4 °F (43 °C)				
			WB / DB		Total Capacity (TC)		Sensible Capacity (SC)		PI	Total Capacity (TC)		Sensible Capacity (SC)		PI
°F (°C)	°F (°C)	kBtu/h	kW	kBtu/h	kW	kW	kBtu/h	kW	kBtu/h	kW	kBtu/h	kW	kW	
RX18 + DDP18	588 (278)	25	57.2 (14)	68 (20)	12.8	3.75	11.1	3.25	1.41	12	3.52	10.6	3.11	1.55
			60.8 (16)	71.6 (22)	15	4.40	12.5	3.66	1.43	14	4.10	11.9	3.49	1.58
			63 (17)	76 (24.4)	15.9	4.66	12.7	3.73	1.44	14.9	4.37	13.0	3.80	1.59
			64.4 (18)	77 (25)	16.7	4.89	13.6	3.99	1.46	15.6	4.57	12.9	3.78	1.60
			66.2 (19)	80.6 (27)	17.5	5.13	14	4.10	1.48	16.3	4.78	13.3	3.90	1.63
			66.2 (19)	84.2 (29)	18.4	5.39	14.7	4.31	1.49	17.1	5.01	14.9	4.36	1.64
			71.6 (22)	86 (30)	19.2	5.63	14.8	4.34	1.50	17.9	5.25	14	4.10	1.65
75.2 (24)	89.6 (32)	19.9	5.83	15	4.40	1.52	18.6	5.45	14.2	4.16	1.67			
RX24 + DDP24	824 (389)	25	57.2 (14)	68 (20)	17.2	5.04	14.7	4.31	1.87	16.6	4.87	14.4	4.22	1.99
			60.8 (16)	71.6 (22)	20.1	5.89	16.6	4.87	1.90	19.4	5.69	16.2	4.75	2.02
			63 (17)	76 (24.4)	21.2	6.21	17.2	5.03	1.92	20.1	5.89	16.5	4.83	2.03
			64.4 (18)	77 (25)	22.5	6.59	18	5.28	1.93	21.6	6.33	17.5	5.13	2.05
			66.2 (19)	80.6 (27)	23.5	6.89	18.6	5.45	1.96	22.6	6.62	18.1	5.30	2.08
			66.2 (19)	84.2 (29)	24.6	7.21	19.1	5.59	1.97	23.7	6.95	18.5	5.42	2.10
			71.6 (22)	86 (30)	25.8	7.56	19.6	5.74	1.99	24.8	7.27	19.1	5.60	2.11
75.2 (24)	89.6 (32)	26.8	7.85	19.9	5.83	2.01	25.8	7.56	19.3	5.66	2.14			
RX30 + DDP30	971 (458)	37	57.2 (14)	68 (20)	20.5	6.01	16.6	4.87	2.29	19.1	5.60	15.9	4.66	2.52
			60.8 (16)	71.6 (22)	24	7.03	18.8	5.51	2.32	22.3	6.54	17.9	5.25	2.55
			63 (17)	76 (24.4)	25.2	7.39	19.4	5.69	2.34	23.5	6.89	18.6	5.44	2.57
			64.4 (18)	77 (25)	26.8	7.85	20.3	5.95	2.36	24.9	7.30	19.3	5.66	2.59
			66.2 (19)	80.6 (27)	28	8.21	21	6.15	2.40	26.1	7.65	19.9	5.83	2.64
			66.2 (19)	84.2 (29)	29.4	8.62	21.5	6.29	2.41	27.2	7.97	20.4	5.98	2.65
			71.6 (22)	86 (30)	30.7	9.00	22.2	6.51	2.43	28.6	8.38	21	6.15	2.67
75.2 (24)	89.6 (32)	31.9	9.35	22.5	6.59	2.47	29.7	8.70	21.2	6.21	2.71			
RX36 + DDP36	1294 (611)	37	57.2 (14)	68 (20)	25.3	7.42	21.8	6.39	2.75	23.6	6.92	20.8	6.10	3.02
			60.8 (16)	71.6 (22)	29.5	8.65	24.7	7.24	2.79	27.5	8.06	23.5	6.89	3.07
			63 (17)	76 (24.4)	31.6	9.26	25.9	7.59	2.81	29.1	8.53	24.4	7.16	3.10
			64.4 (18)	77 (25)	33	9.67	26.7	7.83	2.83	30.7	9.00	25.4	7.44	3.11
			66.2 (19)	80.6 (27)	34.5	10.11	27.6	8.09	2.88	32.1	9.41	26.2	7.68	3.16
			66.2 (19)	84.2 (29)	36.2	10.61	28.2	8.28	2.91	33.9	9.94	27.1	7.95	3.19
			71.6 (22)	86 (30)	37.9	11.11	29.1	8.53	2.92	35.3	10.35	27.6	8.09	3.21
75.2 (24)	89.6 (32)	39.3	11.52	29.5	8.65	2.96	36.6	10.73	27.9	8.18	3.25			
RX48 + DDP48	1530 (723)	50	57.2 (14)	68 (20)	35.2	10.32	29.6	8.68	3.82	32.8	9.61	28.3	8.29	4.19
			60.8 (16)	71.6 (22)	41.1	12.05	33.5	9.82	3.87	38.3	11.23	31.9	9.35	4.26
			63 (17)	76 (24.4)	43.2	12.66	34.6	10.13	3.89	40.6	11.90	33.3	9.76	4.30
			64.4 (18)	77 (25)	45.9	13.45	36.3	10.64	3.93	42.7	12.51	34.5	10.11	4.32
			66.2 (19)	80.6 (27)	48	14.07	37.4	10.96	4.00	44.7	13.10	35.5	10.40	4.4
			66.2 (19)	84.2 (29)	50.1	14.68	38.1	11.16	4.02	47.5	13.92	37.1	10.86	4.42
			71.6 (22)	86 (30)	52.7	15.45	39.5	11.58	4.05	49.1	14.39	37.4	10.96	4.45
75.2 (24)	89.6 (32)	54.7	16.03	40.1	11.75	4.11	50.9	14.92	37.8	11.08	4.52			
RX60 + DDP60	1824 (861)	50	57.2 (14)	68 (20)	38.2	11.20	32.1	9.41	4.20	35.5	10.40	30.6	8.97	4.61
			60.8 (16)	71.6 (22)	44.5	13.04	36.3	10.64	4.26	41.5	12.16	34.5	10.11	4.68
			63 (17)	76 (24.4)	47	13.77	37.6	11.02	4.29	43.9	12.87	36.0	10.55	4.71
			64.4 (18)	77 (25)	49.7	14.57	39.3	11.52	4.33	46.3	13.57	37.3	10.93	4.75
			66.2 (19)	80.6 (27)	52	15.24	40.6	11.90	4.40	48.4	14.19	38.5	11.28	4.83
			66.2 (19)	84.2 (29)	54.3	15.91	41.3	12.09	4.42	50.6	14.83	39.5	11.57	4.86
			71.6 (22)	86 (30)	57.1	16.74	42.8	12.54	4.46	53.1	15.56	40.5	11.87	4.9
75.2 (24)	89.6 (32)	59.2	17.35	43.4	12.72	4.52	55.2	16.18	41	12.02	4.97			

Table 4

Notes:

- For matched conditions, at entering condition other than shown; consult SKM.
- Direct interpolation is permissible but extrapolation is prohibited.
- Cooling capacities listed do not include a deduction for fan motor heat.
- TC - total cooling capacity in Mbh (1000 Btu/h)
SC - sensible cooling capacity in Mbh (1000 Btu/h)
PI - Power input in kW.
- The design conditions as per AHRI standards 210/240:
 - The evaporator air entering of 80°F/67°F (26.7°C/19.4°C) db/wb temperature and at 95°F outside air dry bulb for T1 conditions.
 - The evaporator entering air conditions of 84.2°F/66.2°F (29.0°C/19.0°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F (46°C) dry bulb for T3

* Power input mentioned in this page should not be used for cable or fuse selection.



High Speed - Combination Ratings - DDP with RX Units (Cooling Only)

Models RX + DDP	AFR CFM (L/s)	ESP (Pa)	Outdoor Air Temperature - DB - °F (°C)											
			Temperature		114.8 °F (46 °C)					125 °F (52 °C)				
			WB / DB		Total Capacity (TC)		Sensible Capacity (SC)		PI	Total Capacity (TC)		Sensible Capacity (SC)		PI
			°F (°C)		kBtu/h	kW	kBtu/h	kW	kW	kBtu/h	kW	kBtu/h	kW	kW
RX18 + DDP18	588 (278)	25	57.2 (14)	68 (20)	11.2	3.28	10.4	3.05	1.70	10.4	3.05	10.1	2.96	1.74
			60.8 (16)	71.6 (22)	13	3.81	11.8	3.46	1.72	12.1	3.55	11.4	3.34	1.76
			63 (17)	76 (24.4)	13.8	4.04	12.4	3.64	1.68	12.9	3.78	12.0	3.52	1.78
			64.4 (18)	77 (25)	14.6	4.28	12.8	3.75	1.75	13.5	3.96	12.3	3.60	1.79
			66.2 (19)	84.6 (29)	15.2	4.45	13.2	3.87	1.78	14.1	4.13	12.7	3.72	1.82
			71.6 (22)	86 (30)	16.7	4.89	13.9	4.07	1.80	15.5	4.54	13.4	3.93	1.84
			75.2 (24)	89.6 (32)	17.3	5.07	14.1	4.13	1.83	16	4.69	13.6	3.99	1.87
RX24 + DDP24	824 (389)	25	57.2 (14)	68 (20)	15.1	4.43	13.8	4.04	2.24	14	4.10	13.3	3.90	2.36
			60.8 (16)	71.6 (22)	17.5	5.13	15.6	4.57	2.28	16.3	4.78	15.1	4.43	2.40
			63 (17)	76 (24.4)	18.5	5.42	16.1	4.72	2.30	17.4	5.10	15.8	4.64	2.42
			64.4 (18)	77 (25)	19.7	5.77	16.9	4.95	2.31	18.3	5.36	16.4	4.81	2.44
			66.2 (19)	84.6 (29)	20.5	6.01	17.5	5.13	2.35	19	5.57	16.9	4.95	2.48
			71.6 (22)	86 (30)	22.5	6.59	18.5	5.42	2.38	20.9	6.13	17.8	5.22	2.51
			75.2 (24)	89.6 (32)	23.3	6.83	18.7	5.48	2.41	21.6	6.33	18.1	5.30	2.54
RX30 + DDP30	971 (458)	37	57.2 (14)	68 (20)	18.1	5.30	15.6	4.57	2.77	16.7	4.89	15.1	4.43	2.83
			60.8 (16)	71.6 (22)	21	6.15	17.7	5.19	2.81	19.4	5.69	17.1	5.01	2.87
			63 (17)	76 (24.4)	22.1	6.48	18.3	5.38	2.83	20.6	6.04	17.7	5.19	2.89
			64.4 (18)	77 (25)	23.5	6.89	19.2	5.63	2.85	21.8	6.39	18.5	5.42	2.91
			66.2 (19)	84.6 (29)	24.5	7.18	19.8	5.78	2.90	22.7	6.65	19.1	5.60	2.96
			71.6 (22)	86 (30)	26.9	7.88	20.9	6.13	2.94	25	7.33	20.2	5.92	3.00
			75.2 (24)	89.6 (32)	27.9	8.18	21.2	6.21	2.98	25.9	7.59	20.4	5.98	3.04
RX36 + DDP36	1294 (611)	37	57.2 (14)	68 (20)	22.5	6.59	20.5	6.01	3.34	20.8	6.10	19.8	5.80	3.41
			60.8 (16)	71.6 (22)	26.1	7.65	23.2	6.80	3.39	24.2	7.09	22.4	6.57	3.46
			63 (17)	76 (24.4)	27.6	8.09	24.0	7.04	3.41	25.9	7.59	23.6	6.91	3.48
			64.4 (18)	77 (25)	29.3	8.59	25.2	7.39	3.44	27.2	7.97	24.3	7.12	3.51
			66.2 (19)	84.6 (29)	30.5	8.94	26	7.62	3.50	28.3	8.29	25.1	7.36	3.57
			71.6 (22)	86 (30)	33.5	9.82	27.4	8.03	3.55	31.1	9.11	26.5	7.77	3.62
			75.2 (24)	89.6 (32)	34.7	10.17	27.8	8.15	3.59	32.2	9.44	26.9	7.88	3.67
RX48 + DDP48	1530 (723)	50	57.2 (14)	68 (20)	30.9	9.06	27.9	8.18	4.58	28.7	8.41	26.9	7.88	4.68
			60.8 (16)	71.6 (22)	35.9	10.52	31.5	9.23	4.65	33.3	9.76	30.4	8.91	4.75
			63 (17)	76 (24.4)	38.1	11.17	33.1	9.71	4.68	35.2	10.32	31.7	9.28	4.78
			64.4 (18)	77 (25)	40.3	11.81	34.1	9.99	4.71	37.4	10.96	33	9.67	4.81
			66.2 (19)	84.6 (29)	42	12.31	35.2	10.32	4.80	39	11.43	34	9.96	4.97
			71.6 (22)	86 (30)	46.1	13.51	37.2	10.90	4.86	42.8	12.54	35.9	10.52	4.99
			75.2 (24)	89.6 (32)	47.8	14.01	37.7	11.05	4.93	44.3	12.98	36.4	10.67	5.03
RX60 + DDP60	1824 (861)	50	57.2 (14)	68 (20)	33.5	9.82	30.2	8.85	4.99	31.1	9.11	29.1	8.53	5.10
			60.8 (16)	71.6 (22)	38.9	11.40	34.1	9.99	5.07	36.1	10.58	33	9.67	5.17
			63 (17)	76 (24.4)	41.2	12.08	35.8	10.51	5.10	38.1	11.17	34.3	10.05	5.20
			64.4 (18)	77 (25)	43.7	12.81	37	10.84	5.14	40.5	11.87	35.7	10.46	5.25
			66.2 (19)	84.6 (29)	45.5	13.34	38.2	11.20	5.23	42.2	12.37	36.9	10.81	5.34
			71.6 (22)	86 (30)	50	14.65	40.3	11.81	5.30	46.4	13.60	38.9	11.40	5.41
			75.2 (24)	89.6 (32)	51.8	15.18	40.9	11.99	5.37	48	14.07	39.5	11.58	5.49

Table 5

Notes:

- For matched conditions, at entering condition other than shown; consult SKM.
- Direct interpolation is permissible but extrapolation is prohibited.
- Cooling capacities listed do not include a deduction for fan motor heat.
- TC - total cooling capacity in Mbh (1000 Btu/h)
SC - sensible cooling capacity in Mbh (1000 Btu/h)
PI - Power input in kW.
- The design conditions as per AHRI standards 210/240:
 - The evaporator air entering of 80°F/67°F (26.7°C/19.4°C) db/wb temperature and at 95°F outside air dry bulb for T1 conditions.
 - The evaporator entering air conditions of 84.2°F/66.2°F (29.0°C/19.0°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F (46°C) dry bulb for T3

* Power input mentioned in this page should not be used for cable or fuse selection.

Medium Speed - Combination Ratings - DDP with RX Units (Cooling Only)

Models	AFR	ESP	Outdoor Air Temperature - DB - °F (°C)																
			Temperature		95 °F (35 °C)			114.8 °F (46 °C)			125 °F (52 °C)								
			WB / DB	Total Capacity (TC)	Sensible Capacity (SC)		PI	Total Capacity (TC)	Sensible Capacity (SC)		PI	Total Capacity (TC)	Sensible Capacity (SC)		PI				
			°F (°C)	kBtu/h	kW	kBtu/h	kW	kW	kBtu/h	kW	kBtu/h	kW	kW	kBtu/h	kW	kBtu/h	kW	kW	
RX18 + DDP18	528 (249)	25	57.2 (14)	68 (20)	13.0	3.8	13.0	3.8	3.6	11.4	3.3	11.2	3.3	1.7	10.5	3.1	10.4	3.0	1.7
			60.8 (16)	71.6 (22)	15.2	4.5	13.7	4.0	3.7	13.2	3.9	12.5	3.7	1.7	12.2	3.6	12.1	3.6	1.8
			64.4 (18)	77 (25)	17.0	5.0	14.0	4.1	3.7	14.8	4.3	13.1	3.8	1.8	13.7	4.0	13.6	4.0	1.8
			66.2 (19)	80.6 (27)	17.8	5.2	14.2	4.2	3.8	15.4	4.5	13.3	3.9	1.8	14.3	4.2	14.1	4.1	1.8
			71.6 (22)	86 (30)	19.5	5.7	14.9	4.4	3.8	17.0	5.0	14.1	4.1	1.8	15.7	4.6	15.5	4.5	1.8
			75.2 (24)	89.6 (32)	20.2	5.9	15.2	4.5	3.9	17.6	5.2	14.3	4.2	1.8	16.3	4.8	16.1	4.7	1.9
RX24 + DDP24	737 (348)	25	57.2 (14)	68 (20)	17.5	5.1	17.0	5.0	3.6	15.3	4.5	15.0	4.4	2.2	14.2	4.2	14.2	4.2	2.3
			60.8 (16)	71.6 (22)	20.4	6.0	17.8	5.2	3.7	17.8	5.2	17.5	5.1	2.3	16.5	4.8	16.5	4.8	2.3
			64.4 (18)	77 (25)	22.8	6.7	18.3	5.4	3.7	20.0	5.9	17.6	5.2	2.3	18.5	5.4	18.4	5.4	2.4
			66.2 (19)	80.6 (27)	23.9	7.0	18.8	5.5	2.0	20.8	6.1	17.7	5.2	2.4	19.3	5.7	19.1	5.6	2.4
			71.6 (22)	86 (30)	26.2	7.7	19.8	5.8	2.0	22.9	6.7	18.7	5.5	2.4	21.2	6.2	21.0	6.1	2.4
			75.2 (24)	89.6 (32)	27.2	8.0	20.1	5.9	2.0	23.7	6.9	18.9	5.5	2.4	22.0	6.4	21.7	6.4	2.5
RX30 + DDP30	802 (378)	37	57.2 (14)	68 (20)	20.5	6.0	20.5	6.0	3.6	18.1	5.3	18.1	5.3	2.8	16.7	4.9	16.7	4.9	2.8
			60.8 (16)	71.6 (22)	24.0	7.0	24.0	7.0	3.6	21.0	6.2	21.0	6.2	2.8	19.4	5.7	19.4	5.7	2.9
			64.4 (18)	77 (25)	26.8	7.9	26.8	7.9	3.7	23.5	6.9	23.5	6.9	2.8	21.8	6.4	21.8	6.4	2.9
			66.2 (19)	80.6 (27)	28.0	8.2	20.7	6.1	2.4	24.5	7.2	19.5	5.7	2.9	22.7	6.7	22.4	6.6	3.0
			71.6 (22)	86 (30)	30.7	9.0	21.9	6.4	2.4	26.9	7.9	20.6	6.0	2.9	25.0	7.3	24.7	7.2	3.0
			75.2 (24)	89.6 (32)	31.9	9.3	22.2	6.5	2.5	27.9	8.2	20.9	6.1	3.0	25.9	7.6	25.6	7.5	3.0
RX36 + DDP36	1088 (513)	37	57.2 (14)	68 (20)	25.7	7.5	25.1	7.4	3.6	22.8	6.7	21.0	6.2	3.4	21.2	6.2	21.1	6.2	3.4
			60.8 (16)	71.6 (22)	30.0	8.8	26.4	7.7	3.7	26.5	7.8	23.5	6.9	3.4	24.6	7.2	24.5	7.2	3.5
			64.4 (18)	77 (25)	33.5	9.8	27.1	7.9	3.7	29.7	8.7	25.6	7.5	3.5	27.6	8.1	27.4	8.0	3.5
			66.2 (19)	80.6 (27)	35.0	10.3	27.9	8.2	2.9	31.0	9.1	26.3	7.7	3.5	28.7	8.4	28.5	8.4	3.6
			71.6 (22)	86 (30)	38.4	11.3	29.5	8.6	2.9	34.0	10.0	27.7	8.1	3.6	31.5	9.2	31.3	9.2	3.6
			75.2 (24)	89.6 (32)	39.9	11.7	29.9	8.8	3.0	35.2	10.3	28.1	8.2	3.6	32.7	9.6	32.4	9.5	3.7
RX48 + DDP48	1351 (637)	50	57.2 (14)	68 (20)	35.8	10.5	33.8	9.9	3.6	31.4	9.2	29.0	8.5	4.8	29.1	8.5	29.0	8.5	4.9
			60.8 (16)	71.6 (22)	41.7	12.2	36.5	10.7	3.7	36.5	10.7	31.2	9.1	4.8	33.8	9.9	33.6	9.9	4.9
			64.4 (18)	77 (25)	46.6	13.7	37.2	10.9	3.7	40.9	12.0	34.6	10.1	4.9	38.0	11.1	37.8	11.1	5.0
			66.2 (19)	80.6 (27)	48.7	14.3	37.8	11.1	4.0	42.6	12.5	35.6	10.4	5.0	39.5	11.6	39.3	11.5	5.1
			71.6 (22)	86 (30)	53.5	15.7	40.0	11.7	4.1	46.8	13.7	37.6	11.0	5.1	43.4	12.7	43.2	12.6	5.2
			75.2 (24)	89.6 (32)	55.5	16.3	40.5	11.9	4.1	48.5	14.2	38.1	11.2	5.1	45.0	13.2	44.7	13.1	5.2
RX60 + DDP60	1608 (759)	50	57.2 (14)	68 (20)	38.7	11.3	38.2	11.2	3.6	34.0	10.0	33.6	9.8	5.0	31.6	9.3	31.6	9.3	5.1
			60.8 (16)	71.6 (22)	45.2	13.2	38.7	11.3	3.7	39.5	11.6	36.0	10.6	5.1	36.6	10.7	36.5	10.7	5.2
			64.4 (18)	77 (25)	50.4	14.8	40.1	11.8	3.7	44.4	13.0	37.3	10.9	5.2	41.1	12.0	40.9	12.0	5.3
			66.2 (19)	80.6 (27)	52.8	15.5	41.0	12.0	4.4	46.2	13.5	38.6	11.3	5.2	42.8	12.5	42.6	12.5	5.4
			71.6 (22)	86 (30)	57.9	17.0	43.3	12.7	4.5	50.7	14.9	40.7	11.9	5.3	47.1	13.8	46.9	13.7	5.4
			75.2 (24)	89.6 (32)	60.1	17.6	43.9	12.9	4.5	52.6	15.4	41.3	12.1	5.4	48.8	14.3	48.5	14.2	5.5

Table 6

Notes:

- For matched conditions, at entering condition other than shown; consult SKM.
- Direct interpolation is permissible but extrapolation is prohibited.
- Cooling capacities listed do not include a deduction for fan motor heat.
- TC - total cooling capacity in Mbh (1000 Btu/h)
 SC - sensible cooling capacity in Mbh (1000 Btu/h)
 PI - Power input in kW.
- The design conditions as per AHRI standards 210/240:
 - The evaporator air entering of 80°F/67°F (26.7°C/19.4°C) db/wb temperature and at 95°F outside air dry bulb for T1 conditions.
 - The evaporator entering air conditions of 84.2°F/66.2°F (29.0°C/19.0°C) dry bulb/wet bulb and condenser entering air temperature of 114.8°F (46°C) dry bulb for T3

* Power input mentioned in this page should not be used for cable or fuse selection.



Electrical Data - RX & DDP

Indoor Unit

Model	Power Supply	Fan Motor FLA	Fuse/Breaker Capacity	Min. Power Supply Cord
	V/Ph/Hz	A	A	mm ²
DDP18	220-240/1/50	0.42	6	1
DDP24		0.57	6	1
DDP30		0.86	6	1
DDP36		0.86	6	1
DDP48		1.08	6	1
DDP60		0.42	6	1

Table 6

Outdoor Unit

Model	Compressor			Fan Motor FLA	Fuse/Breaker Capacity	Min. Power Supply Cord
	Power Supply	RLA	LRA			
	V/Ph/Hz	A	A			
RX18	220-240,1,50	6.35	34	0.32	16	2.5
RX24		8.7	48	0.53	20	4
RX30		10.55	63	0.53	25	4
RX36		12.3	95	1.52	25	4
RX48	380-415,3,50	7	63	1.42	25	4
RX60		7.2	63	1.42	25	4

Table 7

Notes:

1. The specifications of the breaker and power cable listed in the table above are determined based on the Maximum Power (Maximum Amps) of the unit.
2. The specifications of the power cable are applied to the conduit-guarded multiwire copper cable (like, YJV copper cable, consisting of PE insulated wires and a PVC cable jacket) used at 40°C and resistible to 90°C (see IEC 60364-5-52). If the working condition changes, they should be modified according to the related national standard.
3. The working temperature of the breaker listed in the table are 40°C. If the working condition changes, they should be modified according to the related national standard.

Operation Range - RX & DDP

Cooling capacity (Btu/h)	18K	24K	30K	36K	48K	60K
Power supply	220 - 240V / 1ph / 50Hz			380 - 415V / 3ph / 50Hz		
Voltage	207 - 253 V			360 - 440 V		
Room temperature	16 - 35 °C					
Outdoor ambient temperature	17 - 55 °C					

Table 8

Thermostat

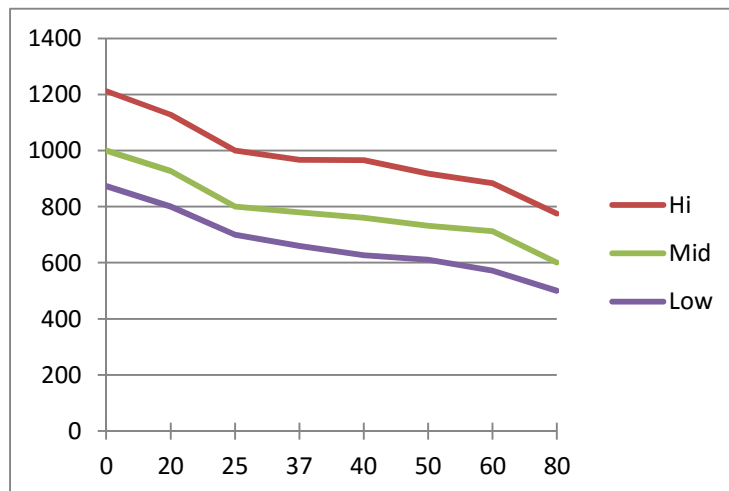
SKM Wired Controller is a wall mounted decorative type controller, with large LCD and back light. The touch buttons are provided for power on/off, fan speed selection, cooling or heating mode selection, set point adjustment, sleep mode function, air swing mode and timer function for the comfort of the user. Apart from that the large display provides the user icons of the functions that is currently active for easy reference.



Fan Performance (Cooling Only)

DDP 18

AFR (m³/h)



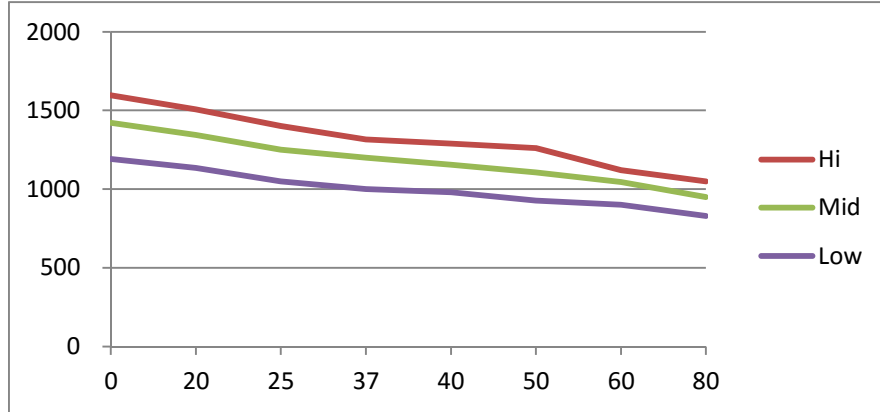
ESP (Pa)



Fan Performance (Cooling Only)

DDP 24

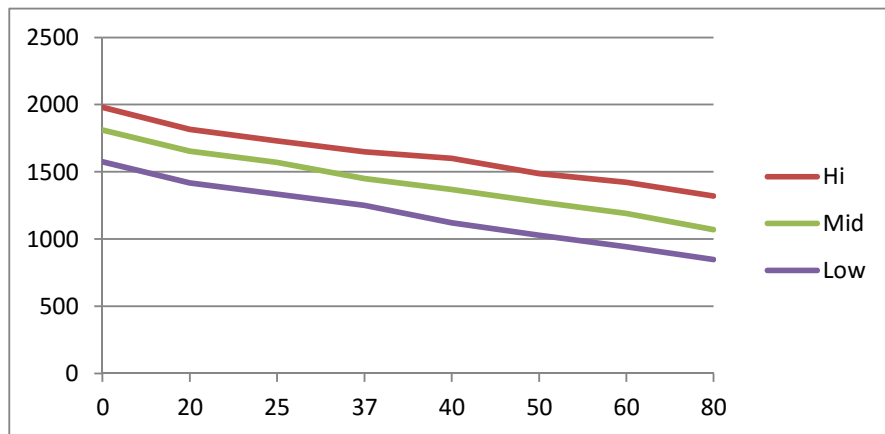
AFR (m³/h)



ESP (Pa)

DDP 30

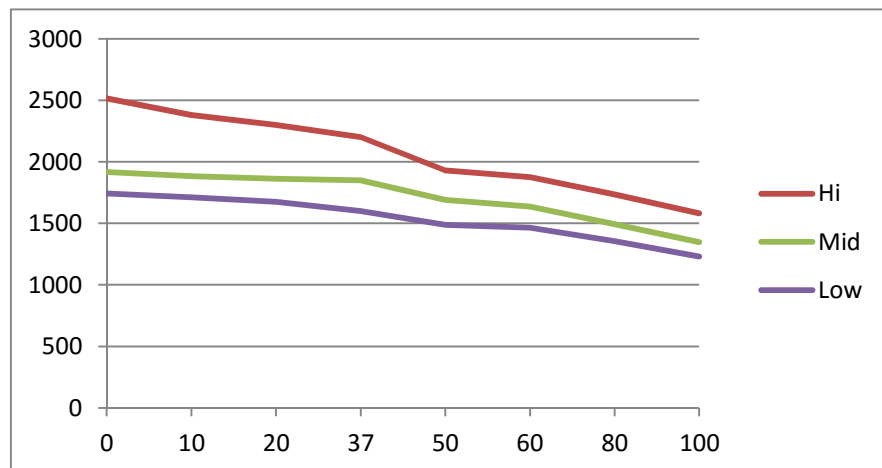
AFR (m³/h)



ESP (Pa)

DDP 36

AFR (m³/h)

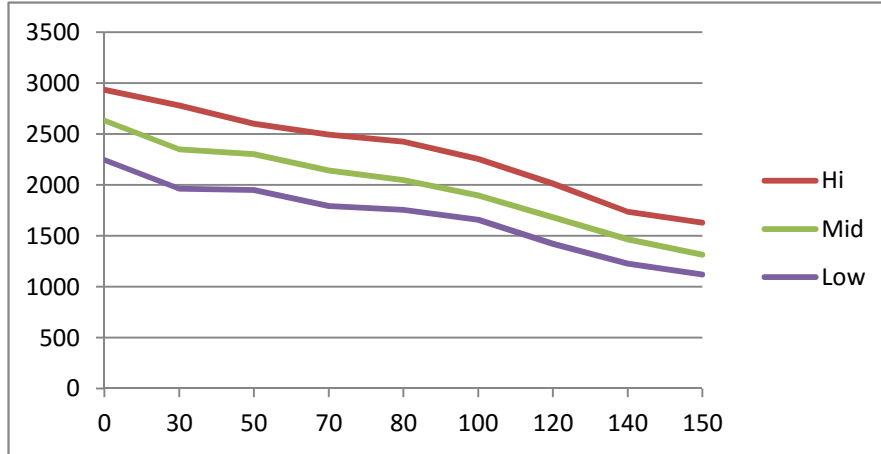


ESP (Pa)

Fan Performance (Cooling Only)

DDP 48

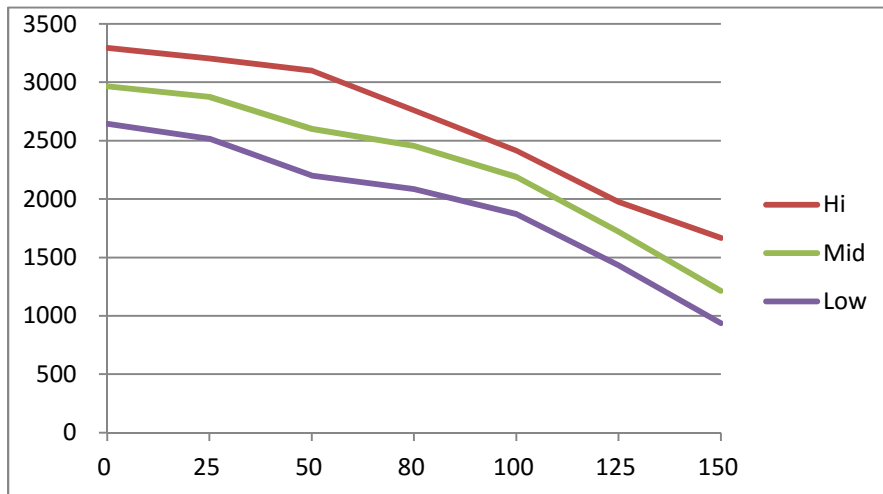
AFR (m³/h)



ESP (Pa)

DDP 60

AFR (m³/h)



ESP (Pa)



Recommended Suction and Liquid Line length

Model	Max. Length	Max. Height
RX	meter	
18	30	15
24	30	15
30	30	15
36	50	30
48	50	30
60	50	30

Table 7

Refrigerant Piping

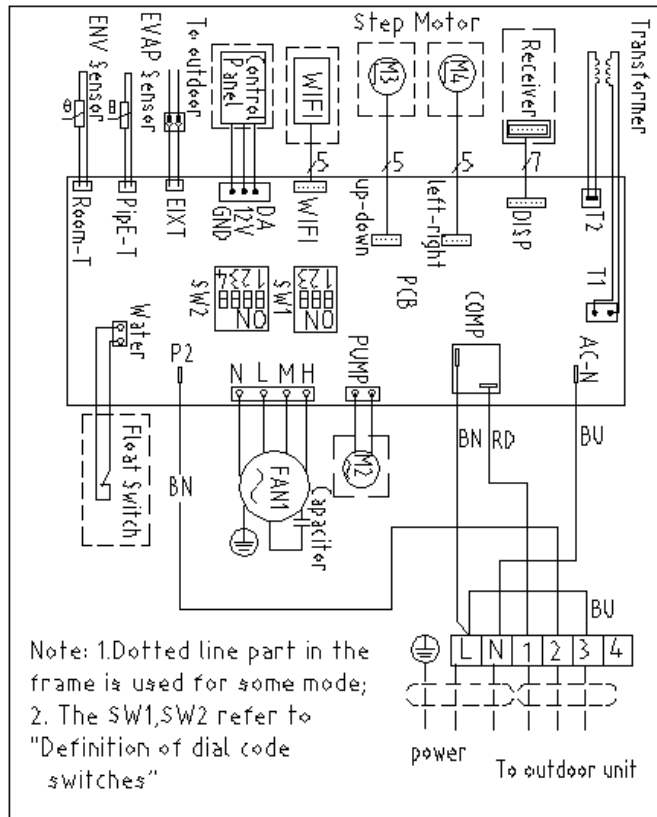
Correct design and size of refrigerant piping is necessary for proper operation. The refrigerant piping generally should be designed to accomplish the following:

- a. To ensure proper refrigerant feed to the evaporator.
- b. To provide practical refrigerant line sizes without excessive pressure drop.
- c. To maintain uniform return of lubricating oil to the compressor.
- d. To prevent refrigerant from entering the compressor and causing compressor damage due to "slugging".

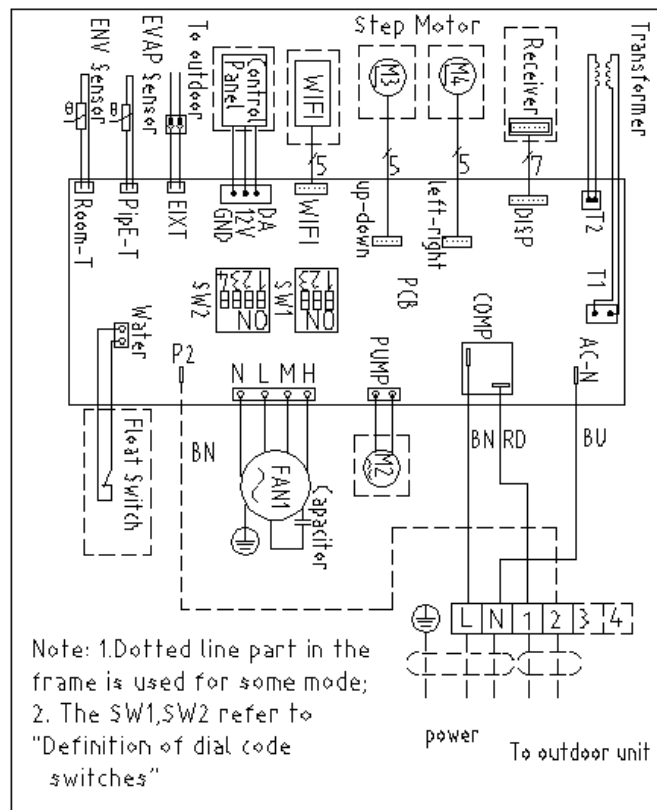
Typical Wiring Diagram :

RX - DDP (05) / Indoor Unit:

DDP 18



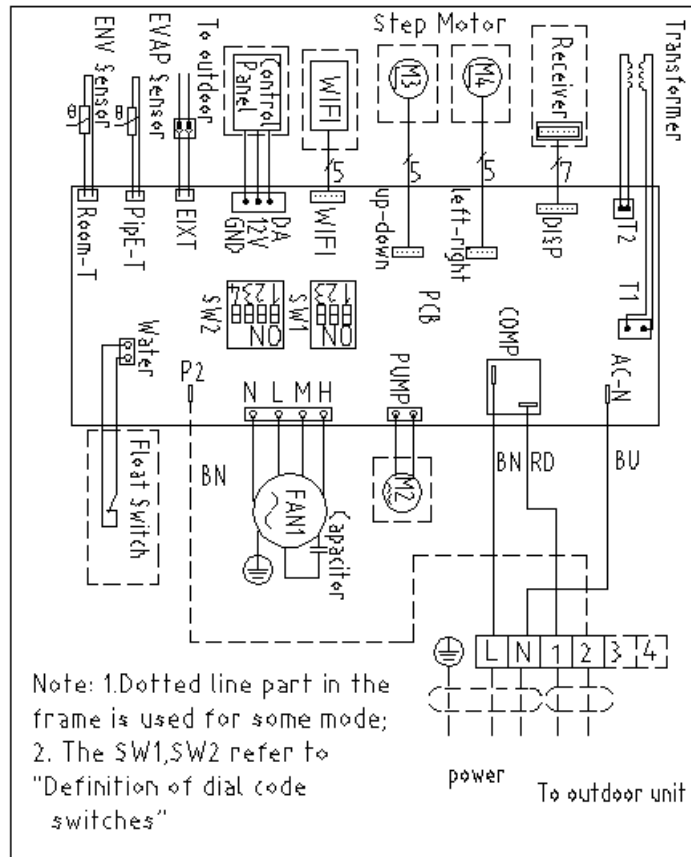
DDP 24



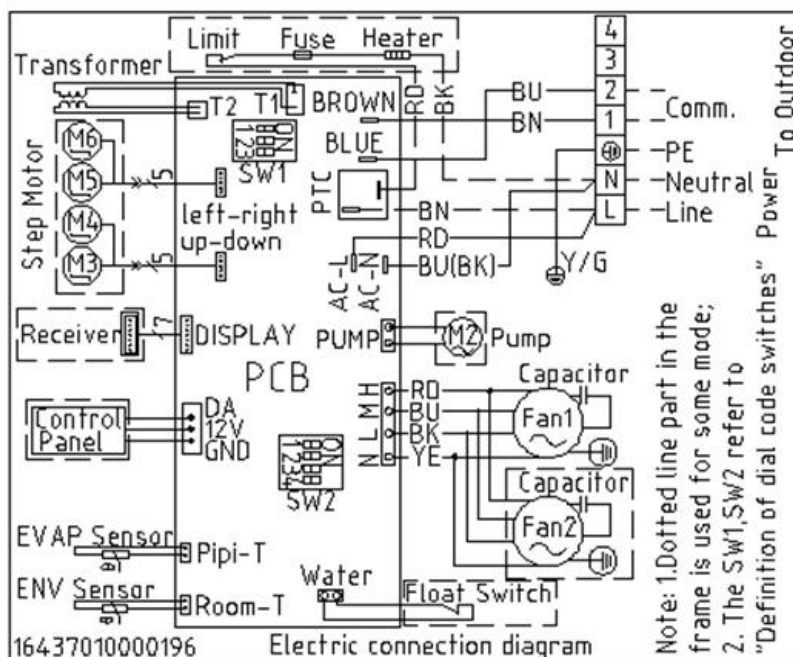


Typical Wiring Diagram :

DDP 30



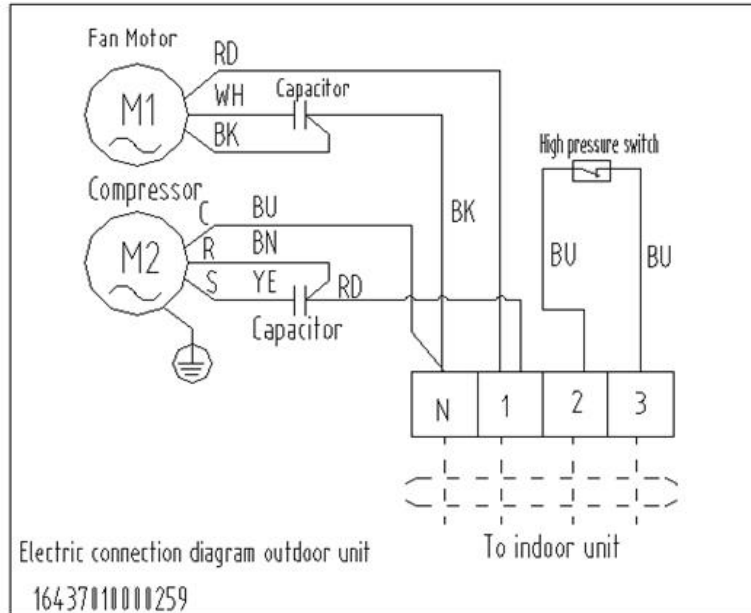
DDP 36, DDP 48 & DDP 60



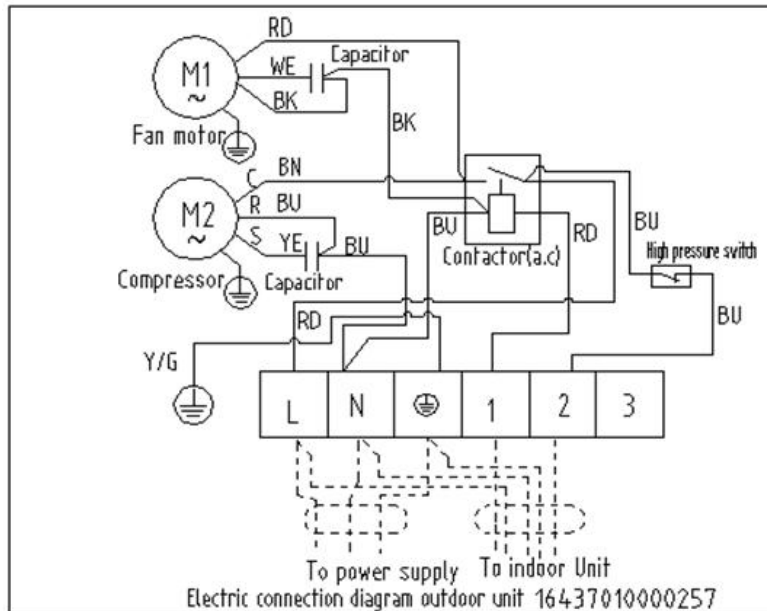
Typical Wiring Diagram :

RX-DDP (05) OUTDOOR UNIT

RX 18



RX 24 & RX 30

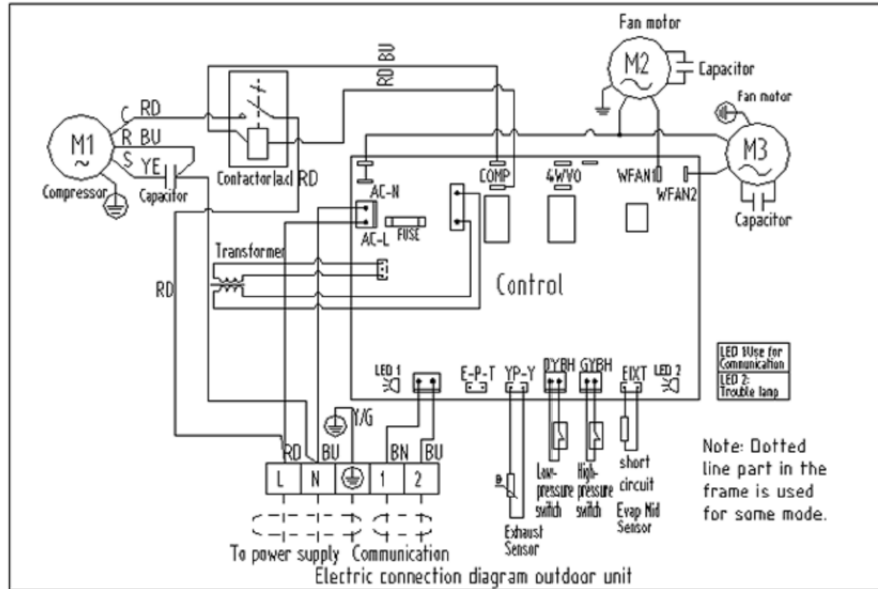




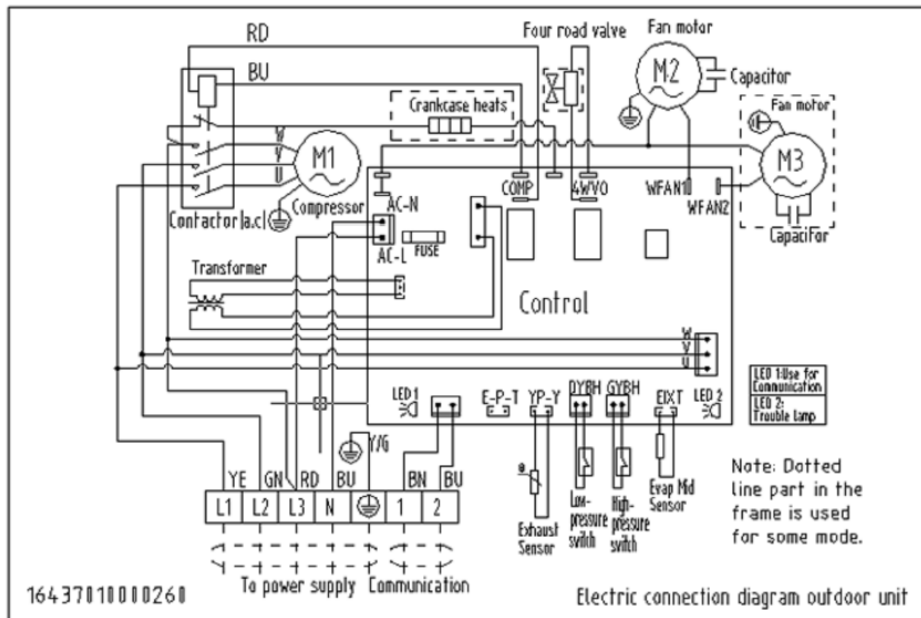
Typical Wiring Diagram :

RX-DDP (05) OUTDOOR UNIT

RX 36



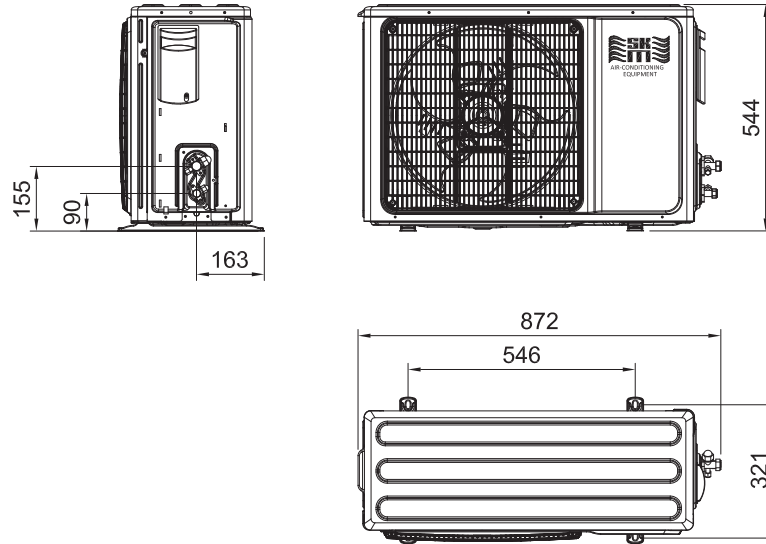
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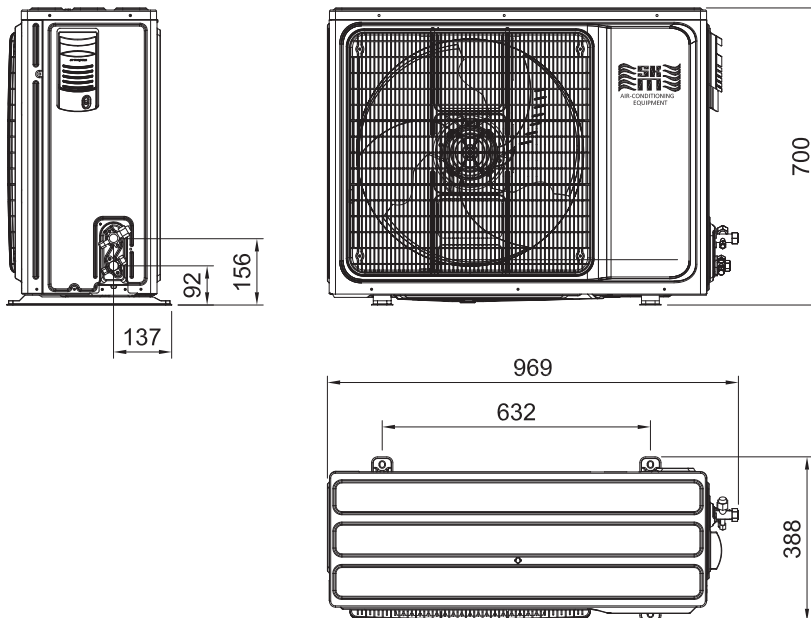
Dimensional Data

OUTDOOR UNITS

RX 18



OUTDOOR UNITS - RX 24 & RX 30

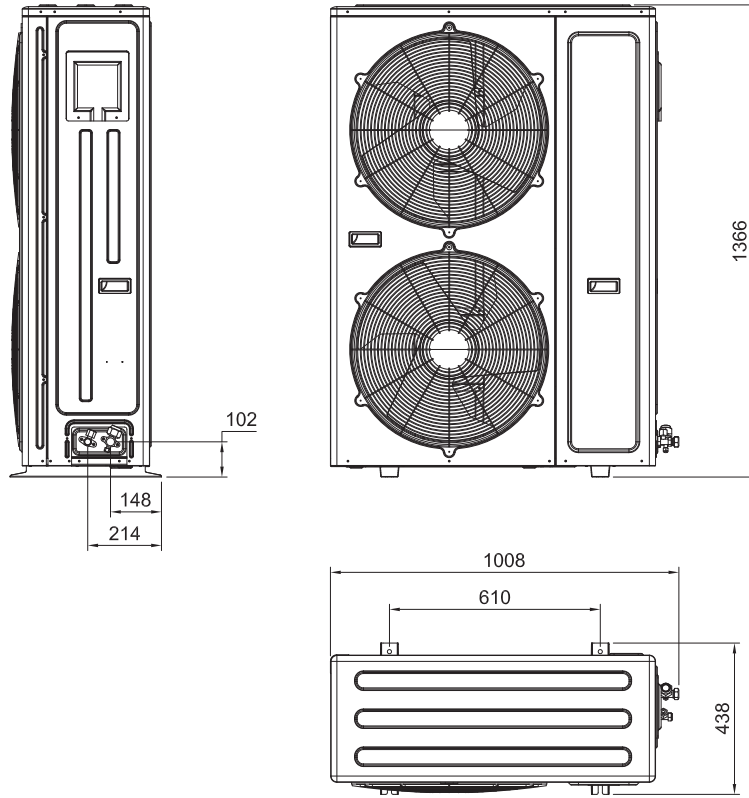




Dimensional Data

OUTDOOR UNITS

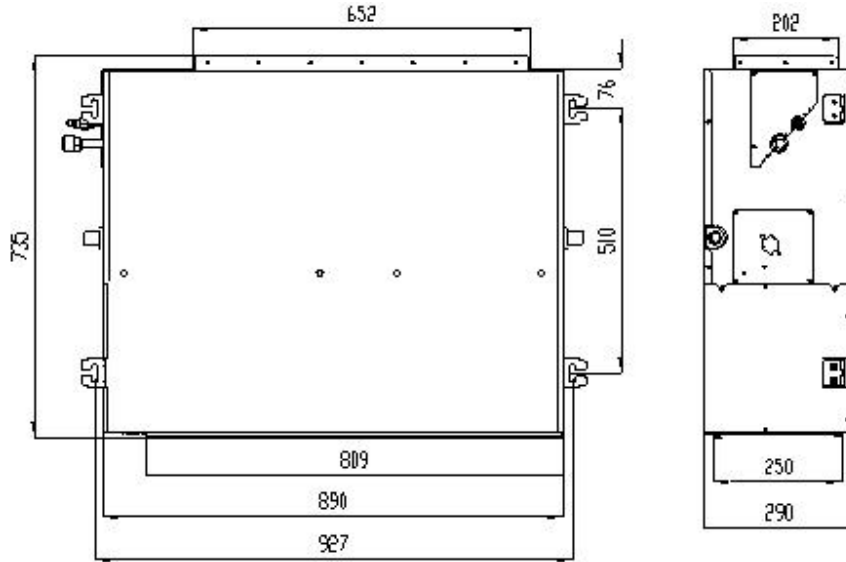
RX 36, RX 48 & RX 60



Dimensional Data

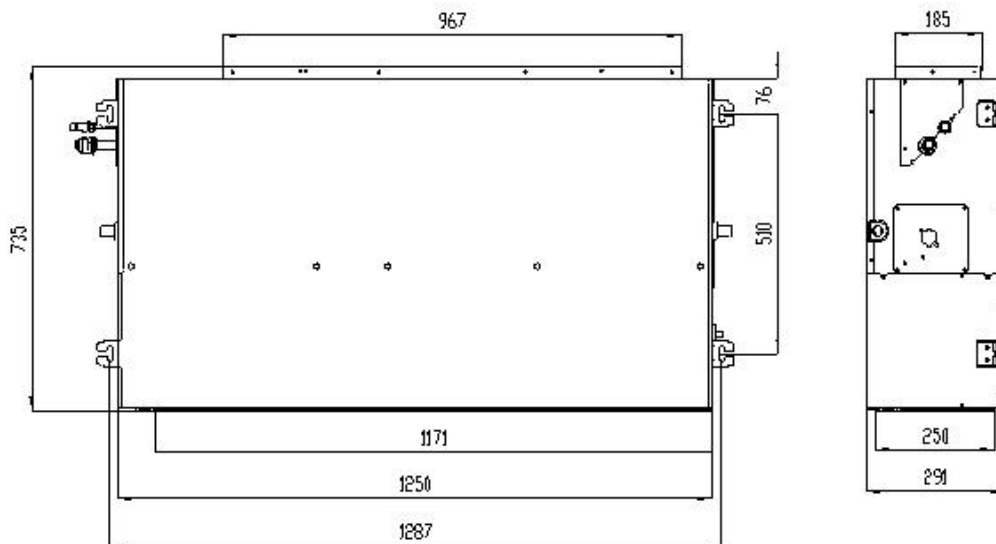
INDOOR UNITS

DDP 18 & DDP 24



INDOOR UNITS

DDP 30 & DDP 36

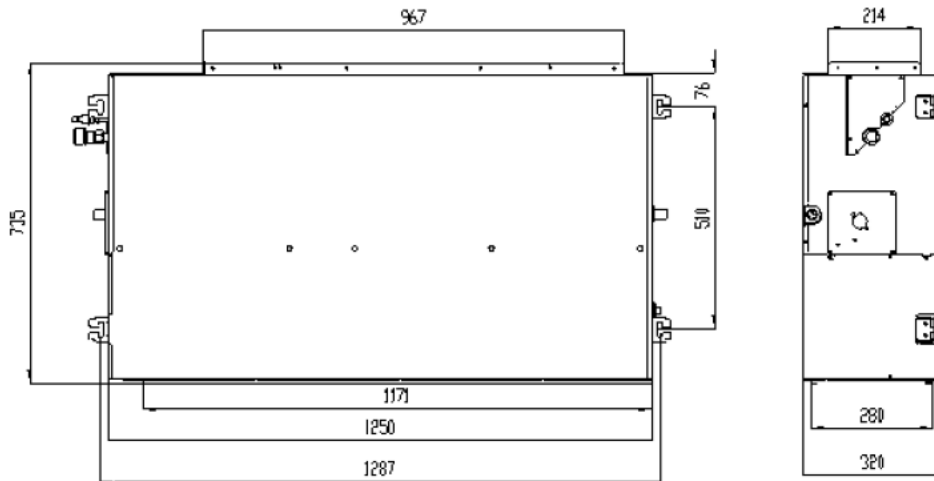




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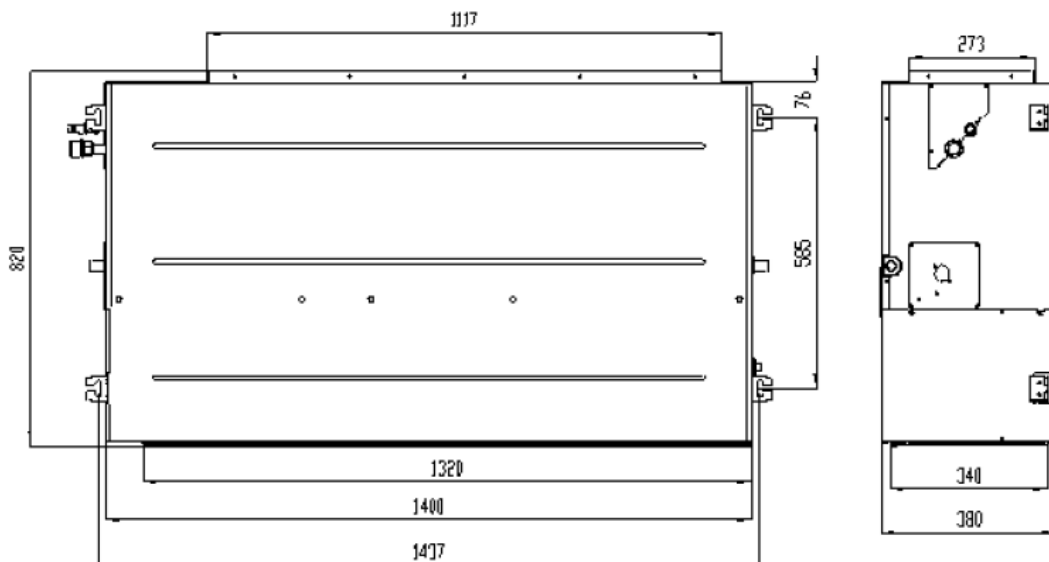
INDOOR UNITS

DDP 48



INDOOR UNITS

DDP 60



GUIDE SPECIFICATIONS

Ducted mini split Air Conditioning system shall be composed of a compact design indoor fan coil unit and floor or Rooftop mounted outside air cooled condensing unit, rated with AHRI standards 210/240.

CONDENSING UNIT:

The condensing unit shall be composed of compressor, condenser, coil, condenser fan, motor and the metering device.

CONDENSER COIL

The condenser coil shall be air cooled constructed of high efficiency inner grooved copper tube mechanically expanded into high efficiency pre coated Aluminum fins and tested against leakage by high pressure under water.

COMPRESSOR

Compressor shall be hermetic Rotary & Scroll types, refrigerant gas cooled, furnished with internal high temperature motor overload protection device.

CONDENSER FAN

For Side discharge air delivery, the fan shall be equipped with statically and dynamically balanced hard plastic blades, and inherent corrosion resistant shaft. Complete fan assembly is mounted Sideward on the strong plastic fan guard.

INDOOR UNIT:

The indoor unit shall be composed of evaporator coil, fan motor assembly.

EVAPORATOR COIL

Evaporator coil shall be constructed of high efficiency copper tubes, mechanically bonded to Aluminum fins.

EVAPORATOR FAN

Fan shall be double inlet, double width, direct driven with centrifugal type wheel. Fan wheel shall be with multi forward curved blades.

MOTOR

Motor shall be single phase, 3 speed permanent split capacitor type, suitable for 220-240V/1Ph/50-60Hz. Highly efficient with integral thermal protection.

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