

Fresh Air Package Unit Series

FAPU

048 to 600 MBH (4 to 50 TR)



50 Hz

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ABOUT THE COMPANY

Refrigeration Industries & Storage and Oil Services Company, occupies a leading position as one of the largest industrial companies in Kuwait which was established in 1973. It plays a proactive role in providing various services and diverse activities such as manufacturing, storage, and oil services to meet the needs of customers both inside and outside Kuwait.

Since its inception, RIC has been committed to excellence and advancing its progress, leading to the establishment of the brand (Coolex) in 1986, a true milestone in the Kuwaiti market as the first in the region in the sector of manufacturing air conditioning systems and cooling solutions.

Furthermore, the company has consistently empowered its workforce, enhanced safety and competitiveness, and utilized innovative technologies to launch new products that meet the needs of various sectors, contributing to company's expansion and supporting growth and prosperity.

To ensure the highest performance in the future, RIC harnesses its continuous research to enhance efficiency and quality, while continuing its efforts to manufacture products capable of adapting to climate, environmental, and energy challenges.



Facts throughout the years

- 1973 Warehouses were established by Amiri Decree.
- 1979 RIC Constructed the Medical Cold Stores Complex, the world's largest at that time.
- 1980 RIC Air Conditioning manufacturing plant set up in Sulaibya.
- 1981 Production of Package & Mini-Split A/Cs started under York-Gulf.
- 1984 RIC was listed in Kuwait Stock Exchange.
- 1986 COOLEX brand Production Launched.
- 1991 RIC rebuilt the manufacturing plant destroyed during the war.
- 1997 Achieved ISO Certification ISO 9001:1994.
- 2002 ETL Designed testing lab became fully operational.
- 2004 Privatization of RIC.
- 2010 COOLEX becomes the first A/C Unit to Pass MEW's new regulations.
- 2010 RIC Factory Renovation and Expansion into neighboring countries.
- 2012 Achieved UL & AHRI Certification for Coolex Units.
- 2014 Achieved SASO Certification for Concealed Ducted Split Series.
- 2014 Achieved EUROVENT Certification for Air Handling Units AHU.
- 2014 Achieved UL Certification for Air Cooled Chillers.
- 2015 Achieved ISO 17025 Certification for Psychrometric Laboratory.
- 2016 Achieved Energy Efficiency Certification for Concealed Ducted Split Series & Rooftop Package units (Kingdom of Bahrain).
- 2016 Acquisition of Gulf Paramount for Electrical Services Company.
- 2021 Acquisition of Kuwait Pipes Industries & Oil Services factory, resulting in a change of the company's name from Refrigeration Industries & Storage Co. to Refrigeration Industries & Storage and Oil Services Co.

NOMENCLATURE

FAPU - 200 F 2 S

Unit Series Description

FAPU Fresh Air Package Unit

Nominal Capacity MBH

048	-	240
060	-	300
072	-	360
090	-	420
120	-	480
150	-	540
180	-	600
210		

Unit Options

S Standard Unit
T With Additional Options

Electrical Specifications

2 400/415V-3Ph-50Hz

Refrigerant

F R410A

OUTSTANDING FEATURES

Superior Efficiency

- Low power consumption
- High volumetric efficiency scroll compressors
- Designed to operate at severe ambient temperature up to 52°C without tripping

Controls

- Microprocessor Controller
- Single point power supply
- Color coded wires
- Weather proof Control panel

Quiet operation

- Low noise level compressors, condenser fans and evaporator blower
- Compact physical footprint
- Special designed refrigerant piping in addition to the insulation for the evaporator section.

Quality Assurance

All units in the FAPU series are :

- Factory run tested.
- Produced in an ISO 9001-2015 listed manufacturing facility.
- Constructed in compliance with ASHRAE 15 safety requirements.
- AHRI rated cooling coils

STANDARD SPECIFICATIONS

General

- The Package Units (FAPU) are factory assembled cooling or combination of cooling and heating with electric heater, suitable for outdoor installation mounting on the roof or ground.
- The packaged unit consists of scroll compressors, cooling coil, condenser coil, fans, electric heater (optional), control wiring and interconnecting piping-all factory assembled.

Unit Casing

Panels are fabricated from hot dipped G90, Zinc coating and zero spangle galvanized steel, oven-baked powder coated. The unit is provided with an integral weather resistant control panel for outdoor application. Panels and access doors are provided for inspection and access for all internal parts.

Compressor

The compressors are hermetic scroll type provided with crankcase heater, internal pressure relief valve which provides high pressure protection to the refrigerant system and rubber vibration isolators for quiet and efficient operation. The compressors are equipped with internal motor protector for safe operation. The compressors are built to NF, VPE, CSA, & UL certification.

Evaporator Coils

The coils are built up of ripple finned seamless copper tubes and mechanically bonded to scientifically designed pre coated aluminum louvered fins. The assembled coils are factory leak tested under water at a pressure of 350 psig for quality and leak free units.

Condenser Coils

The coils are built up of ripple finned seamless copper tubes and mechanically bonded to scientifically designed pre coated aluminum louvered fins. The assembled coils are factory leak tested under water at a pressure of 700 psig for quality and leak free units.

Evaporator Fan

The units are provided with centrifugal backward curve fans which are statically and dynamically balanced belt driven, designed for low sound level operation.

Evaporator Blower Motor

Motors are totally enclosed fan cooled (TEFC) type with class F insulation for weather protection with permanently lubricated bearings and automatic thermal protection.

Condenser Fans

Condenser air fan is of the propeller type, aluminum blade with a direct drive motor upward discharge and provided with fan grille mounted in casing.

Condenser Fan Motor

Motors are Totally Enclosed Air-Over (TEAO) type with class F insulation for weather protection with permanently lubricated bearings and automatic thermal protection.

Drain Pan

The drain pan is fabricated of painted galvanized steel with insulation.

Aluminum Filter

High dust holding capacity, low resistance filter. It can be cleaned with regular water and prolonged use. It consists of 2" metal aluminum mesh with unique pattern.

Bag Filter

High efficiency synthetic bag filter capturing the smaller particulate from the air stream. The synthetic media consists of strategically layered and blended melt-blown polypropylene fibers fastened to a non-shed, high density polypropylene backing.

Refrigerant Circuit

FAPU series comes complete, as standard, with properly sized refrigerant lines including thermostatic expansion valve, sight glass, filter drier, automatic high and low pressure switch and full operating charge of R410A in each circuit.

Control Panel

The control panel enclosure is fabricated out of heavy gauge sheet steel powder coated bake finished. Internal power and control wiring is neatly routed, properly anchored and all wires are identified with cable markers as per NEC standard applicable to HVAC units. Major components used in the control panel are UL approved.

MICROPROCESSOR BASED CONTROLLER

The Units (FAPU) are provided with technologically advanced Microprocessor based controller, incorporating the following benefits and features:

- Anti-recycling timing device
- Compressor lock out function
- Balance loading of compressors
- Compressors lead-lag operation
- Pump down option
- Fault diagnostics
- Indicator lights for high & low pressure safety

OPTIONAL SPECIFICATIONS

Construction

- Double skin for evaporator side
- Anti-corrosion coating for coils
- Copper fins for evaporator and/or condenser
- Stainless steel drain pan
- Special Air filter material
- Filter box with High Efficiency Bag filters
- Sand trap louver

Electrical

- Electric heater
- Compressor circuit breaker
- Blower motor circuit breaker
- Condenser fan motor circuit breaker
- External overload for condenser fan motor
- Mild ambient kit
- Anti - ice thermostat
- Air flow switch
- Ultra violet light
- Wi-Fi Thermostat
- Multi Stage Thermostat
- Modbus connectivity

Refrigeration

- Pump down kit
- High & Low Pressure gauges
- Rotalock valve for compressor
- Replaceable filter drier with mechanical shut-off valve
- Adjustable high/low pressure switch

Coolex App



Wi Fi Module



Typical Thermostat



SELECTION PROCEDURE

The below example illustrates the selection procedure to assist using this catalog to select the appropriate FAPU unit that meets the design requirements.

Example :

Design requirements

• Total cooling capacity	236	[MBH]
• Sensible cooling capacity	124	[MBH]
• Design ambient temperature	95	[°F]
• Evaporator air flow	3600	[CFM]
• Evaporator entering temperature DB/WB	95/80	[°F/°F]
• External static pressure	0.7	[in.wg]
• Altitude	2000	[ft]
• Power supply	415V /3Ph /50Hz	

Altitude [ft]	Correction factor
Sea level	1
1000	0.996
2000	0.990
3000	0.984
4000	0.980
5000	0.974
6000	0.965
7000	0.960

*Using the correction factor table at the specified altitude, thereby the required capacity will be:

From the cooling capacity at performance data tables (page 8), the closest selection model to the required capacity is FAPU-240. From the performance table:

Corrected capacity = Required capacity /corr. factor

Corrected total capacity = 236 [MBH]/0.99
= 238.38 MBH

Corrected sensible capacity = 124 [MBH]/0.99
= 125.25 MBH

Total capacity = 240 [MBH]

Sensible capacity = 121.8 [MBH]

GENERAL DATA

Outdoor Units			FAPU-048	FAPU-060	FAPU-072	FAPU-090	FAPU-120	FAPU-150	FAPU-180
Cooling Capacity (Nominal)	MBH		49.0	60.0	72.0	90.0	120.0	150.0	180.0
	KW		14.3	17.5	21.1	26.3	35.1	43.9	52.6
Compressor	Type		Hermetic Scroll						
	Quantity		1				2		
	Refrigerant		R410A						
	Refrigerant circuits		1				2		
	Expansion device type		Thermostatic Expansion Valve						
Condenser Fan	Type		Propeller						
	Diameter, mm		610			762		610	762
	No. of fans		1				2		
	Motor Enclosure/Ins Class		Open Drip-Proof, Class B						
	Nominal HP x Qty		0.75 x 1			1.5 x 1		0.75 x 2	1.5 x 2
	RPM		900						
Condenser Coil	Type		Enhanced Aluminum Fins & Inner Grooved Copper Tubes						
	Rows - FPI		2-12		2-14	3-16		2-12	3-16
	Total Face area	ft²	14.6		18.3		21.5	33.4	
Evaporator Blower	Type		Centrifugal Backward Curve						
	Motor Enclosure/Ins Class		Totally Enclosed Fan Cooled, Class F						
	Motor rating @ 1" ESP HP (KW)		1.0 (0.75)			1.5 (1.1)	2.0 (1.5)	3.0 (2.2)	4.0 (3.0)
Evaporator Coil	Type		Hydrophilic Aluminum Fins & Inner Grooved Copper Tubes						
	Rows - FPI		5-12						
	Total Face area	ft²	2.0		3.0		4.5	6.0	
Air Filter	Type		Washable aluminum mesh + Bag Filter						
	Thickness (in)		2						
Drain Pipe	mm X TPI		27 X 14				42 X 11.5		
Weight	kg		330	335	343	350	424	663	689

Note:

1. Cooling capacities are based on 95°/80°F entering air temperature.
2. The above data may be changed without prior notice due to continuous improvement in quality and performance.

GENERAL DATA

Outdoor Units			FAPU-210	FAPU-240	FAPU-300	FAPU-360	FAPU-420	FAPU-480	FAPU-540	FAPU-600
Cooling Capacity (Nominal)	MBH		210.0	240.0	300.0	360.0	420.0	480.0	540.0	600.0
	KW		61.4	70.2	87.7	105.3	122.8	140.4	157.9	175.4
Compressor	Type		Hermetic Scroll							
	Quantity		2				4			
	Refrigerant		R410A							
	Refrigerant circuits		2				4			
	Expansion device type		Thermostatic Expansion Valve							
Condenser Fan	Type		Propeller							
	Diameter, mm		762			800	762		800	
	No. of fans		2				4			
	Motor Enclosure/Ins Class		Open Drip-Proof, Class B							
	Nominal HP x Qty		1.5 x 2			2.0 x 2	1.5 x 2		2.0 x 4	
	RPM		900							
Condenser Coil	Type		Enhanced Aluminum Fins & Inner Grooved Copper Tubes							
	Rows - FPI		3-14		4-16		3-14			
	Total Face area	ft²	39.6		52.0		79.2			
Evaporator Blower	Type		Centrifugal Backward Curve							
	Motor Enclosure/Ins Class		Totally Enclosed Fan Cooled, Class F							
	Motor rating @ 1" ESP HP (KW)		4.0 (3.0)			5.0 (4.0)	7.5 (5.5)		10 (7.5)	
Evaporator Coil	Type		Hydrophilic Aluminum Fins & Inner Grooved Copper Tubes							
	Rows - FPI		5-12							
	Total Face area	ft²	8.0		12.0		16.0		20.0	
Air Filter	Type		Washable aluminum mesh + Bag Filter							
	Thickness (in)		2							
Drain Pipe	mm X TPI		42 X 11.5							
Weight	kg		780	795	1091	1166	1785	1858	1979	2012

Note:

1. Cooling capacities are based on 95°/80°F entering air temperature.
2. The above data may be changed without prior notice due to continuous improvement in quality and performance.

PERFORMANCE DATA TABLES

Model	Indoor Air Flow CFM	Entering Air Temperature (DB/WB)											
		95/80 ° F			115/80 ° F			118.4/80 ° F			125/80 ° F		
		Capacity Btu/hr		kW Input	Capacity Btu/hr		kW Input	Capacity Btu/hr		kW Input	Capacity Btu/hr		kW Input
		Total	Sen.		Total	Sen.		Total	Sen.		Total	Sen.	
FAPU-048	500	44,175	21,243	4.37	40,162	30,593	5.37	39,358	32,056	5.58	37,845	34,846	6.01
	610	47,051	22,943	4.41	42,777	33,042	5.43	41,920	34,622	5.64	40,309	37,635	6.07
	720	49,000	24,583	4.44	44,549	35,404	5.47	43,656	37,097	5.68	41,978	40,325	6.12
FAPU-060	610	51,941	24,572	5.09	49,000	38,413	6.17	48,107	40,351	6.37	46,731	44,221	6.81
	750	57,614	28,435	5.18	52,190	41,487	6.23	51,239	43,581	6.44	49,774	47,760	6.89
	900	60,000	30,468	5.22	54,352	44,453	6.28	53,362	46,697	6.49	51,835	51,175	6.94
FAPU-072	750	65,124	31,511	6.18	58,760	46,209	7.51	57,632	48,561	7.77	56,629	53,379	8.35
	900	68,872	33,946	6.26	62,142	49,780	7.61	60,949	52,314	7.87	59,889	57,504	8.46
	1080	72,000	36,792	6.33	64,964	53,954	7.70	63,717	56,700	7.96	62,609	62,326	8.56
FAPU-090	950	81,257	39,369	7.55	73,240	57,604	9.01	71,985	60,584	9.29	69,914	66,419	9.93
	1150	85,889	42,481	7.64	77,415	62,157	9.12	76,089	65,373	9.41	73,899	71,668	10.05
	1350	90,000	45,899	7.72	81,120	67,159	9.22	79,730	70,633	9.51	77,436	77,436	10.17
FAPU-120	1200	107,027	51,549	10.36	97,239	75,346	12.35	96,086	79,357	12.57	92,426	86,568	13.57
	1500	114,831	56,364	10.51	104,329	82,383	12.54	103,091	86,769	12.76	99,165	94,654	13.78
	1800	120,000	60,966	10.61	109,026	89,110	12.67	107,732	93,854	12.90	103,629	102,382	13.93
FAPU-150	1600	136,128	65,787	13.29	123,661	95,821	15.83	122,149	100,902	16.16	117,073	109,789	17.39
	1900	143,372	70,405	13.43	130,242	102,546	16.00	128,649	107,984	16.34	123,303	117,495	17.58
	2250	150,000	75,462	13.56	136,263	109,912	16.16	134,597	115,741	16.51	129,003	125,935	17.76
FAPU-180	1900	163,577	79,134	16.73	149,689	115,613	19.59	147,369	121,622	20.13	142,507	132,924	21.27
	2300	173,331	85,476	16.87	158,615	124,878	19.78	156,157	131,368	20.33	151,005	143,577	21.47
	2700	180,000	91,666	16.97	164,718	133,922	19.90	162,165	140,882	20.45	156,815	153,975	21.61
FAPU-210	2150	188,621	91,013	18.69	174,714	134,305	22.12	171,783	141,341	22.78	165,630	154,263	24.17
	2650	201,362	99,010	18.90	186,516	146,106	22.40	183,387	153,759	23.07	176,818	167,817	24.47
	3150	210,000	106,741	19.05	194,517	157,515	22.58	191,253	165,766	23.26	184,403	180,922	24.68
FAPU-240	2400	213,657	102,888	20.64	194,710	149,146	24.65	191,258	157,005	25.43	184,009	171,184	27.06
	3000	229,390	112,541	20.93	209,048	163,139	25.02	205,343	171,735	25.81	197,560	187,244	27.47
	3600	240,000	121,816	21.13	218,717	176,584	25.27	214,840	185,888	26.07	206,697	202,676	27.75

See note on page 9

PERFORMANCE DATA TABLES

Model	Indoor Air Flow CFM	Entering Air Temperature (DB/WB)											
		95/80 ° F			115/80 ° F			118.4/80 ° F			125/80 ° F		
		Capacity Btu/hr		kW Input	Capacity Btu/hr		kW Input	Capacity Btu/hr		kW Input	Capacity Btu/hr		kW Input
		Total	Sen.		Total	Sen.		Total	Sen.		Total	Sen.	
FAPU-300	3100	269,977	130,067	24.58	245,225	187,623	29.49	239,866	195,947	30.42	230,170	192,596	32.40
	3800	287,845	140,992	24.93	261,455	203,384	29.94	255,741	212,407	30.89	245,403	208,774	32.90
	4500	300,000	151,535	25.18	272,496	218,591	30.25	266,541	228,289	31.21	255,766	224,385	33.25
FAPU-360	3700	325,256	157,148	30.55	296,180	229,622	36.24	289,605	240,036	37.32	283,053	266,238	39.83
	4500	345,030	169,886	30.99	314,186	248,236	36.79	307,212	259,494	37.88	300,261	287,821	40.44
	5400	360,000	183,716	31.33	327,818	268,443	37.21	320,541	280,618	38.32	313,289	311,250	40.91
FAPU-420	4300	377,199	181,921	35.79	344,806	264,603	42.18	338,662	277,982	43.43	326,236	303,146	46.01
	5300	402,612	197,761	36.21	368,036	287,642	42.70	361,478	302,186	43.97	348,215	329,541	46.60
	6300	420,000	213,081	36.51	383,931	309,925	43.07	377,089	325,595	44.36	363,254	355,070	47.02
FAPU-480	5000	435,050	210,521	39.93	397,520	308,463	47.43	390,102	324,195	48.90	377,748	355,055	52.08
	6100	461,797	228,094	40.43	421,960	334,212	48.06	414,086	351,257	49.55	400,972	384,693	52.79
	7200	480,000	245,230	40.79	438,593	359,320	48.50	430,408	377,645	50.01	416,778	413,593	53.28
FAPU-540	5500	483,657	233,417	45.00	439,723	339,489	53.94	431,280	356,595	55.62	415,815	389,678	59.24
	6800	518,422	254,887	45.67	471,330	370,716	54.79	462,280	389,394	56.52	445,703	425,521	60.20
	8100	540,000	274,539	46.10	490,948	399,298	55.34	481,522	419,417	57.08	464,255	458,329	60.82
FAPU-600	6200	543,934	263,190	50.66	491,974	385,142	60.63	481,847	404,667	62.48	463,123	438,300	66.51
	7600	577,771	285,563	51.41	522,579	417,882	61.59	511,822	439,067	63.47	491,933	475,559	67.59
	9000	600,000	306,760	51.95	542,684	448,901	62.28	531,514	471,658	64.18	510,859	491,797	68.36

LEGEND:

CFM : Air flow rate (Ft³/minute)
 DB : Dry bulb temperature (°F)
 WB : Wet bulb temperature (°F)
 KW : Total Power Input (Kilowatts)

Note:

1. Cooling capacities are based on 95°/80°F entering air temperature.
2. Direct interpolation is permissible - Do not extrapolate.

UNIT ELECTRICAL DATA

MODEL	POWER SUPPLY	VOLTAGE RANGE		Condenser Fan Motor		Compressor 1		Compressor 2		Evaporator Blower Motor		MCA	MOCP
	(V-PH-HZ)	MIN.	MAX.	HP	FLA	RLA	LRA	RLA	LRA	HP (KW)	FLA		
FAPU-048	415-3-50	374	457	0.5	3.0	10.7	64.0	-	-	1.0 (0.75)	1.8	18.2	25
FAPU-060	415-3-50	374	457	0.5	3.0	10.9	64.0	-	-	1.0 (0.75)	1.8	18.4	25
FAPU-072	415-3-50	374	457	0.75	3.0	12.5	75.0	-	-	1.0 (0.75)	1.8	20.4	30
FAPU-090	415-3-50	374	457	0.75	3.0	14.5	101.0	-	-	1.5 (1.10)	2.5	23.6	35
FAPU-120	415-3-50	374	457	1.5	3.0	17.9	139.0	-	-	2.0 (1.50)	3.6	29.0	45
FAPU-150	415-3-50	374	457	0.75 (2)	3.0	13.6	100.0	13.6	100.0	3.0 (2.20)	4.5	41.1	50
FAPU-180	415-3-50	374	457	1.5 (2)	3.0	14.5	101.0	14.5	101.0	4.0 (3.00)	6.1	44.7	50
FAPU-210	415-3-50	374	457	1.5 (2)	3.0	17.9	139.0	14.5	101.0	4.0 (3.00)	6.1	49.0	60
FAPU-240	415-3-50	374	457	1.5 (2)	3.0	17.9	139.0	17.9	139.0	4.0 (3.00)	6.1	52.4	70
FAPU-300	415-3-50	374	457	1.5 (2)	3.0	24.3	140.0	24.3	140.0	4.0 (3.00)	6.1	66.8	90
FAPU-360	415-3-50	374	457	2.0 (2)	3.8	28.6	174.0	28.6	174.0	5.0 (4.00)	7.9	79.9	100
FAPU-420	415-3-50	374	457	1.5 (4)	3.00	17.9(2)	139.0	14.5(2)	101.0	7.5 (5.50)	11.0	99.1	100
FAPU-480	415-3-50	374	457	1.5 (4)	3.00	17.9(2)	139.0	17.9(2)	139.0	7.5 (5.50)	11.0	92.3	125
FAPU-540	415-3-50	374	457	2.0 (4)	3.8	20.8(2)	144.0	17.9(2)	139.0	7.5 (5.50)	11.0	108.8	125
FAPU-600	415-3-50	374	457	2.0 (4)	3.8	20.8(2)	144.0	20.8(2)	144.0	10.0 (7.50)	14.0	117.6	125

LEGEND:

FLA - Full Load Amps
 HP - Horse Power
 LRA - Locked Rotor Amps

RLA - Rated Load Amps
 MCA - Minimum Circuit Amps
 MOCP - Maximum Over Current Protection

FAN PERFORMANCE

Model	CFM	External Static Pressure [in.wg]									
		1.00		1.50		2.00		2.50		3.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
FAPU-048	500	3797	0.29	4105	0.38	4392	0.44	4662	0.52	4918	0.60
	610	3943	0.35	4238	0.43	4515	0.49	4776	0.59	5024	0.67
	720	4116	0.42	4398	0.49	4664	0.58	4915	0.67	5155	0.76
FAPU-060	610	3943	0.35	4238	0.43	4515	0.49	4776	0.59	5024	0.67
	750	4167	0.43	4446	0.52	4708	0.60	4957	0.70	5195	0.79
	900	4445	0.54	4705	0.63	4953	0.72	5189	0.83	5415	0.92
FAPU-072	750	4167	0.43	4446	0.52	4708	0.60	4957	0.70	5195	0.79
	900	4445	0.54	4705	0.63	4953	0.72	5189	0.83	5415	0.92
	1080	4817	0.70	5058	0.80	5289	0.91	5510	1.02	5722	1.14
FAPU-090	950	2838	0.67	3056	0.82	3257	0.97	3452	1.13	3638	1.29
	1150	2977	0.82	3181	0.97	3374	1.14	3560	1.30	3735	1.49
	1350	3137	0.99	3332	1.10	3516	1.34	3690	1.51	3856	2
FAPU-120	1200	3015	0.84	3218	1.02	3407	1.18	3589	1.35	3764	1.54
	1500	3270	1.14	3457	1.33	3633	1.51	3800	1.70	3964	1.90
	1800	3560	1.51	3731	1.73	3894	1.93	4049	2.16	4200	2.37
FAPU-150	1600	2758	1.53	2935	1.35	3104	1.57	3263	1.79	3415	2.02
	1900	2946	1.45	3111	1.68	3268	1.92	3419	2.16	3563	2.41
	2250	3189	1.89	3342	2.14	3487	2.41	3628	2.68	3764	2.95
FAPU-180	1900	2946	1.45	3111	1.68	3268	1.92	3419	2.16	3563	2.41
	2300	3227	1.96	3376	2.22	3520	2.49	3659	2.76	3793	3.04
	2700	3531	2.59	3671	2.89	3802	3.20	3931	3.51	4055	3.82
FAPU-210	2150	2405	1.30	2553	1.54	2695	1.77	2830	2.02	2963	2.28
	2650	2623	1.74	2760	2.01	2890	2.28	3013	2.56	3134	2.84
	3150	2858	2.26	2987	2.59	3111	2.89	3227	3.22	3339	3.54

LEGEND:

RPM : Fan Speed in revolution per minute
 BHP : Fan absorbed power

Note:

1. Internal Static pressure is based on pressure drops through evaporator coil, fan casing, 2" washable filter and bag filter.
2. Blue shaded area indicates the operating range of a standard motor and drive combination.
3. Green shaded area indicates the operating range of a standard motor with non standard drive combination.
4. Gray shaded area indicates operating range using non standard motor and drive combination.
5. To determine the power of motor to be installed, just multiply the value of the absorbed power indicated above by 1.2.

FAN PERFORMANCE

Model	CFM	External Static Pressure [in.wg]									
		1.00		1.50		2.00		2.50		3.00	
		RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
FAPU-240	2400	2511	1.51	2653	1.76	2788	2.01	2917	2.28	3042	2.55
	3000	2785	2.10	2918	2.40	3043	2.69	3162	3.10	3275	3.31
	3600	3075	2.86	3202	3.20	3322	3.55	3432	3.91	3539	4.28
FAPU-300	3100	2199	1.84	2330	2.13	2457	2.44	2582	2.76	2704	3.10
	3800	2410	2.47	2527	2.82	2640	3.18	2748	3.55	2855	3.93
	4500	2637	3.24	2748	3.66	2852	4.09	2953	4.50	3049	4.93
FAPU-360	3700	1916	2.14	2037	2.51	2154	2.89	2269	3.28	2384	3.69
	4500	2079	2.82	2187	3.24	2290	3.69	2391	4.13	2489	4.57
	5400	2282	3.77	2382	4.26	2476	4.77	2567	5.28	2655	5.80
FAPU-420	4300	2036	2.64	2146	3.06	2253	3.47	2356	3.90	2458	4.33
	5300	2258	3.65	2359	4.14	2455	4.64	2546	5.15	2635	5.66
	6300	2495	4.95	2589	5.51	2679	6.09	2764	6.68	-	-
FAPU-480	5000	1723	2.89	1826	3.38	1926	3.89	2023	4.41	2120	4.96
	6100	1881	3.85	1975	4.41	2064	5.00	2150	5.58	2234	6.18
	7200	2048	5.07	2138	5.70	2223	6.35	2303	7.02	2380	7.69
FAPU-540	5500	1468	3.07	1568	3.65	1666	4.24	1763	4.85	1857	5.50
	6800	1589	4.05	1677	4.70	1762	5.36	1844	6.06	1925	6.76
	8100	1725	5.28	1808	6.02	1886	6.78	1961	7.55	2033	8.32
FAPU-600	6200	1530	3.57	1623	4.18	1712	4.81	1800	5.47	1887	6.14
	7600	1672	4.77	1756	5.48	1836	6.21	1913	6.93	1988	7.69
	9000	1823	6.30	1904	7.10	1979	7.92	2051	8.75	2120	9.60

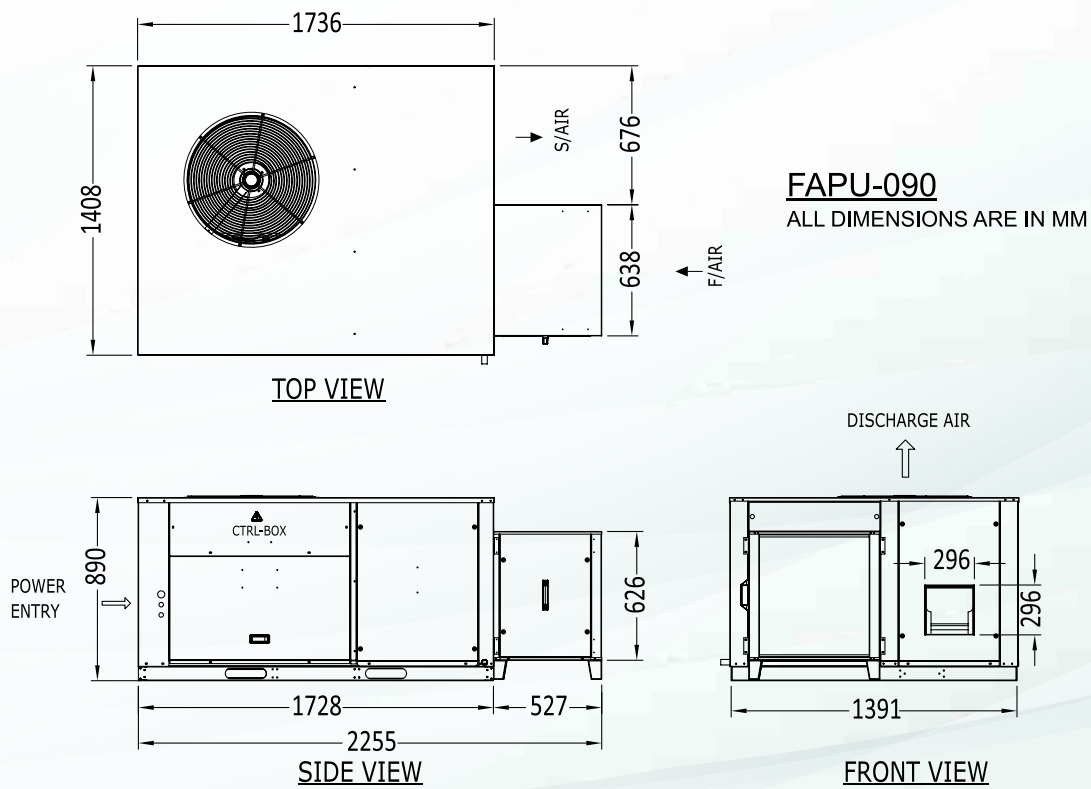
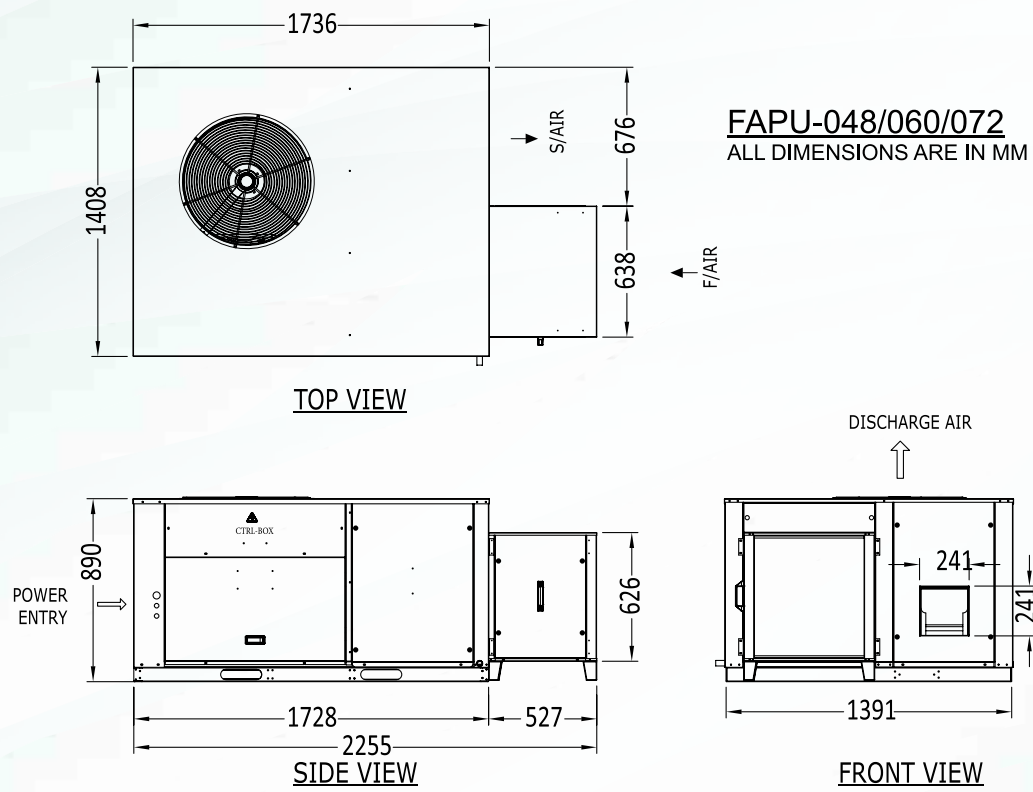
LEGEND:

RPM : Fan Speed in revolution per minute
 BHP : Fan absorbed power

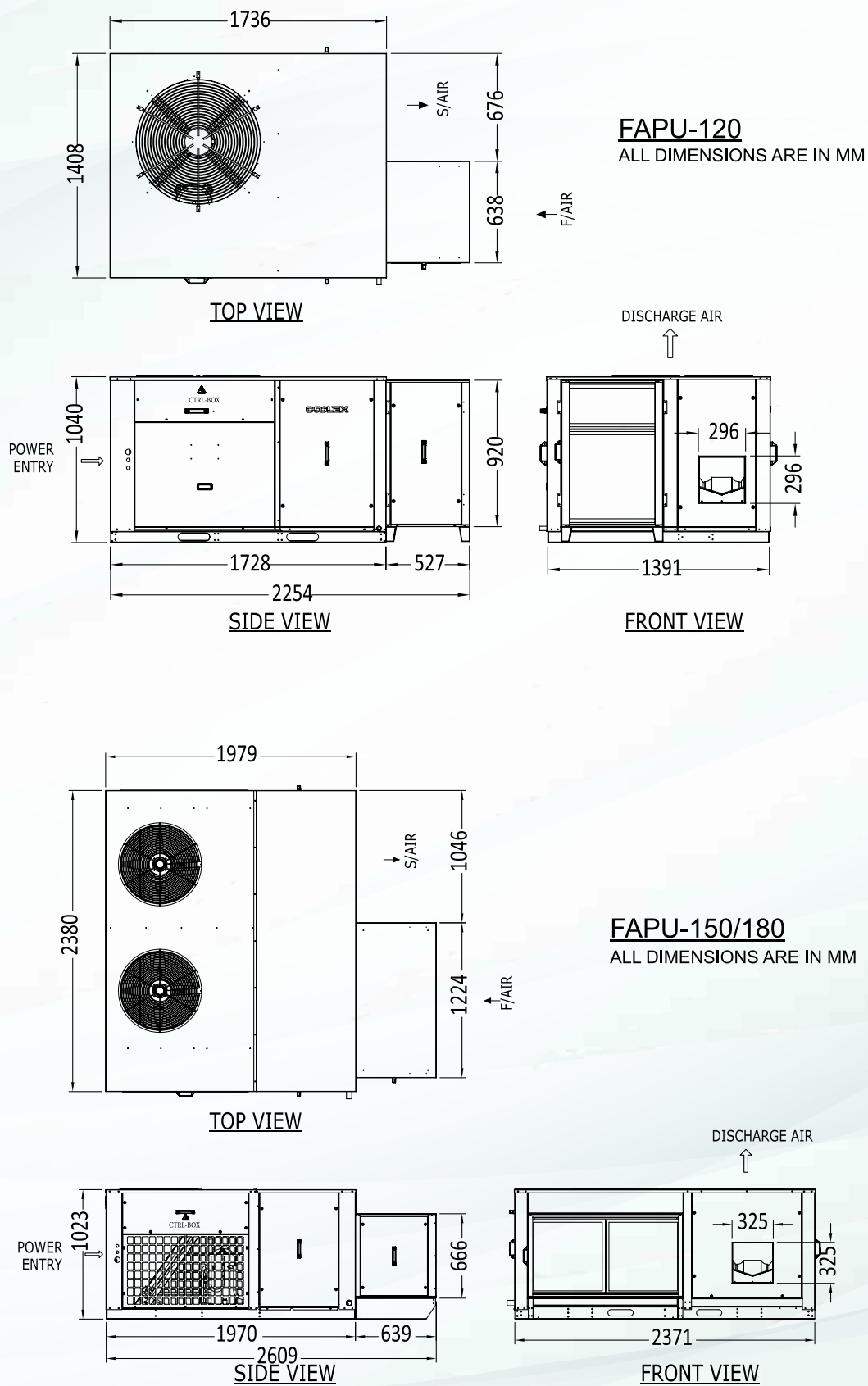
Note:

1. Internal Static pressure is based on pressure drops through evaporator coil, fan casing, 2" washable filter and bag filter.
2. Blue shaded area indicates the operating range of a standard motor and drive combination.
3. Green shaded area indicates the operating range of a standard motor with non standard drive combination.
4. Gray shaded area indicates operating range using non standard motor and drive combination.
5. To determine the power of motor to be installed, just multiply the value of the absorbed power indicated above by 1.2.

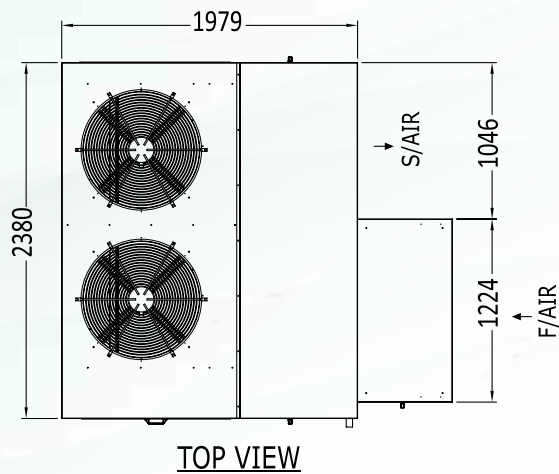
UNIT DIMENSIONS



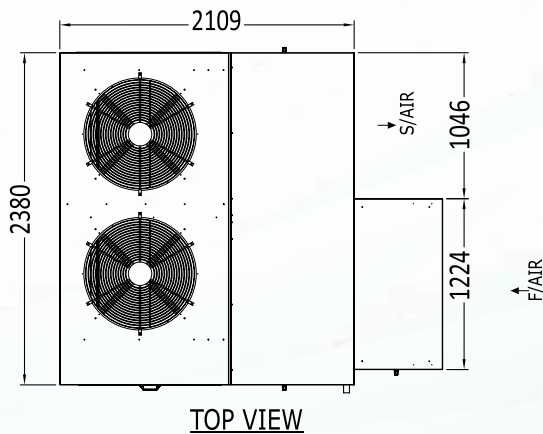
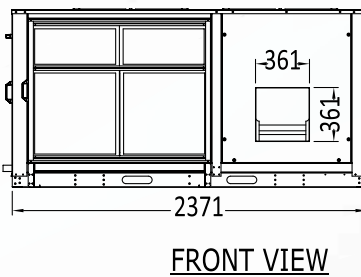
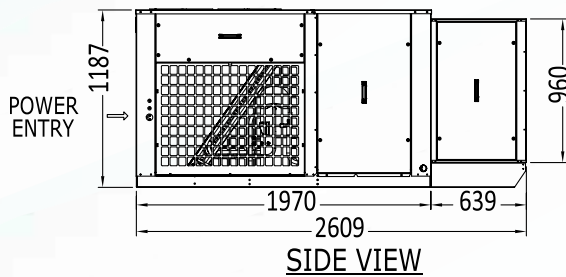
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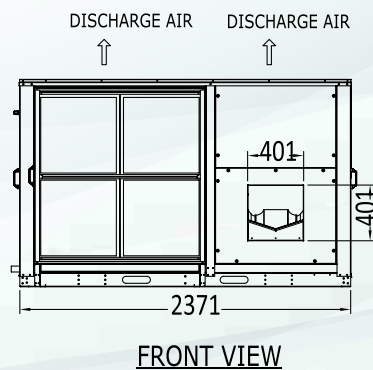
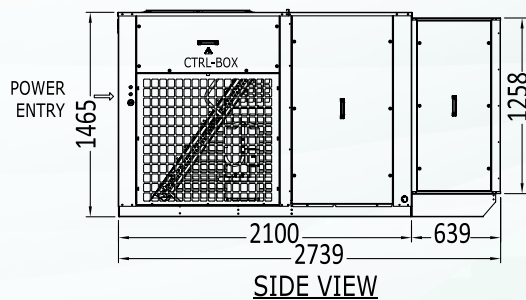
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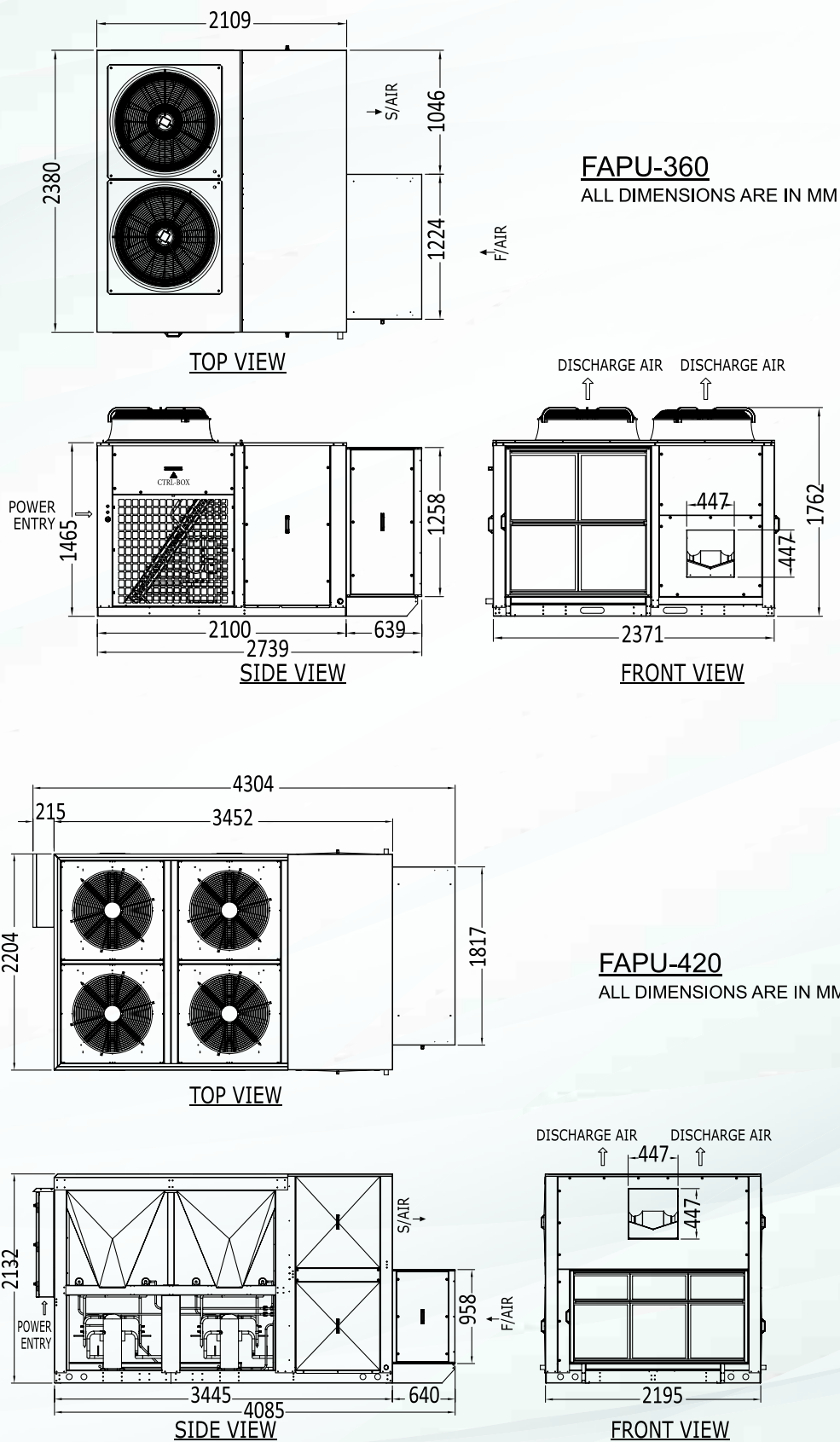
FAPU-210/240
ALL DIMENSIONS ARE IN MM



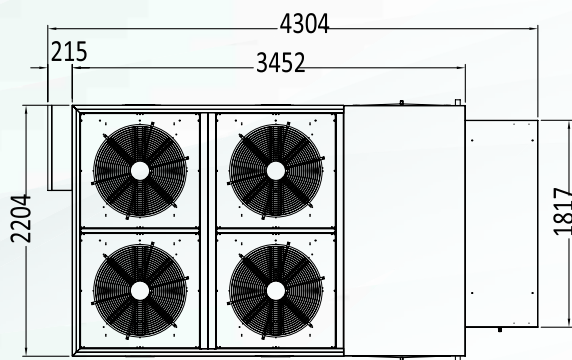
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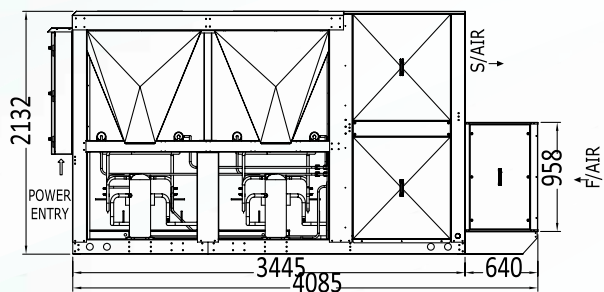
UNIT DIMENSIONS



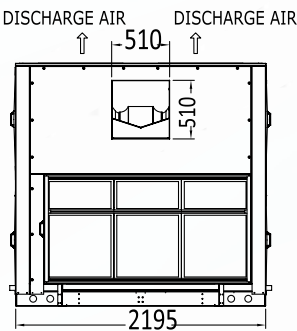
UNIT DIMENSIONS



TOP VIEW



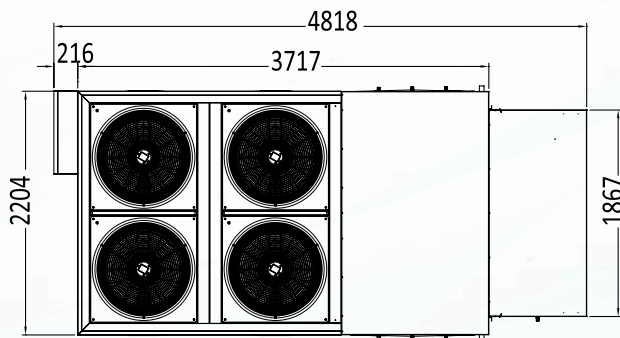
SIDE VIEW



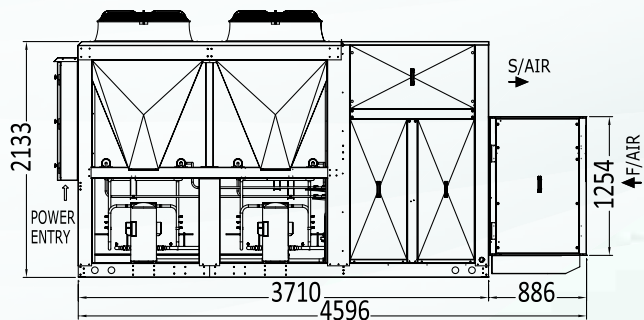
FRONT VIEW

FAPU-480

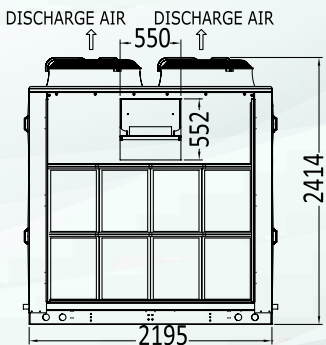
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TOP VIEW



SIDE VIEW



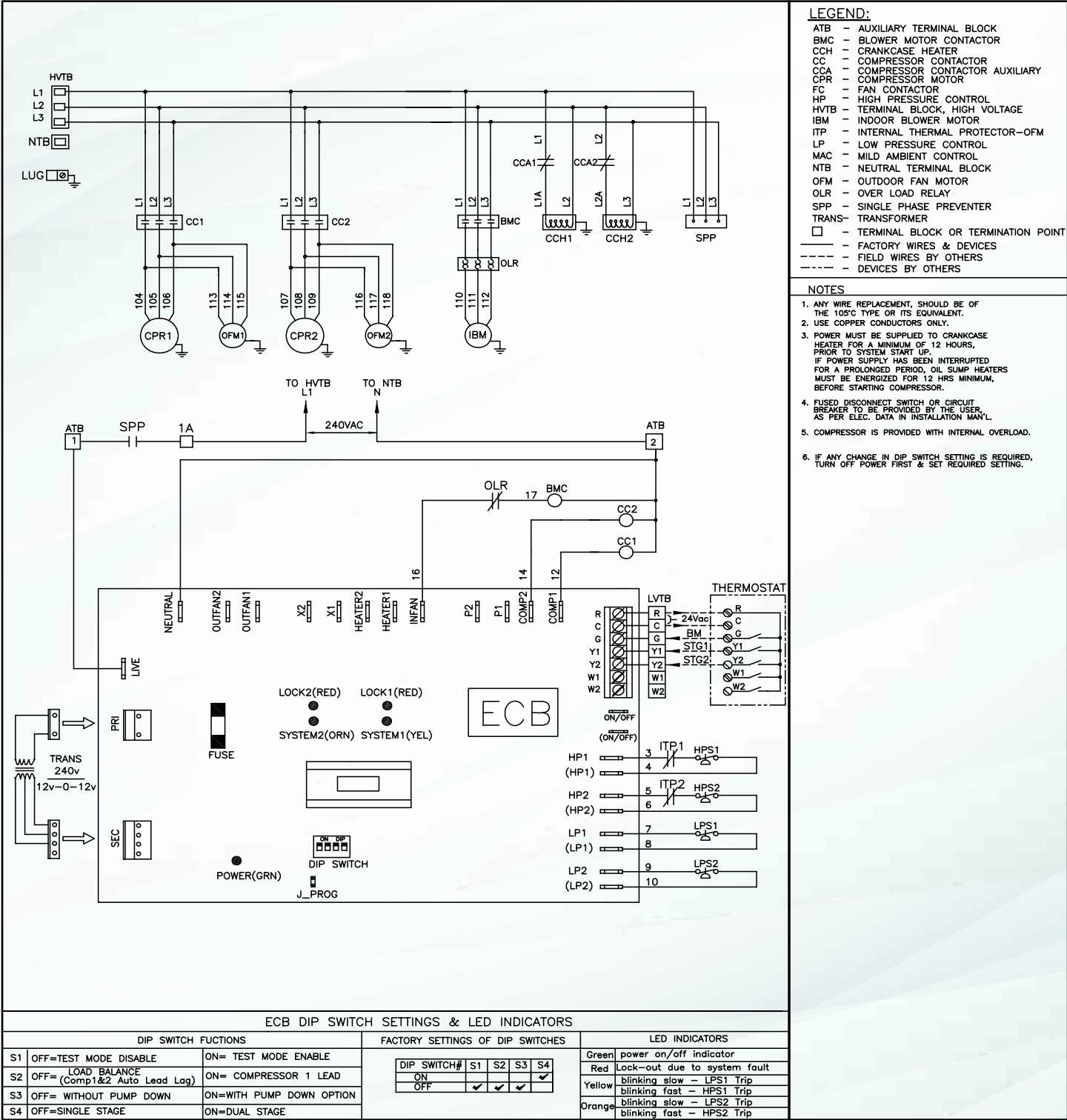
FRONT VIEW

FAPU-540/600

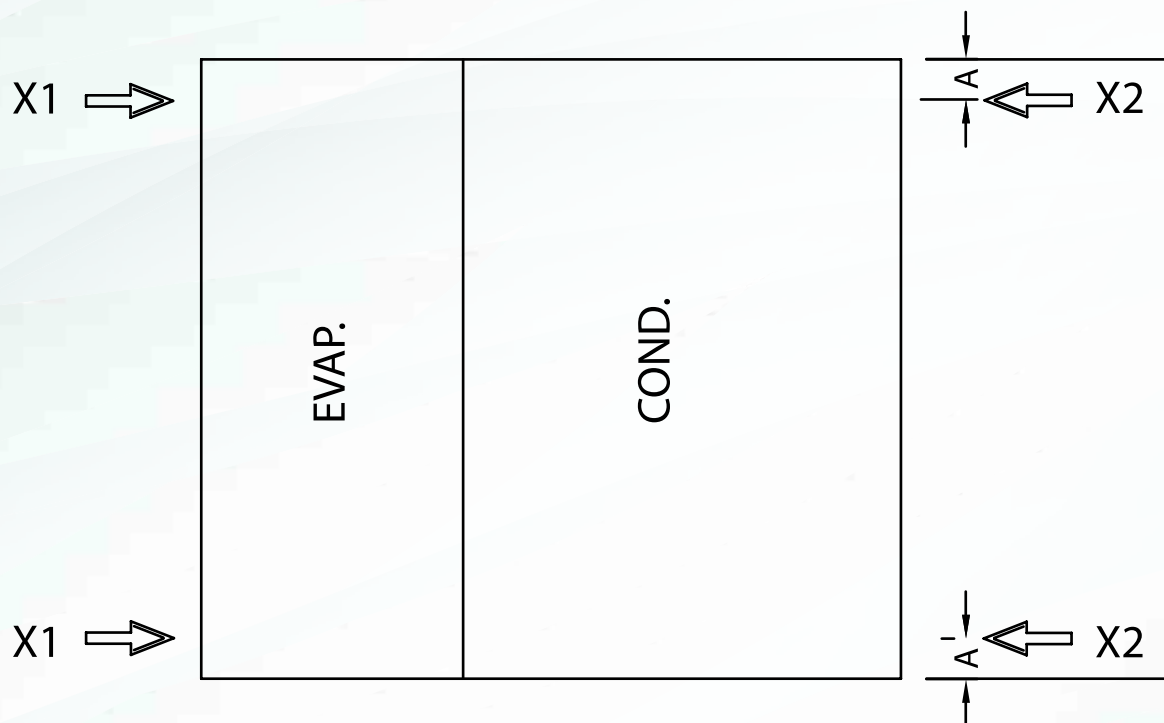
ALL DIMENSIONS ARE IN MM

TYPICAL WIRING DIAGRAM

WITH MICROPROCESSOR BASED CONTROLLER (STANDARD)



LOAD DISTRIBUTION



MODEL	LOAD DISTRIBUTION (kg)			Total Weight
	A (mm)	X1 (kg)	X2 (kg)	
FAPU-048	75	78	87	330
FAPU-060	75	80	88	335
FAPU-072	75	81	90	343
FAPU-090	75	83	92	350
FAPU-120	75	101	111	424

LOAD DISTRIBUTION



MODEL	LOAD DISTRIBUTION (kg)				Total Weight
	A (mm)	B (mm)	X1 (kg)	X2 (kg)	
FAPU-150	125	800	105	116	663
FAPU-180	125	800	109	121	689
FAPU-210	125	925	124	137	780
FAPU-240	125	925	126	139	795
FAPU-300	125	925	173	191	1091
FAPU-360	125	925	185	204	1166
FAPU-420	125	975	283	312	1785
FAPU-480	125	975	294	325	1858
FAPU-540	125	975	313	346	1979
FAPU-600	125	975	319	352	2012



شركة صناعات التبريد والتخزين والخدمات النفطية

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