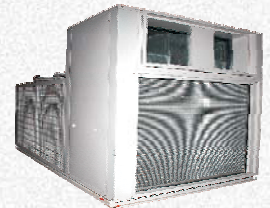




A Subsidiary of 

## Self Contained Package Air Conditioner



Provides Turnkey Projects

# Conceptual Planning

to Commissioning of HVACR Projects

**Pakistan's Largest  
Manufacturers of  
Air-Conditioners**



# THE LARGEST MANUFACTURER OF AIR CONDITIONING EQUIPMENT

Equipment is manufactured on latest CNC machines with prompt deliveries

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**Provides Turnkey Projects, Starting from conceptual planning till the commissioning of HVACR projects**

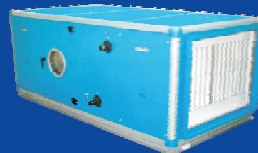
- Heat Load Calculation
- HVAC System Concept & Design
- Supply of HVAC Equipment
- Installation
- Testing & Commissioning
- Operation & Maintenance



Package Mobile AC Plant



Package Type Unit



Double Skinned AHU



Concealed Type AHU



Floor Standing Split AC



Vertical Type AHU



Air Cooled Water Chiller



Floor Standing Cabinet (DX/CW)



Universal Type Split AC



Cassette Type Split AC



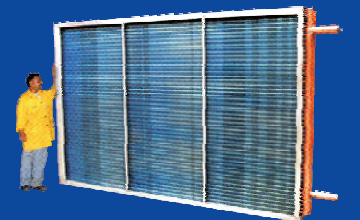
Cold Rooms & Reefer Containers



Air Handling Units



Duct Type Split AC Unit

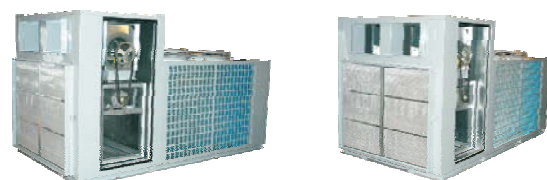
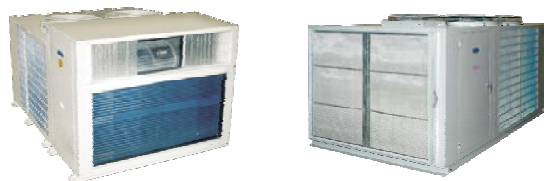


Tube Size 3/8"OD, 1/2"OC, 5/8"OD

*COOL POINT (Pvt.) Ltd. Introduces new phenomenon of Water Cooled Air Conditioning System in small capacity units (1-Ton, 1.5-Ton, 2-Ton and 2.5-Ton)*

## Legend

AFR	Air Flow Rate
BPF	By-pass Factor
C.Cap.	Cooling Capacity
CFM	Cubic Feet per minute
EER	Energy Efficiency Ratio
Hz	Hertz
In.Wg	Inches of Water Gauge
KW	Kilowatt
Kg	Kilogram
lbs	Pound weight (British Units)
L/S	Liters per second
MBH	BTUH x 1000
PH	Phase
Pa	Pascal
PD	Pressure Drop
PI	Compressor Power Input in KW
RPM	Rotations per minutes
TR	Ton of refrigeration = 12 MBH
V	Volts



## Introduction

COOL POINT Packaged Air Conditioners are designed and manufactured to meet the requirements of the Pakistan severe climatic conditions and are built specifically for outdoor installations, either on ground or roof level.

The Packaged Air Conditioners are ideal for warehouses, large halls, schools, mosques, or wherever the requirement is for a heavy duty unit with a hermetic compressor.

Available in 11 different sizes from 7.5 to 49.4 nominal TR (26.3 to 173.7 kW) CWPAC units are designed to operate in a wide ambient temperature range from 50°F (10.0°C) to 125°F (52.0°C) and even lower if an optional head pressure control system is provided.

CWPAC Packaged Air Conditioners are completely assembled, internally wired, charged with R22 refrigerant at factory, tested before despatch and ready for installation. All that is required on site is to connect the ducting and power supply. This greatly reduces installation work and costs. They are designed for ducted applications.

## General Features

The COOL POINT Packaged Air Conditioners incorporating a high efficiency cooling coil, heavy duty evaporator blower and motor resulting in an extremely rugged, longlife, energy efficient, selfcontained unit that will provide cooling at higher efficiency over a long and extended life. Compared to the traditional units available in the market, the COOL POINT Packaged Units are very low on energy consumption.

The flexibility of the CWPAC is ideal for consideration on special applications including:

- 100% fresh air units or units with high incidence of outdoor fresh air.
- Units with unusual filtration requirements incorporating carbon, bag and/or other filters.
- Units with special motor requirements including explosion proof or with anti condensate heaters.
- For those special offshore or refinery or sewage treatment applications requiring specially coated heat transfer coils.

All of these flexibilities cannot be cataloged nor all the possible options listed. COOL POINT has experience in designing and building such units to meet the most stringent requirements of most applications. For your special requirements please consult COOL POINT factory.



## COMPONENT FEATURES

### Compressor

Compressors used in the Packaged Units are hermetically sealed scroll/Reciprocating type.

Compressors conform to internationally recognized standards like EN, CE & UL.



All compressors are refrigerant gas cooled. Each is provided with a direction control kit to prevent the compressor from running backwards once the power has been switched off.



*Screw Compressors*

Compressors are provided with an internal overload motor protection to prevent against excessive current and temperature caused by overloading. This feature provides for efficient and reliable protection against overheating and overloading as well as phase loss/reversal. The motor protector comprises a control module and PTC sensors embedded in the motor winding. The close contact between thermistors and windings ensures a very low level of thermal inertia. The motor temperature is being constantly measured by a (PTC) thermistor loop.

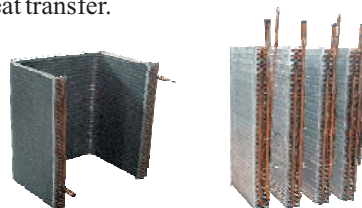
The compressors are selected for their extremely high energy efficiency and heavy duty industrial/commercial usage with economy of operation in addition to high technology & low noise.



*Semi-Sealed Compressors*

### Condenser

Condenser coils are manufactured from seamless copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer.



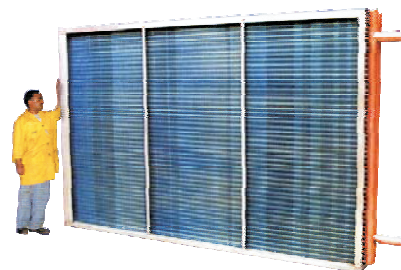
All coils are tested against leakage by Nitrogen Pressure of 450 psig (3100 KPa) under water. All standard coils are 3 or 4 rows/12 FPI, 3/8" (9.5 mm) O.D. tubes. An integral subcooling circuit is provided to increase the cooling capacity, without additional operating costs.

For different application requirements, other optional condenser fin materials are available as listed under options.

All models of the Packaged Units are restricted to a 12FPI or 144 fins per foot (2.1 mm fin spacing) condenser coil. Dust storms and the general level of available maintenance in Pakistan ensures this condenser coil design shall provide long life and maintenancefree service with the least possibility of blockage on the condenser.

Ample condenser surface and sensible air flow across the condenser ensures a low temperature differential between condensing temperature and the high ambients making the COOL POINT Packaged Units perform efficiently and durably.

Therefore condenser coils is efficient to withstand in the Pakistani environment.



### Condenser Fans

The condenser fans are propeller type, directly driven by electric motors.

Motors are Totally Enclosed Air Over (TEAO) with class 'F'



insulation and minimum IP55 protection.

The TEAO and class 'F' insulation features ensure long life and are unique to COOL POINT. The motors are factory wired using wires specially selected for high ambient operation, to unit control panel where the motor contactors are located to control the operation of these motors.

*Fan with Motor*

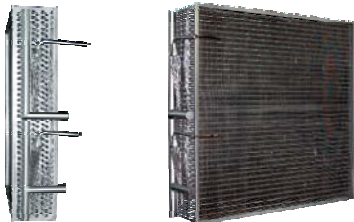


The condenser fans are individually statically and dynamically balanced at the factory. Complete fan assembly is provided with suitable acrylic coated fan guard.

## Evaporator

Evaporator coils are manufactured from 3/8" (9.5 mm) OD seamless innergrooved copper tubes mechanically bonded to aluminium fins to ensure optimum heat transfer. All evaporator coils are tested against leakage by air pressure of 250 psig (1720 kPa) under water.

The DX evaporator coils are complete with headers of seamless copper tubing. Supply headers incorporate a correctly sized distributor.



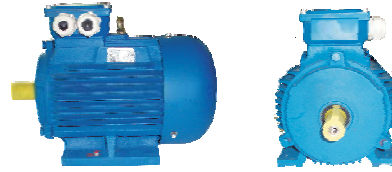
For different application requirements, other evaporator coil material and/or treatment are available on request. Evaporator coils are rated in accordance with ARI410. The CWPAC dual circuit evaporator coils come complete with the correct configuration and split with individual thermostatic expansion valves and multicircuited distributors providing capacity modulation to match the compressors.

The cross wave fin and staggered tube design uses the evaporator surface effectively by creating uniform air turbulence and optimum heat transfer over the entire finned surface.

Requirements for higher face velocities can be handled by use of moisture eliminators, thus preventing carry over.

## Evaporator Fan & Drive

Standard evaporator fan is forward curved centrifugal DIDW, statically and dynamically balanced complete with shaft, selfaligning, lubricated for life ball bearings.



CWPAC have dual fans mounted on a single heavy duty shaft. The fan(s) are driven by a single electric motor, Class F insulated, IP55 protected & are totally enclosed 4 pole motor rated for continuous operation at design conditions.

Shaft ends insert into oversized, tapered lock selfaligning, longlife bearings. Motor is factory wired to the control panel where the motor contactor is located.

## Refrigerant Circuit

CWPAC come complete, as standard, with correctly sized and piped refrigerant lines including filter drier, thermostatic expansion valve, shutoff valve and a full operating charge of R22 in each circuit.

Piping is fabricated from food grade copper piping. Suction line is insulated with 1/2" (12mm) thickness closed cell pipe insulation.

## Casing/Structure

The unit casing used in CWPAC Packaged units is made of zinc coated galvanized steel sheets which is phosphatized before application of an electrostatic powder coat of approximately 60 microns and then ovenbaked for a tough and lasting weather resistant finish. This finish and coating can pass a 1000 hour in 5 % salt spray testing at 95°F (35°C) and 95% relative humidity as per ASTM B117.

The entire casing panels are designed to be leak proof against rain and ensure rain water cannot enter the packaged air conditioner interior.

The condensate drain pan is heavily insulated to ensure condensation does not occur. Stainless steel condensate drain pans are available on request.

## Control Panel

Control panel enclosure comprises all starting, operating and safety controls. A dead front panel cover screwed onto the enclosure prevents unauthorized personnel from tampering with controls. Safety and operating controls are arranged for easy accessibility.

The control panel is factory wired for 220 240V 1 PH 50 control power supply.

The following are the standard components used in all Packaged Air Conditioners:

- Individual compressor, condenser fan motor and evaporator fan motor contactors.
- Fuses for condenser/evaporator fans motors.
- Individual over current protection for compressors.

- Individual condenser/evaporator fans motors over current protection.
- Antirecycle timer to prevent rapid cycling and short cycling of compressors.
- Low pressure safety switch and high pressure safety switch.
- Head pressure control by fan cycling for low ambient operation down to 50 °F (10 °C)
- Control circuit fuses.
- Power and control circuit terminal blocks.

## OPTIONAL FEATURES

PAC heavy duty packaged air conditioners are available with a multitude of optional features which makes design and selection extremely easy and capable of matching the most stringent of requirements.

### Alternative Condenser Material

Made of copper tubes and alternative fin material and/or protective coating.

Fins with golden color coating.

- Copper Fins
- Lacquer Coating

### Alternative Evaporator Material

Made of copper tubes and alternative fin material and/or protective coating.

- Copper Fins
- Lacquer Coating

### Alternative Paint

For marine applications, special two coat system will be applied on sheet metal including zinc epoxy primer and polyester powder coating with total DFT 120 microns. Three coat system with total DFT 250 microns will be applied on structural steel frame.

### Double Skin Evaporator

Inner skin of 0.8 mm galvanized sheet in the evaporator section provided with no cold bridges. Recommended for 100% fresh air applications.

### Electric Heating

Electric heating, when required, can be provided. See page 16 for available sizes and types.

### Filter Section

Can be provided for flat filters or vee filters configuration for relatively higher or lower, respectively, face velocities on the filters. Bag filter section can be provided, additionally, if required. Flat filter sections can accommodate 1" or 2" thick cleanable media aluminium or synthetic filters for particle/dust removal.

The Bag Filter section can house 22", 30" or 36" deep bag filters to meet specific requirements of efficiencies or

contaminants in the air stream.

### Galvanised Frame & Base

Hot dip galvanised after manufacture, steel frame and base. Recommended for highly corrosive environments.

### Hot Gas Bypass System

With solenoid to enable operation of a large sized unit at very low loads, during low load demand due to application requirements or where unit is selected to work on 100% fresh air applications.

### Low Ambient Operation Kit

For operation, down to lower than normal ambients. It is also required for special applications.

### Pressure Gauges

Suction and discharge indication of each refrigerant circuit. Gauges mounted outside the Control Panel.

### Run Hour Meter(s)

To monitor operating hours of each compressor.

### Stainless Steel Drain Pan

Heavy gauge 316 stainless steel drain pan under the entire cooling coil and moisture eliminator. Insulation under drain pan as per COOL POINT standard.

### Voltage Monitoring Module

To prevent Packaged Air Conditioner operation in the event of:

- Phase burnout
- Phase reversal
- Over / Under voltage

on the incoming line voltage.

### Liquid Line Sight Glass

For monitoring refrigerant charge and to provide visual indication of moisture presence in system.

### Pump Down Facility with Solenoid Valve

For providing means to pump down circuit refrigerant gas into condenser.

### Extra Shut Off Valve(s)

To fully isolate refrigerant filter drier, additional shutoff valve(s) can be incorporated in the liquid line.

## GENERAL SPECIFICATIONS

Packaged air conditioners shall be composed of compressor(s), condenser & evaporator coils with fans, refrigerant piping, electrical components & enclosing cabinet in one piece.

These units shall be factory assembled, internally wired, fully refrigerant charged with R22, tested under strict quality



standards & are suitable for outdoor installation on rooftop or ground level with ducted system. Units should be capable to operate from 50°F (10°C) to 125°F (52°C) ambient temperature, and shall be selected in accordance with project requirements and installed as per Installation, Operation & Maintenance Manual.

### Compressor

Compressor(s) shall be hermetic scroll, refrigerant gas cooled, furnished with motor protection device, internal check valve, crankcase heater & shall be mounted on rubber type antivibration mounts. Compressors shall conform to internationally recognized standards like CE, NE & UL.

### Condenser Coil

Condenser coils shall be air cooled with integral sub cooler, constructed of seamless inner grooved copper tubes 3/8" OD mechanically expanded into wavy plate type aluminum fins with maximum 12 fpi (2.1mm) spacing. These coils shall be tested against leakage by air pressure of 450 psig (3100 kPa) under water, cleaned & dehydrated at the factory.

### Condenser Fan & Motors

Unit shall be furnished with a direct driven propeller type, discharging air upward, these fans to be equipped with Aluminum blades, permanently lubricated bearings, and inherent corrosion resistance shaft. Each condenser fan shall be balanced statically and dynamically at the factory. Complete fan assembly is provided with suitable acrylic coated fan guard.

Motor shall be Totally Enclosed Air Over (TEAO), 6 poles, with class F insulation, minimum IP55 protection and factory wired to unit control panel.

### Evaporator Coil

Evaporator coil shall be constructed of seamless inner-grooved copper tubes 3/8" OD mechanically bonded to aluminum (copper) crosswave fins with maximum 12fpi (2.1mm) spacing. Coil consists of headers of seamless copper tubing, thermostatic expansion valve(s) & multi-circuited distributor(s).

These coils shall be tested against leakage by air pressure of 250 psig (1720 kPa) under water, cleaned & dehydrated at the factory.

### Evaporator Fan & Motor

Fans of evaporators shall be forward curved, double inlet double width (DIDW), centrifugal type, statically & dynamically balanced, mounted on a single heavy duty shaft with permanently lubricated bearings & driven by V belt with an adjustable variable pitch motor pulley.

Motor shall be Totally Enclosed Fan Cooled (TEFC), 4 poles, class F insulated, minimum IP55 protection & wired to unit control panel.

### Refrigerant Piping

Refrigerant circuit piping shall be fabricated from ACR

grade copper including shutoff valve, filter drier, thermostatic expansion valve & solenoid valve.

Suction line shall be insulated with 1/2" (12 mm) wall thickness enclosed cell pipe insulation with maximum k factor 0.26 Btu.in/ft 2 hr°F (0.04 W/m².K)

### Casing

Casing shall be made of hot dip galvanized, phosphatized steel sheets which are then electrostatically polyester powder coated to provide an extremely tough, scratch resistance & excellent anticorrosive protection. Casing shall pass 1000 hours in 5% salt spray testing at 95°F (35°C) & 95% relative humidity.

Evaporator section shall be sealed with vinyl gaskets & completely insulated faced with black glass tissue (BGT) heavy density, fire retardant, permanent odorless fiberglass insulation of minimum 1" (25 mm) thickness & 32 kg/m³ density having maximum k factor 0.23 Btu.in/ft 2 hr°F (0.033 W/m².K).

Unit casing shall be provided with access panels for easy service & maintenance of all unit parts.

### Filter Section

Packaged air conditioner shall be provided with easily accessible cleanable media, minimum 1" (25 mm) thick filter having average arrestance efficiency of 75% as per ASHRAE standard 52.76 or equivalent.

### Control Panel & Controls

The control panel shall be factory wired. Wiring is fully ferruled & labeled enabling ease of proper identification. The panel and controls should include the following components as minimum

Individual contactors for compressor, condenser fan motor and evaporator fan motor.

Individual over current protection for compressors.

Individual external overload protection for Condenser/Evaporator fan motors

Antirecycle timer to prevent rapid cycling and short cycling of compressors.

- Control disconnect switch.
- Control Circuit fuses
- Power and control circuit terminal boards.
- Low and high pressure safety switches.
- Head pressure controls by fan cycling.

## Engineering Specifications - 50Hz

Model	CWPAC	205	208	210	212	215	220	225
Cooling Capacity @ 80°F/67°F 26.6°C/19.4°C & 95°F (35°C) Ambient Temperature	TR	5.0	6.2	7.5	9.4	11.8	14.8	19.0
	kW	17.6	21.8	26.3	33.1	41.5	51.9	66.7
Cooling Capacity @ 80°F/67°F 26.6°C/19.4°C & 115°F (46°C) Ambient Temperature	TR	4.6	5.7	6.9	8.7	10.9	13.7	17.6
	kW	16.1	19.9	24.3	30.6	38.5	48.1	61.8
Compressor	Type	-	Scroll Compressor					
	Quantity	-	1	1	2	2	2	2
Condenser Coil	Type	-	Air Cooled 3 or 4 rows 12 FPI (2.1 mm)					
	Face Area	ft <sup>2</sup>	9.7	9.7	12.2	14.7	14.7	24.4
		m <sup>2</sup>	0.9	0.9	1.1	1.4	1.4	2.2
Condenser Fan	Type	-	Propeller Direct Drive					
	RPM / Qty.	-	628 / 1	628 / 1	900 / 1	900 / 2	900 / 2	900 / 4
	Air Flow Rate	cfm	4530	4530	6720	9140	8790	13440
		l/s	2138	2138	3172	4314	4149	6344
Condenser Motor	Type	-	Totally Enclosed Air Over, Class F insulation, 6 Pole Ip55					
	Size / Qty.	kW	0.75 / 1	0.75 / 1	0.75 / 1	0.75 / 2	0.75 / 2	0.75 / 4
	Power Input / Qty.	kW	1.0 / 1	1.0 / 1	1.0 / 1	1.0 / 2	1.0 / 2	1.0 / 4
Evaporator Coil	Type	-	Direct Expansion CU Tubes Alu. Fins					
	No. of Rows / FPI	-	3 / 12	3 / 12	4 / 12	4 / 12	4 / 12	4 / 12
	Face Area	ft <sup>2</sup>	4.7	5.5	7.2	8.3	9.2	10.8
Evaporator Fan	Type	-	Centrifugal double inlet double width belt drive					
	Nominal Air Flow Rate	cfm	2200	2400	2700	3200	4400	5200
		l/s	1038	1133	1274	1510	2077	2454
Evaporator Motors	Type	-	Totally Enclosed, Class F Insulation, IP55					
	Size	kW	0.75	0.75	1.5	2.2	2.2	3.7
	Power Input	kW	1.8	1.8	2.1	2.8	2.8	4.0
Refrigerant (R-22) Operating Charge	lbs	11.0	12.0	12.8	14.5	17.7	26.0	28.6
	kg	5.0	5.5	5.8	6.6	8.0	12.0	13.0
Number of Refrigerant Circuits	-	1	1	2	2	2	2	2
Unit Operating Weight	lbs	702	704	1354	1515	1672	2234	2432
	kg	318	319	615	689	760	1015	1105

### Notes :

- (1). Capacity rating is as per ARI standard.
- (2). Capacity ratings based on evaporator entering air temperatures of 80/67 °F (26.7/19.4 °C) dry bulb/wet bulb and condenser entering air temperature of 115 °F (46 °C).



## Engineering Specifications - 50Hz

Model		CWPAC	230	235	240	250	260	270
Cooling Capacity @ 80°F/67°F 26.6°C/19.4°C & 95°F (35°C) Ambient Temperature	TR		24.4	28.5	33.8	38.6	44.7	49.4
	kW		85.9	100.4	118.8	135.6	157.2	173.7
Cooling Capacity @ 80°F/67°F 26.6°C/19.4°C & 115°F (46°C) Ambient Temperature	TR		22.6	26.5	31.3	35.7	41.3	45.6
	kW		79.6	93.1	110.1	125.5	145.5	160.3
Compressor	Type	-	Scroll / Reciprocating Compressor					
	Quantity	-	2	3	2	2	2	2
Condenser Coil	Type	-	Air Cooled 3 or 4 rows 12 FPI (2.1 mm)					
	Face Area	ft <sup>2</sup>	34.4	40.0	48.0	60.0	72.0	80.0
		m <sup>2</sup>	3.2	3.7	4.5	5.6	6.7	7.4
Condenser Fan	Type	-	Propeller Direct Drive					
	CFM / Qty.	-	1400 / 4	900 / 6	900 / 6	1400 / 6	1400 / 6	900 / 8
	Air Flow Rate	cfm	18800	25820	25820	31500	37160	43200
		l/s	8874	12186	12185	14866	17540	20388
Condenser Motor	Type	-	Totally Enclosed Air Over, Class F insulation, 6 Pole Ip55					
	Size / Qty.	kW	1.0 / 4	0.75 / 6	0.75 / 6	1.0 / 6	1.0 / 6	0.75 / 8
	Power Input / Qty.	kW	1.2 / 4	1.0 / 4	1.0 / 6	1.2 / 6	1.2 / 6	1.0 / 8
Evaporator Coil	Type	-	Direct Expansion CU Tubes Alu. Fins					
	No. of Rows / FPI	-	4 / 12	4 / 12	4 / 12	5 / 12	6 / 12	6 / 12
	Face Area	ft <sup>2</sup>	21	23	25	26	27.5	32
Evaporator Fan	Type	-	Centrifugal double inlet double width belt drive					
	Nominal Air Flow Rate	cfm	8800	10000	12000	14000	16000	18000
		l/s	4153	4719	5663	6607	7551	8495
Evaporator Motors	Type	-	Totally Enclosed, Class F Insulation, IP55					
	Size	kW	4.0	4.0	5.5	7.5	11.0	11.0
	Power Input	kW	5.0	5.0	6.8	8.8	13.0	13.0
Refrigerant (R-22) Operating Charge	lbs		32.6	38.0	48.0	52.0	58.2	60.0
	kg		15.0	17.2	23.0	23.4	26.0	28.0
Number of Refrigerant Circuits		-	2	3	2	2	2	2
Unit Operating Weight	lbs		2788	3392	3918	4190	4766	4824
	kg		1267	1542	1781	1905	2166	2193

### Notes :

- (1). Capacity rating is as per ARI standard.
- (2). Capacity ratings based on evaporator entering air temperatures of 80/67 °F (26.7/19.4 °C) dry bulb/wet bulb and condenser entering air temperature of 115 °F (46 °C).

## Capacity Rating - 50 Hz

Model CWPAC [EER]	AFR	Evaporator Entering WBT		Condenser Entering Air Temperature																							
				95°F						105°F						115°F						125°F					
				Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI				
		°F	°C	MBH	KW	MBH	KW	KW	MBH	KW	MBH	KW	KW	MBH	KW	MBH	KW	KW	MBH	KW	MBH	KW	KW				
205 (9.1)	1600	62	16.7	51.6	15.1	41.8	12.3	4.9	49.5	14.5	40.9	12.0	5.2	47.4	13.9	40.0	11.7	5.6	45.1	13.2	39.0	11.4	6.0				
	755	67	19.4	56.6	16.6	35.3	10.3	5.1	54.3	15.9	34.5	10.1	5.5	52.0	15.2	33.6	9.8	5.9	49.5	14.5	32.6	9.6	6.3				
	0.26	72	22.2	61.3	18.0	28.5	8.4	5.3	58.9	17.3	27.7	8.1	5.7	56.4	16.5	26.8	7.9	6.1	53.7	15.7	26.0	7.6	6.6				
	2200	62	16.7	54.8	16.0	48.6	14.3	5.0	52.4	15.4	47.7	14.0	5.4	50.0	14.7	46.7	13.7	5.8	47.5	13.9	45.7	13.4	6.2				
	1038	67	19.4	60.1	17.6	40.4	11.8	5.2	57.6	16.9	39.5	11.6	5.6	55.0	16.1	38.6	11.3	6.1	52.3	15.3	37.6	11.0	6.5				
	0.31	72	22.2	65.1	19.1	31.9	9.3	5.4	62.5	18.3	31.0	9.1	5.8	59.7	17.5	30.1	8.8	6.3	56.8	16.7	29.2	8.6	6.8				
	2420	62	16.7	55.6	16.3	50.9	14.9	5.1	53.2	15.6	50.0	14.7	5.4	50.8	14.9	49.0	14.4	5.8	48.2	14.1	48.0	14.1	6.2				
	1142	67	19.4	61.0	17.9	42.1	12.3	5.3	58.5	17.1	41.2	12.1	5.7	55.8	16.4	40.3	11.8	6.1	53.0	15.5	39.3	11.5	6.6				
0.32	72	22.2	66.2	19.4	33.0	9.7	5.4	63.4	18.6	32.1	9.4	5.9	60.6	17.8	31.2	9.2	6.3	57.6	16.9	30.3	8.9	6.8					
208 (9.0)	2000	62	16.7	64.1	18.8	51.7	15.2	5.9	61.5	18.0	50.6	14.8	6.4	58.9	17.3	49.5	14.5	7.0	56.1	16.4	48.4	14.2	7.5				
	944	67	19.4	70.1	20.5	43.6	12.8	6.2	67.3	19.7	42.6	12.5	6.7	64.5	18.9	41.5	12.2	7.3	61.4	18.0	40.4	11.8	7.9				
	0.26	72	22.2	75.7	22.2	35.2	10.3	6.4	72.8	21.3	34.2	10.0	7.0	69.7	20.4	33.1	9.7	7.6	66.4	19.5	32.0	9.4	8.2				
	2750	62	16.7	67.9	19.9	60.1	17.6	6.1	65.0	19.1	58.9	17.3	6.6	62.1	18.2	57.8	16.9	7.2	59.0	17.3	56.5	16.6	7.7				
	1298	67	19.4	74.3	21.8	49.9	14.6	6.4	71.3	20.9	48.8	14.3	6.9	68.1	20.0	47.6	14.0	7.5	64.7	19.0	46.4	13.6	8.1				
	0.31	72	22.2	80.4	23.6	39.3	11.5	6.6	77.1	22.6	38.3	11.2	7.2	73.7	21.6	37.2	10.9	7.8	70.0	20.5	36.0	10.6	8.4				
	3025	62	16.7	68.8	20.2	62.9	18.4	6.1	66.0	19.3	61.8	18.1	6.7	63.0	18.5	60.6	17.8	7.2	59.8	17.5	59.3	17.4	7.8				
	1427	67	19.4	75.4	22.1	52.0	15.2	6.4	72.3	21.2	50.9	14.9	7.0	69.0	20.2	49.7	14.6	7.6	65.6	19.2	48.5	14.2	8.2				
0.33	72	22.2	81.6	23.9	40.7	11.9	6.7	78.2	22.9	39.6	11.6	7.3	74.7	21.9	38.5	11.3	7.9	71.0	20.8	37.3	10.9	8.5					
210 (10.3)	1950	62	16.7	77.6	22.7	61.9	18.1	5.8	74.8	21.9	60.6	17.8	6.5	71.7	21.0	59.3	17.4	7.4	68.6	20.1	57.9	17.0	8.2				
	920	67	19.4	84.6	24.8	52.5	15.4	5.9	81.7	23.9	51.3	15.0	6.6	78.5	23.0	50.0	14.7	7.4	75.3	22.1	48.7	14.3	8.2				
	0.20	72	22.2	91.3	26.8	42.6	12.5	6.0	88.2	25.8	41.5	12.2	6.7	84.8	24.9	40.3	11.8	7.5	81.5	23.9	39.1	11.5	8.3				
	2700	62	16.7	82.0	24.0	72.1	21.1	5.8	78.9	23.1	70.8	20.8	6.6	75.6	22.2	69.4	20.4	7.4	72.3	21.2	68.1	20.0	8.2				
	1274	67	19.4	89.6	26.3	60.1	17.6	5.9	86.3	25.3	58.8	17.2	6.7	82.9	24.3	57.5	16.9	7.5	79.4	23.6	56.2	16.5	8.2				
	0.24	72	22.2	96.7	28.4	47.5	13.9	6.0	93.3	27.3	46.3	13.6	6.8	89.6	26.3	45.1	13.2	7.6	86.0	25.2	43.9	12.9	8.4				
	3100	62	16.7	83.6	24.5	77.1	22.6	5.9	80.4	23.6	75.8	22.2	6.6	77.0	22.6	74.4	21.8	7.4	73.6	21.6	73.1	21.4	8.2				
	1463	67	19.4	91.4	26.8	63.7	18.7	6.0	88.0	25.8	62.4	18.3	6.7	84.4	24.8	61.1	17.9	7.5	80.9	23.7	59.9	17.5	8.3				
0.26	72	22.2	98.7	28.9	49.8	14.6	6.1	95.1	27.9	48.7	14.3	6.8	91.3	26.8	47.4	13.9	7.6	87.6	25.7	46.2	13.5	8.4					
212 (9.8)	2400	62	16.7	98.4	28.9	77.3	22.7	7.4	94.9	27.8	75.7	22.2	8.4	91.1	26.7	74.0	21.7	9.5	87.2	25.6	72.3	21.2	10.6				
	1133	67	19.4	107.1	31.4	65.7	19.3	7.5	103.4	30.3	64.2	18.8	8.5	99.4	29.1	62.6	18.3	9.6	95.5	28.0	61.0	17.9	10.6				
	0.250	72	22.2	115.4	33.8	53.5	15.7	7.6	111.4	32.7	52.0	15.3	8.6	107.3	31.5	50.6	14.8	9.7	103.2	30.2	49.1	14.4	10.7				
	3200	62	16.7	103.5	30.3	88.3	25.9	7.4	99.6	29.2	86.6	25.4	8.5	95.5	28.0	84.9	24.9	9.6	91.5	26.8	83.2	24.4	10.6				
	1510	67	19.4	112.8	33.1	73.7	21.6	7.6	108.7	31.9	72.2	21.2	8.6	104.4	30.6	70.6	20.7	9.7	100.2	29.4	69.0	20.2	10.7				
	0.24	72	22.2	121.5	35.6	58.7	17.2	7.7	117.3	34.4	57.2	16.8	8.7	112.8	33.1	55.7	16.3	9.8	108.3	31.7	54.2	15.9	10.8				
	3700	62	16.7	105.7	31.0	94.5	27.7	7.5	101.7	29.8	92.9	27.2	8.5	97.5	28.6	91.1	26.7	9.6	93.3	27.3	89.4	26.2	10.6				
	1746	67	19.4	115.2	33.8	78.4	23.0	7.6	111.0	32.5	76.8	22.5	8.6	106.6	31.3	75.2	22.0	9.7	102.2	30.0	73.6	21.6	10.7				
0.26	72	22.2	124.2	36.4	61.6	18.1	7.7	119.8	35.1	60.1	17.6	8.8	115.1	33.7	58.6	17.2	9.9	110.5	32.4	57.1	16.7	10.9					
215 (9.9)	3200	62	16.7	123.1	36.1	99.7	29.2	9.0	118.7	34.8	97.7	28.6	10.2	114.1	33.4	95.7	28.0	11.5	109.4	32.1	93.7	27.5	12.7				
	1510	67	19.4	134.1	39.3	84.3	24.7	9.2	129.5	38.0	82.4	24.1	10.4	124.6	36.5	80.5	23.6	11.7	119.8	35.1	78.5	23.0	12.9				
	0.20	72	22.2	144.6	42.4	68.1	19.9	9.4	139.7	40.9	66.3	19.4	10.6	134.6	39.5	64.5	18.9	11.9	129.6	38.0	62.8	18.4	13.1				
	4400	62	16.7	129.6	38.0	116.0	34.0	9.1	124.9	36.6	114.0	33.4	10.3	119.9	35.1	111.9	32.8	11.6	114.9	33.7	109.9	32.2	12.8				
	2076	67	19.4	141.5	41.5	96.3	28.2	9.3	136.5	40.0	94.4	27.7	10.6	131.2	38.5	92.4	27.1	11.8	126.0	36.9	90.5	26.5	13.0				
	0.24	72	22.2	152.7	44.8	75.8	22.2	9.5	147.4	43.2	74.0	21.7	10.8	141.9	41.6	72.2	21.2	12.0	136.5	40.0	70.5	20.6	13.2				
	5000	62	16.7	131.9	38.6	123.5	36.2	9.2	127.0	37.2	121.5	35.6	10.4	121.8	35.7	119.4	35.0	11.7	116.7	34.2	116.7	34.2	12.9				
	2360	67	19.4	144.0	42.2	101.7	29.8	9.4	138.9	40.7	99.8	29.3	10.6	133.5	39.1	97.9	28.7	11.9	128.1	37.6	96.0	28.1	13.0				
0.26	72	22.2	155.5	45.6	79.3	23.3	9.6	150.0	44.0	77.5	22.7	10.8	144.4	42.3	75.7	22.2	12.1	138.9	40.7	73.9	21.7	13.2					
220 (10.6)	3800	62	16.7	162.3	47.6	140.9	41.3	11.6	156.2	45.8	138.3	40.5	13.2	149.6	43.9	135.6	39.7	14.8	143.2	42.0	132.9	39.0	16.4				
	1793	67	19.4	177.2	51.9	117.5	34.5	11.8	170.8	50.1	115.1	33.7	13.4	164.0	48.1	112.6	33.0	15.0	157.2	46.1	110.0	32.2	16.5				
	0.20	72	22.2	191.3	56.1	93.3	27.3	12.0	184.5	54.1	90.9	26.7	13.6	177.3	52.0	88.5	25.9	15.2	170.2	49.9	86.2	25.3	16.7				
	5200	62	16.7	165.6	48.5	150.9	44.2	11.7	159.3	46.7	148.4	43.5	13.2	152.6	44.7	145.6	42.7	14.8	145.9	42.8	142.9	41.9	16.4				
	2454	67	19.4	181.0	53.0	124.9	36.6	11.9	174.3	51.1	122.4	35.9	13.4	167.3	49.0	119.8	35.1	15.0	160.3	47.0	117.3	34.4	16.5				
	0.24	72	22.2	195.4	57.3	97.9	28.7	12.1	188.4	55.2	95.6	28.0	13.6	180.9	53.0	93.2	27.3	15.3	173.6	50.9	90.8	26.6	16.8				
	6000	62	16.7	197.7	57.9	155.4	45.5	14.7	190.6	55.9	152.1	44.6	16.8	182.9	53.6	148.7	43.64										



## Capacity Rating - 50 Hz

Model CWPAC [EER]	AFR	Evaporator Entering WBT		Condenser Entering Air Temperature																							
				95°F						105°F						115°F						125°F					
				Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI	Total Capacity		Sensible Capacity		PI				
		°F	°C	MBH	KW	MBH	KW		KW	MBH	KW	MBH		KW	KW	MBH	KW		MBH	KW	KW	MBH		KW	MBH	KW	KW
230 (9.8)	6300	62	16.7	254.4	74.6	201.7	59.1	19.9	245.1	71.9	197.5	57.9	22.6	235.5	69.0	193.2	56.6	25.4	226.0	66.2	189.0	55.4	27.9				
	2973	67	19.4	276.7	81.1	171.6	50.3	20.0	267.1	78.3	167.1	49.0	23.1	257.0	75.3	163.0	47.8	25.8	247.2	72.5	159.1	46.6	28.2				
	0.20	72	22.2	297.9	87.3	138.8	40.7	20.8	287.8	84.4	135.1	39.6	23.5	277.3	81.3	131.4	38.5	26.2	272.2	79.8	129.5	38.0	27.4				
	8800	62	16.7	268.9	78.8	235.6	69.1	20.2	258.9	75.9	231.4	67.8	22.9	248.4	72.8	227.0	66.5	25.6	238.2	69.8	222.8	65.3	28.1				
	4153	67	19.4	293.1	85.9	196.0	57.5	20.7	282.5	82.8	192.0	56.3	23.4	271.6	79.6	187.9	55.1	26.1	266.2	78.0	185.9	54.5	27.3				
	0.24	72	22.2	315.9	92.6	154.9	45.4	21.2	304.7	89.3	151.2	44.3	23.9	293.3	86.0	147.3	43.2	26.7	287.6	84.3	145.5	42.6	27.9				
	9900	62	16.7	273.3	80.1	249.3	73.1	20.3	263.0	77.1	245.1	71.8	23.0	252.3	74.0	240.7	70.6	25.7	241.9	70.9	236.5	69.3	28.1				
	4672	67	19.4	298.0	87.4	206.0	60.4	20.8	287.2	84.2	202.0	59.2	23.5	276.0	80.9	197.9	58.0	26.2	270.5	79.3	195.9	57.4	27.4				
	0.26	72	22.2	321.3	94.2	161.3	47.3	21.3	309.8	90.8	157.6	46.2	24.1	298.0	87.4	153.7	45.1	26.8	292.3	85.7	151.9	44.5	28.1				
	7300	62	16.7	297.8	87.3	235.1	68.9	22.9	287.3	84.2	230.3	67.5	25.9	276.1	80.9	225.3	66.0	29.0	264.9	77.7	220.3	64.6	31.9				
235 (10.4)	3445	67	19.4	324.2	95.0	199.6	58.5	23.4	313.1	91.8	195.1	57.2	26.4	301.4	88.3	190.3	55.8	29.5	289.8	84.9	185.7	54.4	32.4				
	0.20	72	22.2	349.1	102.3	162.3	47.6	23.9	337.4	98.9	158.0	46.3	26.9	325.2	95.3	153.6	45.0	30.0	313.2	91.8	149.3	43.8	32.8				
	10000	62	16.7	314.2	92.1	271.9	79.7	23.2	302.8	88.7	267.1	78.3	26.2	290.7	85.2	262.0	76.8	29.3	278.7	81.7	257.0	75.3	32.2				
	4719	67	19.4	342.6	100.4	226.7	66.5	23.8	330.4	96.9	222.2	65.1	26.8	317.8	93.1	217.4	63.7	29.8	305.3	89.5	212.7	62.3	32.7				
	0.24	72	22.2	369.3	108.2	179.8	52.7	24.3	356.4	104.5	175.4	51.4	27.3	343.1	100.6	171.0	50.1	30.4	330.0	96.7	166.6	48.8	33.1				
	11450	62	16.7	320.3	93.9	290.1	85.0	23.4	308.5	90.4	285.2	83.6	26.3	296.0	86.8	280.1	82.1	29.4	283.8	83.2	275.1	80.6	32.3				
	5403	67	19.4	349.4	102.4	240.1	70.4	23.9	336.9	98.7	235.4	69.0	26.9	323.8	94.9	230.6	67.6	30.0	311.0	91.2	225.9	66.2	32.8				
	0.26	72	22.2	376.8	110.4	188.3	55.2	24.4	363.5	106.5	183.9	53.9	27.4	349.7	102.5	179.4	52.6	30.5	336.2	98.5	175.1	51.3	33.2				
	8750	62	16.7	352.4	103.3	279.7	82.0	26.8	339.9	99.6	274.1	80.3	30.2	326.7	95.7	268.1	78.6	33.7	313.3	91.8	262.2	76.9	37.1				
	4129	67	19.4	383.6	112.4	237.3	69.5	27.5	370.4	108.6	231.9	68.0	30.9	356.5	104.5	226.2	66.3	34.4	342.6	100.4	220.7	64.7	37.7				
240 (9.9)	0.20	72	22.2	413.2	121.1	192.6	56.4	28.1	399.2	117.0	187.5	54.9	31.5	384.6	112.7	182.3	53.4	35.1	370.2	108.5	177.2	51.9	38.2				
	12000	62	16.7	371.7	108.9	324.0	95.0	27.2	358.0	104.9	318.3	93.3	30.6	343.7	100.7	312.2	91.5	34.1	329.4	96.5	306.3	89.8	37.4				
	5663	67	19.4	405.2	118.8	269.9	79.1	27.9	390.8	114.5	264.4	77.5	31.4	375.7	110.1	258.7	75.8	34.9	360.7	105.7	253.1	74.2	38.1				
	0.24	72	22.2	436.9	128.1	213.7	62.6	28.6	421.6	123.6	208.5	61.1	32.1	405.7	118.9	203.2	59.5	35.5	390.1	114.3	198.0	58.0	38.6				
	13750	62	16.7	378.8	111.0	345.9	101.4	27.4	364.7	106.9	340.1	99.7	30.7	349.9	102.6	334.1	97.9	34.3	335.2	98.3	328.1	96.2	37.5				
	6489	67	19.4	413.2	121.1	285.9	83.8	28.1	398.3	116.7	280.3	82.2	31.5	382.7	112.2	274.6	80.5	35.0	367.4	107.7	269.0	78.9	38.2				
	0.26	72	22.2	445.7	130.6	223.9	65.6	28.8	429.9	126.0	218.7	64.1	32.3	413.5	121.2	213.4	62.5	35.7	397.4	116.5	208.2	61.0	38.8				
	10200	62	16.7	403.1	118.1	322.6	94.6	31.7	388.3	113.8	315.9	92.6	35.6	372.8	109.3	309.0	90.6	39.6	357.5	104.8	302.3	88.6	43.1				
	4813	67	19.4	438.6	128.5	273.0	80.0	32.6	422.9	123.9	266.7	78.2	36.5	406.7	119.2	260.2	76.3	40.5	390.7	114.5	253.8	74.4	43.9				
	0.20	72	22.2	472.1	138.4	221.0	64.8	33.5	455.6	133.5	215.0	63.0	37.5	438.6	128.6	209.0	61.3	41.3	430.3	126.1	206.1	60.4	43.1				
250 (10.0)	14000	62	16.7	424.6	124.4	374.2	109.7	32.3	408.4	119.7	367.4	107.7	36.1	391.7	114.8	360.5	105.7	40.1	375.3	110.0	353.7	103.7	43.6				
	6607	67	19.4	462.7	135.6	311.1	91.2	33.3	445.6	130.6	304.6	89.3	37.2	428.0	125.5	298.0	87.3	41.1	419.4	122.9	294.7	86.4	42.8				
	0.24	72	22.2	498.6	146.1	245.5	71.9	34.3	480.5	140.8	239.4	70.2	38.2	462.2	135.5	233.3	68.4	42.0	453.2	132.8	230.3	67.5	43.7				
	16000	62	16.7	432.3	126.7	399.2	117.0	32.5	415.7	121.8	392.4	115.0	36.3	398.6	116.8	385.4	113.0	40.3	381.7	111.9	378.6	111.0	43.7				
	7550	67	19.4	471.4	138.2	329.2	96.5	33.5	453.8	133.0	322.8	94.6	37.4	435.7	127.7	316.2	92.7	41.3	426.8	125.1	312.9	91.7	43.0				
	0.26	72	22.2	508.2	148.9	257.2	75.4	34.5	489.6	143.5	251.1	73.6	38.4	470.7	138.0	245.0	71.8	42.2	461.5	135.3	242.0	70.9	43.9				
260 (10.0)	12000	62	16.7	468.5	137.3	377.0	110.5	34.9	451.3	132.3	369.3	108.2	39.1	433.1	127.0	361.2	105.9	43.6	414.9	121.6	353.2	103.5	47.6				
	5663	67	19.4	510.4	149.6	319.0	93.5	36.0	492.2	144.3	311.6	91.3	40.3	473.1	138.7	304.0	89.1	44.7	454.1	133.1	296.4	86.9	48.6				
	0.20	72	22.2	550.1	161.2	258.1	75.6	37.1	530.8	155.6	251.2	73.6	41.4	510.9	149.7	244.1	71.6	45.7	491.1	143.9	237.2	69.5	49.6				
	16000	62	16.7	491.5	144.1	431.7	126.5	35.5	472.8	138.6	423.9	124.2	39.7	453.3	132.9	415.7	121.9	44.1	433.8	127.2	407.7	119.5	48.1				
	7550	67	19.4	536.3	157.2	359.4	105.3	36.7	516.5	151.4	351.9	103.1	40.9	496.0	145.4	344.2	100.9	45.3	475.6	139.4	336.5	98.6	49.2				
	0.23	72	22.2	578.5	169.6	284.1	83.3	37.8	557.7	163.5	277.1	81.2	42.1	536.2	157.2	269.9	79.1	46.4	515.0	150.9	262.9	77.1	50.1				
	18900	62	16.7	502.9	147.4	468.2	137.2	35.8	483.6	141.7	460.3	134.9	40.0	463.4	135.8	452.1	132.5	44.4	443.2	129.9	443.2	129.9	48.4				
	8919	67	19.4	549.1	161.0	385.9	113.1	37.0	528.6	154.9	378.4	110.9	41.3	507.4	148.7	370.7	108.6	45.6	486.3	142.5	363.1	106.4	49.4				
	0.26	72	22.2	592.7	173.7	301.3	83.3	38.2	571.1	167.4	294.2	86.2	42.5	548.9	160.9	287.0	84.1	46.8	526.9	154.4	279.9	82.0	50.4				
	270 (10.0)	13000	62	16.7	514.9	150.9	412.0	120.7	39.8	495.4	145.2	403.2	118.2	44.5	475.0	139.2	394.1	115.5	49.3	454.8	133.3	385.2	112.9	53.7			
6135		67	19.4	560.7	164.3	348.9	102.3	41.2	540.0	158.3	340.5	99.8	45.9	518.7	152.0	332.0	97.3	50.7	497.6	145.8	323.5	94.8	54.9				
0.20		72	22.2	604.0	177.0	282.6	82.8	42.5	582.3	170.7	274.8	80.5	47.3	560.1	164.2	266.9	78.2	52.0	549.1	160.9	263.0	77.1	54.1				
18000		62	16.7	543.4	159.3	480.0	140.7	40.6	522.1	153.0	471.1	138.1	45.3	500.0	146.6	462.0	135.4	50.1	478.2	140.2	453.0	132.8	54				

## Component Air Pressure Drop

Component		Coil Face Velocity							
		fpm	300	350	400	450	500	550	600
		m/s	1.5	1.8	2	2.3	2.5	2.8	3
Flat Filters	1" cleanable	in.wg.	0.02	0.03	0.05	0.06	0.07	0.09	0.12
	aluminium flat filter	pa	5	8	13	15	18	23	31
	2" cleanable	in.wg.	0.05	0.07	0.1	0.12	0.18	0.22	0.26
	aluminium flat filter	pa	13	18	25	31	46	56	66
Bag Filters	22" depth	in.wg.	0.22	0.3	0.38	0.49	0.6	0.73	0.86
		Pa	56	76	97	124	152	185	218
	30" depth	in.wg.	0.2	0.27	0.35	0.45	0.55	0.67	0.79
		Pa	51	69	89	114	140	170	201
	36" depth	in.wg.	0.18	0.25	0.32	0.41	0.5	0.61	0.72
		Pa	46	64	81	104	127	155	183
Electric Heater		in.wg.	0.01	0.02	0.024	0.028	0.035	0.04	0.045
		Pa	3	5	6	7	9	10	11
Casing	All units	in.wg.	0.15	0.15	0.15	0.15	0.15	0.15	0.15
		Pa	38	38	38	38	38	38	38
M oisture Eliminator		in.wg	0.03	0.04	0.06	0.08	0.1	0.11	0.12
		Pa	8	10	15	20	25	28	30

## Electric Heating

Electric heater batteries are available in finned type elements. Heating elements are constructed from high quality 80/20 nickel chrome resistance wire centered in metal tube by compressed magnesium oxide. Helical fins tightly wound round tubular heating element.

Standard components include

- 3 pole magnetic contactor per stage
- Control fuse
- Control relay
- Air flow switch

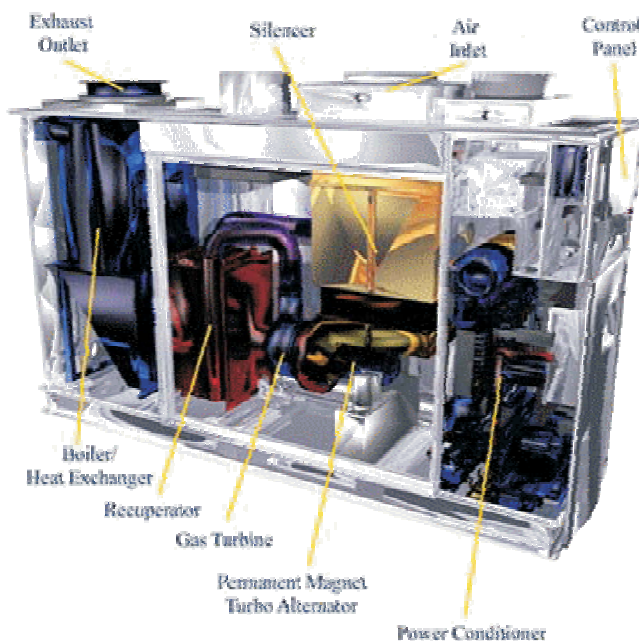
Following are the Electrical Heating Optional KW rating, options other than those specified below can be supplied on request. Consult COOL POINT for full details.

PAC	Heater KW	Stages
205	7.5	1
208	9	
210	12	
212	15	
215	18	
220	24	2
224		
230	30	
235	48	
240		
250		
260		
270		

## Electrical Specifications

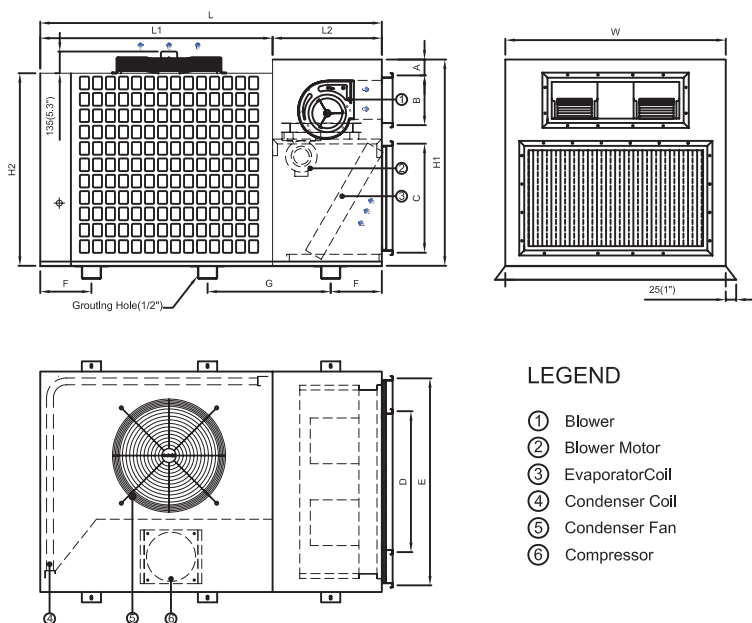
Power Supply 380V~415V/3PH/50HZ (Voltage Range (380~420 V))											
Model	Unit Characteristic		Compressor				Condenser Fan motor			Evaporator Fan Motor	
CWPAC	MFA	MCA	Qty.	MCC Each	RLA Each	LRA Each	Qty.	FLA Each	LRA Each	FLA	LRA
205	32	19	1	15	10.7	67	1	1.6	6.6	2.3	12.0
208	32	20	1	15	11.1	68	1	16.0	6.6	2.3	12.0
210	40	26	2	15	10	66	1	2.2	8.7	3.7	17.1
212	50	34	2	15	10	74	2	4.2	18.7	3.7	17.1
215	63	40	2	18	12	78	2	4.2	18.7	5.2	25.6
220	80	45	2	29	19	127	4	2.2	8.7	5.2	25.6
224	100	61	2	30	22.1	125	4	4.2	18.7	7.1	35.1
230	125	74	2	32	27.2	198	4	4.2	18.7	9.2	49.4
235	160	87	3	30	22.1	125	6	4.2	18.7	9.2	49.4
240	160	101	2	60	32	135	6	4.2	18.7	12.0	72.0
250	200	109	2	60	45	165	6	4.2	18.7	12.0	72.0
260	200	129	2	90	60	200	6	4.2	18.7	15.2	111.0
270	250	138	2	110	62.7	275	8	4.2	18.7	15.2	111.0

MCC = Maximum Continuous Current corresponding to the cutout amps of internal motor protection.  
 RLA = Rated Load Amps.  
 FLA = Full Load Amps.  
 LRA = Locked Rotor Amps.  
 MCA = Minimum Circuit Amps for wire sizing.  
 MFA = Maximum Fuse Amps for unit fuse sizing.



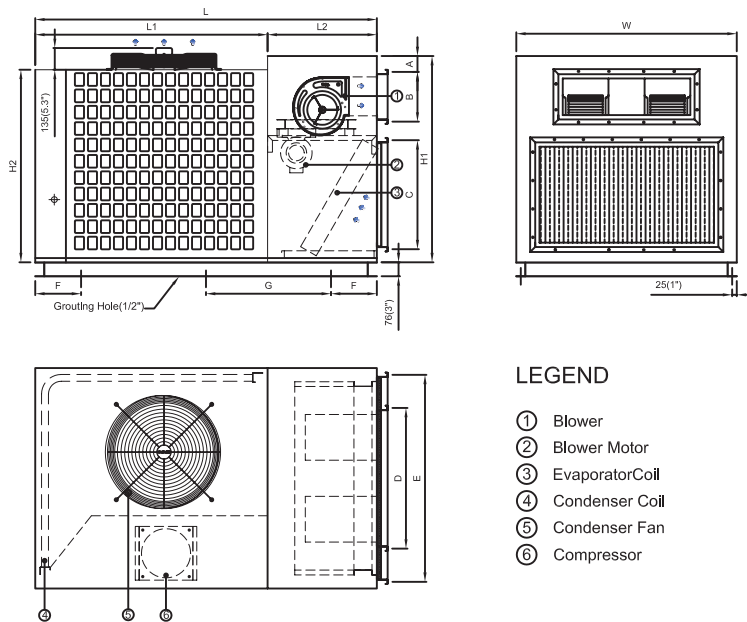


## Dimensional Data



Dimensional Data

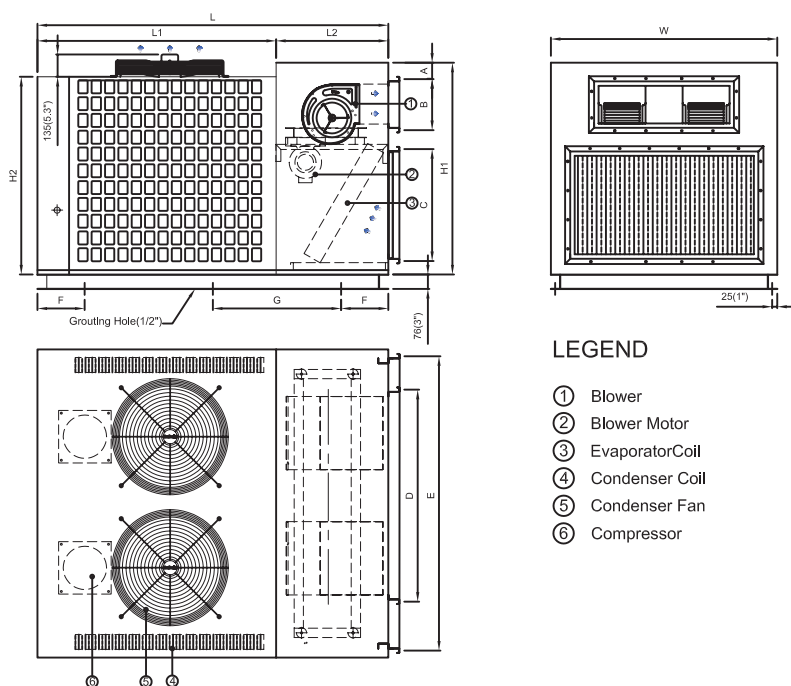
Model #	L	L1	L2	H1	H2	W	A	B	C	D	E	F	G
CWPAC-205	1378 (54")	945 (37")	435 (17")	840 (33")	840 (33")	965 (38")	76 (3")	240 (9.5")	406 (16")	850 (33.5")	886 (35")	152 (6")	420 (16.5")
CWPAC-208	1272 (50")	795 (31")	478 (19")	1094 (43")	1094 (43")	1094 (43")	76 (3")	280 (11")	505 (20")	785 (31")	886 (35")	152 (6")	484 (19")



Dimensional Data

Model #	L	L1	L2	H1	H2	W	A	B	C	D	E	F	G
CWPAC-210	1890 (74.5")	1286 (50.5")	608 (24")	1143 (45")	1065 (42")	1220 (48")	76 (3")	275 (11")	558 (22")	780 (30.5")	1150 (45")	254 (10")	1384 (54.5")

## Dimensional Data

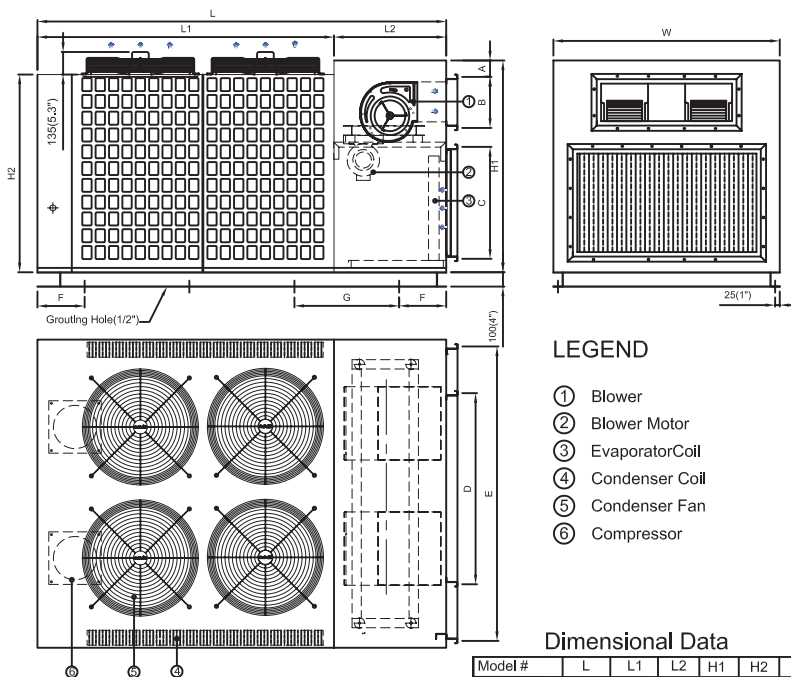


### LEGEND

- ① Blower
- ② Blower Motor
- ③ Evaporator Coil
- ④ Condenser Coil
- ⑤ Condenser Fan
- ⑥ Compressor

Dimensional Data

Model #	L	L1	L2	H1	H2	W	A	B	C	D	E	F	G
CWPAC-212	1984	1226	758	1167	1048	1625	76	422	630	1145	1330	254	738
CWPAC-215	(78")	(48")	(30")	(46")	(41")	(64")	(3")	(16.5")	(25")	(45")	(52.5")	(10")	(29")



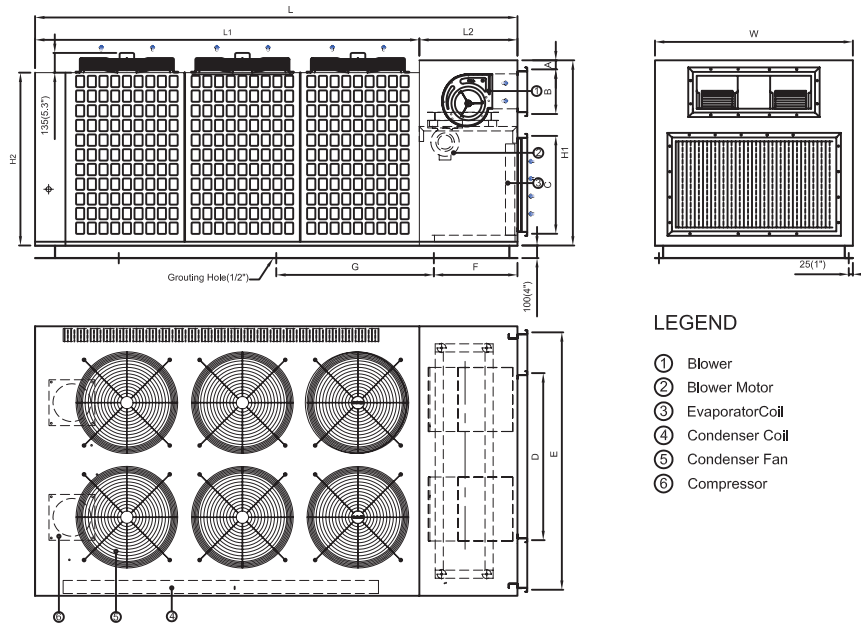
### LEGEND

- ① Blower
- ② Blower Motor
- ③ Evaporator Coil
- ④ Condenser Coil
- ⑤ Condenser Fan
- ⑥ Compressor

Dimensional Data

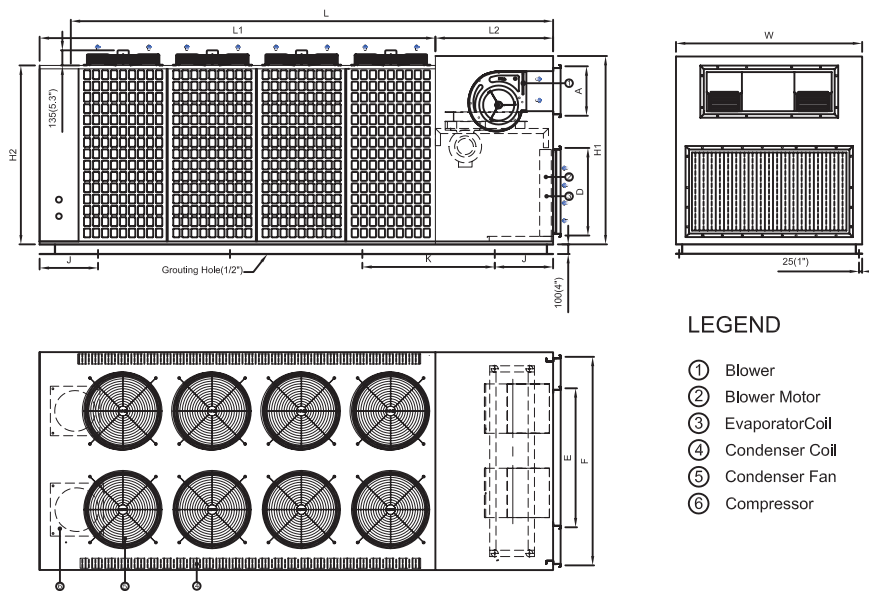
Model #	L	L1	L2	H1	H2	W	A	B	C	D	E	F	G
CWPAC-220	2755	1790	965	1372	1092	1676	50	422	760	1145	1552	254	1118
	(108")	(70")	(38")	(54")	(43")	(66")	(2")	(16.5")	(30")	(45")	(61")	(10")	(44")
CWPAC-225	3095	2130	965	1650	1092	1676	50	480	1032	1320	1335	254	1295
	(122")	(84")	(38")	(65")	(43")	(66")	(2")	(19")	(40.5")	(52")	(52.5")	(10")	(51")
CWPAC-230	3095	2130	965	1650	1092	1676	50	480	1032	1320	1335	254	1295
	(122")	(84")	(38")	(65")	(43")	(66")	(2")	(19")	(40.5")	(52")	(52.5")	(10")	(51")

## Dimensional Data



Dimensional Data

Model #	L	L1	L2	H1	H2	W	A	B	C	D	E	F	G
CWPAC-235	3454 (136")	2388 (94")	1066 (42")	1778 (70")	1524 (60")	2235 (88")	125 (5")	420 (16.5")	1218 (48")	1650 (65")	1905 (75")	254 (10")	982 (38.5")
CWPAC-240	3454 (136")	2388 (94")	1066 (42")	1778 (70")	1524 (60")	2235 (88")	125 (5")	420 (16.5")	1218 (48")	1650 (65")	1905 (75")	254 (10")	982 (38.5")
CWPAC-250	3658 (144")	2388 (94")	1270 (50")	2286 (90")	1878 (74")	2235 (88")	125 (5")	635 (25")	1524 (60")	1980 (78")	1980 (78")	254 (10")	1054 (41.5")
CWPAC-260	3658 (144")	2388 (94")	1270 (50")	2286 (90")	1878 (74")	2235 (88")	125 (5")	635 (25")	1524 (60")	1980 (78")	1980 (78")	254 (10")	1054 (41.5")



Dimensional Data

Model #	L	L1	L2	H1	H2	W	A	B	C	D	E	F	G
CWPAC-270	4420 (174")	3150 (124")	1270 (50")	2286 (90")	1878 (74")	2235 (88")	125 (5")	635 (25")	1828 (72")	1980 (78")	1980 (78")	254 (10")	1295 (51")



# THE LARGEST MANUFACTURER OF AIR CONDITIONING EQUIPMENT

## COMPANY PROFILE

Cool Point (Pvt) Ltd. is a subsidiary of M/s Cool Industries (Pvt.) Ltd, leading manufacturer of Deep Freezers, Refrigerators and Split Air Conditioners in Pakistan of renowned brand

On a modes level, Cool Point (Pvt.) Ltd. has grown into one of the prime Manufacturers of Air Conditioners & Coils in Pakistan. Out professional staff and dedicated management is fully committed to quality and Service of its product. Our system is certified for ISO 9001:2000 Standard.

We possess the latest machinery and technology required for production of high quality products. Our team of professional engineers and technical staff is capable of responding to the market's most expecting demands for that we are continuously struggling to improve our Manufacturing capability and quality to become the leader of the market.

We have efficient network of After Sales Services throughout the country for the entire satisfaction of our customers.

## DISPLAY CENTERS

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**Karachi:** Hashmi Electronics Market, Abdullah Haroon Road. Ph: 021-7727743-4

**Faisalabad:** Kotwali Road, Opp. Thana Kotwali. Ph: 041-601684

**Multan:** Mian Market, Hussain Agahi Road.

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Nishat Group of Companies  
Package Limited  
Cool Industries (Pvt.) Ltd.  
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Shifa International Hospital  
Dewan Salman Fibre Ltd.  
Prime Dairies Limited  
Akhtar Textile Industries (Pvt.) Ltd.  
Mumtaz Engineering (Pvt.) Ltd.  
Colgate Palmolive Pakistan Limited  
Highnoon Laboratories (Pvt.) Ltd.  
Uni Lever Pakistan Limited  
Elahi Group of Companies  
H. Nizam Din & Sons (Pvt.) Ltd.  
H. Karim Bukhsh Enterprises  
Siza International Pharma (Pvt.) Ltd.  
Aneeb Pharmaceuticals (Pvt.) Ltd.  
PACE Pakistan Limited  
Punjab Institute of Computer Science  
Olympia Group of Industries  
KIDCO (Agro Chemicals (Pvt.) Ltd.)  
Gelcaps (Pakistan) Limited  
Pakistan Beverage Limited (PEPSI)  
Pakistan International Airport (PIA)  
Food & Beverages Co. (Pvt.) Ltd.  
Novins Internationals  
Conimpex Hatchery  
Peace Engineering Services  
Paksol (Pvt.) Ltd.  
Ranfro Textiles  
Master Textile Limited

A. A. Associates  
United Engineering  
WAPDA  
Organon Engineering Company  
Premier Industries (Pvt.) Ltd.  
Azgard Nine  
Tops Food & Beverages  
Doctors Hospitals  
Union Fabrics Limited  
ILF Pakistan (Pvt.) Ltd.  
Allaience Pharmaceuticals (Pvt.) Ltd.  
Bentley Pharmaceuticals  
Sitara Chemicals Industries Limited  
Inter Food Industries  
PC Hotels  
Atchison College  
Toyota Defence Motors  
Pakistan Atomic Energy Commission  
Pakistan Navy  
CMH (Combine Military Hospital)  
Pakistan Telecommunication Company Limited  
International Industries  
Angatech International  
Darbarwala Industries  
Horizon Developers  
Bilal Engineering  
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Zephyr Pharmaceuticals  
Hightech Chemicals  
Pakistan Petroleum Limited

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Festal Laboratories  
Ocean Pharmaceuticals  
Safina Pharmaceuticals  
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Candid Pharmaceuticals  
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Crescent Bahuman  
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Telephone Industries Pakistan (TIP)  
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Silver Sands  
Dr. Ziauddin Hospital  
Salt'N'Pepper  
Shawn Pharmaceuticals  
Glaxo Welcome Pakistan  
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The Monal (Pvt.) Ltd.  
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