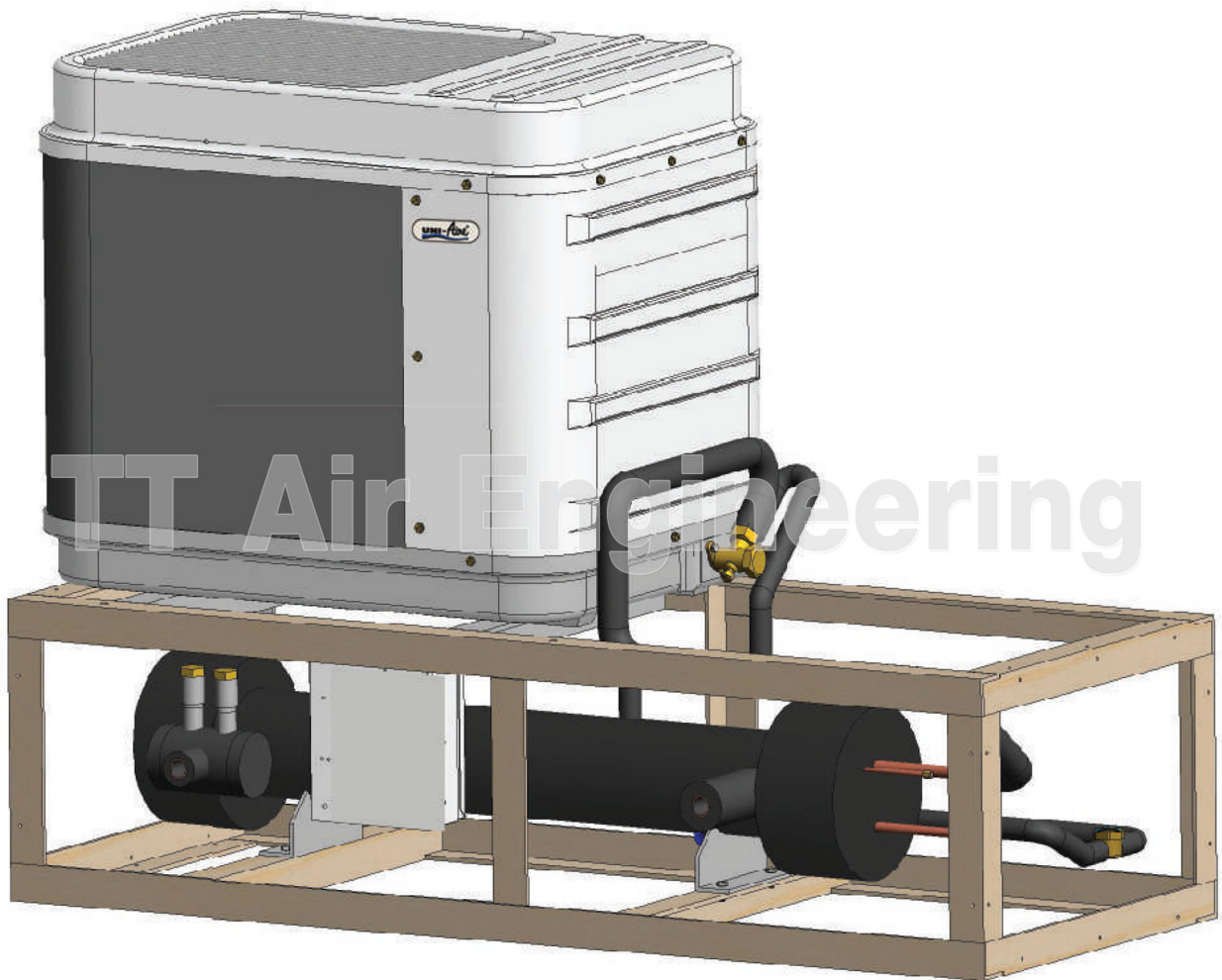


# MODEL AKQ-CHB

**PACKAGED AIR COOLED CHILLER**

**2.0 - 4.4 TR**

**7.0 - 15.5 KW**



**UNI - Aire<sup>®</sup>**

Air Conditioning Experts

## | Digital temperature controller (Carel IR33)



- Flat

The surface of the controllers is perfectly flat and thin, allowing easy cleaning and ensuring the highest level of hygiene



- Intuitive

New, more intuitive user interface. The main functions are highlighted, such as set point display and auxiliary output activation.



- Touch

The keypad is touch sensitive for a more attractive and appealing look. This allows the possibility to create custom user interfaces based on different applications.



- Integration with monitoring and supervisory systems

Modbus® and Carel protocol, with automatic recognition, available as standard on the entire ir33 + range of controllers.



(Option)

RS485 card, Etc.

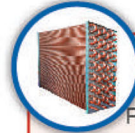
\*\* Install additional equipment, contact the manufacturer.

## | Fiberglass casing



### Green guard coated on Condenser coils

Corrosion prevention caused by ocean vapor and chemicals which extends coil life span.



### Copper fin condenser coil (Made to order)

Fin made from copper, extends life span of condenser coil. Suitable for seaside area and high acidic factory environment.

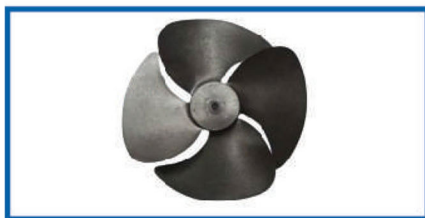
\*Please consult Uni-Aire's sale engineer for usage and availability

## | Scroll compressor

- The refrigerant compression characteristics have low friction, resulting in good performance and energy saving.
- low vibration results in quiet operation.



## | Fan (Propeller fan)



Plastic material. (25,000-36,000 BTU/Hr)

- Light weight, energy saving



Aluminium material. (40,000-60,000 BTU/Hr)

- Does not deform after prolonged use.
- Large air volume

## | Shell and Tube vaporator



- Shell and tube heat exchanger type
- High efficiency in performance
- Low pressure drop and compact design
- Aluminium star rods fitted in copper tubing. Create turbulence refrigerant flow and cause higher heat transfer efficiency.

## Condenser coil

- Plate fin coil type
- The coil is tested for leakage at 600 psi.



- Inner groove copper tube  
Help improve energy efficiency and reduce size of the condenser coil.

- Aluminium louver fin

Louvered fins increase the heat-transfer capacity by creating air turbulence which reduces the boundary layer on the fin's surface



## Refrigeration part



Thermostatic expansion valve

Controls the amount of refrigerant entering the evaporator. By installing this thermostatic expansion valve on the inlet pipe before the refrigerant enters the evaporator.



Sight glass

Characterize the state and humidity of the refrigerant.



Filter drier

Filters out dirt and absorbs moisture. If the machine does not work properly or has acid build-up, the filter drier will also absorb the acid by the filter drier's inner filling.



Service valve

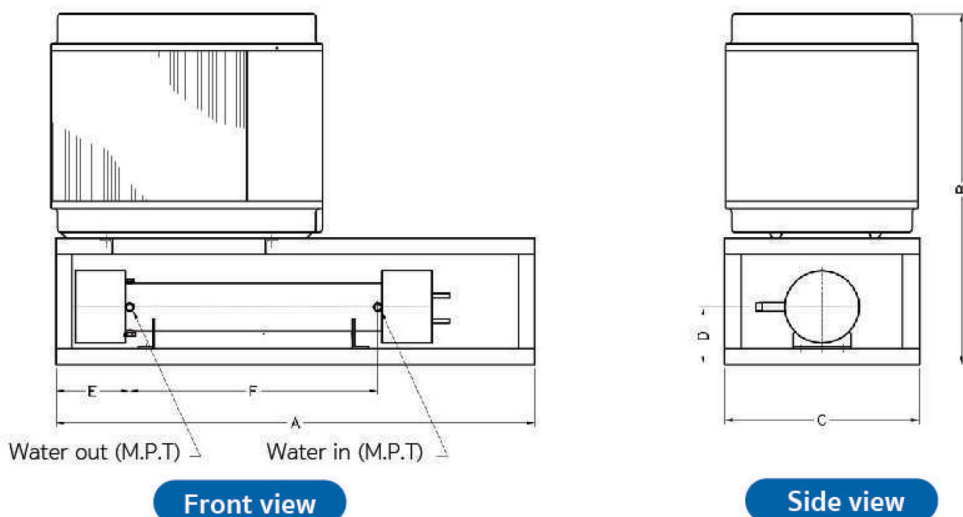
Diagnose problems in the cooling system

## Electical parts

- Magnetic contactor and overload for motor compressor
- Hi-Low pressure switch (Auto reset) (Except Model : AKQ-CHB-25AX)
- Freezestat water temperature sensing system to avoid any damage to the compressor and evaporator

## Dimensional drawings

### Packaged air cooled chiller



Model	DIMENSION						WATER IN/OUT (Inch)
	A (mm.)	B (mm.)	C (mm.)	D (mm.)	E (mm.)	F (mm.)	
AKQ-CHB-25AX	1,475	1,110	600	183	227	764	3/4
AKQ-CHB-303AX							
AKQ-CHB-363AX							
AKQ-CHB-403AX	1,742	1,212	600	196	227	1,069	1
AKQ-CHB-503AX							
AKQ-CHB-603AX							

With International standard quality guaranteed by customers over 70 countries

**PHYSICAL DATA**

Model		AKQ-CHB	25AX	303AX	403AX	503AX	603AX
Nominal Cooling capacity*		(MBH)	24.8	27.2	33.5	46.6	53.1
Power Consumption		Watt	2,690	2,883	3,543	5,010	5,740
Compressor		Type	Hermatic "Scroll"				
		HP	2.7	3	3.7	5.1	6
		Qty./Unit	1				
Condenser Coil		Type/Material	Aluminium Louver Fin with Inner Groove Copper Tube				
		Face Area (Sq...Ft.)	9.07		10.89		
		Rows...Fins/in	1.5/16		2/16		
		Tube Size (in)	3/8"				
Condenser Fan & Motor	Fan	Type	Propeller Fan : Vertical Discharge : Direct Drive				
		Diameter (in)	18"				
	Motor	RPM	900			1,200	
		Qty./Unit	1				
Refrigerant		Type	R410a				
		Charge	Holding				
Water Chiller	Chiller Water Flow Rate	GPM	4.96	5.44	6.7	9.32	10.62
	Chiller Water Temp. In/Out	°F	55/45				
	Chiller Water Pressure Drop	Ft.WG	1.8	1.22	1.23	2.47	3.32
	Water Connection In/Out	in	3/ 4		1		
	No. Of Circuits		1				
Weight Operation		Kgs.	149	160	190	208	217

\*Nominal Cooling Capacity Based on 38° F Sution Temp. and 95° F Ambient Temp  
 Fouling Factor 0.0005 Ft².h.F/Btu in Chiller  
 MBH = 1,000 Btu/h  
 For SI. Unit, Cooling Capacity (kW) =  $\frac{MBH \times 1000}{3412}$

**ELECTRICAL DATA**

Model		AKQ-CHB	25AX	303AX	403AX	503AX	603AX
Compressor (Each)		Qty./Unit	1				
		V/Ph/Hz	220/1/50	380/3/50			
		Power Input (Watt)	2,580	2,690	3,350	4,570	5,300
		RLA. (Amp.)	12.76	5.06	5.89	7.98	9.19
		LRA (Amp.)	82	55		64	75
Fan Motor (Each)		Qty./Unit	1				
		V/Ph/Hz	220/1/50				
		Power Input (Watt)	110	193		440	
		RLA. (Amp.)	0.5	0.89		2.13	

Note  
 RLA = Rated Load Amp.  
 LRA = Loked Rotor Amp.

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