

# MODEL CACU-PHE (MINI CHILLER)

## Features

### Casing

- Packaged Air Cooled Chiller
- Flexible air discharge configuration - Vertical ( Standard ) or horizontal.
- Compact / Space Saving Unit Design
- “Plug & Play” Design
- Durable design
- Advance Controller
- Add Manual Guide can help easy using
- Complete Safety Protections
- Easy Maintenance
- Water Pipe line system Design Support



- **Packaged Air Cooled Chiller**
- **Flexible air discharge configuration - Vertical ( Standard ) or horizontal.**
- **Compact / Space Saving Unit Design**
- **“Plug & Play” Design**

- Built-in water pump and water tank
- Threaded Water inlet and outlet for easy water pipe connection.
- Main Circuit Breaker include
- All Necessary Refrigerant equipments within
- Full Charge of Refrigerant (R-22)



- **Durable design**

- Stainless Steel Plate Heat Exchanger
- Stainless Steel Water Tank
- Rust Resistant PP-R composite water pipe line
- The cabinet is made of electro galvanized steel sheet, coated with baked polyester powder
- On Working can use general for Industrial

- **Advance Controller**

- Microprocessor -base Controller
- Display error code for faults operation (with memory)
- Display Water Temperature In/Out



## • Complete Safety Protections

- Main Circuit Breaker
- Compressor, fan motor and water pump overload protectors
- High and low pressure switches
- Water flow switch
- Freeze protection sensor

## • Easy Maintenance

- Error code indicator for easy troubleshooting
- Easy access service panel for all components
- Built- in Hi / Low pressure gauge for system analysis
- Removable Water Tank for Cleaning purpose

## • Water Pipe line system Design Support

- Conveniently Calculation require pump head with “TDH Cal “ Software

The screenshot shows the Uni-Aire Dynamic Head Calculator software interface. The window title is "Uni-Aire® Dynamic Head Calculator". The interface includes a menu bar with "File" and "Help". The main area features the Uni-Aire logo and the text "UNI-Aire Corp. Total Dynamic Head Calculator for Pumps v1.1".

The interface is divided into several sections:

- Conditions:** Pump Flow Rate (12 US GPM), Differential Elevation (4 m).
- Pipe Specifications:** Pipe Material (Plastic), Pipe Diameter (ID) (1 in.), Pipe Length (10 m).
- Others:** Other 1, Other 2, and Other 3 (all in meters).
- Valves and Fittings:** A table with 10 rows for Type and Amount. Row 1: Valve : Globe (Amount: 2). Row 2: Valve : Angle (Amount: 6). Rows 3-10 are empty.
- Results:** Total Dynamic Head (TDH) (44.63 m).

Buttons for "Calculate" and "Reset" are located at the bottom right. A "View Valves and Fittings Description" button is located below the Valves and Fittings table.

Type	Amount
1 Valve : Globe	2
2 Valve : Angle	6
3	
4	
5	
6	
7	
8	
9	
10	

PLUG AND PLAY MINI CHILLER SPECIFICATIONS

Model	CACU - PHE	004	005	006	007	009	010	012	015	
Nominal Cooling Capacity	MBH	31.6	42.6	55.4	67.8	80.9	94.0	112.5	141.8	
Power Consumption	kW	3.991	5.147	6.135	8.134	9.291	10.875	13.142	16.182	
Power Supply	V/Ph/Hz	380 / 3 / 50								
Compressor	Type	Hermetic (Scroll)								
	Model	ZR42K3-TFD	ZR57KC-TFD	ZR72KC-TFD	SM-090-4	SM-110-4	SM-120-4	SM-148-4	SM-185-4	
	Hp.	3.6	4.8	6.0	7.0	9.0	10.0	12.0	15.0	
	Qty./Unit	1								
Condenser coil	Type/Material	Corrugated aluminium fin with inner groove copper tube								
	Tube size (inch)	3/8								
Condenser fan	Type	Propeller fan : Vertical & Horizontal discharge : Direct drive								
	Diameter (inch)	18		20		24		30		
	Each Motor	1/3 Hp			3/4 Hp			1 Hp		
	Qty./Unit	1								
	Air Quantity (Cfm.)	3,000	3,000	4,500	7,000			10,000		
Refrigerant	Type	R - 22								
Water Chiller	Type	Plate heat exchanger								
	Qty.	1								
Water flow rate	GPM	6.3	8.5	11.1	13.6	16.2	18.8	22.5	28.4	
	CU.M/h	1.437	1.934	2.516	3.080	3.674	4.271	5.109	6.443	
No. of Circuits		Single								
Water temp.	in/out (F)	55/45								
Pump	External head (m)	20			23		26		30	
	Power output (kW)	0.55			0.75		1.1		1.5	
	Qty.	1								
Tank	Volume (liter)	70			100			150		
	Size (cu.mm.)	300 x 520 x 500			350 x 650 x 500			400 x 800 x 540		
Water Connection	in/out (inch)	3/4	1		1-1/4			1-1/2		
Dimension	L	769			920			1089		1188
	W	775			900			1051		1095
	H	1500			1700			1900		1970

**Note:** MBH = 1,000 BTUH  
 Nominal Cooling Capacity Based on 38 F Suction Temp, 95 F Ambient Temp and 122 F Condensing Temp.



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