



OWNER'S MANUAL

Model: **TCA-DHVAC-3T**



**Precise
Humidity
Control**



High Air Flow



High Capacity

CONTENTS

Important Safety	3
Structure Of Product	4
Precautions For User	5
Control Panel	6
System Startup	7
Common Faults	11
Images	14
Advanced Settings	16
Maintenance Of Machine	17
What's In The Box	18

IMPORTANT SAFETY INSTRUCTIONS

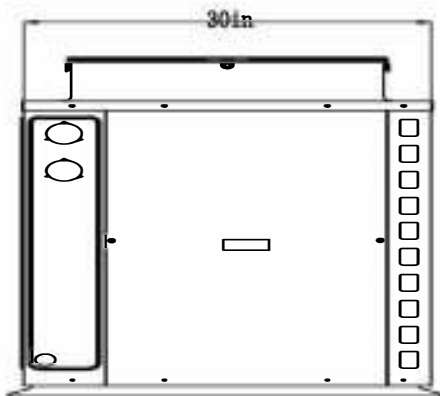
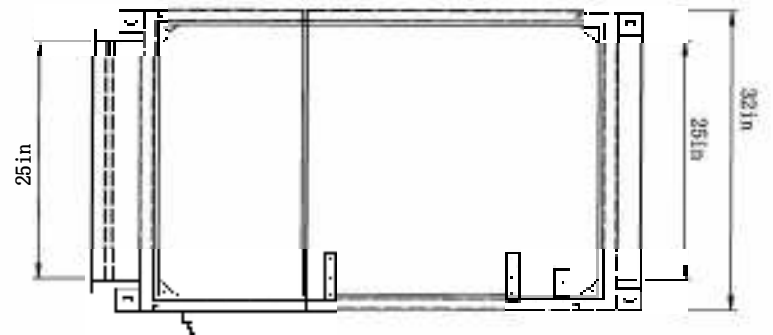
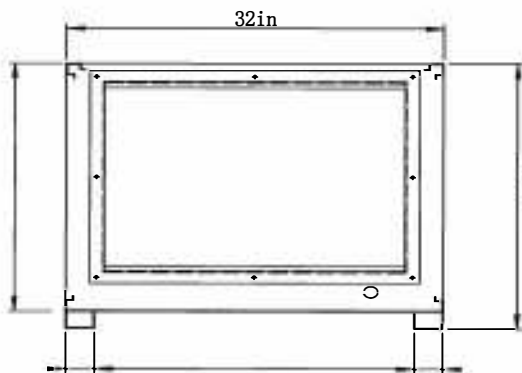
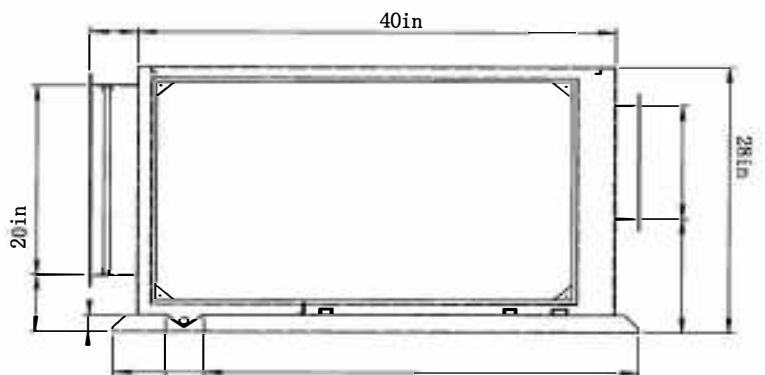
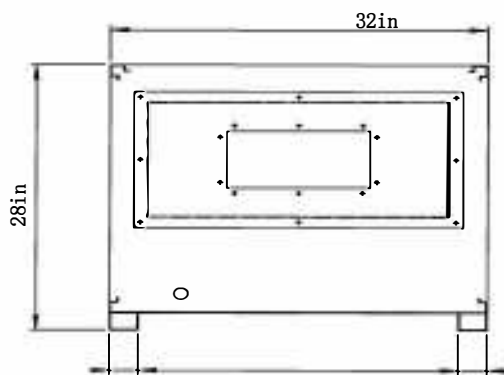
Please read all the instructions carefully before using the machine

- **Ensure the power supply is 240V/60Hz before powering up the machine.**
- **Do not power on/off the machine by connecting/cutting the power supply.**
- **Do not roll or damage the power cord when installing or removing the machine.**
- **Do not insert fingers or any other objects into the machine.**
- **Disconnect the power supply before cleaning or maintaining the machine.**
- **Do not use the machine in a small enclosed or sealed space; ensure proper grounding.**
- **Do not modify the machine unless guided by our technicians.**

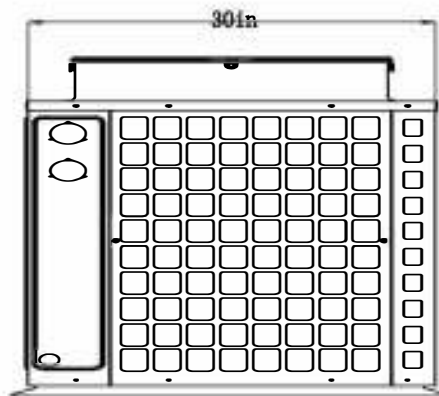


Attention: The machine has a loss and dislocation phase protector. When the connected three-phase external power supply is incorrect, the protector will disconnect. All the indicators on the control panel will display regularly, but the machine will not run. Please correct the power supply phase connection and restart the machine. This operation requires professional electrical technicians.

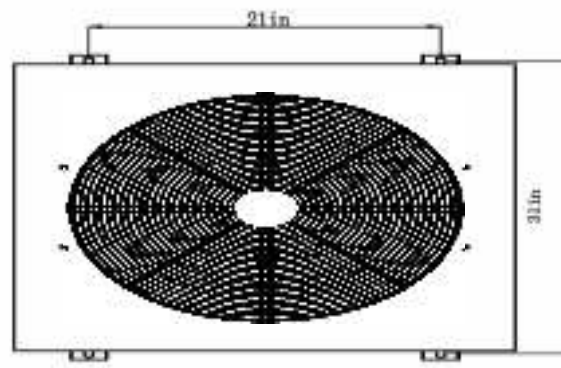
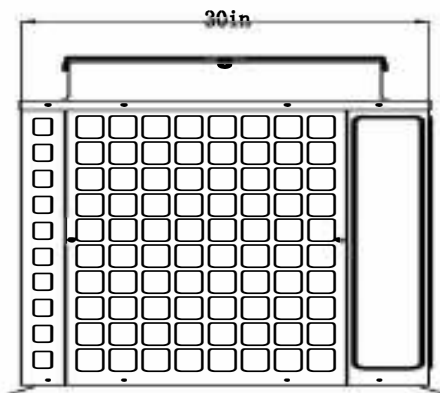
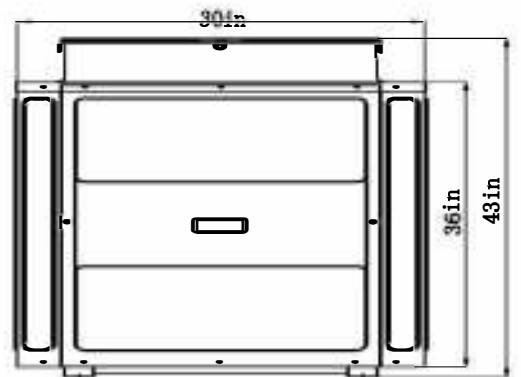
STRUCTURE OF PRODUCT



L-type right side



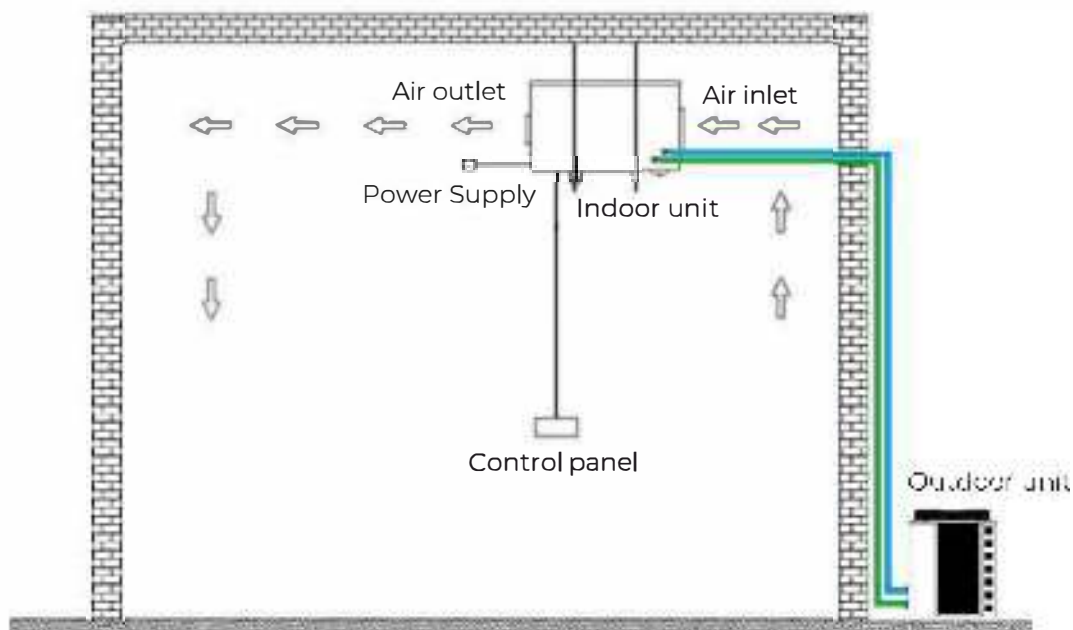
U-type right side



● Attention: The product size may vary slightly from the actual physical item, which is subject to the real object!

PRECAUTIONS FOR USER

- Use the machine on a flat, firm floor indoors. Do not place objects in front of the air inlet to maintain efficiency.
- Do not operate the machine in an environment with combustible, explosive, or corrosive air or excessive dust.
- Maintain at least 20 inches (50 cm) of space for ventilation around the machine.
- Keep the machine away from heat sources to minimize power consumption.
- The operating temperature range is 30°F to 105°F (-1°C to 41°C). If used in temperatures above 105°F, the compressor protection will activate, stopping operation to prevent damage. Below 41°F, the absolute humidity is too low for effective operation.
- When placing the machine against a wall, maintain at least 20 inches (50 cm) from both the air inlet and outlet to prevent reduced efficiency or failure.
- Do not tilt the machine more than 45 degrees during movement or installation.
- Properly assemble the drain pipe for efficient drainage.
- In cold temperatures, defrosted water may freeze at the outlet. Do not operate the machine until all ice has melted to prevent water overflow.
- Regularly clean the filter. If operating in a dusty environment, additional precautions should be taken to prevent malfunctions and extend lifespan.
- Do not unplug the machine while it is running.
- Do not damage or modify the power cord.
- Do not insert fingers or objects into the air outlet.
- Do not attempt modifications without technical guidance.



CONTROL PANEL



on /off /confirm key	set key	plus and minus key	Mode/inquire key
	leftmost 	 	
Press once to turn on , press once more to turn off, and press again to confirm when setting up.	Setting temperature: Press once to turn on(plus and minus key adjust) Setting time (Clock / Minutes): Press short press to turn on current Hour (plus and minus key adjust); Briefly press to set the hour of the scheduled power-on time (adjust using the plus and minus keys). Briefly press again to set the minute of the scheduled power-on time (adjust using the plus and minus keys). Briefly press again to set the hour of the scheduled power-off time (adjust using the plus and minus keys). Briefly press again to set the minute of the scheduled power-off time (adjust using the plus and minus keys).	Plus button: A short press increments the setting value by 1, a long press increments it continuously.Minus button: A short press decrements the setting value by 1, a long press decrements it continuously.	Press and hold for 5 seconds to enter Interface 1. In this interface, short press the mode button to switch interfaces. Interface 1 is for querying defrost temperature 1 (PA). Interface 2 is for querying defrost temperature 2 (PB). In the defrost temperature 2 (PB) interface, press the plus or minus buttons to turn defrost temperature 2 on or off.It will automatically exit after 30 seconds, or you can press and hold the mode button again for 5 seconds to exit.
Note: After setting the parameters, briefly press the power button to confirm or it will automatically exit after flashing for 10 seconds.			

Preparation stage



Device Check: ensure device was undamaged and vave were normal, power off

Tool Preparation: electronic scale, filling tube, pressure gauge, R32

Vacuuming



Step 1: After the user has connected the indoor and outdoor units, the copper pipe needs to be vacuumed at 3 valves indicated in the picture.

Step2: Only after 3 copper pipes have been vacuumed can the valve on the compressor copper pipe be opened.



Note:

Before temperature control unit leaves the factory all copper tubes will be filled with protective gas nitrogen .To ensure that the unit will not leak fluorine when it arrives in the hands of the customer. The copper pipe valve connecting the compressor is closed by default before leaving the factory

R32 Charging



- **Factory Charge of 8lbs is set for 15-25ft**
- **Max Lineset of 100ft**
- **P Traps are required if Condensor is higher then Evaporator**

How to start the machine?

Pls follow the several steps:

Ensure the indoor and outdoor units are properly connected and the power is on.

1. Power On/ Off :short press to turn on,



2. Setting :



Short press to **set temperature**(by plus and minus key);

press again to set the current clock
hour(same as before); press again to set minute; press
again to set the scheduled on time hour, press
again to set the scheduled on time minute ;press again to
set the scheduled off time hour ;press again to set the
scheduled off time minute

3. **press confirm button then machine will start work ,**
The compressor starts three minutes later.



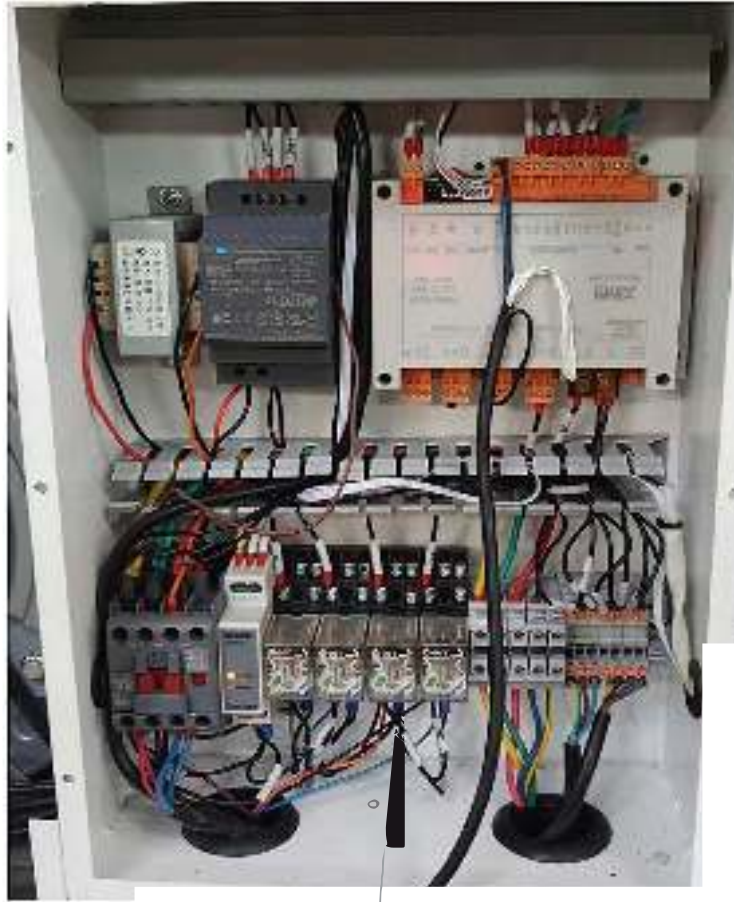
Problem	Solution	Note	Checking
Temperature & humidity sensor malfunctions	1.turn on the machine (plug in), humidity control function will start after 5second delay		
	Ambient temperature is $\geq$ the set temperature + cooling differential, the fan relayenergizes. The compressor 1 relay energizes, and standard operation is performed (the fan turns on first, followed by a 5-second delay for compressor 1). Ambient temperature is $\leq$ the set temperature, compressor 1 shuts down. After compressor 1 shuts down, the fan turns off according to the fan delay setting. If the fan setting is ON, the fan remains on. Ambient temperature is $<$ the set temperature - heating differential, the fan relay energizes, followed by the heater 1 relay. Standard operation is performed (the fan turns on first, followed by a 5-second delay for heater 1). Ambient temperature is $\leq$ the set temperature - heating differential, heater 1 shuts down. After compressor 1 shuts down, the fan turns off according to the fan delay setting. If the fan setting is ON, the fan remains on. Ambient temperature $\leq$ Temperature setpoint - Heating 1 - Heating 2 hysteresis, heater 2 shuts down. Ambient temperature $\leq$ Temperature setpoint - Heating hysteresis, heater 2 shuts down.	The fan is set to ON, and the fan delay is 30 seconds before shutting down. If the relay operation is delayed and the ambient humidity changes to the middle value, the original operation will continue.	
Defrost Control Function	Defrosting control: The compressor starts accumulating time when it starts and stops when it stops. When the accumulated time $\geq$ the compressor's accumulated running time setting , defrosting temperature is monitored continuously for 60 seconds. If the defrosting temperature $\leq 30^{\circ}\text{F}$ or there is a malfunction , the defrosting function is activated. The standard operation is (compressor 1 off, fan on). If the defrosting time $\geq$ the maximum defrosting time setting , the defrosting function exits and switches to humidity control.		
Phase loss protection	Step 1: the phase loss signal is checked for three consecutive seconds. Step 2: If a phase loss is detected, protection is activated and the phase loss protection symbol is displayed. The buzzer sounds 10 times, compressor 1 is turned off, heater 1 is delayed for 5 seconds, heater 2 is delayed for 5 seconds after heater1 is turned off, and fan is delayed for 5 seconds after heater 2 is turned off. After the compressor and heater are turned off, the fan is delayed for 5 seconds. Step 3: After the phase loss protection is activated, the power must be cycled.		
Phase sequence protection	Step 1: the phase sequence signal is checked for 4 consecutive seconds to ensure it is correct. Step 2: If the phase sequence is incorrect, the system enters protection mode and displays the phase sequence protection symbol. (The buzzer sounds 10 times, compressor 1 shuts down, heater 1 is delayedfor 5 seconds to shut down, heater 2 is delayed for 5 seconds after heater 1 is turned off, and the fan is delayed for5 seconds after heater 2 is turned off.) Step 3:The system automatically recovers after the phase sequence signal is correctly detected		

High-voltage protection (H-P interface)	Step 1: After the compressor is turned on, the high-voltage signal is checked for 3 consecutive seconds to ensure it is correct. Step 2: If the high-voltage signal is disconnected, the system enters protection mode and displays the high-voltage protection symbol. The buzzer sounds 10 times, compressor 1 shutdown, but the fan remains on. Step 3: The system automatically recovers after the high-voltage signal is correctly detected.		
Low-voltage protection (L-P interface)	Step 1: 2 minutes after the compressor is powered on, the low-voltage signal is tested for 60 consecutive seconds. Step 2: If there is a disconnect, the protection function is activated and the low-voltage protection symbol is displayed. The buzzer sounds 10 times, the compressor is shut down, and the fan is on. After 3 minutes, the low-voltage protection function is activated and the low-voltage signal is tested again. 2 minutes after the compressor is powered on, the low-voltage signal is tested for 60 consecutive seconds. If there is a disconnect, the protection function is activated. Step 3: This protection function is locked and requires powering off, troubleshooting, and re-powering on		
High-temperature protection	Step 1: if the ambient temperature exceeds the high-temperature protection setting for 60 consecutive seconds, the protection function is activated and the high-temperature protection symbol is displayed. Step 2: The buzzer sounds 10 times, the compressor is shut down, and heater 1 is delayed for 5 seconds. After heater 1 is turned off, heater 2 is delayed for 5 seconds. The fan is on. Step 3: Normal operation resumes when the ambient temperature is below the high-temperature protection setting -2 for 60 consecutive seconds.		
Overvoltage protection	Step 1: check whether the overvoltage signal is correct for 3 consecutive seconds. If the power supply voltage is too high, it will enter protection and display the overvoltage protection character. Step 2: The buzzer will sound 10 times, the compressor 1 will be turned off, heating 1 will be delayed for 5 seconds, heating 2 will be delayed for 5 seconds after heating 1 is turned off, and the fan will be delayed for 5 seconds after heating 2 is turned off. Step 3: It will automatically recover after the overvoltage signal is detected correctly.	Note: Three-phase models have this feature, with a threshold of AC220V to AC260V. Note: After shutting down the compressor, restarting it requires a 3-minute delay.	
Timed On/Off Function	After the real-time clock and timed on/off times are set, the system automatically turns on or off when the real-time clock reaches the set time (when the real-time clock reaches 0)	Note: This controller is not battery-powered; the real-time clock must be reset after each power outage.	
Memory Function	The memory parameters include: on/off status, temperature and humidity settings, and function parameters. Timed on/off times are not memorized. If the system is in the on state upon power-up, the compressor will be delayed for 3 minutes.		

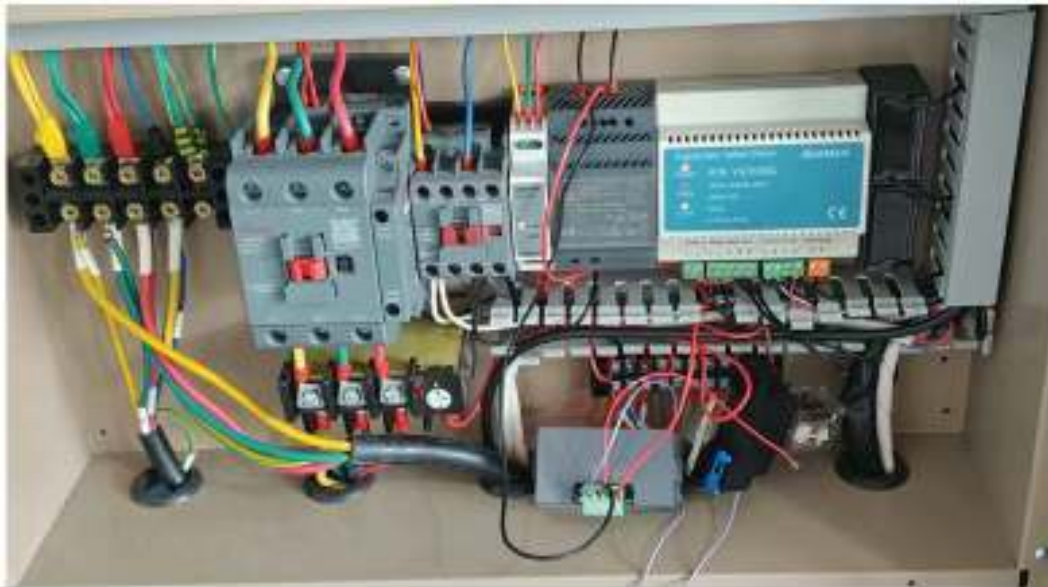
Remote Dry Contact	1)If the X1 dry contact interface is connected for 3 seconds, the system will start in heating and dehumidification mode, with a power-off function. 2)If the X2 dry contact interface is connected for 3 seconds, the system will start in cooling mode, with a power-off function. 3)If the X3 dry contact interface is connected for 3 seconds, the system will start in cooling and dehumidification mode, with a power-off function. 4)If the X4 dry contact interface is connected for 3 seconds, the system will start in ventilation mode, with a power-off function. After the dry contact is connected, the controller's own timer power on/off function and panel power on/off key are invalid, but the confirmation key is still valid. The interface is disconnected for 3 seconds to recover.		
--------------------	--	--	--

Falt code table	Definition	Possible cause	Solution
E0	Ambient Temperature and Humidity Sensor Fault	Temperature Exceeds -39°C or 84° C Or datar wrong	
E1	Defrost Temperature Sensor 1 Fault	>80°C < -35°C	
		Display Range: -19°C to 80°C	
E2	Defrost Temperature Sensor 2 Fault	>80°C < -35°C	

AHU Images



Condenser Images



Advanced settings	After setting the parameters, short press the power key to confirm or automatically exit after flashing for 10 seconds. press and hold the setting key for 5 seconds to enter the function parameter setting password interface, press the plus key to adjust the password value, and press the minus key to shift (fixed password 58).
	After the password is entered correctly, press the power button to confirm. Interface -----FA Cooling differential setting (OFF-2-100 default 2), Interface -----FBHeating 1 differential setting (2-100 default 2), Interface----- FCHeating 2 differential setting (1-100 default 2), Interface -----F0 Local address setting (1-9999 default 1), Interface -----F1 Compressor cumulative running time setting (range 10-99, minutes default 200 minutes), Interface -----F2 Maximum frost time setting (range 5-990, minutes default 100minutes), Interface -----F3Fan delay off time setting (range:30 -180 seconds-ON, default 60 seconds), Interface----- F4 High temperature protection temperature point setting (range 38℃ -75℃, default 400), Interface----- F5 Phase lack phase function on or off, Interface-----F6High pressure protection function on or off, Interface -----F7 Low pressure protection function on or off. Interface----- F8: Water full protection function on or off, Interface -----F9: Fluorine leakage protection function on or off, interface humidity correction (range -15~-15%% default 00), interface temperature correction (range -9℃- 9℃ default 00). Note: When the cooling differential is set to 0F, the cooling control function is turned off.

Remote Control Options

1. Standard Dry Contacts (exp. Agrowtek, Trolmaster, Growlink)
2. Modulation Control (exp. Agrowtek, Growlink)

Standard Dry Contacts

1. Common
2. 24VAC
3. Dehumidify Mode
4. Cooling Mode
5. Heating Mode
6. Fan Mode

Modulation Control

1. Dry Contact
2. 0-10V DC

Please Contact TriCleanAir For Details



PROTECTION FUNCTION

Protection function

- A. When the dehumidifier enters automatic defrost mode, the compressor stops, the fan keeps running, and both the frost and running indicator lights turn on.
- B. The compressor automatically restarts after a 3-minute delay due to the protection function.
- C. If the temperature and humidity sensor malfunctions, the compressor and fan stop, the running indicator lights blink, and all other indicator lights turn off. During this time, all keys become inactive. After resolving the sensor issue, restart the device to resume normal operation.

MAINTENANCE OF MACHINE

Before performing maintenance, make sure to shut down the machine and disconnect the power.

General Maintenance

Regularly wipe the unit's exterior with a soft cloth. For tougher dirt, use a damp cloth or a soft cloth lightly moistened with diluted neutral detergent.

Regular Maintenance

Filter Cleaning: Accumulated dust on the filter can reduce efficiency or cause malfunctions. Clean the filter at least once a month using a vacuum cleaner or wash gently in clean water (below 104°F). After cleaning, dry and reinstall the filter.

Customer Support

TriCleanAir

972-656-9032

info@tricleanair.com



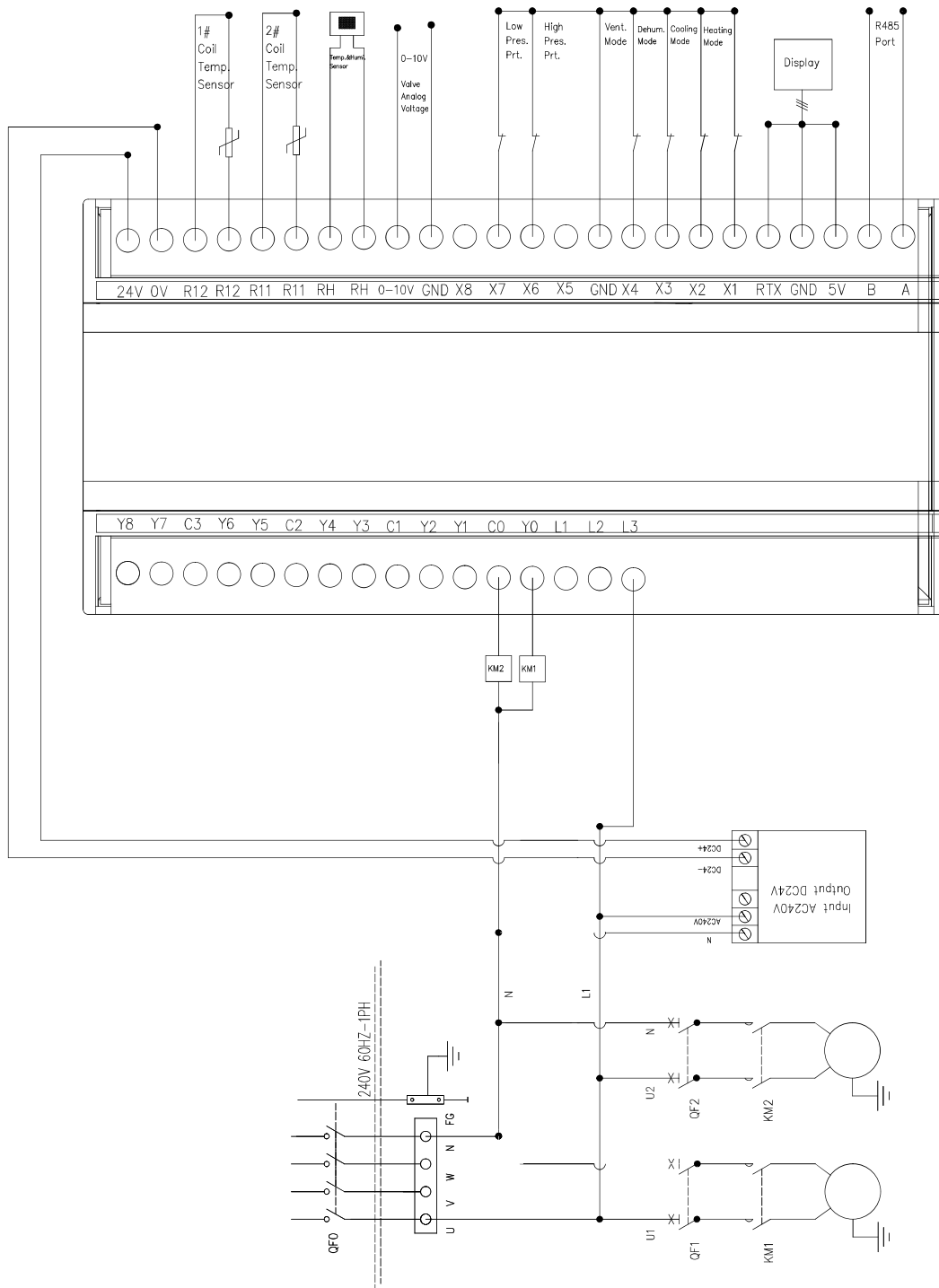
Attention:

1. Do not expose the filter directly to sunlight or heat to prevent distortion.
2. Always install the filter before turning on the machine.
3. If the unit won't be used for a long period, disconnect the power and store it in a dry, shaded area.
4. Keep the unit upright to avoid damage or malfunction.

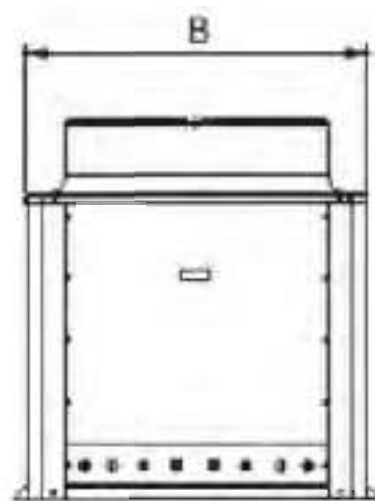
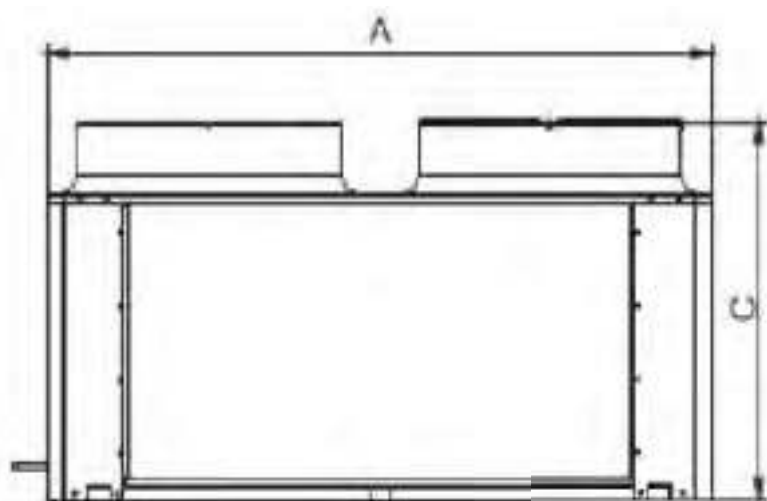
WHAT IN THE BOX

OWNER'S MANUAL Model: SPT301 		
1.Owner's Manual	2.Indoor Unit	3.Outdoor Unit
		
4.Control Panel		

Note: Some parameters of this product may change without timely notifications.



Model No.		TCA3TDHVACHGRH2401P	
Nominal cooling capacity	KW	11.3	
	RT	3.2	
Power Input	KW	3.9	
EER (Btu/W.h)	/	10.1	
Power Supply	/	1/N/PE AC240V±10% 60HZ	
Refrigerant Gas	/	R32	
Rated Cooling Running Current	A	16	
Min. Start Current	A	21	
Connection	Suction	in	5/8
	Liquid Reheat	in	1/2
	Liquid	in	3/8
Outdoor Condenser Unit	Condenser Type	/	Air Cooled Copper Pipes & Aluminum Fins Type Heat Exchanger
	Compressor Type	/	Hermetic Scroll Type
	Compressor Quantity	PCS	1
	Fan Type and Quantity	PCS	Axial fans/1
	Fan Flow Rate	CFM	4750
	Length-A	in	30
	Width-B	in	30
	Height-C	in	43
	Weight	lbs	194
	Noise	dB(A)	≤60

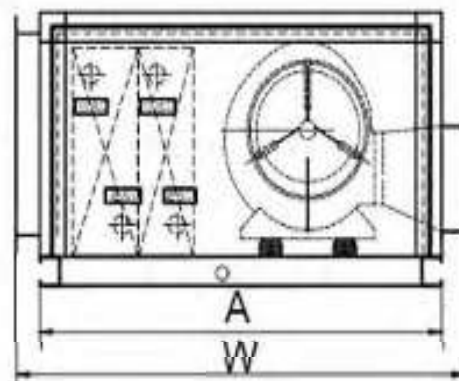
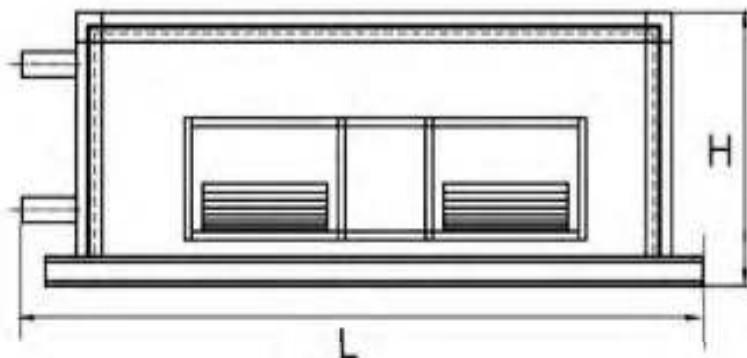


Cultivated Solutions For Optimal Growth

400 N St. Paul Dallas, Tx 75201 sales@tricleanair.com

Ph: (972) 656-9032 - WWW.TRICLEANAIR.COM

Model No.		TCA3TDHVACHGRHAHU2401P	
Nominal cooling capacity	KW	11.3	
	RT	3.2	
Power Input	KW	0.8	
P/kWH	/	21.3	
Power Supply	/	1/N/PE AC240V±10% 60HZ	
Refrigerant Gas	/	R32	
Rated Cooling Running Current	A	3.3	
Min. Start Current	A	5	
Connection	Suction	in	5/8
	Liquid Reheat	in	1/2
	Liquid	in	3/8
Indoor Evaporator Unit	Direct Expansion Cooling Coil	/	Copper Pipes & Aluminum Fins Type Heat Exchanger for Refrigerant Gas
	Direct Expansion Re-Heat Coil	Type	Copper Pipes & Aluminum Fins Type Heat Exchanger for Hot Gas ReHeat
		BTU	27,000
	Fan Type and Quantity	PCS	Centrifugal fans/ @ 450 watts each
	Fan Flow Rate	CFM	2500
	External Static Pressure	Pa	300
	Drain Pipe	in	1
	Length-L	in	32
	Width-W	in	45
	Height-H	in	28
	Weight	lbs	220
	Noise	dB(A)	≤60



Cultivated Solutions For Optimal Growth

400 N St. Paul Dallas,Tx 75201 sales@tricleanair.com

Ph: (972) 656-9032 - WWW.TRICLEANAIR.COM