TDH Series-User Manual

1.Safety notes

1.1 Danger

	➢ **Danger**	➢ **To prevent electric shock and damage**

- ➢ Be sure to make electrical construction in accordance with Basic Standards for Electrical Equipment and Regulations for Internal Wire.
- ➢ Be sure to use the designated power.
- ➢ Complete the specified grounding engineering. (Yellow power cable)
- ➢ Secure the connectors and connection terminals for wires of machine body and measuring device firmly.
- ➢ Be sure not to damage the wires and apply force onto the wires, not put heavy object onto the wires, and not clamp the wires. Otherwise, it may cause electric shock.
- ➢ Wiring and inspection work must be done by the professional technician.
- ➢ Be sure to first disconnect the power and compressed air source before disassembling the machine for checking and cleaning.
- ➢ Before the circuit inspection, first disconnect the power, measure the power with the multimeter after 10 minutes, and then inspect after safety is secured.
- ➢ Do not open the door of the control box during power-up.
- ➢ Do not touch the machine body, control part and other accessories with wet hands.
- ➢ Ensure the machine body and individual parts are connected securely, and bolts and nuts are tight without loose.

1.2 Warning

➢ **Warning**	➢ **Fire prevention**
➢ Never put the flammable substances near to the machine body and its associated devices, to avoid igniting these substances during temperature rise. ➢ If any failure occurred to the control part, please disconnect the power immediately, to avoid fire due to over current.	

1.3 Notes

	**Notes**	**Installation · Operation**

1) Do not make installation in the following environments:
   a) With direct sunlight
   b) With ambient temperature not within 0~40℃
   c) With relative humidity over 45~85％RH
   d) With condensing environment due to sudden temperature change (over 10℃/1h)
   e) With corrosive gas and flammable gas
   f) With excessive vibration and impact
   g) With much dust and rubbish
   h) Near to machine generating noise
2) Be sure to first confirm whether the load- bearing capacity in the installation place meets the weight of the machine.
3) Install this device onto the stable and firm flat surface without vibration.
4) Ensure the machine body and individual parts are connected securely, and bolts and nuts are tight without loose.
5) Perform the wiring engineering by far away from the strong-current wire. In addition,

be sure to use the dedicated grounding instead of the common strong-current grounding, to avoid any error action.

6) Perform wiring in accordance with the related regulations. Wrong wiring may cause damage to the machine.
7) Do not apply excess force onto the cable under the power is connected. Otherwise, it may damage the connectors and connection terminals.
8) Do not make this machine be in the tense stretch status, or carry heavy object.
9) Do not store this device in a high-temperature and damp place.
10) Do not bind the wirings, high-temperature (over 60℃) pipe and material pipe together.
11) Do not make the wires of the circuit be stretched excessively, and confirm the connection terminals and socket have not been damaged.
12) Please pay attention to the installation environment. The noise may cause error operation of the device, and thus result in damage to it.
13) Do not measure the insulativity of the control circuit with the megger.
14) The compressed air must reach to the specified cleanness index.

	Notes	Operation · Use instructions

1) Use this machine within the specified drying capability
2) If there is any abnormal noise and vibration during running, please stop running immediately.
3) Use the specified setting value for the rated current of the motor protection device.
4) The setting values for the operation panel and machine to be adjusted have been set to the most appropriate values at delivery. Please first confirm when you want to change them.
5) Do not make any object block the display part of the touch screen on the control panel, and not operate the touch screen with sharp object.

6) Use the specified setting value for the rated current of the heating pipe protection device (thermal relay and transducer).
7) Do not fix the switch of elements such as main switch and circuit breaker in the constant-on state.
8) Do not connect any other device on the output side of the main switch and DC24V connection wire.
9) At delivery, the various parameters on the control panel have been set to optimal values. When the set parameters changed, please confirm the respective parameter values.
10) Read through this manual carefully, and fully understand the meanings of various setting items on the operation panel. The error operation or insufficient capability may be caused if these items have not been set properly.
11) Power off the machine first before cleaning and replacing the filter.
12) After running for 10 minutes on power-up, confirm whether the electrical elements operate stably.

2. Function Description

2.1 Features

1) Equipped with honeycomb rotor for getting more stable and low-dew point drying air.

2) Supply humidifying air with dew point of -40℃ stably.

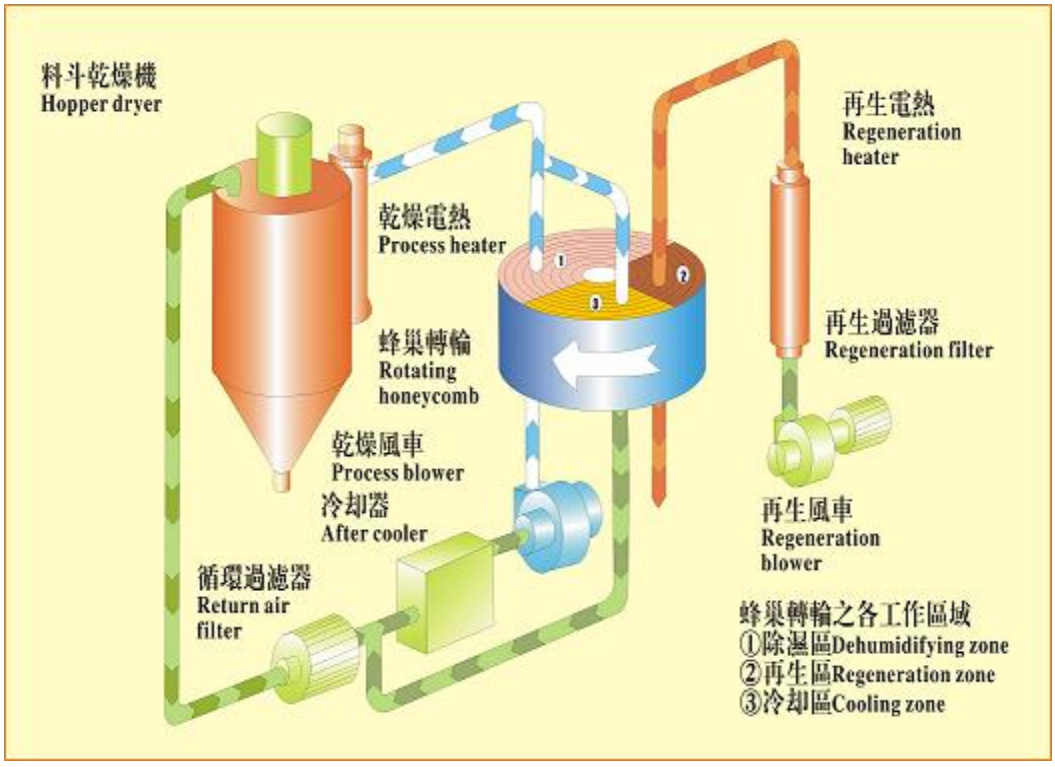
3) Inside equipped with cyclone exhaust device. This can prevent honeycomb rotor from material powder pollution.

4) This series adopt two coolers to ensure a low return air temperature and low dew point.

5) Control heating with no-contact solid state relay.

6) With intelligent faulty alarm, and pre-setting working time.

2.2 Drying Flow Chart



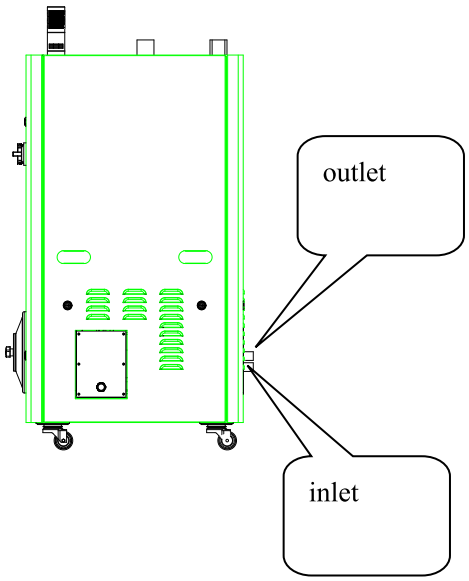
3. Installation

1) Use heat-resistant pipe to connect the air exhaust pipe of the hopper.

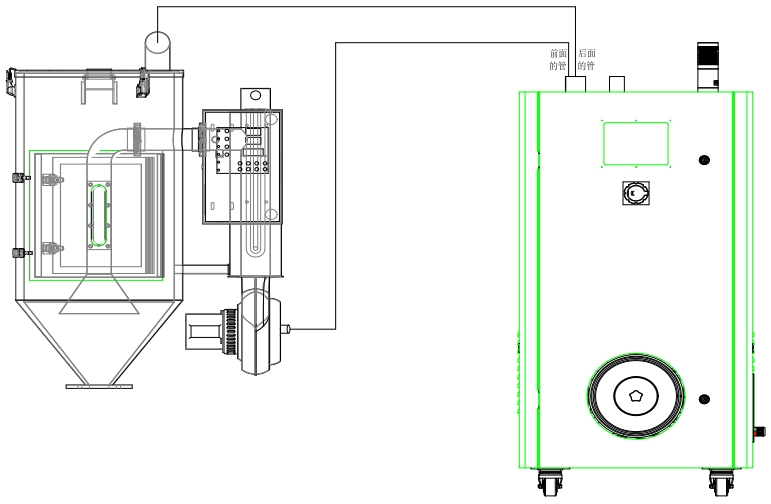
2) Use heat-resistant pipe to connect the air inlet of the hopper.

3）connect water tank

Connection type is upward inlet downward outlet



4）Installation chart（1VS1）



Note: hopper dryer air exhaust pipe connect dehumidifier air inlet pipe; blower mouth connect dehumidifier air outlet pipe.

4. Power Connection and Test

4.1 Power connection

Connect the wire lead from the back of the machine to power, and connect the earth wire well at the same time. Confirm whether the power supply and voltage meet the specifications indicated on the label of the machine. Confirm whether the power switch specification and load protection rating value are appropriate and safe.

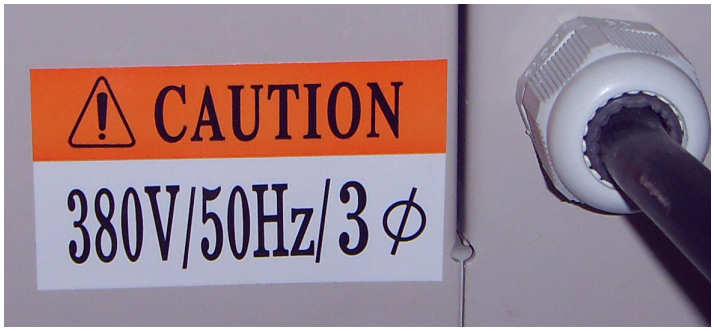


Fig. 4.1

Note: Before power-up, turn the main switch to OFF, and the main switch on the control box of the dehumidifier to “OFF”.

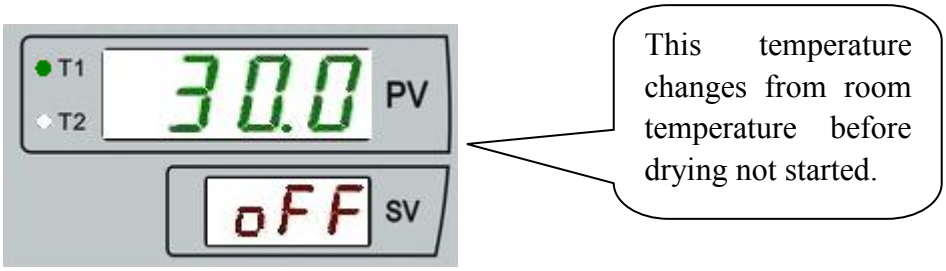
4.2 Test

When all the wires are connected well, open the main power switch, and then open the main switch of the control box (if buzzing of the alarm buzzer is heard (E01 alarm displayed on the panel), indicating the main power circuit is connected reversely, you just need to exchange any two wires among three wires.)

5. Main Operation Interface after Power-up

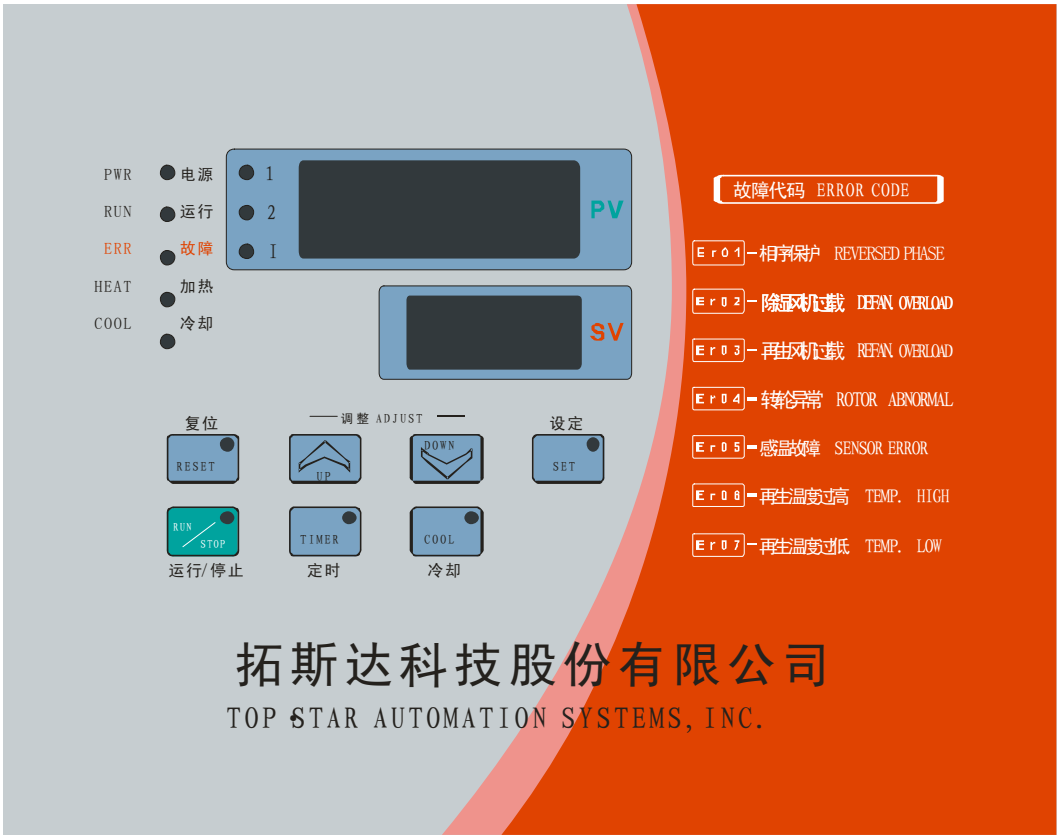
After all the preparations are made, open the main power switch, and open the power switch in the control box at the same time. The system will enter “Main operation interface” after several seconds of delay. All the operations are done on the “Main

operation interface" at the beginning, the drying running is not started, and the "Main operation interface" will display as:



6. Operation Instructions

6.1 Operation panel



Code	Purpose
Current temperature (PV)	Indicate: Current temperature, current, parameter item name and probe error code
Set temperature (SV)	Indicate: Regeneration temperature setting value, parameter value, unit error code
Indicator	Purpose
Power (PWR)	The power indicator will be on when you turn on the power.
Run (RUN)	The run indicator will be on when you start the unit, will flash during self-adjustment process and will be off at standby (shutdown).
Error (ERROR)	The error indicator will be on when error occurs, otherwise, the indicator will be off.
Heat (HEAT)	The heat indicator will be on when heat works, otherwise, the indicator will be off.
Cool (COOL)	The cool indicator will be on when heater is forced to be turned off, otherwise, the indicator will be off.
1 / 2 / I	T1 / T2 / I indicator will be on accordingly when PV displays alternatively regeneration temperature / drying temperature /current of regeneration fan pump.
Key	Purpose
Run/Stop（RUN/STOP）	1. Unit status transition (Press and hold down this key for 2s) （The key light will flash when the unit prepares to run. After the unit running, the light will be on.） 2. Move the flashing line when change parameters.
△ key (UP) / ▽ key (DOWN)	Numerical change key: press △ key to increase, press ▽ key to decrease
Set（SET）	Set/confirm temperature or parameter (enter Parameter Modification interface to turn on the key light)
Reset（RESET）	1. Reset fault alarm; eliminate abnormality (The key light will flash when fault occurs); 2. Quickly exit Parameter Query interface during parameter query.
Timer（TIMER）	1. Start or stop the timer. (The key light will be on when you start the timer). 2. Switch to countdown display.
Cool (COOL)	Heating is forced to turn off during running. To do this, please press and hold down the key for 2S. (The key light will be on when cool runs)

6.2 Setting of drying temperature

A. In the standby mode, the current temperature is indicated in PV display area , and OFF is indicated in SV display area.

B. Press 

key to start the system. It will be turned off if 

key is pressed once again.

Note: When start the device, please check whether water is opened.

1. Temperature setting

Example: Change the setting temperature from 50.0℃ to 75.0℃.

	Operation method	Meaning	
		50.0	Current temperature setting
		50.0	Setting temperature display
2	Press「▽」key		
		SP	Set temperature mark
		50.0	Setting temperature display
3	Press the SET key. The indicator flashings means temperature is set.		
		SP	Set temperature mark
		50.0	Setting temperature display
4	Press 「△」 key to change the temperature to 75.0℃ Press the SET key. The temp. indicator on, indicating the changed setting temperature will be saved.		
		SP	Set temperature mark
		75.0	Setting temperature display
5	Press「▽」key		
		OU	Control output mark
		100.0	Output state display (100%)
6	Press「▽」key		
		OnT	ON timer mark
		000	Setting value display
	Operation method	Meaning	

7	Press「▽」key		
		OFFT	OFF timer mark
		000	Setting value display
8	Press 「 ▽ 」 key to return to the current temperature display		

* Press the Reset key in any status to return to the current temperature display.

2. Setting method of starting and stopping timer

Example: Start running after 30 min, and stop after running for 5h. (Note) Settings on power-on/off time.
If only the power-on time is set, it will start running after the set time.
If only the power-off time is set, it will stop running after the set time.

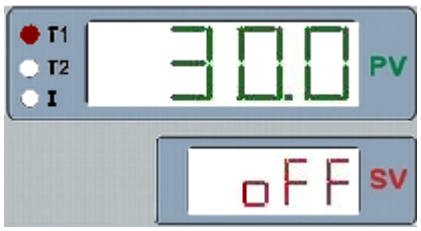
If both the power-on time and power-off time are set, it will start running after the set power-on time, and stop after the set power-off time.

	Operation method	Meaning	
1	Power-on		
		50.0	Current temperature setting
		50.0	Setting temperature display
2	Press「▽」key		
		SP	Set temperature mark
		50.0	Setting temperature display
3	Press「▽」key		
		OU	Control output mark
		100.0	Output state display (100%)
4	Press「▽」key		
		OnT	ON timer mark
		000	Setting value display
5	Press the SET key, and the setting value will start to flash.		
		OnT	ON timer mark
		000	Setting value display
6	Press「△」key to change it to 30min		
		OnT	ON timer mark
		000	Setting value display
7	Press「▽」key		
		OFFT	OFF timer mark
		000	Setting value display
8	Press the SET key, and the setting value will start to flash.		
		OFFT	OFF timer mark
		000	Setting value display

9	Press「△」key to change it to 5h	OFFT	OFF timer mark
		500	Setting value display
10	Press「▽」 key to return to the current temperature display		
* Press the Reset key in any status to return to the current temperature display.			

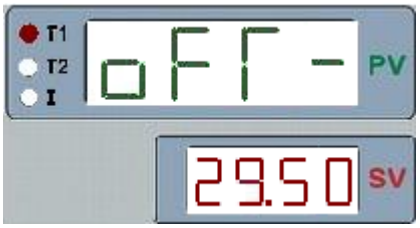
6.3 Setting method of starting and stopping timer

ON timer instruction:

On timer【onT】		
Operation	Operation items	Operation content
1	Set power-on time	Set the initial value of countdown of On timer in accordance with description in "User Parameter Settings", for example, you set the initial value to be 01. 30, the unit will start after 1-hour and 30-minute countdown of On timer. (unit will enter running preparation first).
2	Start timer	In the **standby (power-off) status** of the unit, press and hold down TIMER key for 2S in Main Operation interface to start the ON timer (ON timer will cannot be started when onT value is set to 0 in step 1), then, panel will display countdown:  (at this time, SV row will display【hour．minute】. If the countdown is less than 1 hour, SV row will display【minute． second】) During the countdown of ON timer, if you start the unit in advance by pressing the key, the ON timer will be turned off automatically.
3	Switch between Power-on Countdown interface and Main Operation interface	In the Power-on Countdown interface, press TIMER key to switch to Main Operation interface. If the current temperature is 30℃，the panel will display:  Then, if you press TIMER key again in Main Operation interface, the system will return to Power-on Countdown interface.	

4	Cancel timing ON	When the ON timer has been started, you can press and hold down TIMER key for 2S to turn off the ON timer, i.e., cancel timing ON function.

OFF timer instruction:

OFF timer【oFT】		
Operation	Operation items	Operation content
1	Set power-off time	Set the initial value of countdown of OFF timer in accordance with description in "User Parameter Settings", for example, you set the initial value to be 00. 30, the unit will stop after 30-minute countdown of OFF timer. (unit will enter stopping preparation first).
2	Start timer	In the **running status** of the unit, press and hold down TIMER key for 2S in Main Operation interface to start the OFF timer (OFF timer will cannot be started when oFT value is set to 0 in step 1). When 10-second countdown has elapsed, the panel will display the power-off countdown to be:  (at this time, SV row will display【minute．second】. If the countdown is longer than 1 hour, SV row will display【hour． minute】) During the countdown of OFF timer, if you stop the unit in advance by pressing the key, the OFF timer will be turned off automatically.
3	Switch between Power-off Countdown interface and Main Operation interface	In the Power-off Countdown interface, press TIMER key to switch to Main Operation interface. If the current temperature is 30℃，the panel will display:  Then, if you press TIMER key again in Main Operation interface, the system will return to Power-off Countdown interface.

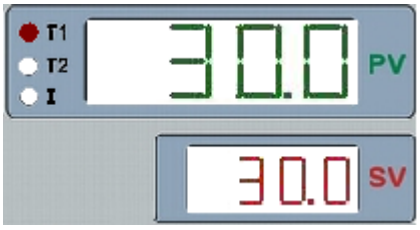
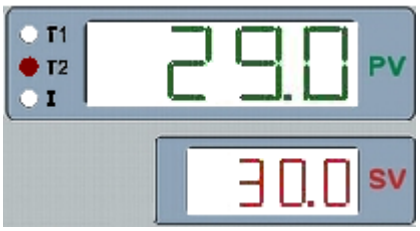
4	Cancel timing OFF	When the OFF timer has been started, you can press and hold down TIMER key for 2S to turn off the OFF timer, i.e., cancel timing OFF function.

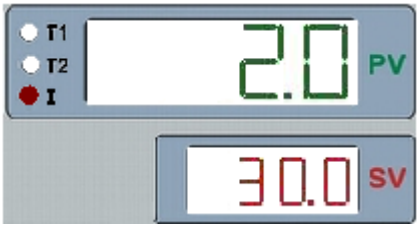
6.4 Quick cooling

Function: After the shutdown, the whole body will cool down quickly within a short time to facilitate moving or replacing the mold, to avoid the operator from being burned, and thus ensure personnel safety.

Operation method: Press COOL key to start the function automatically, and then press COOL key again to return to running state.

6.5 Switch between PV row displays

PV row can alternatively display current regeneration temperature, current drying temperature, current value of regeneration fan.		
Serial No.	Operation items	Operation content
1	Display regeneration temperature	Suppose that current regeneration temperature and its setting temperature are both 30.0℃ and the machine is running, the Main Operation interface will display: (Default display: PV row displays the current regeneration temperature, T1 indicator is on.) 
2	Display drying temperature	Suppose that drying probe is connected and the current drying temperature is 29.0℃ (If setting temperature remains unchanged and machine is running), then, when you press SET key, the display content in PV row will switch from current regeneration temperature to current drying temperature, T2 indicator will be on, and the Main Operation interface will display: 

3	Display the current value	Suppose that on-board current detection is started and the current of regeneration fan is 2.0A (If setting temperature remains unchanged and machine is running), then, when you press  key again, display content in PV row will switch from current drying temperature to the current value of current regeneration fan, I indicator will be on and the Main Operation interface will display: 

Note:

In the Main Operation interface, you can press  key to display alternatively current regeneration temperature, current drying temperature and current value of regeneration fan in PV row. **If the system is set to display only one temperature, the PV row will display only alternatively current regeneration temperature and current value of regeneration fan; If on-board current detection is also disabled, the PV row will display only current regeneration temperature.**

7. Maintenance and Service

1) Clean the drying filter, conveying filter and suction filter regularly, and check whether the magnetic switch and contactor are melted or worn, confirm whether the terminals for the wiring part inside the control box and device are loose, and check the screws and nuts on individual parts of the device. Check hose for dropping, crack or air leakage.

2) Maintenance of conveying filter

a) After the machine is stopped, remove the filter core, and check whether there is rubbish and dust inside it.

b) Blow off the rubbish and dust on the filter with compressed air.

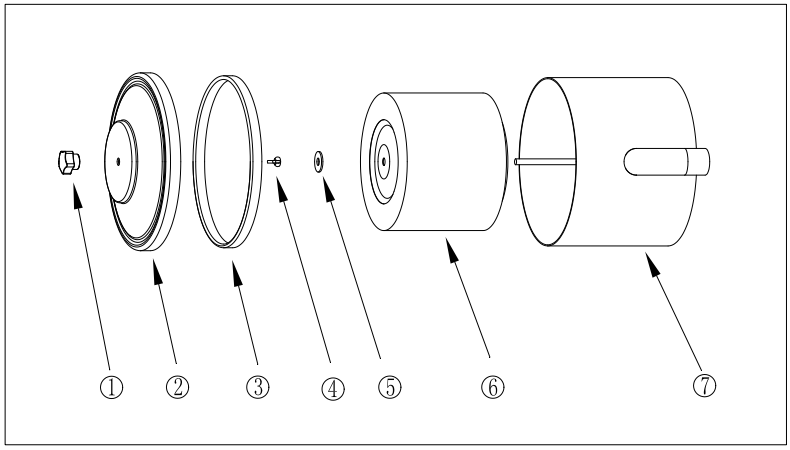


Fig. 8.1

No.	Name	Qty.
1	Five-star handle (with thread)	1
2	Cover	1
3	Sealing pad	1
4	Butterfly nut	1
5	Gasket	1
6	Filter	1
7	Filter shell	1

8. Drying capacity

Material	Drying temp.	Drying time	Specific heat	Raw material proportion	Drying capacity								
					TDH-50	TDH-80	TDH-120	TDH-150	TDH-200	TDH-300	TDH-400	TDH-500	TDH-700
ABS	80	2-3	0.34	0.6	18	27	35	71	105	180	210	285	355
CA	75	2-3	0.5	0.5	15	22	30	60	90	150	180	235	295
CAB	75	2-3	0.5	0.5	15	22	30	60	90	150	180	235	295
CP	75	2-3	0.6	0.6	18	27	35	71	106	180	210	285	355
LCP	150	4	0.6	0.6	13	20	27	55	80	135	160	210	265
POM	100	2	0.35	0.6	27	40	53	105	160	265	320	425	530
PMMA	80	3	0.35	0.65	19	29	38	77	115	192	230	307	383
IONOMER	190	3-4	0.35	0.5	11	17	22	44	66	111	133	177	220
PA6/6.6/6.10	75	4-6	0.4	0.65	10	14	19	38	58	96	115	153	192
PA11	75	4-5	0.58	0.65	12	17	23	46	69	115	138	184	230
PA12	75	4-5	0.28	0.65	12	17	23	46	69	115	135	184	230
PC	120	2-3	0.28	0.7	21	31	41	83	124	206	250	330	413

9. TDH Specification:

規格表 Specification Sheet

產品型號 Model		TDH-50	TDH-80	TDH-120	TDH-150	TDH-200	TDH-300	TDH-400	TDH-500	TDH-700	TDH-1000	TDH-1500	TDH-2000	TDH-3000
除濕風量 Dehumidifying Air Capacity	CMH	50	80	120	150	200	300	400	500	700	1000	1500	2000	3000
除濕馬達 Dehumidifying Motor	KW	0.55	0.55	0.75	1.1	1.5	2.2	3.0	5.5	7.5	9	18	26	39
再生馬達 Regen. Motor	KW	0.18	0.18	0.25	0.37	0.55	0.75	0.75	1.5	2.2	2.4	3.4	5.5	7.5
再生電熱 Regen. Heater	KW	2	2.7	3.5	4	4	6	6	9	15	15	20	20	30
除濕口徑 Pipe Size	inch	2	2	2	2.5	2.5	3	3	3	6.5	6.5	6.5	6.5	6.5
轉輪馬達功率 Rotor Motor Capacity	W			15				40		60		80	120	
系統電源 Power Supply	V	AC220~480V,3P 50/60Hz												
控制電源 Control Voltage	V	AC220V, 1P												
總功率 Total Power	KW	3.25	3.45	5.1	7.1	7.5	10	10.8	22	24.8	26.5	41.5	51.6	76.7
電源綫規格 Wires Specifications	mm^2			4x4			4x6		4x10	4x10	4x10	4x16	4x25	4x35
電源綫長度 Wires Length	M	6												
外觀尺寸 Dimensions	L(mm)	740	790	790	883	883	1020	1020	1370	1370	1550	1910	2150	2160
	W(mm)	632	720	720	800	800	935	935	1300	1300	1300	1300	1410	1600
	H(mm)	1330	1480	1480	1700	1700	2000	2000	2250	2250	2145	2145	2060	2500
冷却水流量 Cooling Water Flow	GPM		1.5		3				9			15	25	
冷却水接管 Cooling Water Pipe Size	inch		3/4		1								1.5	
冷却水管長度 Cooling Water Pipe Length	M	6*2												
機器重量 Weight	KG	150	200	220	260	280	320	330	420	445	470	600	710	900
選配 Option	露點顯示 Dew-point Indicators													

10. Troubleshooting

10.1 Causes and measures of Exceptions

Er01	Phase sequence protection	The machine stops running and needs to manually reset. **This function is available only when you enable the on-board phase sequence module.** Start detection on power-up, reverse phase alarm will have a delay time of 1.2S, and phase-lacking alarm will have a delay time of 3S. If you want to disable the on-board phase sequence module, please set【PHAS】= 0.
Er02	Dehumidifying fan overload.	The machine stops running and needs to manually reset. Switch JP3_3 (default constant off) receives the dehumidifying fan overload signal: Start detection on power-up, and alarm immediately when overload is found. If you want to disable this switch, please set it to be constant off, or make short circuit for JP3_3 and JP3_5 terminal.
Er03	Regeneration fan overload.	The machine stops running and needs to manually reset. There are two kinds of detection methods, you can select any one of them or both of them. ➢ **On-board current module:** After starting the pump of regeneration fan, the system will start to detect the current of pump after a delay of【Adly】. If the current detected is higher than【AH】×【Coil】or lower than 2A, a alarm will

		occur after a delay of 2S. When use this module, please take attention to the setting of 【AH】,【Adly】 and【Coil】parameter. If you want to disable the on-board current module, please set【PHAS】= 0. ➢ Switch JP3_2 (default constant off) receives the regeneration fan overload signal: Start detection on power-up, and alarm immediately when overload is found. If you want to disable this switch, please set it to be constant on, or make short circuit for JP3_2 and JP3_5 terminal.
Er04	Rotor abnormal	Stop the rotor motor and turn off the heater, but the regeneration fan and dehumidifying fan will continue running until that they are cooled to【HLST】. Reset manually. Switch input JP3_1 (default constant off) receives the rotor abnormal signal: Start detection on power-up, and then please set the three parameters firstly in accordance with rotor status: Whether to enable alarm function for rotor abnormal【HEEL】, Time needed to run rotor for one cycle【TT3】and the duration that rotor proximity switch keeps ejected【TT4】. When rotor is found abnormal, alarm will be given immediately. If you want to disable this switch, please set the parameter【HEEL】to be "oFF".
Er05	Temperature sensing failure	The machine stops running and needs to manually reset. ➢ Start detection on power-up and alarm after 2-second delay. Be sure that【Sor】parameter is consistent with probe type. When circuit breaking happens for probe, the digital tube in the first line will display: **ET01**(regeneration temperature probe) or **ET11** (drying temperature probe); When short circuit happens for probe, the digital tube in the first line will display: **ET02**(regeneration temperature probe) or **ET12** (drying temperature probe); When probe is connected improperly or circuit board failure occurs, the digital tube in the first line will display: **ET03**(regeneration temperature probe) or **ET13** (drying temperature probe). ➢ This failure cannot be disabled.
Er06	Regeneration temperature too high.	Stop heating, the machine will continue running and reset automatically. 1. Inspect the regeneration temperature and target temperature when machine is running. ➢ PV－【SV】>【ALH】delay 10S to alarm. Reset automatically when temperature drops. If you want to disable this function, please set【ALH】= 0. ➢ When changes are made to【SV】, do not carry out any processing if the temperature difference is greater than【ALH】. Alarm only when the temperature difference is still greater than【ALH】after a few times' shock of regeneration temperature around target temperature. 2. Switch JP3_4 (default constant off) receives heating's over temperature signal: Start detection on power-up and alarm immediately when receives heating's over temperature signal. If you want to disable this switch, please set it to be constant on, or make short circuit for JP3_4 and JP3_5 terminal.
Er07	Regeneration temperature too	Detect this alarm after machine starts running. When alarm occurs, the machine will stop and needs to reset manually. ➢ 【SV】－PV >【ALL】 and delay 10S to alarm. If you want to disable this

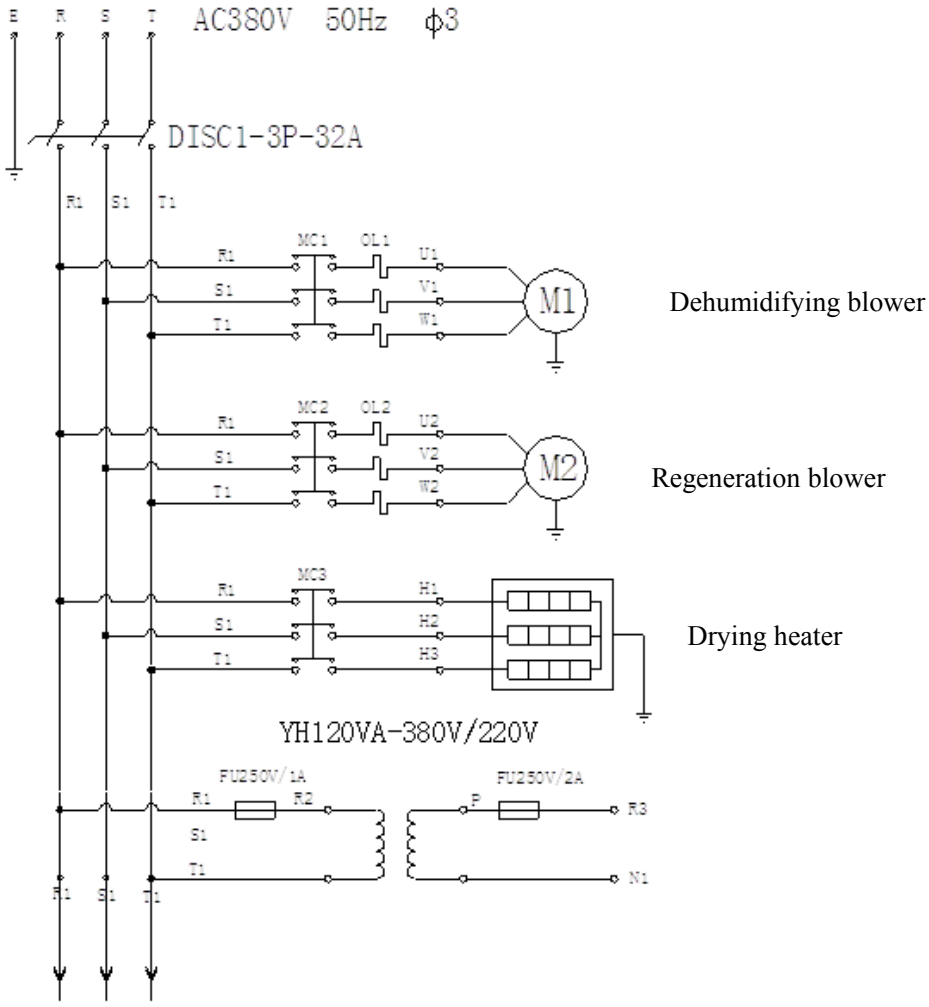
	low.	function, please set【ALH】= 0. ➢ When changes are made to【SV】, machine is forced to cool or rotor is abnormal, do not carry out any processing if the temperature difference is greater than【ALH】. Alarm only when the temperature difference is still greater than【ALH】 after a few times' shock of actual temperature around setting temperature.
Er08	Data error	Start detection on power-up. When alarm occurs, the machine does not work and failure can not reset. The alarm occurs still after try again. The machine needs to be returned to the factory for repair.

10.2 Others

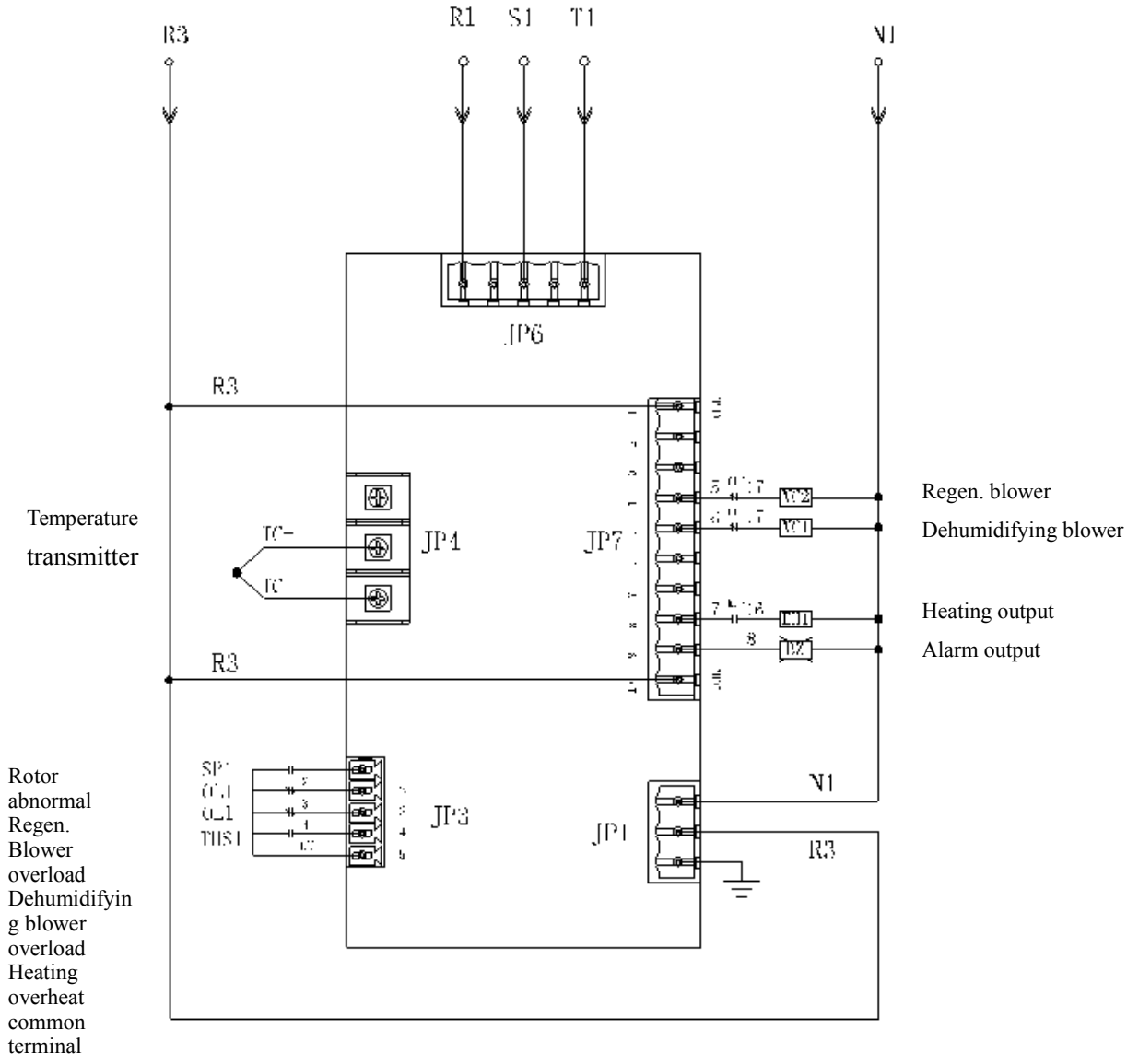
Phenomenon	Reason	Measures
Reverse phase	a) Power wire connected in reverse phase b) Lacking phase	Close the main power switch, change the three-phase AC power wire connection and set it to normal phase. Then power on again, and watch whether the failure prompt disappeared.
Heating pipe temperature too high, circuit breaker for heating pipe tripped, machine stopped running.	a) Filter screen hole clogged b) Overheat temperature set improperly c) Pipe dropped, clogged d) Heater contactor abnormal	a) Clean or replace the filter b) Re-set it c) Confirm, secure or replace the pipe d) Check or replace it
Power indicator not ON	a) Main switch is in OFF b) Control panel defective c) Power indicator defective	a) Turn on the main switch inside the panel b) Replace the panel c) Replace it
Although the power indicator is ON, the blower not run after Run key is pressed	a)Bad contact of connection d) Overload e) Contactor defective f) Control panel defective	a) Secure connection b) Find out reason, and reset the thermalrelay. c) Replace the contactor d) Replace the panel

11. Circuit Diagram

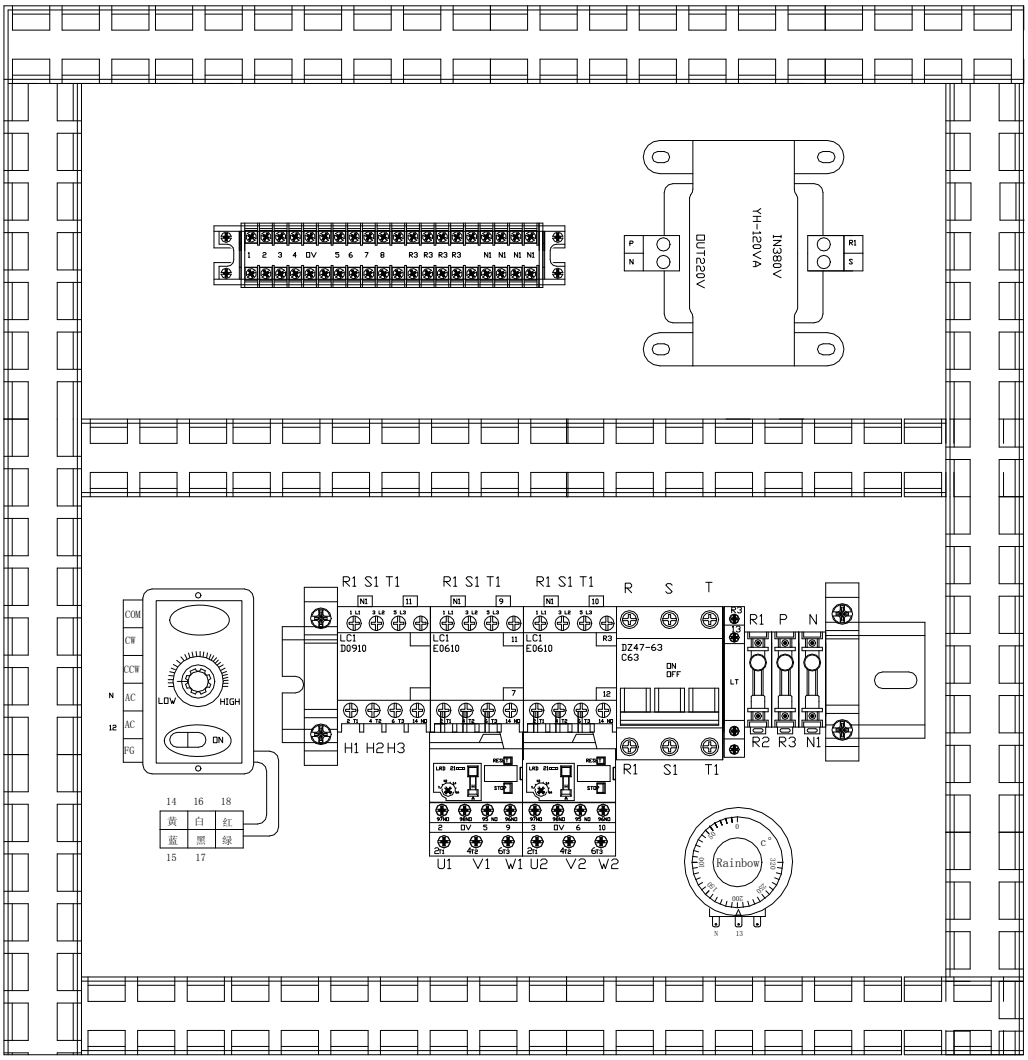
11.1 Main Circuit Diagram



11.2 Control Circuit Diagram



11.3 Elements Arrangement Diagram



12. Parameter mode description

Display	Item	Default	Setting range	Unit	Remarks
User parameters (public): **Press「▽」key to enter**					
SV	Regeneration setting temperature	150.0	0.0 ~ 400.0	℃	Can modify factory parameters SPH and SPL; and accordingly adjust the upper limit and lower limit of SV
OU	Control status display	------	-100~100	%	Heating% + Cooling % (read-only parameter, and cannot be modified)
OnT	ON timer	00.00	00.00~99.59	H.Min	Display format: H．Min; Maximum setting value: 99 h and 59 min.
OFT	OFF timer	00.00	00.00~99.59		
Engineering parameters (public): **Press and hold down「SET」key for 5S to enter**					
LoC	Parameter lock	on	oFF/on		On: Parameters cannot be modified; OFF: parameters can be modified.
AT	Start self-adjustment	oFF	oFF/on		Start PID self-adjustment
AT-T	Automatically start self-adjustment after setting temperature changes AT-T	400.0	5.0~400.0	℃	If the temperature is stable for a long time, you can consider to reduce this value; When setting temperature changes【AT-T】, self-adjustment will be started automatically.
P	Heating proportion ribbon	10.0	0.0~200.0	℃	
Ti	Integral time	100	0~9999	Sec	
Td	Differential time	0	0~9999	Sec	
T	Heating period	20	1~600	Sec	Output action period of electric heater
db	Overlapping area/empty area	0.0	-30.0~30.0	℃	***(This parameter generally does not need to adjust)***
H1UP	Output upper limit setting of heater 1	100	0~100	%	Limit the maximum output amount of heater 1. The limit will be cancelled if the self-adjustment is started.
PvF	PV temperature filter	0	0~250	s	For smoothening change of temperature
PvU1	PV1 temperature compensation	0.0	-30.0~30.0	℃	Compensate measurement error of regeneration temperature
PvU2	PV2 temperature compensation	0.0	-30.0~30.0	℃	Compensate measurement error of drying temperature
PvU3	Current compensation	0.0	-10.0~10.0	A	Compensate measurement error of current
ALH	Temperature upper limit setting abnormal	10.0	0.0~100.0	℃	PV－【SV】>【ALH】 delay 10S, reporting temperature too high PV－【SV】<【ALH】－0.3, failure will be reset

					automatically
ALL	Temperature lower limit setting abnormal	10.0	0.0~100.0	℃	【SV】－PV>【ALH】 delay 10S, reporting temperature too low 【SV】－PV <【ALL】－0.3, failure will be reset automatically
Factory parameters (non-public): **Press and hold down「△」+「SET」key for 5S to enter or exit**					
LoC2	Parameter lock	on	oFF/on		On: Parameters cannot be modified; OFF: parameters can be modified.
Sor	Selection of sensing	1	0~3		0：One-circuit K-type thermal coupler 1：Two-circuit K-type thermal coupler 2：One-circuit PT100 3：Two-circuit PT100
0.1	Select 0.1℃	oFF	oFF/on		on：0.1℃ oFF：1℃ [Note 1]
STAb	Stability	0.0	0.0~5.0	℃	
SPH	Set upper limit of temperature	170.0	0.0~400.0	℃	Maximum value of temperature specified by user
SPL	Set lower limit of temperature	30.0	0.0~400.0	℃	Minimum value of temperature specified by user, be sure that SPL<SPH
PHAS	Error and phase-lacking detection function	oFF	oFF/on		on： Enable on-board error and phase-lacking detection function
inon	Constant on/off settings of switch	1111	0000~1111	1 constant off 0 constant on	Unit of thousands: Rotor abnormal Unit of hundreds: Regeneration fan overload Unit of tens: Dehumidifying fan overload Unit's place: Heater over-temperature
AH	Current overload	0.1	0.0~25.0	A	When 【AH】= 0, the on-board current detection will not be used. At pump of the regeneration fan startup, the alarm signal for the on-board current overload detection can only be effective after 【Adly】 sec is delayed. Effective measurement range: 3-25A. If the pump current is less than 3A, fold the wires back for which the current is to be detected, then make them pass through the inductor coil for several times from the same direction, and set 【Coil】 to number of turns, so that make the effective minimum current measurement value reach to 0.5A.
Adly	At pump startup, time of delayed current detection	2	0~250	Sec	
Coil	Number of turns of rounding the current inductor coil	1	1~50	Number of turns	
HLST	Delayed power-off temperature when rotor is abnomral	60.0	0.0~300.0	℃	When rotor is abnormal, please firstly stop rotor and heater, then stop regeneration fan and dehumidifying fan after the machine is cooled to 【HLST】, and then machine prepares to stop.
HEEL	Whether to enable	on	oFF/on		oFF: Enable on: Disable

	alarm function for rotor abnormal.				
TT1	Delay-time to power off	5	0~250	Min.	Turn off heater immediately when power-off, and then turn off regeneration fan, dehumidifying fan and rotor after a delay of【TT1】. (If the regeneration temperature is lower than 60℃, please turn off above machine after 5-second delay, without considering the restriction of【TT1】).
TT2	Delay-time to power on	5	0~250	Min.	Turn on the regeneration fan, rotor motor and heater firstly when power-on, then turn on the dehumidifying fan after a delay of【TT2】.
TT3	Time needed to run rotor for one cycle	4	1~250	Min.	[Note 2]
TT4	The duration that rotor proximity switch keeps ejected	5	1~250	Sec	