

Intelligent temperature controller, Energy-saving and practicality

Microcomputer Temperature Controller «User manual of MH1210A»



It suits most users in different environments for automatic intelligent control system of many kinds of refrigeration, heating equipment. Refrigeration and heating mode could be set through the menu, the procedure has been set the power outage permanent memory function.

Specifications:

1. working voltage: 12V DC or 220V AC
2. measurement range: -40°C~120°C; measurement error: $\pm 0.5^{\circ}\text{C}$
3. control range: -40°C~120°C; temperature control precision: separation rate: 0.1°C ; slewing range of temperature: it could be adjusted in the range of $1 \sim 30^{\circ}\text{C}$
4. temperature sensor: NTC 25°C=10K B3435 $\pm 1\%$ (1 meter length, no positive or negative)
5. output load: normally open 10A/AC220V
6. working environment: temperature: $-20^{\circ}\text{C} \sim 70^{\circ}\text{C}$; humidity : 90%RH none moisture condensation ;
7. dimension of whole unite : 75(W)x34.5(H)x85(W) mm
8. trepanning dimension : 71(W) x 29(H) mm;

Operation instruction:

Press "set" button for 3s get into the procedure menu code mode, display the code "HC". Press "A" or "V" for cyclical selection of parameter code of "HC-CP-LA-HA-PU-CA".

To enter a code, press the "Set" button, press the "A" button or the "V" button to change to the desired data and press "Set" to save and exit;

Control the temperature set: press "Set" button, display blink and it is the default setting. Press "A" or "V" to change the data and save automatically. (press on "A" or "V" for 2s or more to increase the adjusting speed)

heating control: when the temperature control mode (code is HC) was H, e.g. the setting control temperature is 28°C , slewing range of temperature is 2°C , when the environment temperature \geq setting temperature (28°C), the relay will switch off and stop the output load; when the environment temperature \leq setting temperature (28°C) - slewing range of temperature (2°C) and set "delayed start" before, the reply will switch on and output load again, (if the delayed start function doesn't need, set the delayed start (code PU) to 0)

refrigeration control: when the temperature control mode (code is HC) was C, e.g. the setting control temperature is 28°C , slewing range of temperature is 2°C , when the environment temperature \leq after setting "delayed start" time, the relay will switch on and start output load.(suggest "delayed start" time to the default setting time to protecting the compressor, please set the (code PU) to 0 if it doesn't need):

Programming Mode

Code	Description	Setting range	Default data
HC	heating / refrigeration	H/C	C
CP	slewing range of temperature	1°C ~ 30°C	2°C
LA	bottom limit	-50°C	-50°C
HA	top limit	110°C	110°C
PU	delayed start	0 ~ 10 min.	2 min.
CA	temperature correction	-10°C ~ +10°C	0

Note:

LA floor level and HA the up limit are not the temperature control parameter adjustment, change will reduce the temperature control range.

Back to default setting: press the "Rst" button for 3s and display blink 5 times, all parameters back to default setting;

Parameter lock: press "V" for 3s and blink, display "OFF", means the parameter were locked by the user, this method is the same when display "ON" means the parameter were unlocked by the user.(after parameter locking, user could check but not change, the function of temperature adjust is valid)

Fault tips:

When the sensor short circuit or detect the environment temperature is higher than the upper temperature limit of 110 degrees, delink and display HHH and stop the output load; When the sensor works normal and detect the environment temperature is lower than floor temperature limit of -50 degrees, blink and display LLL and stop the output load.

Note matters:

1. To prevent high-frequency interference, do not install the sensor line bundled with the power line and loaded equipment line, but should be separated wiring;
2. Supply voltage must be consistent with the rated voltage and the deviation is less than $\pm 10\%$. Strict distinction between sensor installation, power line and Loaded output interface;
3. The temperature control host machine cannot be installed in the place where is dripping water, or the elderly, children could be touched;
4. The wiring should be checked whether the line is correct, to avoid accidentally burn of temperature control host machine and loaded equipment, installed applications supporting protection back cover obscured;

Installation wiring diagram:

Make sure to install the loaded equipment's voltage is identify with temperature control host machine's voltage, other wire the wire connection cannot according to this figure.

