ELITECH

ATC-1500 Temperature controller instruction

1. General
   The controller is a smart "touch-type" series temperature controller, and it is used for the temperature control which needs cooling and heating switch automatically. And it has the functions as display temperature, measuring, display and control temperature, switching temperature sensor probe, one key returns to factory default and key lock.

2. Working condition
   2.1 Working voltage: 220VAC±10% 50Hz/60Hz
   2.2 Cooling: 10A/250VAC Heating: 10A/250VAC
   2.3 Working environment temperature: 0℃ ~ 50℃; Working relative humidity: 30% ~ 90% (non-condensing)
   2.4 Storage temperature: -25℃ ~ 35℃

3. Specification
   3.1 Product size: 144×144×90mm (mm)
   3.2 Sensor length: 2M (include probe)

4. Function and technical parameters
   4.1 Main function: Cooling and heating auto-switch, off-time set, light on/off, parameter set.
   4.2 Temperature control range: -20℃ ~ 100℃
   4.3 Reliability: 99.5% other: 99.995%
   4.4 Sensor type: NTC 100KΩ ±5% Ran-34KΩ ±5%

5. Operation and display panel
   - Key description: heat on/heat set: cool on/cool set: up: 热 Up； Down;
   - Panel display operation:
     - In display panel, it could display three digits. 000 status indicating symbol (key set)
     - Other parameter description words: heat on/heat set, cool on/cool set, unit, set (defined time)
     - Under normal running status, all parameter description words indicate 0; when it returns to menu setting status, the corresponding parameter description word will light. Under normal status, if there is an output, the word "heat" will light during heating output and the word "cool" will light during cooling output.
     - If there is no output, the word "off" will light.
     - Working indicator status description

6. Parameter setting and operation
   6.1 Parameter lock and unlock
     - Under the controller lock status, press "up" key for one second, it could be unlocked, and the buzzer will beep for about 0.3 second at the same time. If the key operation within 30s, it will lock automatically.

6.2 User menu setting
   - Under normal running status, press "heat on/heat set" key (or "cool on/cool set" key), the corresponding parameter description word will light, and it displays the parameter value. The parameter could be adjusted by pressing "up" key or "down" key. After adjusting the parameters, it will exit the parameter setting status. Press "up" key or "down" key for one second or press "heat on/heat set" or "cool on/cool set" key to exit the parameter setting status. If the parameter setting is not required, it will return to the normal status.

7. System menu setting
   - Under normal running status, press "up" key for above 5s, it displays parameter code "P1". In temperature display window, then it indicates that it has entered into system setting menu. Press "up" key "F1" or "F2" to switch to other parameter code items. Press "F1" key to enter the parameter setting item, and press "F2" key to adjust the parameter. If the parameter is adjusted, it will return to the previous parameter setting item. If no operation is done, it will exit the parameter setting menu. If one of the parameter setting is not required, it will return to the normal status in the seconds.
### Table: Parameters and Settings

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Settings</th>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>Water temp</td>
<td>6 – 120 seconds</td>
<td>Time delay</td>
<td>10 minutes</td>
</tr>
<tr>
<td>PS</td>
<td>Efficiency</td>
<td>0.1 – 1.0</td>
<td>Office</td>
<td>220 – 240 volts</td>
</tr>
<tr>
<td>RT</td>
<td>Water temp</td>
<td>60 – 120 seconds</td>
<td>Office</td>
<td>220 – 240 volts</td>
</tr>
<tr>
<td>RS</td>
<td>Efficiency</td>
<td>0.1 – 1.0</td>
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</tr>
</tbody>
</table>

Note: To avoid wiring setting, the setting range of "cool on temp. set", "heat on temp. set", "cooling hydromat" and "heating hydromat" are mutually restricted.

### Controls

#### 8.2 Cooling mode

**Warning:** When the air is not in the status of airflow, if measured temperature exceeds "cool on temp. set", compressor stops. When the measured temperature falls down to the value "cool on temp. set" - "cooling hydromat", compressor starts. If measured temperature falls down to the set point "cool on temp. set" - "cooling hydromat" compressor stops.

**Warning:** When the measured temperature falls down to the set point "cool on temp. set" - "cooling hydromat", compressor starts. If measured temperature falls down to the set point "cool on temp. set" - "cooling hydromat" compressor stops.

#### 8.2 Heating mode

**Warning:** When the air is not in the status of airflow, if measured temperature exceeds "heat on temp. set", compressor stops. When the measured temperature falls down to the value "heat on temp. set" - "heating hydromat", compressor starts. If measured temperature falls down to the set point "heat on temp. set" - "heating hydromat" compressor stops.

**Warning:** When the measured temperature falls down to the set point "heat on temp. set" - "heating hydromat", compressor starts. If measured temperature falls down to the set point "heat on temp. set" - "heating hydromat" compressor stops.

### One key recovery to factory default

Under thecool, press "key" for more than 30s, it displays "*0000" for about three seconds, press "key" for more than 30 s, it displays "*0000" to clear the above errors. If error occurs during parameter setting, it displays "E000" in temperature display window and enters to normal display status after three seconds. At that time, it is suggested to power on the controller again.