Sontay®

Installation Instructions

ST-TOUCH-HC   Touch Screen Thermostat

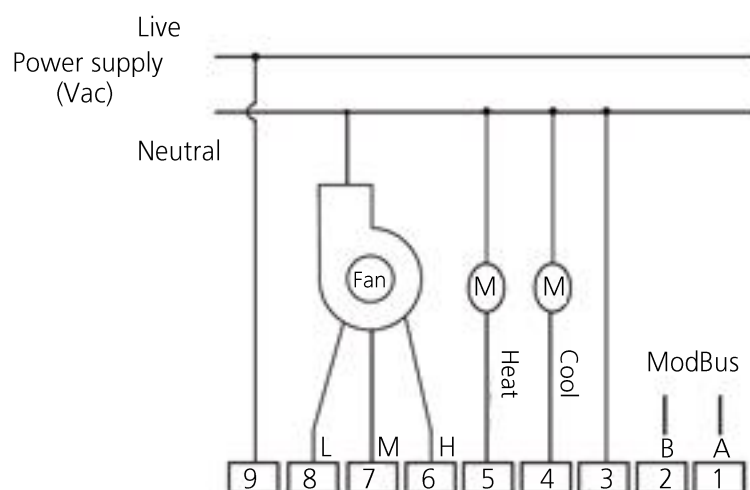|	
Operation	Heating/cooling
Set point range	10-30°C / 1°C per step
Measurement range	0 to 50°C
Accuracy	±1°C
Output contacts:	
Heating/cooling	3A resistive
Fan speed	5A resistive
Supply	220Vac ±10% 50/60Hz
Wiring	≤ 1.5mm^2
Dimensions	110 x 86 x 13mm (when flush mounted)
Ambient:	
Temperature	0 to 50°C
RH	<90% non-condensing
Protection	IP30

CE

The products referred to in this data sheet meet the requirements of EU Directive 2004/108/EC & 2006/95/EC

Installation & Connections:

ATTENTION OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC SENSITIVE DEVICES

Antistatic precautions must be observed when handling these modules. The PCB contains circuitry that can be damaged by static discharge.

1. The ST-TOUCH should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages. (>50Vac & <1000Vac or >75Vdc & 1500Vdc)

2. Ensure that all power is disconnected before carrying out any work on the ST-TOUCH.

3. Maximum cable is 1.5mm², care must be taken not to over tighten terminals.

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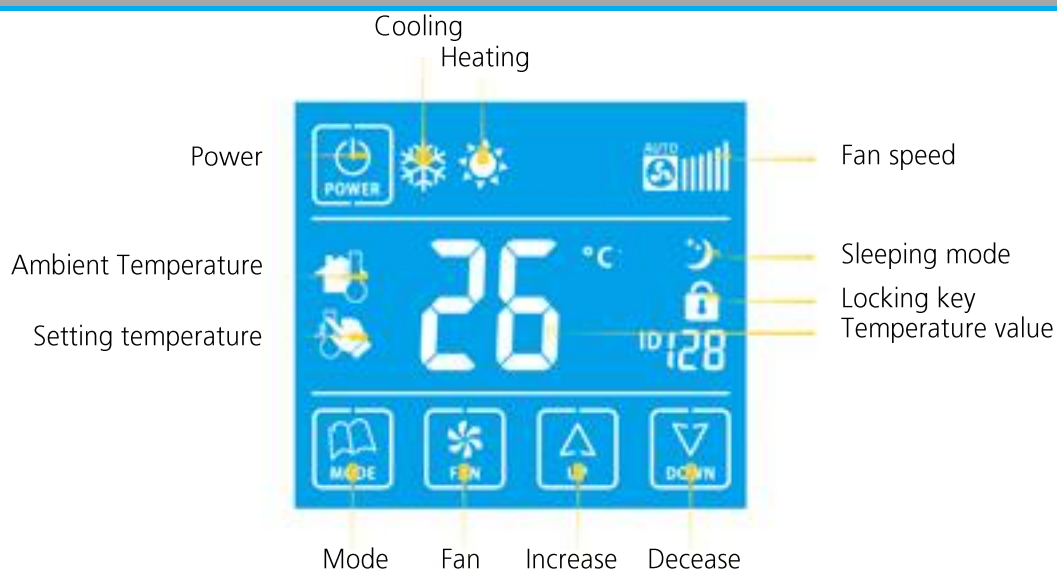
Installation Instructions

Installer Options:

- **Power:** Press black power icon on the touchscreen (Power).

- **Set temperature:** Adjust set point by pressing up or down (↑), (↓).

- **Mode:** Change the mode (heating, cooling, venterlation) by pressing the mode icon.

- **Auto Fan:**
  In the Cooling mode
  When the ambient temp is 3°C higher than the setting temp, the fan speed will be "High" automatically;
  When the ambient temp is 2°C higher than the setting temp, the fan speed will be "Med" automatically;
  When the ambient temp is 1°C equal to or lower than the setting temp, the fan speed will be "Low" automatically.
  In the Heating mode
  When the ambient temp is 3°C lower than the setting temp, the fan speed will be "High" automatically;
  When the ambient temp is 2°C lower than the setting temp, the fan speed will be "Med" automatically;
  When the ambient temp is 1°C lower than or equal to the setting temp, the fan speed will be "Low" automatically.

- **Sleep function:** Hold mode icon for 3 seconds and set the sleeping temperature by pressing up and down (↑), (↓). Press mode button and enter sleep mode. In the sleeping mode the fan is in auto-mode. Cancel the sleeping mode by pressing the fan or power button.

- **Sleep Mode:**
  Cooling mode
  When the current temp is lower than the sleeping temperature, the current temp will increase 1°C every half an hour until it is equal to the sleeping temp.
  Heating mode
  When the current temp is higher than the sleeping temperature, the current temp will decrease 1°C every half an hour until it is equal to the sleeping temp.

- **Lock/unlock screen:** Hold mode (M) and fan (F) together for 5 seconds.

Following functions can be enabled / disabled when device is off:

- **Temperature compensation (-9°C - +9°C):** Press Fan icon for 3 seconds, manipulate temperature by pressing up and down (↑), (↓).

- **On/off memory function:** Turn it on/off by holding the up icon (↑) for 3 seconds.

- **LCD contrast:** Adjust the contrast by holding down icon (↓) for 3 seconds. Press up or down (↑), (↓) to set contrast. Confirm setting by pressing mode button.

- **Screen backlight:** Press up (↑) and then simultaneously Mode to choose between "on" (backlight is permanently on) and "oF" (backlight is off after 15 seconds).

- **Fan auto off menu:** By pressing the mode button and then simultaneously hold the down icon (↓) for 5 seconds. When menu displays "on" the fan will not stop when set point is reached, when menu displays "oF" the fan stops when setpoint is reached.

- **Logo-backlight:** Hold mode icon for 3 seconds to choose between "on" and "oF".

- **Buzzer when pressing button:** Press fan button and then hold together with down (↓) for 5 seconds. "On" means buzzer is on, "oF" the buzzer is off.

Installation Instructions

Installer Options (continued):

Cooling
Heating
Power
Ambient Temperature
Setting temperature
Fan speed
Sleeping mode
Locking key
Temperature value
Mode   Fan   Increase   Decease

ModBus:

- ID: 1-128;   Baud rate: 9600, n, 8, 1
- How to change ModBus address:
  Make sure device is off, first press the fan button and then up (↑) together for 3 seconds. Use up and down (↑), (↓) to increase and decrease the ID value (1-128).

- For configuration via the software "ModBus Poll", Sontay provides preconfigured templates (ModBus Poll Template ST-TOUCH-HC.zip)to download at www.sontay.com and free to use.

Register Type	Register Address	Description	Details	Data Format	R/W
Holding Register	40001	Device On/Off	Dependent on: ON = 1 OFF = 0	uINT16	R/W
Holding Register	40002	Room Temperature	0°C to +50°C	uINT16	R
Holding Register	40003	Setpoint	+10°C to +30°C	uINT16	R/W
Holding Register	40004	Operating Mode	0 = Fan only (Ventilation mode) 1 = Cooling 2 = Heating	uINT16	R/W
Holding Register	40005	Fan speed	1 = Low 2 = Medium 3 = High 5 = Auto	uINT16	R/W
Holding Register	40006	Cooling Valve Status	ON = 1 OFF = 0	uINT16	R/W
Holding Register	40007	Heating Valve Status	ON = 1 OFF = 0	uINT16	R/W
Holding Register	40008	Key Lock Status	Locked = 1 Unlocked = 0	uINT16	R/W