CLIMASET®

Interactive Controllers

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User's Guide

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Enjoy using your Climaset safely.

The instruction below has been prepared to assist you enjoy using your Climaset safely for many years. Please read this instruction thoroughly before start to use the device.

- Each room fan coil or other type of air conditioning device should be protected by its own mini circuit breaker (MCB).
- Each room thermostat is designed to control a single room fan coil or other type of air conditioning unit. We do not recommend control of multiple room fan coils with a single thermostat.
- May you ever encounter device malfunction, shut down the respective MCB and contact the customer service. You may find proper recommended MCB's rating in appendix A.
- If you ever encounter that your air conditioning unit is not protected by a MCB, ask your electrician to add one for you.
- The MCB ratings should be selected according to required current for normal operation of your air conditioner. Using higher ratings, you will not be protected in case of emergency.
- Your thermostat also protects itself and your air conditioner by a fuse. Your pack is supplied by an extra fuse. In case of a burnt fuse, please check your system integrity. It can be a warning for malfunction of your air conditioner or thermostat or short circuit of the wirings.
- Always replace with the same kind of fuse. Fuses have several specifications beyond their ratings. Check specification section for your fuse specification. Contact your local customer service, if you have already used your extra fuse.
- Never bridge the fuse with wire or replace with higher rating fuses.
- Use wire harness supplied with the device, before you screw the wires to thermostat terminals. It will avoid the possibility of short circuit. We recommend you to use AWG 16 (1.5 mm) cables.
- Never use detergent to clean the thermostat surface. It may leave undesirable marks on surface of thermostat especially in the screen part. Always use a soft moist tissue to clean the device.
- Should the screen break, prevent the liquid crystal leakage form your skin, your eye or your mouth.
- The device is not designed to work in very humid condensing places.
- Strong electromagnetic fields like the one with radio transmitter can interfere with the screen content or cause the device malfunction.
- Never try to service the device yourself. Replacement of the parts may influence the device safety of usage. Always ask your local Climaset service center for repairment.

Introducing your Climaset

Ultra slim CLX series offer the most premium, innovative solution ever to counter demands of modern architecture and interior design. All but 12mm of the control unit is concealed in the wall.
All possible and imaginable functionalities of a room thermostat have been gathered in the smallest and slimmest flush mount housing ever designed, to illustrate the finest piece of art and craftsmanship in room thermostat ever made available.
92x80mm frame dimension facilitates you to match your thermostat with almost all selection of modern domestic switches and plugs from the most famous brands in this field.

Discovering your thermostat

Here is an overview of your thermostat most essential functions. It helps you to have a better understanding of your thermostat features, and decide which feature is beneficiary for your needs.
The thermostat has been facilitated with a standby mode along with two operational modes.

Standby mode

Choose standby mode if you do not use a room for an extended period of the time, like the time you are in a journey or if you just use the room for some special occasions and it is empty for most of the time.
In this mode, the thermostat shows the room temperature and all of your setting on the screen but air conditioner apparatus is off.

Operational modes

Normal operation mode

It is the most well known operation mode of thermostat. The thermostat restarts the air conditioner whenever the set point falls below 1 ˚C of room temperature in winter or raise above 1 ˚C of room temperature in summer.

Note: The default switching temperature differential is set to 1 ˚C by the factory. If you like to change it refer to appendix D.

Programmed mode

The basic idea is to adjust different set points for different periods of the day. You may specify a lower temperature in winter or a higher temperature in summer for your work or sleep hours, if you use the device for your residence. Also you may adjust the device to a more economic temperature setting during off hours if you use the device in a commercial building. You will save an incredible amount of energy by using this mode.

Fan operation modes

There are three fan operation modes which you may choose in any of the operational modes.

Normal fan operation mode

The air conditioner runs with the fan speed you have adjusted whenever the thermostat restarts the air conditioner.

Automatic change over mode

The fan speed is proportional to the temperature difference between the room and the set point. By room temperature approaching to the set point, the fan speed reduces. You will enjoy the maximum capability of your air conditioner, whenever it is required, in hottest hours of the day while you delicate by quit fan operation, whenever it is possible, in the rest of the day and also you will save considerable amount of energy.

Continuous fan operation

The fan is always running with the adjusted fan speed while the cooling or heating is automatically turns On/Off according to the temperature difference between the room and the set point. It provides homogenous air quality around the room.

Note: Not all of air conditioners are capable of supporting this mode. Ask a professional about ability of your air conditioner to support this mode.

Familiarize with the keys

How to use the keys to do the adjustments?

All adjustment can be done by two easy steps below:

Push "▲" or "▼" key to select the item you want to adjust on screen. It simply recognizes itself to you by blinking. Also the scrolling hint bar at the bottom of the screen gives you some short hint on what the selected item do.

Push "+" or "-" key to increase or decrease the selected item value or change it to another state .The right icon shows the room temperature is below the comfort.

Note: If you don't push any key within 10 seconds the device returns to its normal, non blinking position. You may restart from first step if the setting has not been finished yet.

Power key function

You may enter standby mode or return to operational mode by pressing this key. You may find information about standby mode in previous section.

Familiarize with the display

❶The power status

It represents the power status of the device. It may represent one of the following icons:

The device is in standby mode. During this mode the thermostat represents your setting along with the room temperature, but the air conditioner dose not turns on until you switch back to operational mode. This mode is useful if you do not use your air conditioner for an extended amount of time, like in the

spring or autumn or when you are in a journey or in rooms which is only used seldom.

The device is in operational mode. The air conditioner switches on or switches off automatically according to your settings.

❷The power status

Specifies weather the device is in use for winter or summer.

Note: Not to adjust this setting correctly, will cause malfunction of your air conditioner.

Choose for winter or for summer. The following two choices are available for this item.

The device is adjusted for winter.

The device is adjusted for summer.

❸Enable/Disable weekly schedule program

By enabling weekly schedule program the device automatically switches to energy saving mode temperature during sleep or leave period when there is no one in home and switches back to the desired temperature during wake up or leave period. You may save incredible amount of energy by enabling this mode. The following two icons represents if this mode is enabled or not.

The weekly schedule program is enabled.

The weekly schedule program is disabled.

❹Child lock

Represents if the keys are locked or not.

Keys are locked.
Keys are functional.

❺Clock

08:38 Represents the clock.

Note: The correct adjustment of the clock is essential for proper operation of weekly schedule program.

❻Day

SUN Represents the day of the week.

Note: The day setting is essential for weekly schedule program to work properly.

❼Fan operation modes

You may select between these three fan operation modes:

NORM Normal operation mode

By selecting this mode, the fan works with the fan speed you have adjusted until the room temperature reaches to the set point, when it turns off. It restarts again if the temperature raises 1˚C above the setting in summer or 1˚C below the setting in winter.

AUTO Automatic change over mode

The fan speed is calculated and applied automatically according to the difference between the room temperature and the set point. By approaching to the set point the fan speed reduces and by faring away, it rises automatically.

CONT Continuous fan operation mode

If your air conditioner supports, it turns off heating or cooling when the room temperature come close to the set point, but the fan continues its operation with the adjusted fan speed.

❽ Fan speed

It represents the desired fan speed in Normal or Continuous fan operation mode or the applied fan speed in Automatic fan operation mode.

High speed Medium speed Low Speed

❾Temperature

It represents the room and desired temperature successively or the room and energy saving temperature if the weekly program schedule is enabled and you are in sleep or leave interval.

❿ Hint bar

Exclusive hint bar leads you through all process of setting thermostat parameters and provides you with useful information and hints at each step. Its innovative

bilingual characteristic empowers you to have the hints even in your local language. In the CLX series the hint bar, formerly the status bar has been enriched with a scrolling feature that provides you as much content as necessary for each setting.

Schedule settings screen

Schedule setting screen consists of a table which its each column represents a specific day of the week and the rows represent special time periods of each of the days.
The first row of the screen is the title of the days and the first column represents the title of the occasions.
Each cell of the table is a time in hour that the specified time period for that day starts.
The table is followed up with three buttons at last three rows of the screen.

Next/Previous day

This button is useful to move to the Next/ Previous day settings.

Copy to Previous/Next day

This button is intended to copy the complete settings of a day to the Next/Previous day.

Save and Exit

To save all the setting and return to the main screen.

10 easy steps to adjust your thermostat

Note: During all these steps, If you do not press any key for about 10 seconds, the device returns to its normal mode and stops blinking. If you did not still adjust your settings, you need to perform all instructions again.

❶ If you are going to set the thermostat in standby mode, press the power key until ⏻ sign is displayed in the section of the screen, represented in blue in the figure, and ignore all other steps. Otherwise, push the power key until ⏻ sign appears in the specified section and proceed with the next steps.

Note: You may find useful information about standby mode in "Discovering your thermostat" section.

❷ To select between Summer/Winter

Use "▲" or "▼" keys several times until the blue section of the figure starts to blink. Use "+" or "-" key to select the season.

❸ To adjust clock and calendar

Use "▲" or "▼" key several times until hour setting represented in blue in the figure starts to blink. Use "+" or "-" to adjust it. Then do the same for minute adjustment. Repeat all the operation to set the day which is also specified in blue in the figure.

❹ To adjust the desired temperature

Choose the desired temperature by means of "▲" or "▼" key. The title of the temperature cell of the screen shows "Desired temperature" while the blue section in the figure starts to blink. Use "+" or "-" key to adjust the temperature.

Note: A good choice for desired temperature is 25 ˚C.

❺ To select fan operation mode

Select the blue section of the screen by pushing "▲" or "▼" key successively until it starts to blink. Use "+" or "-" key to choose between normal, automatic or continuous fan operation mode.

Note: You may find information on influence of choosing each of these modes on "Discovering your thermostat" section.

❻To select the desired fan speed.

If you have selected automatic fan operation mode, ignore this section. Otherwise use "▲" or "▼" key several times successively until the blue section starts to blink. Then use "+" or "-" key to select the desired fan speed.

❼To select energy saving temperature.

The energy saving temperature is 5 ˚C above the desired temperature in summer or 5 ˚C below the desired temperature in winter. Refer to Appendix D. if you need to change the factory settings.

Note: If the thermostat is intended to be used in non programmed mode, you may ignore these sections and go directly to section 10.

❽To set the weekly schedule.

Use "▲" or "▼" key until the hint bar shows programming table, as specified in the figure. Use "+" or "-" key to enter this page. The following figure will be shown in the screen.

Each column of the table represents a single day and each row represents an occasion. Push "▲" or "▼" key to select the occasion you want to set. Each cell represents the time in hour that the specified occasion start. Use "+" or "-" key to change it.

To choose another day for setting use "▲" or "▼" key until the "Previous / Next day" button blinks. Use "+" or "-" key until the day you wish to adjust blinks. Use "▲" key to select the occasion you like and adjust it as described above.

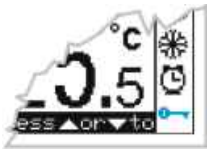
To copy a complete column of settings for a specified day to the previous or next day, select the day you want to copy its item by means of "previous / next day" button. Select the "Copy to previous / next day" button by pressing "▼" key. The button along with the specified day column starts to blink. Use "+" key to copy the setting to the next day or "-" key to copy it to the previous day.

Note: Some applicable example of settings is attached to document in appendix C. You may find it useful for your needs.

❾ Turning on the weekly schedule program.
The blue section of the figure starts to blink on the thermostat screen by successive pushing of "▲"or "▼" key. Press "+" or "-" key to enable or disable the program.

The thermostat is in programmed mode.
The thermostat is in non-programmed mode.

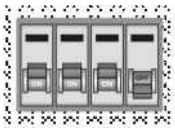
❿Enabling child lock
Push "+" and "-" keys together for 3 seconds. The "🔒" icon appears on the screen as specified in the figure. All keys will not function until you release the lock.



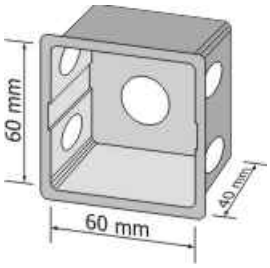
To release the lock, push "+" or "-" key together again for 3 seconds until the "🔑" icon appears as in the blue section of the screen. All keys will be operational after that.

7 easy steps to install the device

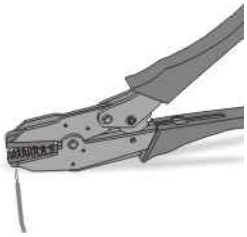
❶Turn off the relative circuit breaker.



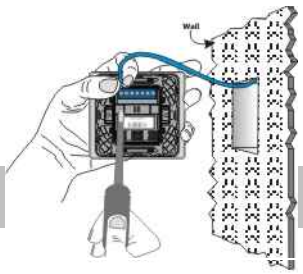
❷Conduit box requirements
The conduit box should be cubic and its length and width should be 60 millimeters and at least 40 mm deep.



❸Preparing the wires
The best wire size is AWG 16 (1.5 mm diameter), but up to AWG12 (2.5 mm diameter) wire can be secured in thermostat terminals. Use wire harness supplied with the device on the wires to prepare the wires to be secured in terminals.



❹Wiring techniques

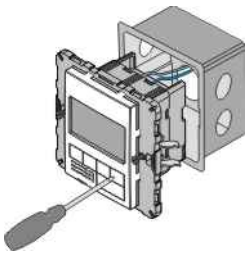


You may find proper wiring method for several types of air conditioners and thermostats in appendix B.

❺Securing the device

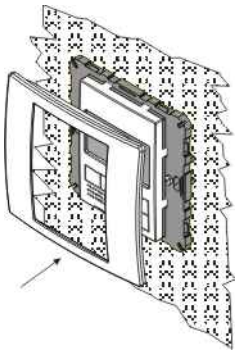
Push the device in the conduit box. Make sure the wires are gathered properly inside the conduit box and they do not push the device out.

Use a screw as illustrated in the figure to secure the claws and therefore secure the thermostat in its position.

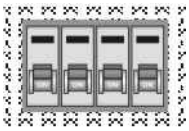


❻Placing the frame

Place the frame in its appropriate position as illustrated in the figure and gently push it toward the wall.



❼Turn on the circuit breaker. The device will be operational by a minute.



Appendix A. Mini Circuit Breaker (MCB) selection guide

The following table provides you a guidance to select a proper type of mini circuit breaker to protect your air conditioner and therefore your thermostat. If your type of air conditioner is not listed here, refer to air conditioner catalogues for proper type of circuit breaker.
If the specified type of circuit breaker in catalogue differs from what is specified here in any cases it over rules the following table and the specified type of circuit breaker proposed by air conditioner manufacturer should be used.

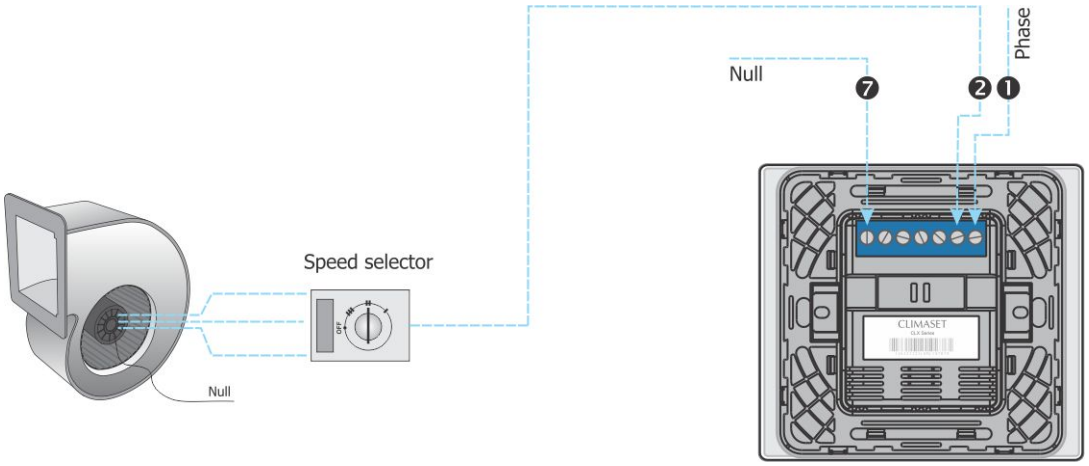
Air conditioner type	Nominal rating	Type
Room fan coils		
200 cfm	1	C
300 cfm	1	C
400 cfm	1	C
600 cfm	1	C
800 cfm	2	C

Air conditioner type	Nominal rating	Type
Ducted fan coils		
800 cfm	2	D
1000 cfm	2	D
1200 cfm	3	D
1400 cfm	3	D
1600 cfm	4	D
1800 cfm	4	D
2000 cfm	4	D

Appendix B. Wiring diagrams for several type of thermostats and air conditioners

Thermostat model: 6100

Air conditioner type: Vertical room fan coil.

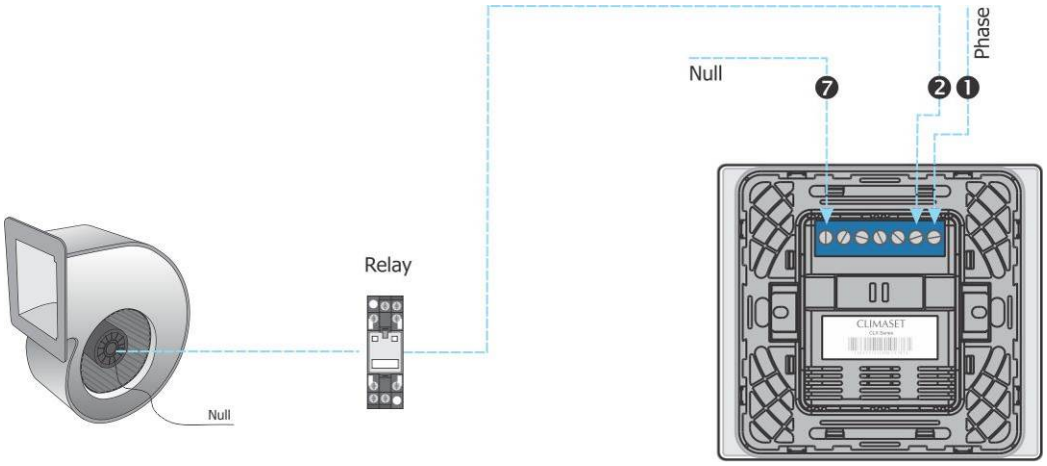


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan speed selector	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6100

Air conditioner type: Single speed ducted fan coil.

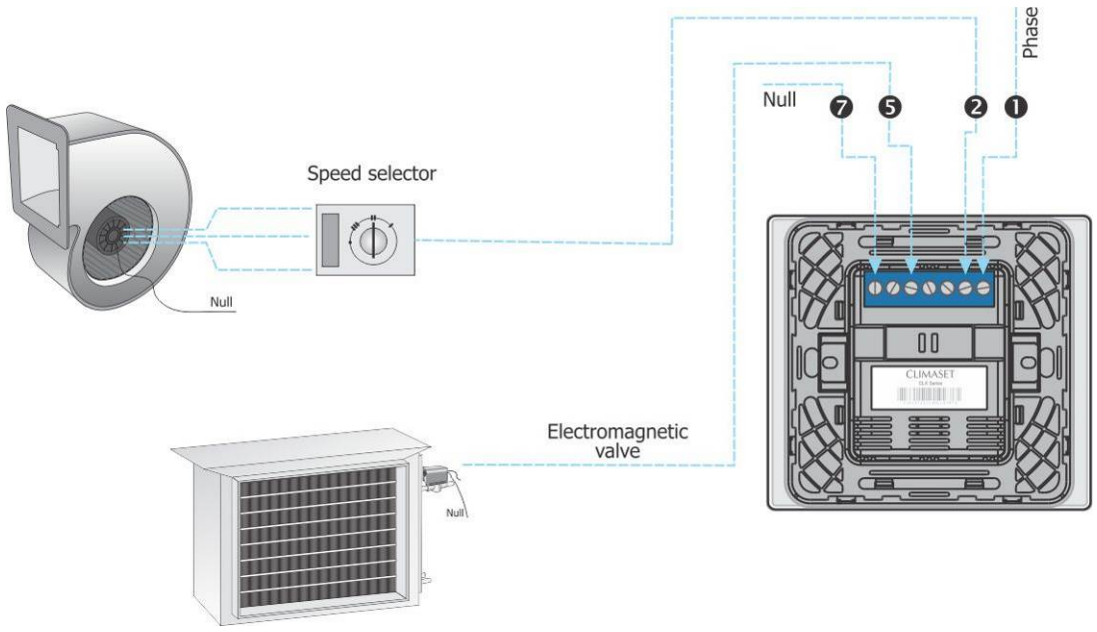


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan speed selector	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6110A

Air conditioner type: 2 pipe vertical room fan coil with electromagnetic valve.

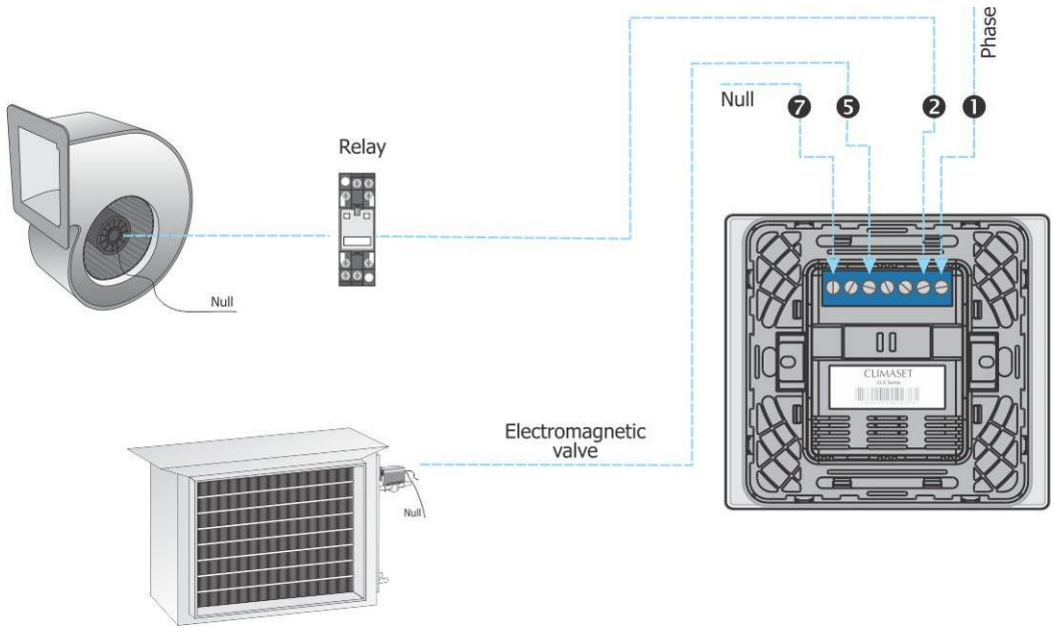


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan speed selector	Output	AC220V/24V 50Hz
5	To electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6110A

Air conditioner type: Single-speed 2 pipe ducted fan coil with electromagnetic valve.

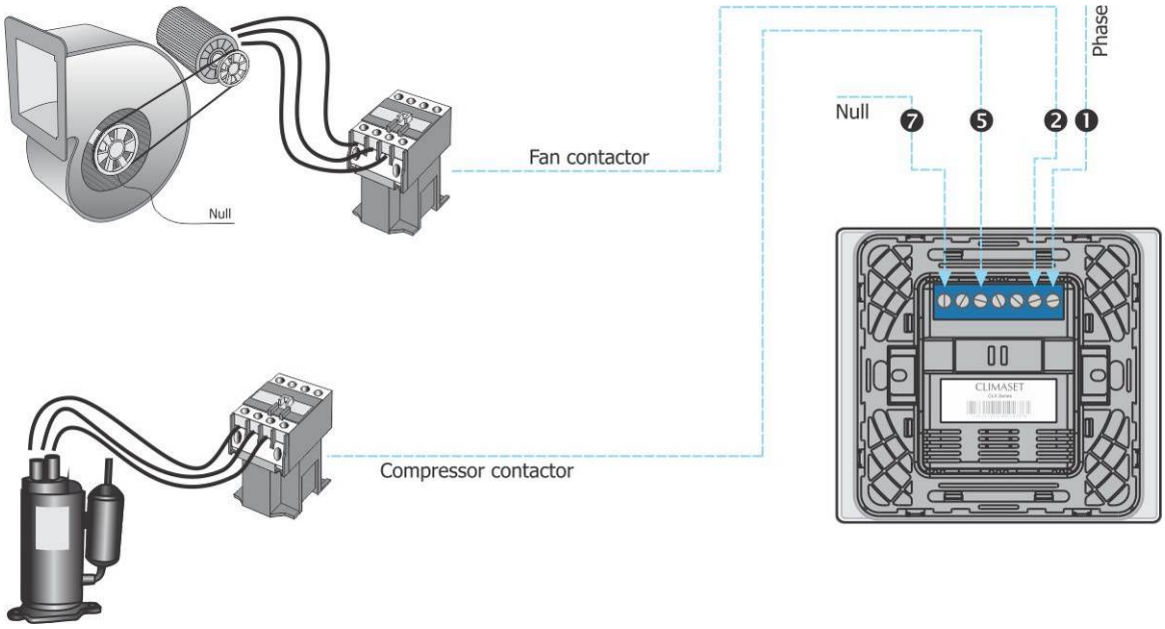


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan	Output	AC220V/24V 50Hz
5	To electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6110B

Air conditioner type: Single-speed refrigerated type packaged air conditioner unit with hot water coil

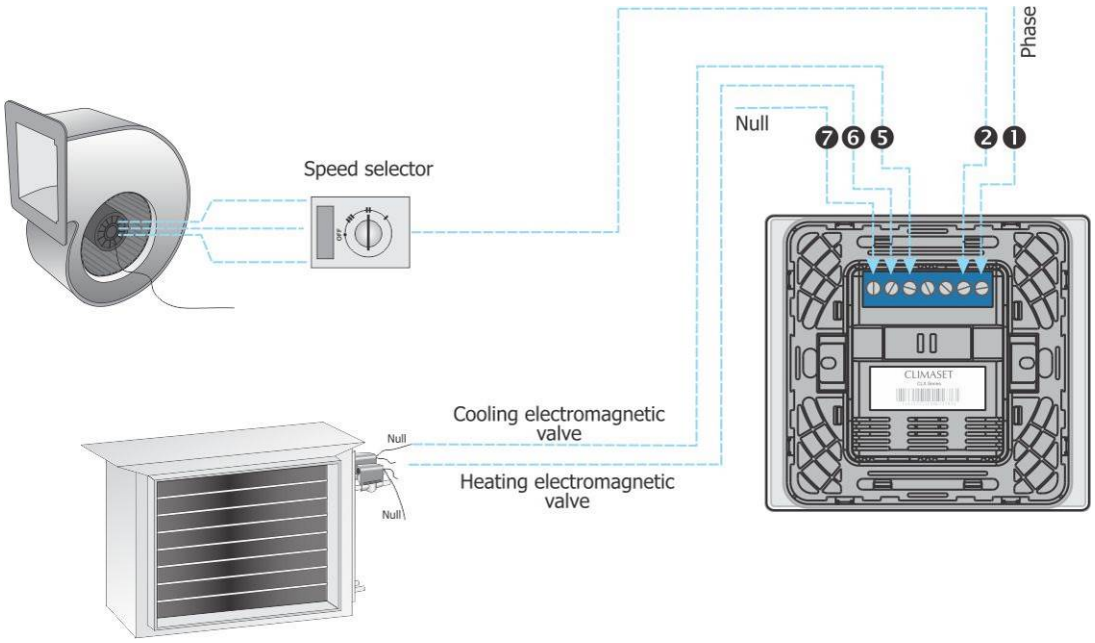


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan contactor	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6111A

Air conditioner type: Four-pipe vertical room fan coil with 2 electromagnetic valves.

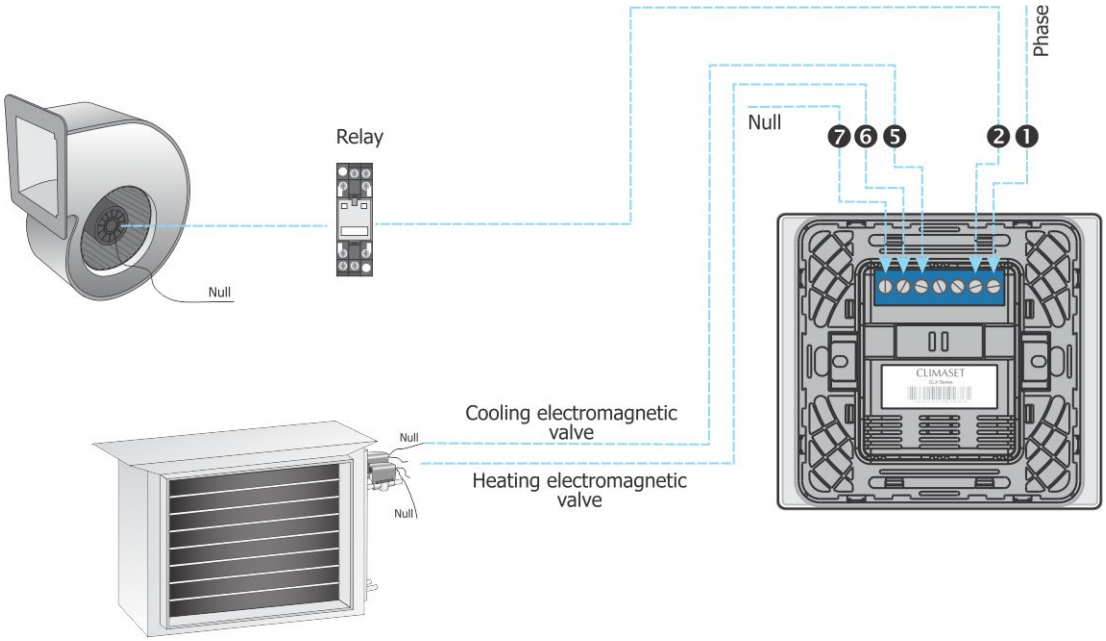


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan speed selector	Output	AC220V/24V 50Hz
5	To cooling electromagnetic valve	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6111A

Air conditioner type: Single speed, four pipe ducted fan coil with 2 electromagnetic valves.

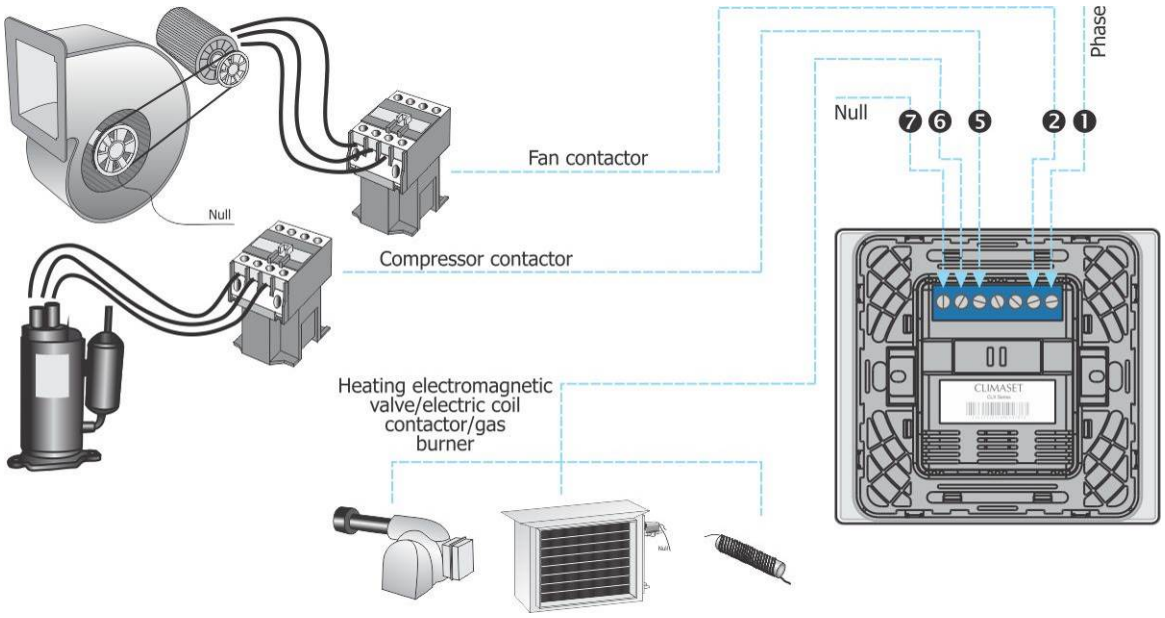


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan	Output	AC220V/24V 50Hz
5	To cooling electromagnetic valve	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6111B

Air conditioner type: Single-speed, refrigerated type packaged air conditioner unit with hot water coil, electrical coil or gas burner for heating.

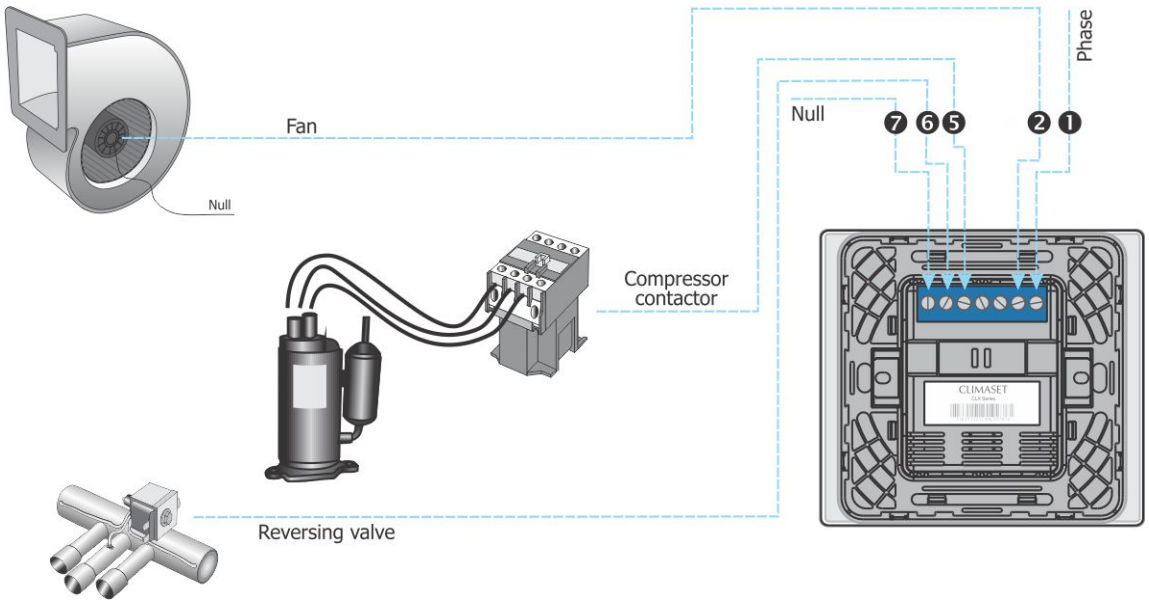


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan contactor	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve/electric coil contactor/gas burner	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6111C

Air conditioner type: Single-speed, refrigerated type packaged air conditioner unit with reversing valve for heating.

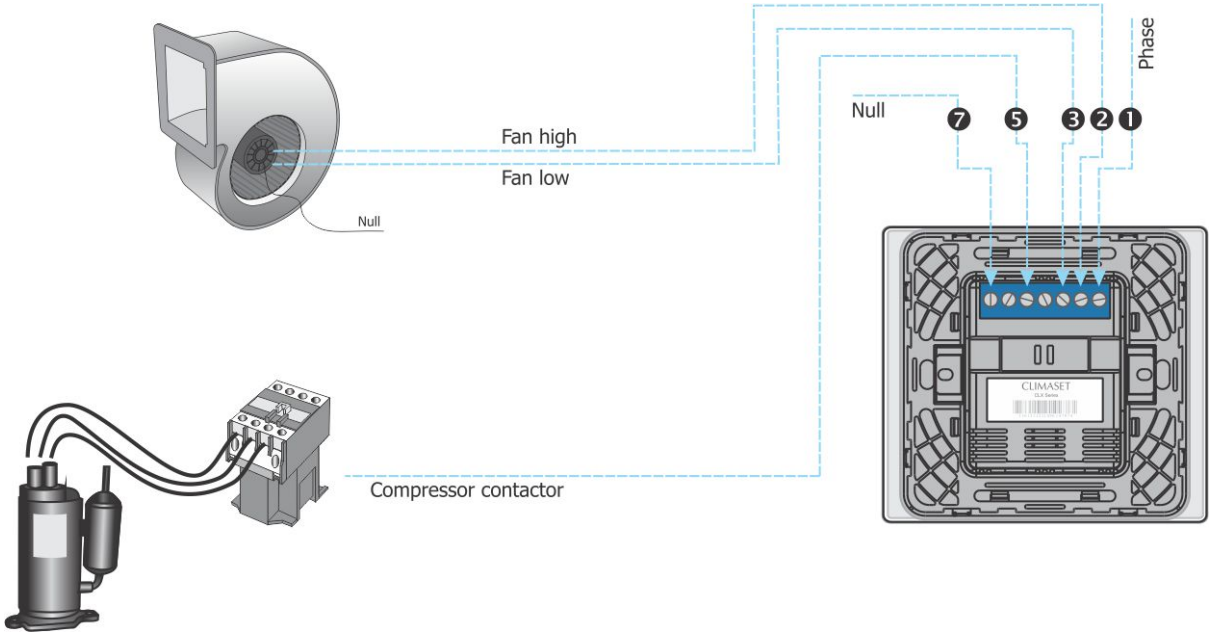


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To reversing valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6210B

Air conditioner type: Two-speed refrigerated type packaged air conditioner unit with hot water coil

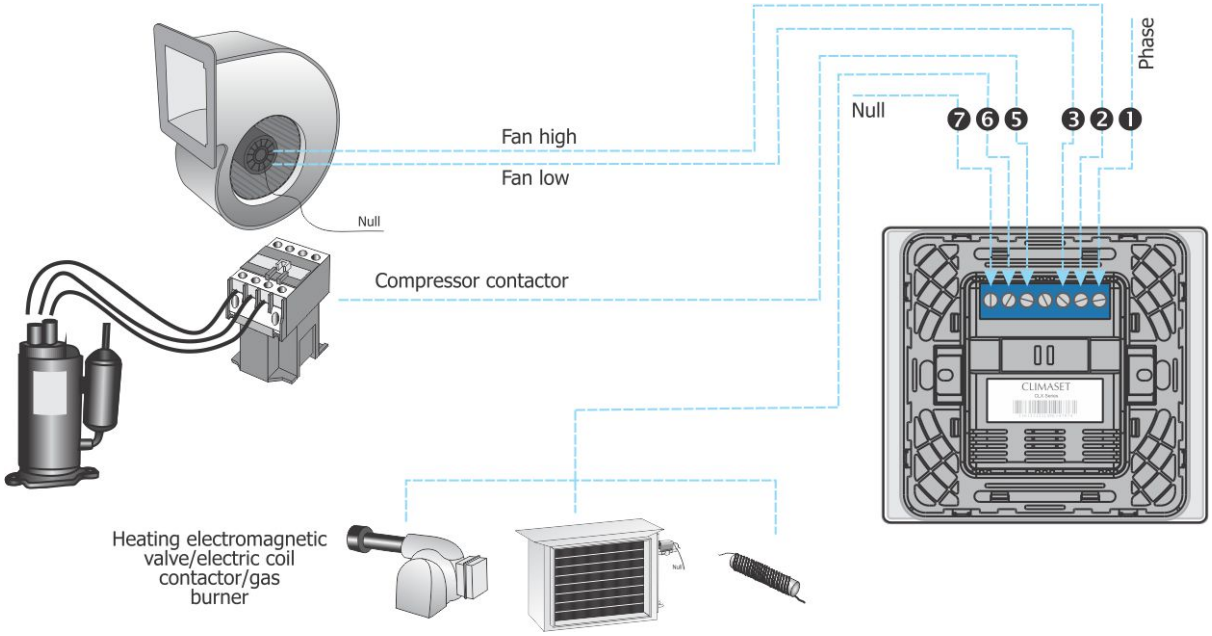


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6211B

Air conditioner type: Two-speed refrigerated type packaged air conditioner unit with hot water coil, electric coil or gas burner for heating.

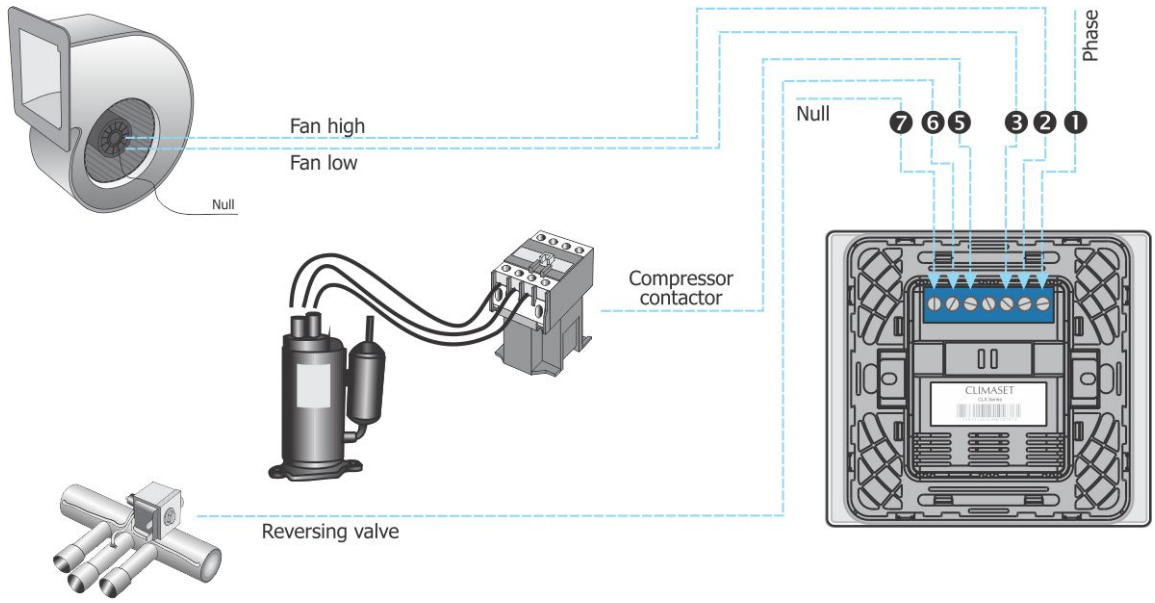


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan low	Output	AC220V/24V 50Hz
6	To compressor contactor	Output	AC220V/24V 50Hz
5	To heating electromagnetic valve/electric coil contactor/gas burner	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6211C

Air conditioner type: Two-speed refrigerated type packaged air conditioner unit with reversing valve for heating.

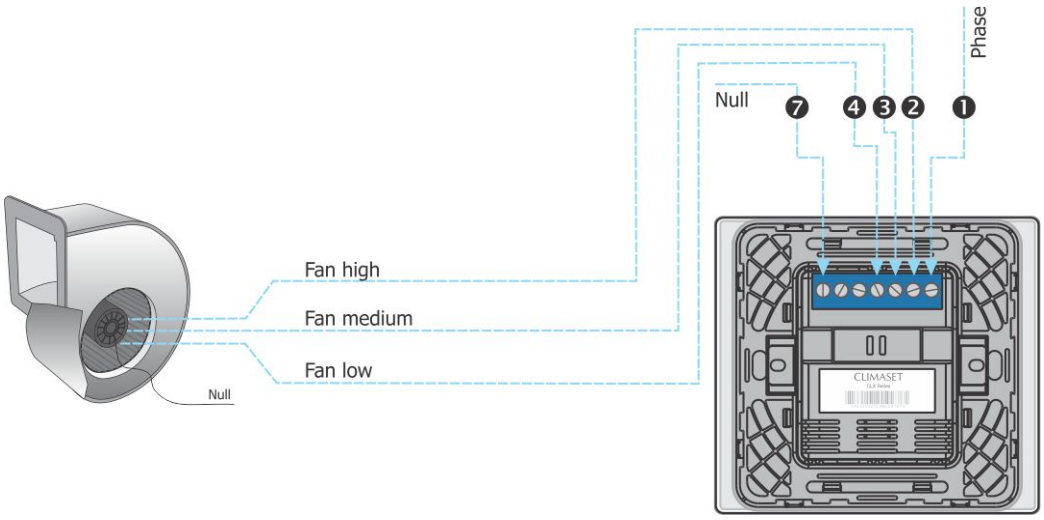


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To reversing valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6300

Air conditioner type: Horizontal room fan coil.

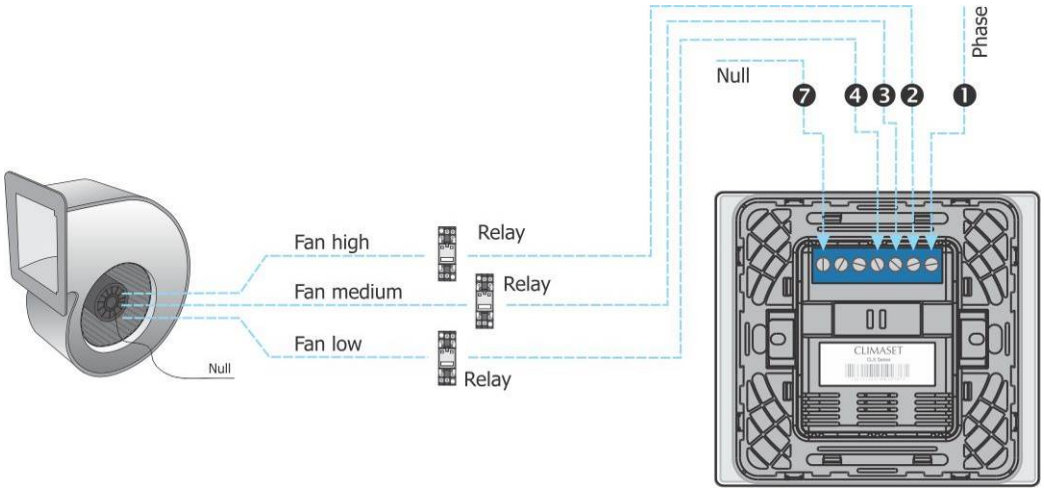


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6300

Air conditioner type: Three-speed ducted fan coil.

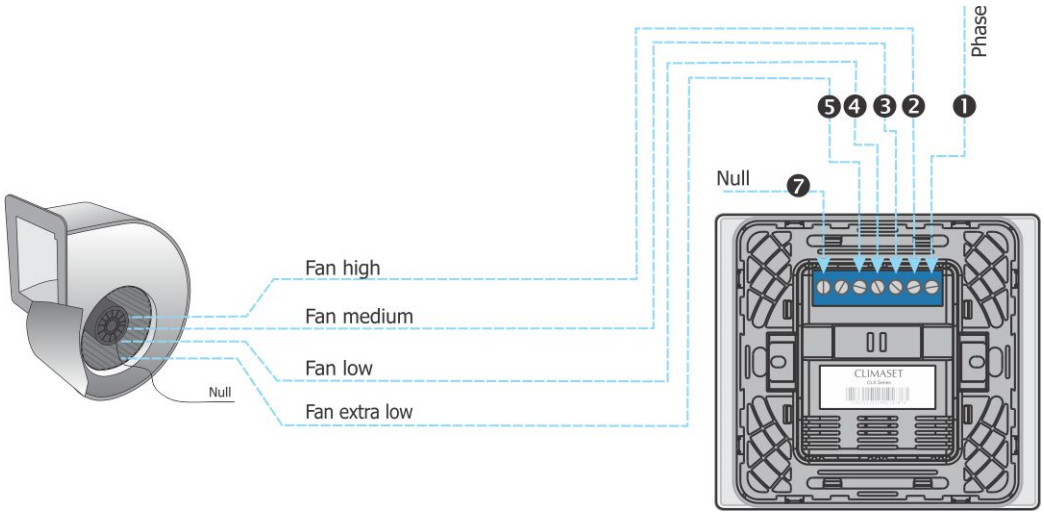


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high speed relay	Output	AC220V/24V 50Hz
3	Fan medium speed relay	Output	AC220V/24V 50Hz
4	Fan low speed relay	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6400

Air conditioner type: Four-speed, horizontal room fan coil.

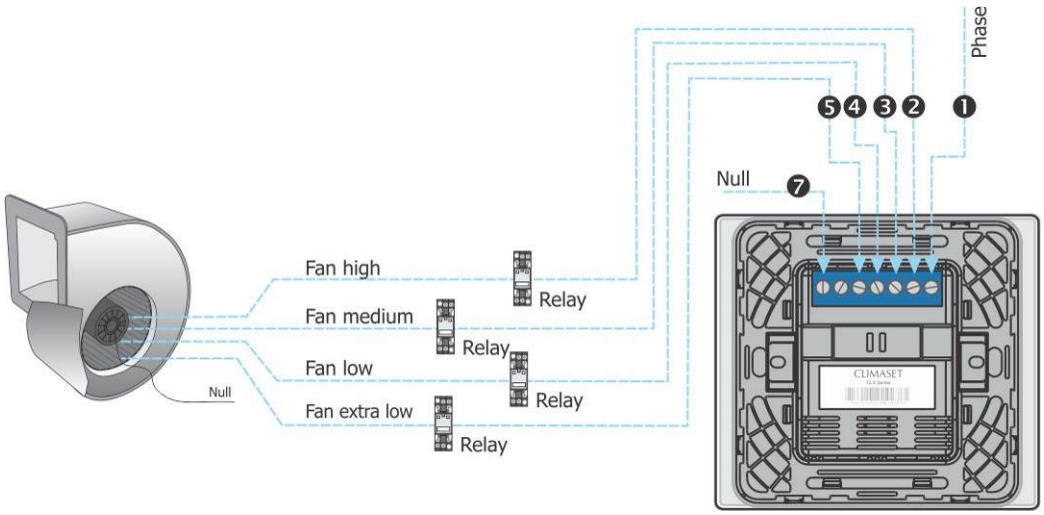


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
5	Fan extra low	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6400

Air conditioner type: Four-speed ducted fan coil.

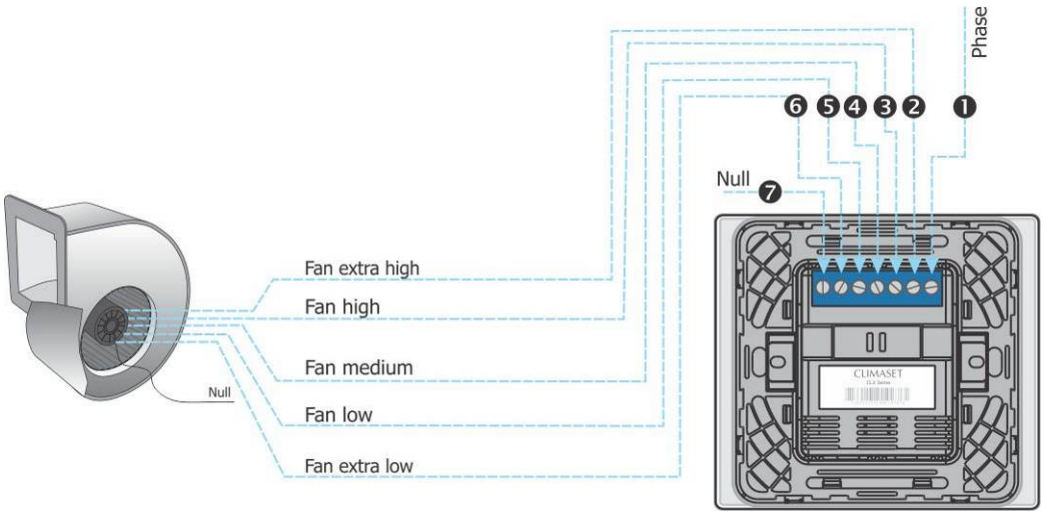


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
5	Fan extra low	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6500

Air conditioner type: Five-Speed, horizontal room fan coil.

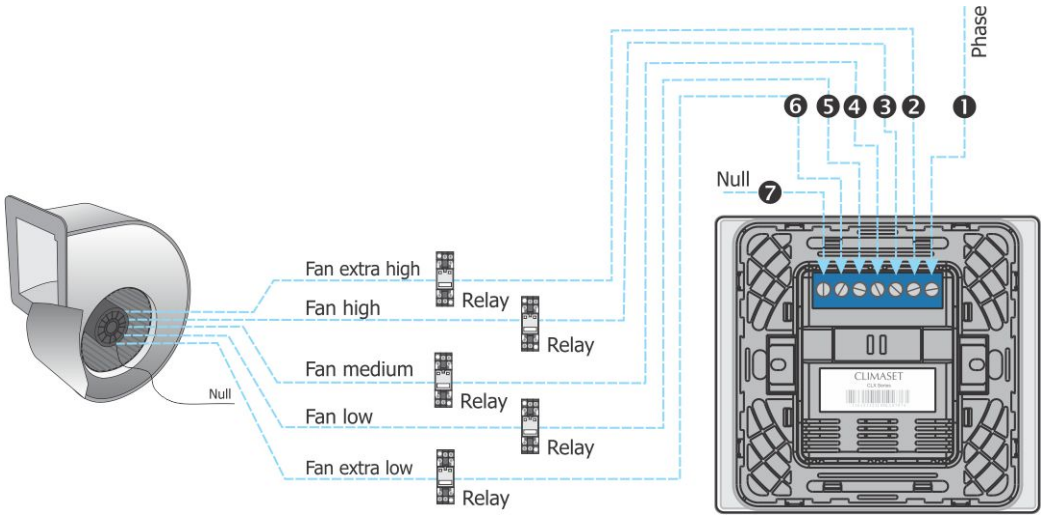


Terminals description table

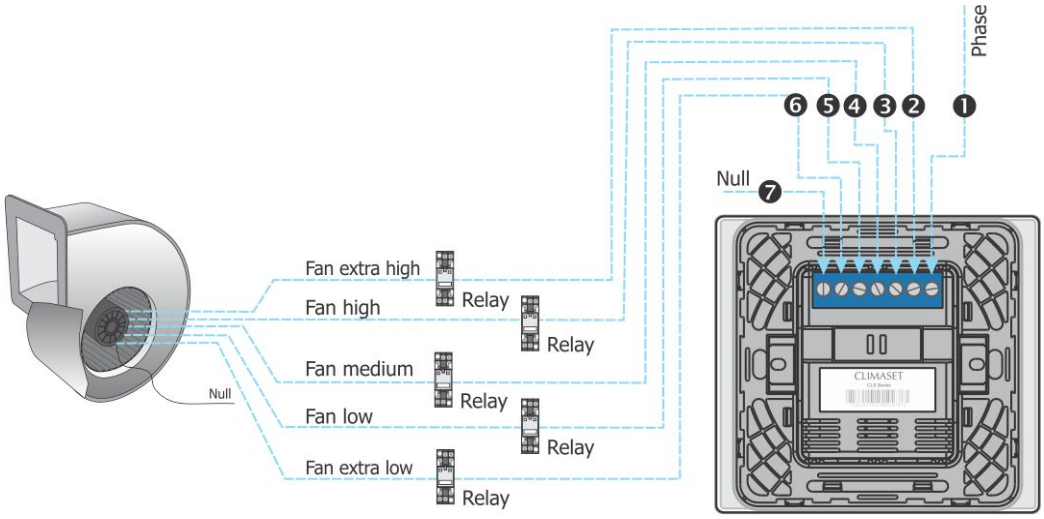
Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan extra high	Output	AC220V/24V 50Hz
3	Fan high	Output	AC220V/24V 50Hz
4	Fan medium	Output	AC220V/24V 50Hz
5	Fan low	Output	AC220V/24V 50Hz
6	Fan extra low	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6500

Air conditioner type: Five-speed ducted fan coil.

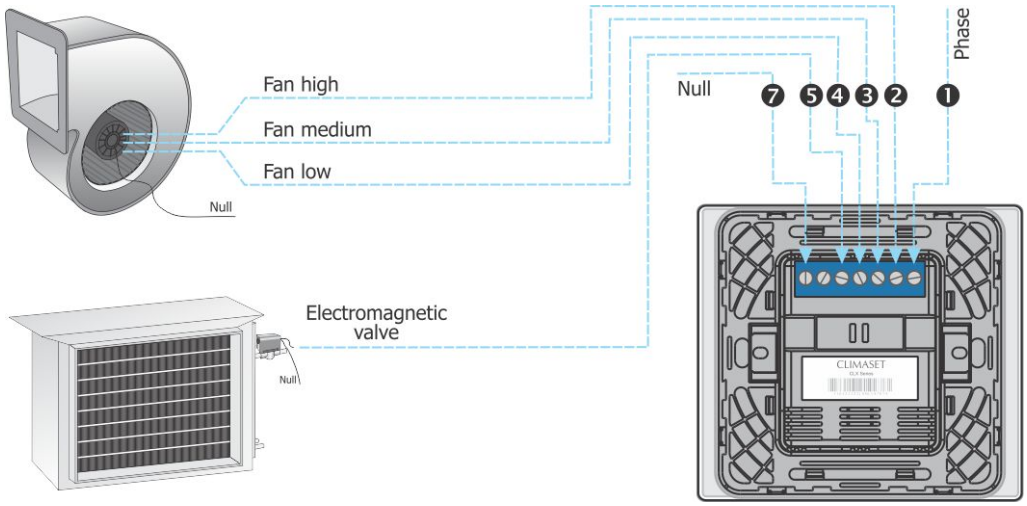


Terminals description table



Thermostat model: 6310A

Air conditioner type: Two-pipe horizontal room fan coil with electromagnetic valve.

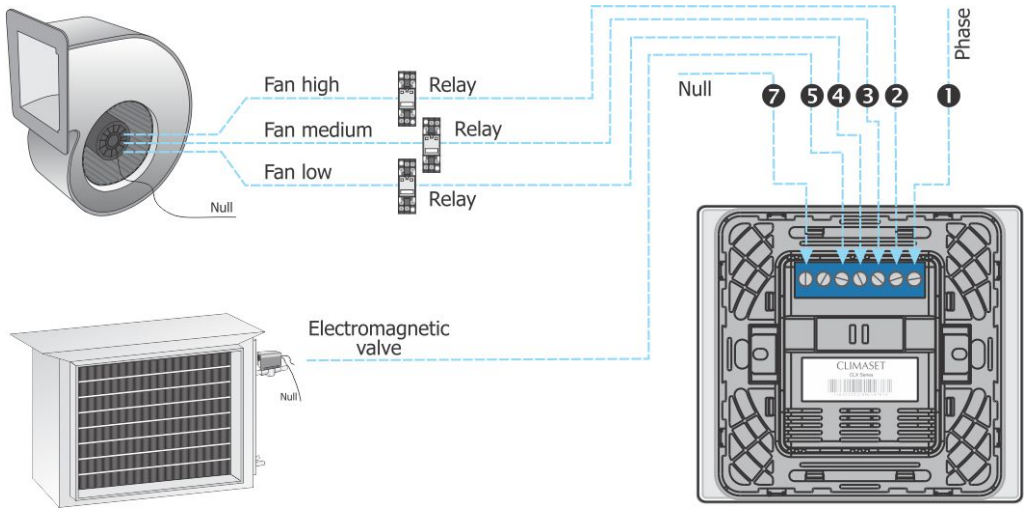


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high speed relay	Output	AC220V/24V 50Hz
3	Fan medium speed relay	Output	AC220V/24V 50Hz
4	Fan low speed relay	Output	AC220V/24V 50Hz
5	To electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6310A

Air conditioner type: Three-speed, two-pipe ducted fan coil with electromagnetic valve.

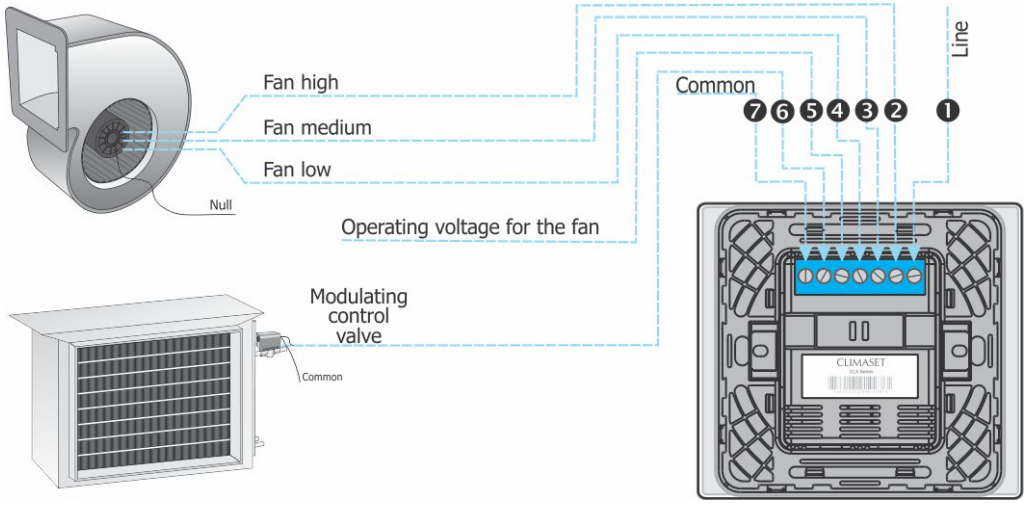


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high speed relay	Output	AC220V/24V 50Hz
3	Fan medium speed relay	Output	AC220V/24V 50Hz
4	Fan low speed relay	Output	AC220V/24V 50Hz
5	To electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6310V

Air conditioner type: Three-speed, two-pipe ducted fan coil with modulating control valve.

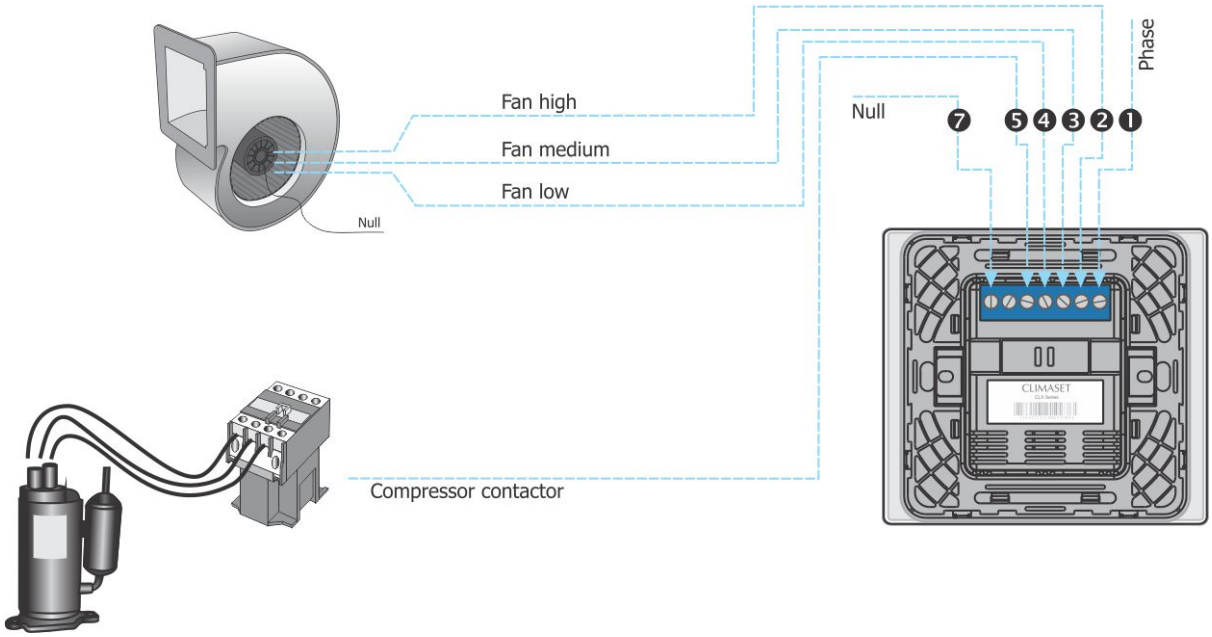


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Line	Input	AC24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
5	Operating voltage for fan	Input	AC220V/24V 50Hz
6	To modulating control valve	Output	0-10VDC
7	Common for line and valve	Input/ Output	Common for 24VAC

Thermostat model: 6310B

Air conditioner type: Three-speed refrigerated type packaged air conditioner unit with hot water coil.

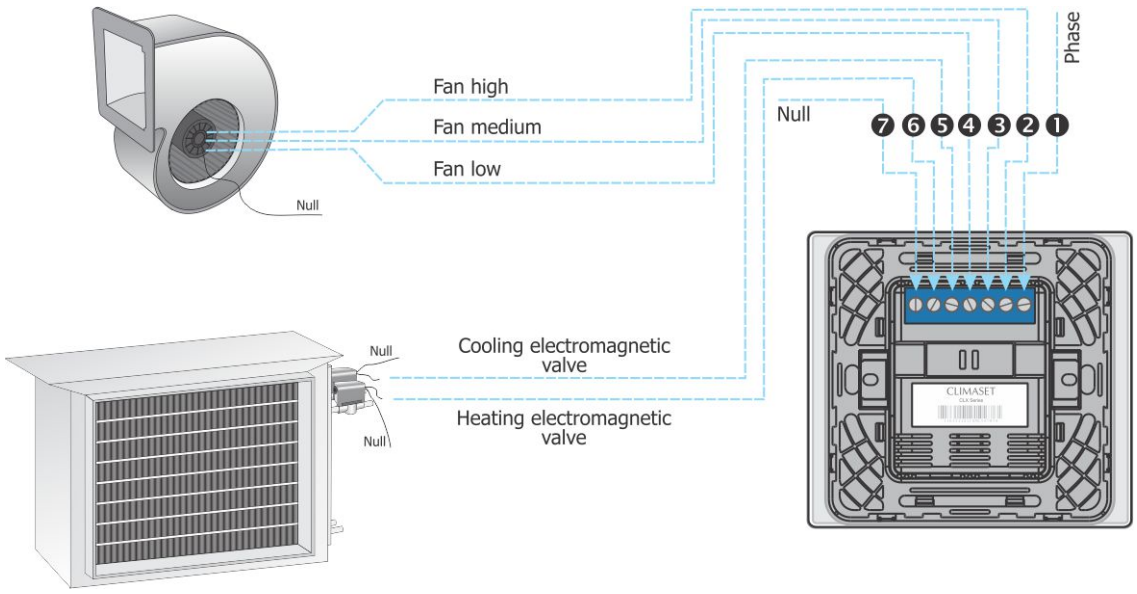


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6311A

Air conditioner type: Four-pipe horizontal room fan coil with electromagnetic valve.

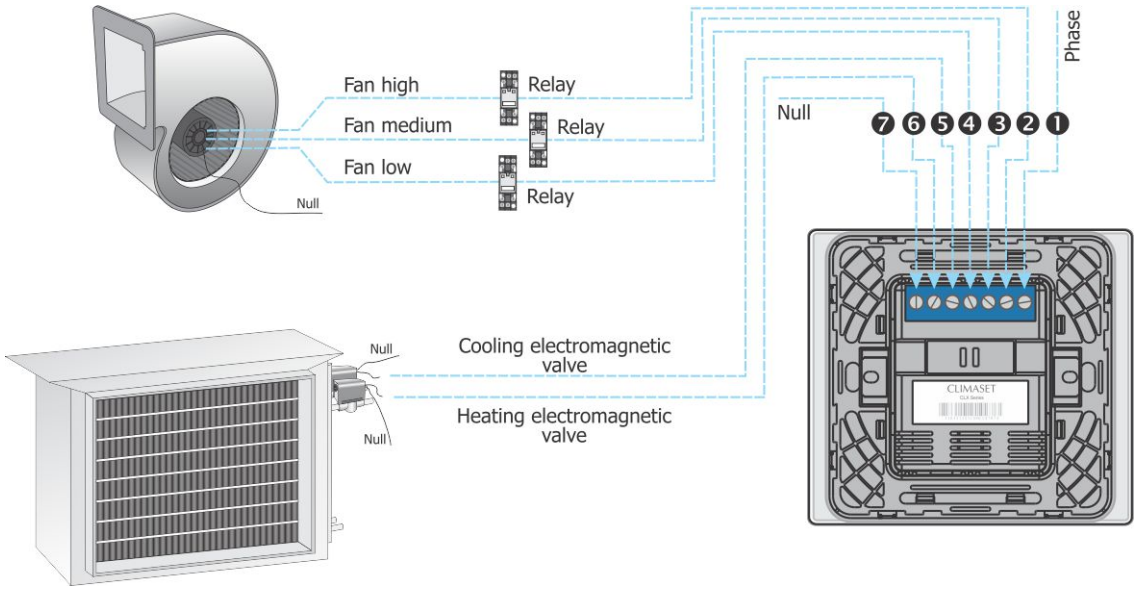


Terminals description table

	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
5	To cooling electromagnetic valve	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6311A

Air conditioner type: Three-speed, four-pipe ducted fan coil with electromagnetic valve.

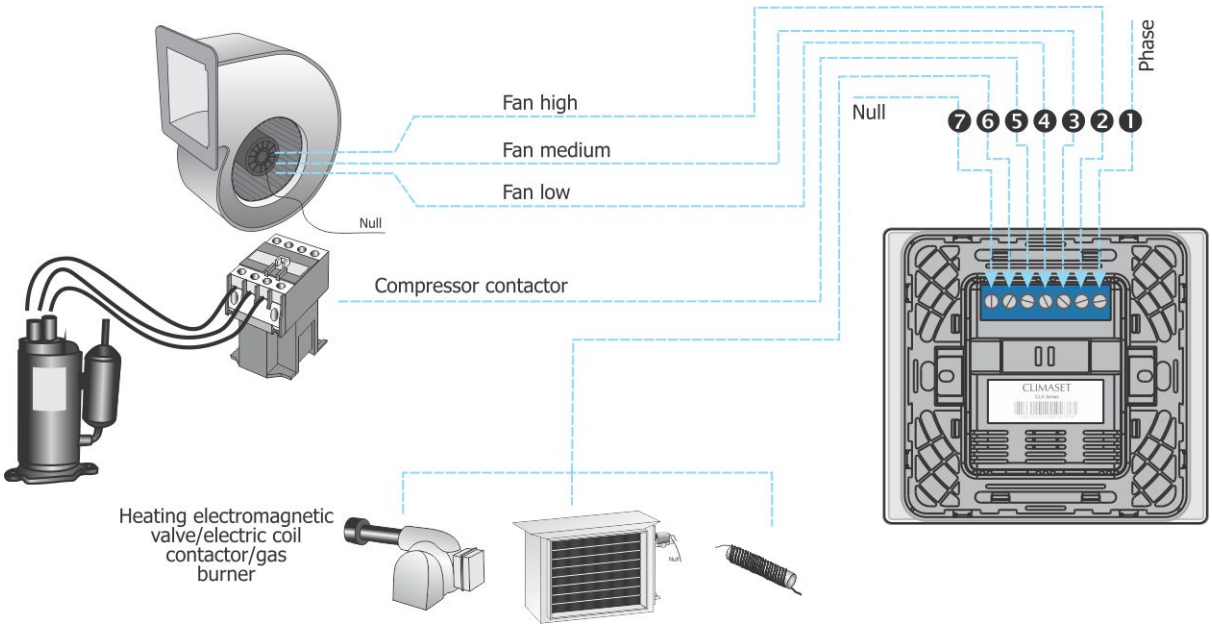


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high speed relay	Output	AC220V/24V 50Hz
3	Fan medium speed relay	Output	AC220V/24V 50Hz
4	Fan low speed relay	Output	AC220V/24V 50Hz
5	To cooling electromagnetic valve	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6311B

Air conditioner type: Three-speed refrigerated type packaged air conditioner unit with hot water coil, electric coil or gas burner for heating.

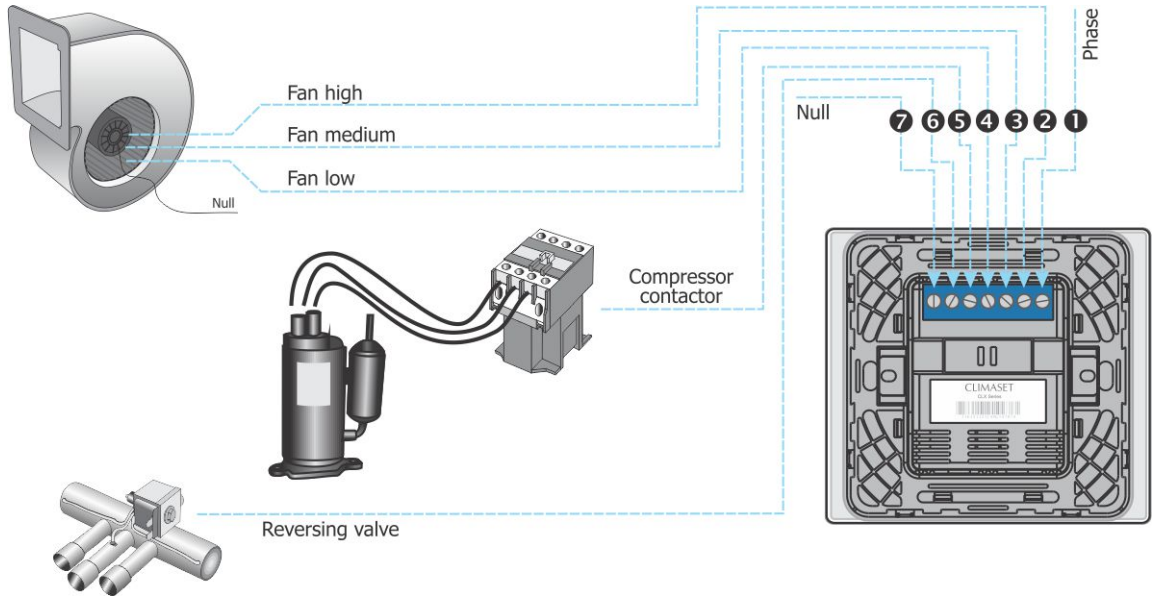


Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To heating electromagnetic valve/electric coil contactor/gas burner	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6311C

Air conditioner type: Three-speed refrigerated type packaged air conditioner unit with reversing valve for heating.

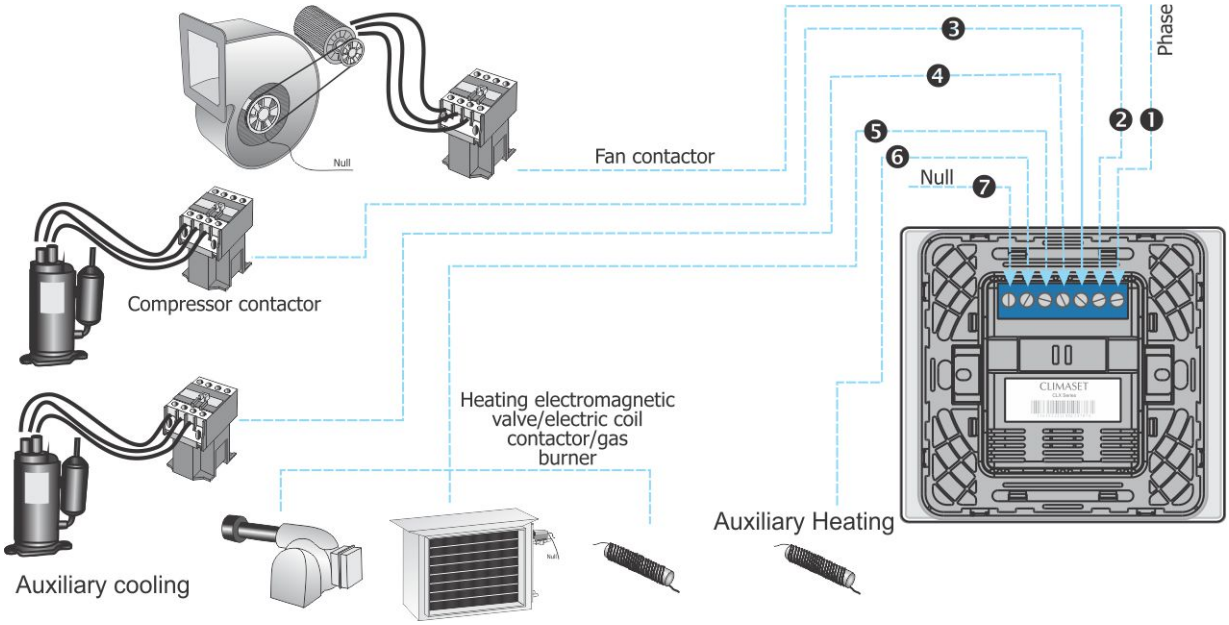


Terminals description table

Terminal number		Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	Fan high	Output	AC220V/24V 50Hz
3	Fan medium	Output	AC220V/24V 50Hz
4	Fan low	Output	AC220V/24V 50Hz
5	To compressor contactor	Output	AC220V/24V 50Hz
6	To reversing valve	Output	AC220V/24V 50Hz
7	Null	Input	Null

Thermostat model: 6122

Air conditioner type: Single-speed refrigerated type packaged air conditioner unit with maximum two stage of cooling and two stage of heating.



Terminals description table

Terminal number	Description	Input/ Output	Electrical characteristics
1	Phase	Input	AC220V/24V 50Hz
2	To fan contactor	Output	AC220V/24V 50Hz
3	To primary cooling contactor	Output	AC220V/24V 50Hz
4	To auxiliary cooling contactor	Output	AC220V/24V 50Hz
5	To primary heating	Output	AC220V/24V 50Hz
6	To auxiliary heating	Output	AC220V/24V 50Hz
7	Null	Input	Null

Appendix C. Several applicable example of thermostat settings

1. Master bedroom

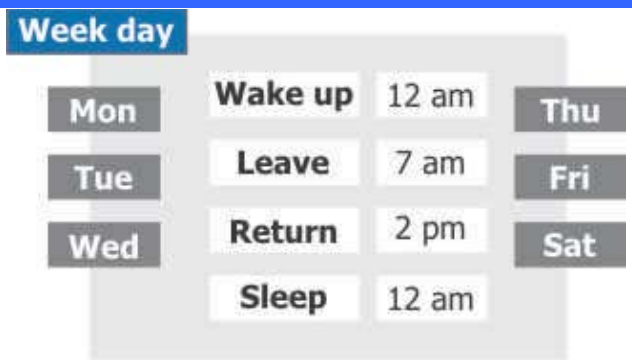
2. Child's bedroom

Scenario 1

Your child is so small, so he/she spends all of the day in his/her room: set the program off as in the figure.

Scenario 2

Your child goes to kindergarten or school and he/she is not in his/ her room till 2 pm everyday except Sunday.



3. Living room

Scenario 1

You are a housewife and you always use your living room during the day period between 7 am and 10 pm except for weekend that you wake up at 10 pm.

Scenario 2

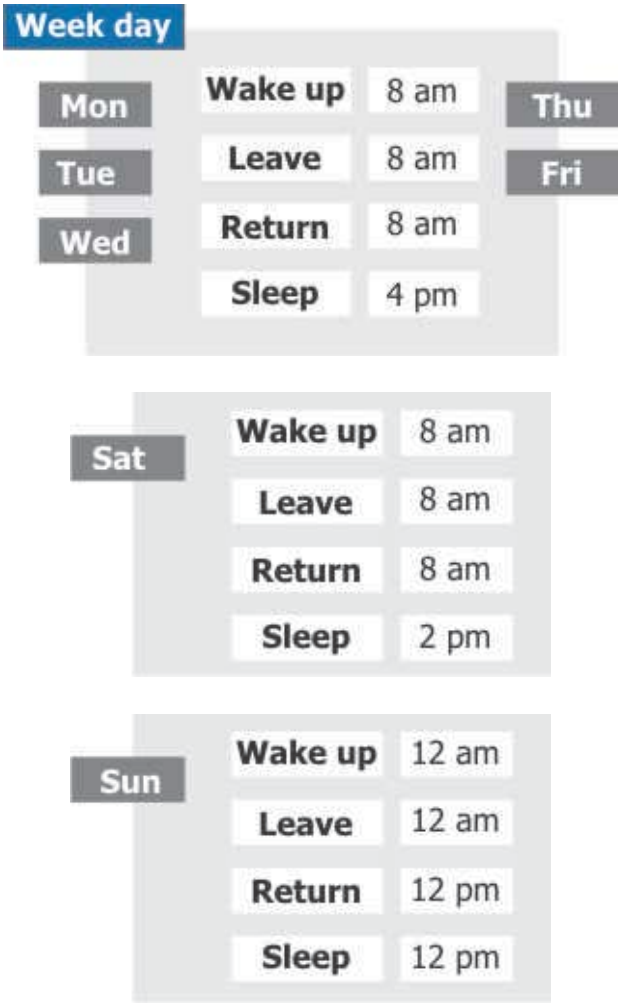
You are a business woman. You wake up everyday at 7 am, leave your home at 8 am, return at 3 pm and sleep at 10 pm, except for the weekend that you wake up at 10 am and sleep at 10 pm.

4. Dining room

Program is off and desired temperature is 28 ºC in summer or 22 ºC in winter. You may change it to 25 ºC an hour before your guests arrive and return it to its original value after they leave. Set the program off as in the figure.

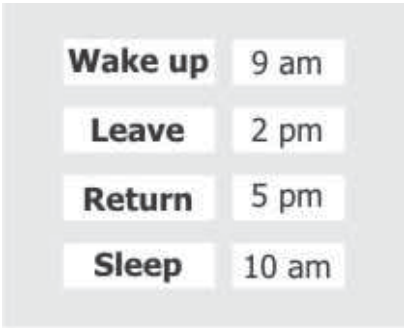
5. Office use

Employees enter the office at 8 am and leave it at 4 pm everyday except Saturday which they leave the office at 2 pm.



6. Commercial use

Starts at 9 am till 2 pm and restarts again at 5 pm till 10 pm.



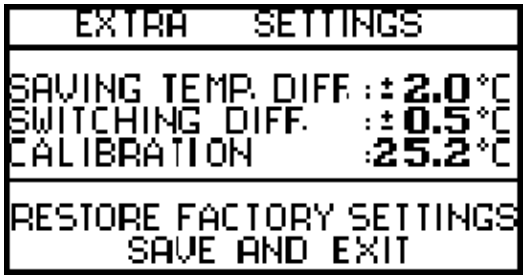
If there is no night opening on Saturday.

Wake up	9 am
Leave	2 pm
Return	2 pm
Sleep	2 pm

If Sunday is closed.

Wake up = **Leave** = **Return** = **Sleep** = 12 am

Appendix D. Extra settings



You may enter extra settings screen by pressing "▲" and "▼" keys simultaneously for a few seconds. This page is intended to be modified by expertise.
We do not recommend you to modify these setting unless you have enough knowledge about their influence. There are five rows that you may navigate through them by pressing "▲" or "▼" key, each of the first three rows represents the settings for its respective parameter. The last two rows are buttons to restore factory setting and save and exit.
Here is a brief discussion on each setting and its influence.

1. Saving temperature differential:

It is the differential between the desired temperature and energy saving temperature in degree centigrade. The device uses energy saving temperature instead of the desired temperature in programmed mode during leave or sleep period. The energy saving temperature is the desired temperature plus the saving differential temperature in summer and minus saving differential temperature in winter. Use "+" or "-" key to change the saving temperature differential setting. The figure shows the saving temperature differential setting in blue.

2. Switching differential:

It is the differential, between the room and desired temperature in normal operation mode or in programmed mode when you are in wake up or return period, or between the room and energy saving temperature in programmed mode during leave or sleep period, which if the difference in temperature exceeds this amount, the device restarts the air conditioner. You may set this value between 0.5 ºC and 2.0 ºC. The section highlighted in blue in the figure represents this setting.

3. Calibration:

Use it if you feel the thermostat temperature differs from your room temperature. The thermostat is precisely calibrated in the factory, but as the temperature in thermostat position may differ in some degree centigrade with some special point in your room, you may calibrate the device to match with some special point in your room. Use “+” or “-” key to change the sensed temperature. The calibration section is highlighted in blue in the figure.

4. Restore factory settings:

Use “+” or “-” key on this row to restore all above settings to their initial values as it was set by the factory. It is useful, when you can not remember your changes and you are not satisfied by them. This command is highlighted in blue in the figure.

5. Save and Exit:

Use this setting to save all of the changes and return to normal screen. Select this button by pressing “+” or “-” key. It is represented in blue in the figure.

Appendix E. Troubleshooting

Issue	Action
The display is vanished	Check if the circuit breaker is on and the fuse inside the thermostat is not blown. In any of the above cases, we recommend that your air conditioner and your wiring should be checked by a technician. Note for technician: Turn off the circuit breaker. Detach the wires from thermostat. Short the phase wire with one of the wires except the null. Turn on the MCB and measure the current. Repeat the operation for all of the wires respectively. Compare the results with the specified current at the air conditioner catalogue. Make sure that the air conditioner has no issues. Turn the circuit breaker off. Replace the fuse with the same one if it is blown (Refer to Appendix E. for fuse rating). Never short circuit the fuse or replace it with other type of fuses. Turn the circuit breaker on again. If the circuit breaker turns off again automatically, or if the fuse blows again, contact your local customer service.
The air conditioner does not start	1. Check if the power icon represents the operational mode. 2. Check if you select heating or cooling appropriately. 3. Check if the temperature difference is above 1 ºC. 4. If the device is in programmed mode maybe it uses the energy saving temperature as set point. Check your program.
The air conditioner is always running	1. Check if you select heating or cooling mode appropriately. 2. Check if your desired temperature is too low or too high. The best value for desired temperature is about 25 ºC. 3. It is possible that your air conditioner is not enough for your application or may be its performance has been reduced due to same technical issue.

Contact your local customer service if the above table did not resolve the problem, or your issue is not listed here.

Appendix F. Technical specifications

Thermostat specifications	Temperature sensitivity	0.1 ˚C
	Backlight	Blue
	Display length	42 mm / 1.7 inches
	Display width	24 mm / 1.0 inch
	Width	76 mm / 3.0 inches
	Length	76 mm / 3.0 inches
	Height	45 mm / 1.8 inches
	Maximum unconcealed thickness	12 mm / 0.5 inch
Frame dimensions	Width	82 mm / 3.2 inches
	Length	90 mm / 3.5 inches
	Height	8 mm / 0.3 inch
Conduit box dimensions	Width	60 mm / 2.4 inches
	Length	60 mm / 2.4 inches
	Height	40 mm / 1.6 inches
Operating condition	Temperature	0 ˚C to 70 ˚C
	Humidity	5% to 90% non-condensing
Fuse specifications	Current rating	3.15 A
	Nominal melting I2t	$80A^2/S$
Remote controller	Max. effective distance	8 m
	Max. viewing angle	30 ˚