Qualis Pro 20L/25L

Operating instructions



Kullhaus
BETTER AIR

Thank you for choosing Kullhaus.

Please read instructions before using the dehumidifier and keep it for future reference.

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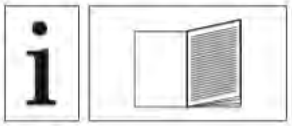
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PRO





Only for home use / power source 220-240V/50Hz

Read the USER MANUAL carefully before operation.
This device is for home use only and not for commercial, industrial or outdoor use.
We reserve the right for any error in the text or images and any necessary changes made to technical data.



Service personnel are required to carefully read the USER MANUAL and SERVICE MANUAL before operation. Failure to abide by this warning could result in an explosion, injury and property damage.



Recycle unwanted materials instead of disposing of them. All appliances and packaging should be sorted and tendered at a regional recycling centre and be processed in an ecological manner.



This unit uses a flammable refrigerant.
If refrigerant leaks and comes in contact with fire or heating part, it will create harmful gas and there is risk of fire.



Before putting the device into operation for the first time, place it in an upright position for at least 3 hours to stabilize the compressor fluids.

PRODUCT INSTRUCTION

A dehumidifier is an electrical appliance that reduces and maintains the level of humidity in the air. By maintaining optimal humidity levels, typically between 50-60%, a dehumidifier can provide numerous benefits: reduced humidity helps prevent condensation, dampness, the growth of mold and mildew, which can cause health issues and damage to building materials. It also helps alleviate allergy and asthma symptoms by decreasing the presence of dust mites, a common trigger for many people. In general the use of a dehumidifier improves indoor air quality.

Controlling relative humidity using a dehumidifier helps monitor room temperature, improving energy efficiency in homes and offices and reducing heating costs by 20%.

The environmentally friendly R290 is used as the refrigerant. R290 has no damaging influence on the ozone layer (ODP), a negligible greenhouse effect (GWP) and is available worldwide. Because of its efficient energy properties, R290 is highly suitable as a coolant for this application. Special precautions must be taken into consideration due to the coolant's high flammability.

SAFETY INSTRUCTION

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- The unit is designed only for use with R-290(propane) gas as the designated refrigerant.
- **THE REFRIGERANT LOOP IS SEALED. ONLY A QUALIFIED TECHNICIAN SHOULD ATTEMPT TO SERVICE!**
- Do not discharge the refrigerant into the atmosphere.
- R-290 (propane) is flammable and heavier than air.
- It collects first in low areas but can be circulated by the fans.
- If propane gas is present or even suspected, do not allow untrained personnel to attempt to find the cause.
- The propane gas used in the unit has no odour.
- The lack of smell does not indicate a lack of escaped gas.
- If a leak is detected, immediately evacuate all persons from the store, ventilate the room and contact the local fire department to advise them that a propane leak has occurred.
- Do not let any persons back into the store until the qualified service technician has arrived and that technician advises that it is safe to return to the store.
- No open flames, cigarettes or other possible sources of ignition should be used inside or in the vicinity of the units.
- Component parts are designed for propane and non-incentive and non-sparking. Component parts shall only be replaced with identical repair parts.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- The appliance shall be disconnected from its power source during maintenance.
- Ensure the unit is far away from fire, inflammable, or explosive objects.
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacture.

- The appliance shall be stored in a room without continuously operation sources (for example: open flames, an operating gas appliance or an operating electric heater).
- The appliance shall be stored so as to prevent mechanical damage from occurring.
- Do not piece or burn, even after use.
- Pipe-work shall be protected from physical damage and shall not be installed in an unventilated space, if that space is smaller than 8 m².
- Compliance with national gas regulations shall be observed.
- Keep any required ventilation openings clear of obstruction.
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.



Warning on Refrigerant R290

- Failure to abide by this warning could result in an explosion, death, injury and property damage.
- Any person who is involved with working on or breaking into a refrigerant circuit should hold a current valid certificate from an industry-accredited assessment authority, which authorizes their competence to handle refrigerants safely in accordance with an industry, recognized assessment specification.
- Servicing shall only be performed as recommended by the equipment manufacturer. Maintenance and repair requiring the assistance of other skilled personnel shall be carried out under the supervision of the person competent in the use of flammable refrigerants.

SAFETY PRECAUTIONS ON SERVICING

Repairs must only be carried out by authorised service personnel and only using genuine spare parts. Please follow these warnings when servicing a dehumidifier with R290.

Checks to the area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimized. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

Work procedure

Work shall be undertaken under a controlled procedure so as to minimize the risk of a flammable gas or vapour being present while the work is being performed.

General work area

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

Checking for presence of refrigerant

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. no sparking, adequately sealed or intrinsically safe.

Presence of fire extinguisher

If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO^2 fire extinguisher adjacent to the charging area.

No ignition sources

No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. “No Smoking” signs shall be displayed.

Ventilated area

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

SAFETY PRECAUTIONS ON SERVICING

Checks to the refrigeration equipment

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt consult the manufacturer's technical department for assistance.

The following checks shall be applied to installations using flammable refrigerants:

– The charge size is in accordance with the room size within which the refrigerant containing parts are installed;

– The ventilation machinery and outlets are operating adequately and are not obstructed;

– If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;

– Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;

– Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

Checks to electrical devices

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

Initial safety checks shall include:

-those capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;

-that there no live electrical components and wiring are exposed while charging, recovering or purging the system;

-that there is continuity of earth bonding.

Releasing refrigerant into atmosphere is strictly forbidden!

PARTS LIST

Components

1. Air Outlet
2. Air Inlet Grille
3. Drainage Outlet
4. Water Tank
5. Castors
6. Handle
7. Rear Cover
8. Power Cord
9. Control Panel
10. Front Cover

Control Panel

11. Power Button
12. Timer Off Button / Wi-Fi Button
13. Manual Dehumidifying Button
14. Time Indicator
15. Tank Full Indicator
16. Defrost Indicator
17. Anion Indicator
18. Low Fan Speed Indicator
19. High Fan Speed Indicator
20. Fan Speed Button / Child Lock Button
21. Anion Button
22. Mode Button
23. Manual Dehumidifying Indicator
24. Auto Indicator
25. Laundry Drying Indicator
26. Humidity Reading
27. Sleep Indicator
28. Air Purifying Indicator
29. Wi-Fi Indicator

Drainage

30. Drainage Outlet Plug
31. Drainage Pipe

Figure1

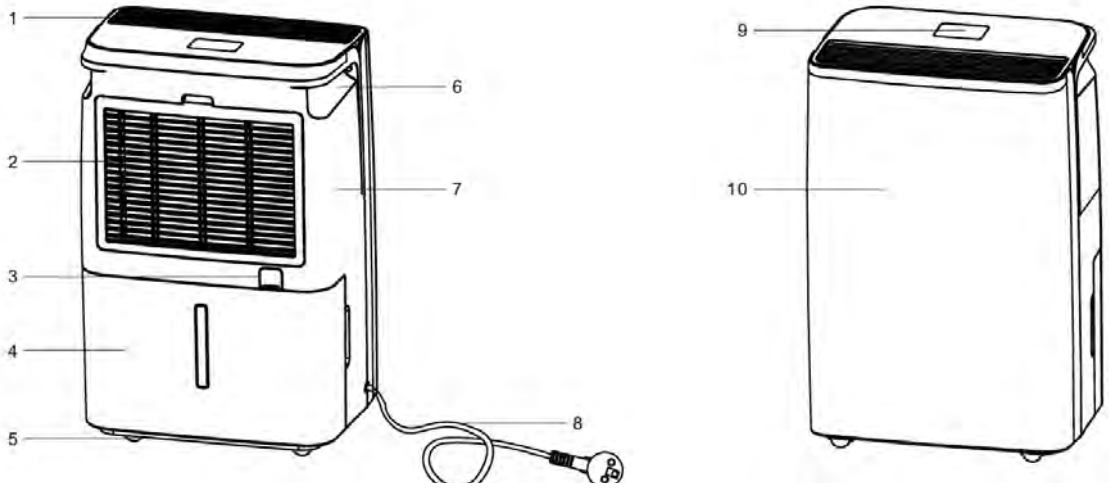


Figure2

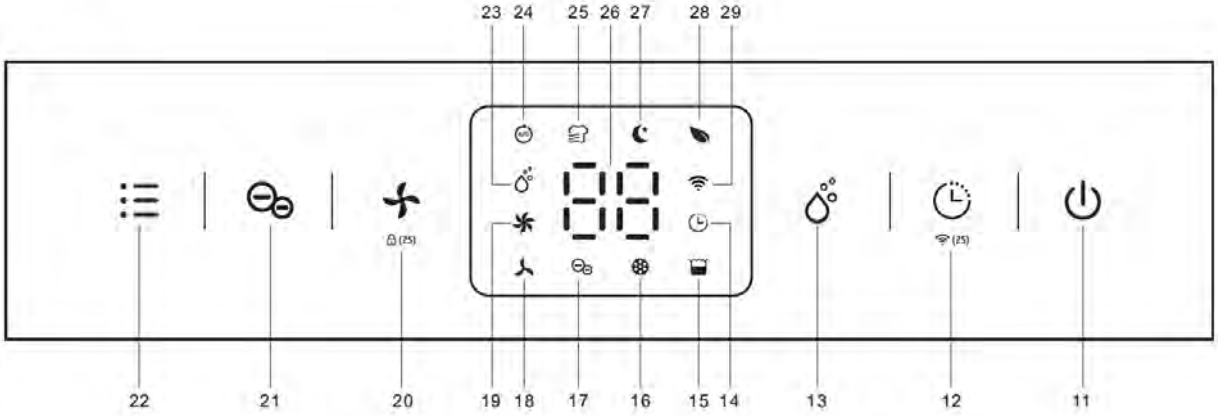
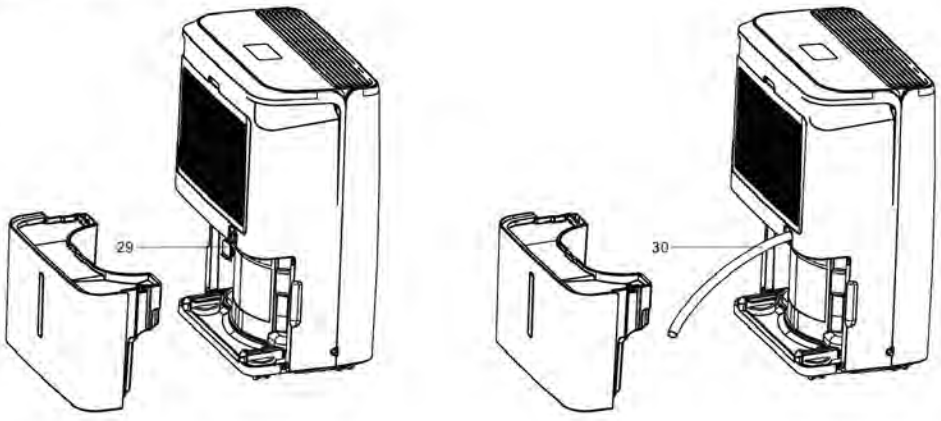
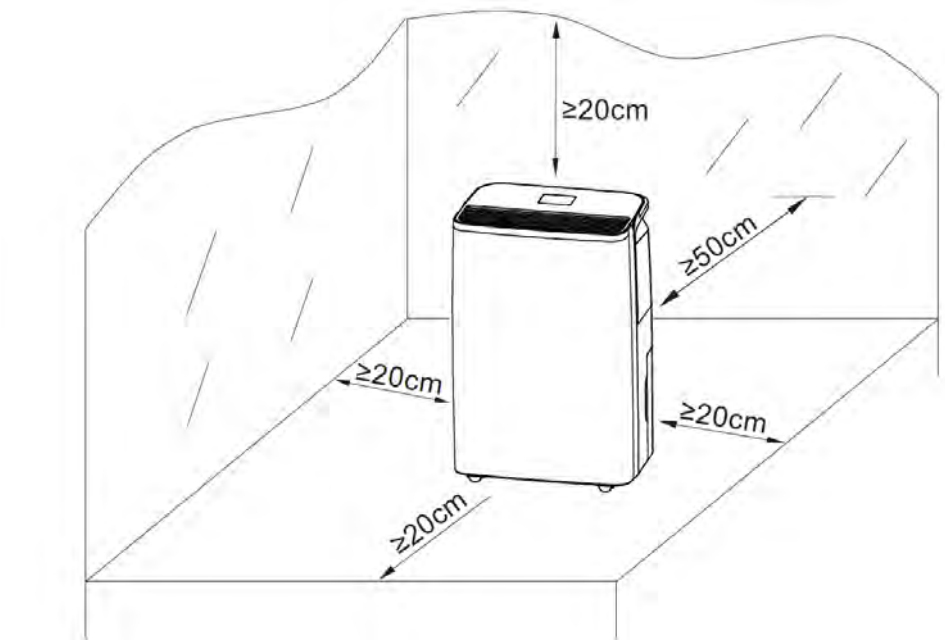


Figure3



PRO

PRIOR TO OPERATION



- Before putting the device into operation for the first time, place it in an upright position for at least 3 hours to stabilize the compressor fluids.
- Place the dehumidifier in an upright position on a stable, flat and dry surface. If the device is dropped, water leakage may occur, causing property damage, electric shock, or fire.
- Place the dehumidifier in an upright position on a stable, flat surface.
- Ensure the dehumidifier is at a safe distance at least 50cm away from a wall or furniture.
- Supply power should be in correspondence with the value on the nameplate, power outlet needs to be grounded.
- Ensure the tank is correctly fitted, if the tank is full or not in place, the tank full light comes on and the dehumidifier will stop working.

Continuous Drainage

In general, water will be collected by tank, if you want continuous drainage, please do steps as follows: (refer to figure 3)

1. Unplug the drainage outlet plug.
2. Insert the **drainage hose with 14mm inner diameter** into water outlet. Please always make sure the pipe is going down-hill, is not blocked or kinked.

Please always make sure the pipe is going downhill, is not blocked or kinked.

OPERATION INSTRUCTIONS

- Connect the power plug to the correct power supply; all indicators will light up and then will be off.
- Desired setting will be confirmed 3s after the operation.

Switch On / Switch Off The Unit [Power button]



Press the power button once to turn on the unit, the unit runs by default mode on manual continuous dehumidifying with high fan speed.

- Press the power button to turn off the unit, it will stop working, fan will work for some seconds to blow out the hot air inside the unit.

Auto Shut-off Timer Function [Timer button]



Press the timer button to select your preferred timer hour from 00h-24h cancel for automatic shut-off by each press.

- Auto timer off setting will be cancelled if press timer button for 2 times in 3 seconds.
- Auto timer off setting will be cancelled if switch off the unit and switch on again.

Manual Dehumidifying Mode [Manual button]



Press the manual button to select your preferred humidity from CO-30%-35%-40%-45%-50%-55%-60%-65%-70%-75%-80%-CO. CO means continuous dehumidifying regardless of ambient humidity.

- In manual mode, all buttons are valid.

OPERATION INSTRUCTIONS

Fan Speed Option [Fan Speed button]



Press the fan speed button to select your preferred fan speed setting of Low and High to meet the different usage requirements.

Fan speed button is invalid at laundry drying mode, auto mode and defrost mode.

Anion Function [Anion button]



Press the anion button to activate the anion function to fresh up the air quality.

Anion function will be off automatically when the fan stops working.

Multifunction Optional [Mode button]

Auto Dehumidifying Mode



Press the mode button once to select the auto dehumidifying mode, the unit runs automatically accordance to the ambient humidity detected below.

Ambient RH% detected	Compressor	Fan Speed Level
RH% > 65%	Working	High
55% ≤ RH% ≤ 65%	Working	Low
RH% < 55%	Stop Working	Low

Fan speed button is invalid.

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Multifunction Optional [Mode button]

Laundry Drying Mode



Press the mode button 2 times to select Laundry Drying mode, the unit runs in continuous dehumidification with high fan speed for 6 hours then switch off automatically.

Fan speed button is invalid.

Sleep Mode



Press the mode button 3 times to select Sleep mode, the unit runs with a designated humidity setting of 55% along with low fan speed. All indicators will be off 5s after the setting is completed. Touch any button to activate the light, and to operate as usual.

Fan speed button is valid.

With no further operation after activate the light for 30s, lights will be off again.

When the water tank is full on sleep mode, water tank full indicator will always be on.

Air Purifying Mode



Press the mode button 4 times to select Air Purifying mode, the unit runs with High fan speed without dehumidifying.

Fan speed button is valid.

OPERATION INSTRUCTIONS

Wi-Fi Function [Timer button-2 seconds]



Press the timer button for 2s to activate Wi-Fi function and enter the distribution network mode, during the network configuration, the Wi-Fi indicator flash quickly, after Wi-Fi connected the indicator is on.

Detailed operation, please refer to the manual ”Smart Connection Operation Guide”.

When the machine is in distribution network mode, press the timer button for some seconds to disconnect the Wi-Fi connection.

Safety Child lock Function [Fan Speed button-2 seconds]



Press the fan speed button for 2s to lock all the buttons with a beeping sound, the same operation can unlock it.

Safety child lock function can be set at standby mode and working mode.

Low Temperature Defrost Mode



When the ambient temperature is too low, dehumidifier will enter into the defrost mode, the unit runs with High fan speed without dehumidifying.

Fan speed button is invalid.

OPERATION INSTRUCTIONS

Auto Shut off with Water Tank Full Indicator



The unit will enter into the standby mode when water tank is full or the water tank is not installed properly.
After emptying the tank or install the water tank properly, the unit will go on to the previous mode.

Except for the power button, all other buttons are invalid.

Memory Function:

a. When unplugged directly or power cut, then reconnect to the power supply, the dehumidifier will run with the mode prior to the shutdown. The timer setting will be kept.

b. Press the power button to switch off the dehumidifier, and then press the power button to switch it back on. The dehumidifier will run with the mode prior to the shutdown. The timer setting will be cancelled.

c. Switch off the device and unplug the power cord, then reconnect the power supply and switch on the dehumidifier. It will run as factory preset mode the first time you received the dehumidifier, i.e. continuous dehumidifying mode with high fan speed.

KULLSAVE

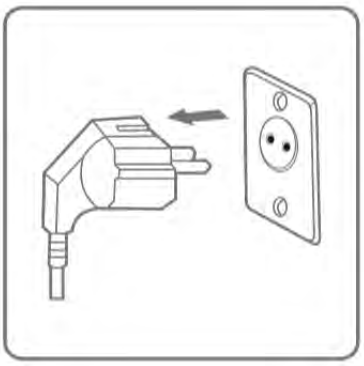
The Energy Savings Smart Operation

When the target relative humidity is reached, the unit will operate only the fan in low speed for 3 minutes, then will stop for 17 minutes. The fan will then run for 2 minutes to check that the relative humidity is stable.

If the relative humidity has risen above the target humidity approx. +3%, Kullhaus Qualis Pro Pro will start operating again. If the relative humidity remains below the target level, the dehumidifier will fall back to sleep for an additional fan work in low speed for about 3 minutes, then stop for 17 minutes.

CLEANING

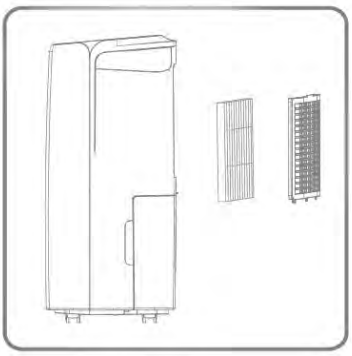
When used regularly, the filter may become clogged with dust and particles. Therefore the filter should be cleaned at least every two weeks. Follow these steps:



1. Switch the device off and remove the plug from the socket before cleaning.



2. Clean the housing with soft, dry cloth. If the device is extremely dirty, use a mild cleaning agent. Wipe the dehumidifier with a slightly damp cloth. Never spray the device with water.



3. Remove the Prefilter, clean with a vacuum cleaner or soapy water no hotter than 40°C.

Take out the HEPA filter and use a vacuum cleaner to gently remove the particles from the surface.

Never wash the HEPA filter, as it will be definitely damaged.



4. Dry completely the Prefilter before installing back to the device.

PRO

STORAGE

If the dehumidifier will not be used for a long period of time, take the following steps:

1. Remove the plug from the socket and empty the tank, make the tank and the dehumidifier dry completely, this may take a couple of days.
2. Clean the Prefilter and the HEPA filter.
3. Check the dehumidifier for perfect condition to ensure a safe use of it after a long period of storage.
4. Pack the device with the suitable packaging.
5. Store the dehumidifier in a dust-free and out of direct sunlight location, preferably covered with a sheet of plastic.

DISPLAY ERROR CODES

Please contact local distributor if any of the error codes below appears.

Display Code	Error	Display	What is happening
E1	Temperature sensor error	Flash every 30 seconds	Machine works normally.
E2	Humidity sensor error	Flash every 30 seconds	Machine works normally, but can't set the humidity.
L3	Air inlet temperature is too high ≥42ºC	Slowly flash L3	Compressor stop working, fan works at low fan speed. 10mins later, if the temperature decrease to below 40ºC, machine will work normally.
L4	Air inlet temperature is too low ≤0ºC	Slowly flash L4	Compressor stop working, fan works at low fan speed. 10mins later, if the temperature increase to above 2ºC, machine will work normally.

The above technical data is for reference only. We reserve the right to modify them without notice.

TROUBLE SHOOTING

Check the following before contacting technical support.

PROBLEM	POSSIBLE CAUSE	SOLUTION
The device does not work	The power is not connected	Insert the plug into the wall outlet
	The water tank is full	Empty the tank
	The tank has not been replaced correctly	Replace the tank correctly
Water removal capacity is too low	Runtime is too short	Be patient and wait
	Ambient temperature or humidity is too low	It is normal that the device does not dehumidify in these conditions
The device works, but reduces the relative humidity insufficiently	The room is too big	We recommend using a dehumidifier with a greater capacity
	There is too much ventilation	Reduce ventilation (e.g. close windows and shut doors)
	The air filter - HEPA filter are clogged	Clean the Prefilter and HEPA filter
	Set humidity is higher than the ambient humidity	Set the humidity lower than ambient humidity
Dehumidifier is blowing out warm air	The dried air is passed over heating coils before it is blown into the room as part of the dehumidifying process	This is normal, a dehumidifier is not an air cooler
The display is not showing the humidity set point	The display shows the room relative humidity not the set point	Press the up or down button once to see the target relative humidity
Water on floor	There is residual water in tank, and the device is lurched too much by moving	Be careful when move the tank
The dehumidifier is noisy	The air filter and HEPA filter are blocked or the device is on an uneven surface	Clean the filter or put the device on a flat surface

TECHNICAL SPECIFICATIONS

Model		Qualis Pro 20L	Qualis Pro 25L
Power Supply		220-240V~ 50Hz	
Dehumidifying Capacity		20L/day (30°C 80%rh)	25L/day (30°C 80%rh)
		12L/day (27°C 60%rh)	15L/day (27°C 60%rh)
Power Consumption	27°C RH60% (Rated Power)	250 W	300 W
	35°C RH80%	340 W	430 W
Air flow	H	155m³/h	155m³/h
	L	135m³/h	135m³/h
Fan speed		2	
Noise Level	H	42dB(A)	43dB(A)
	L	40dB(A)	41dB(A)
Water Tank Capacity		4.2L	
Operating Temperature		5°C~35°C	
Timer		1−24h	
Refrigerant		R290/0.07kg	R290/0.09kg
Net Weight		12.2 kg	14.4 kg
Gross Weight		14 kg	16.2 kg
Product Size (WxDxH)		336 × 237 × 519 mm	
Box Size (WxDxH)		385 × 285 × 580 mm	

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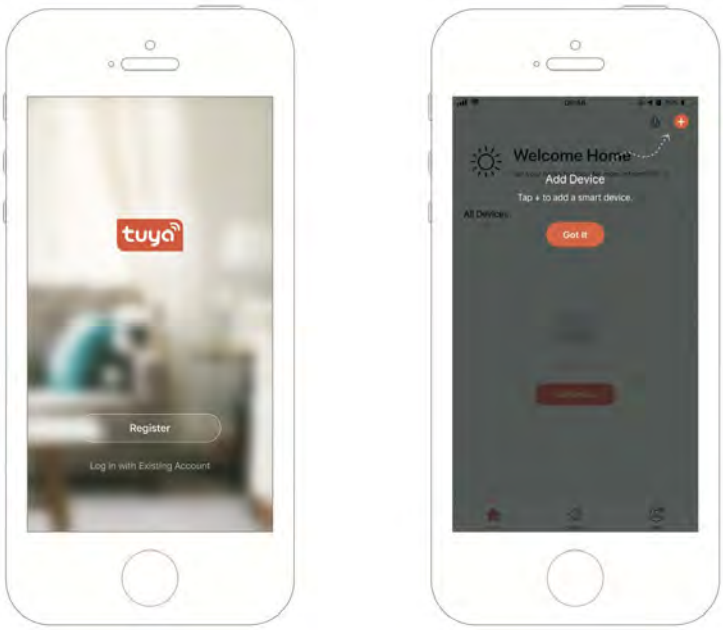
SMART WI-FI CONNECTION OPERATION GUIDE

APP Binding Device

Search an APP platform for «TuyaSmart» or scan the following QR code to download the APP.

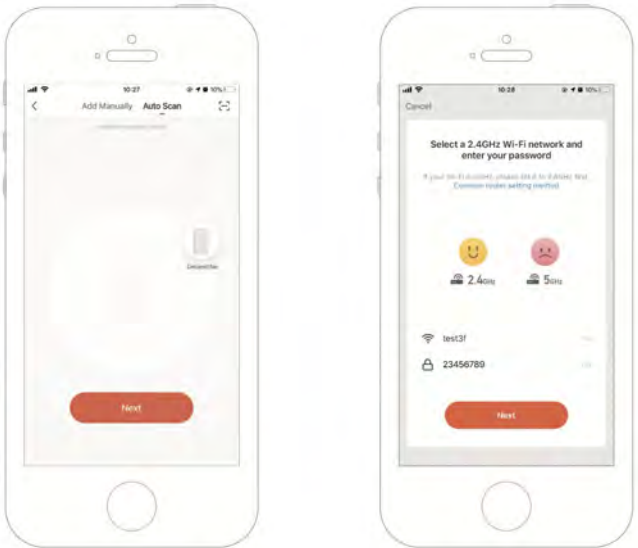
Step 1

Make sure the phone is connected to the Wi-Fi at home, and turn on the Bluetooth device, tap the upper right corner of the home page+ to add device.



Step Two

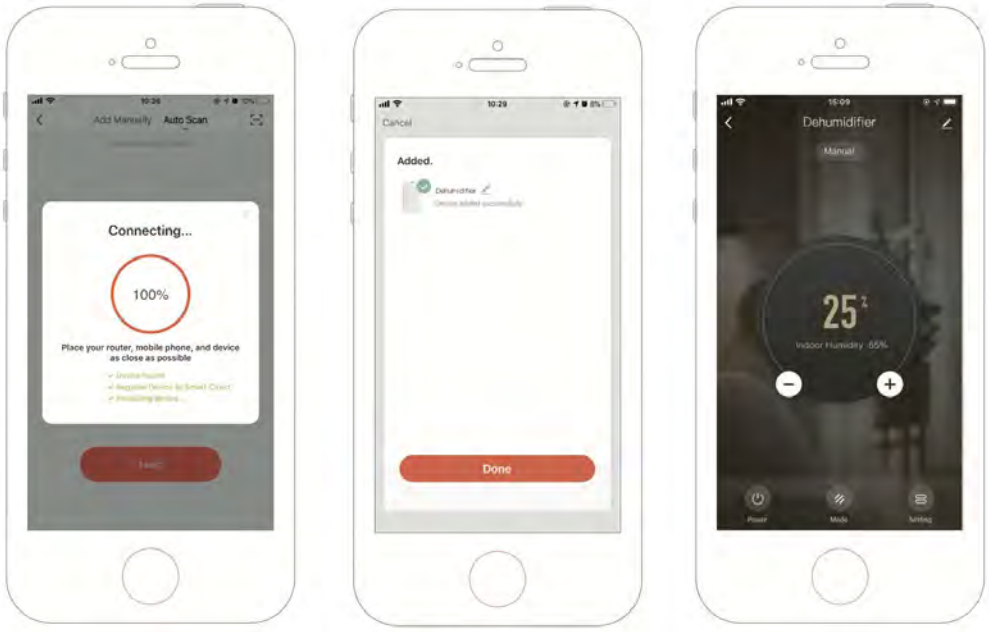
Follow the guide to select the device to be configured, then enter the Wi-Fi password.



PRO

Step 3

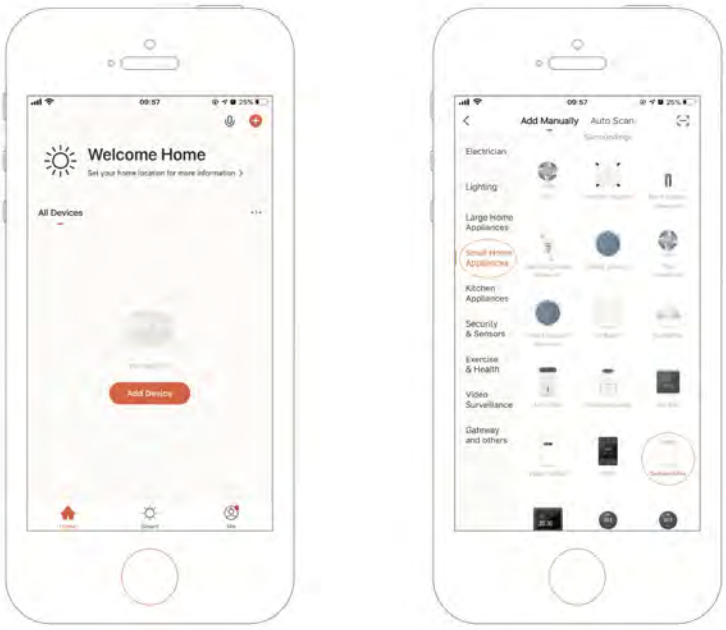
Complete the connection to set the dehumidifier with APP.



Adding Device Manually

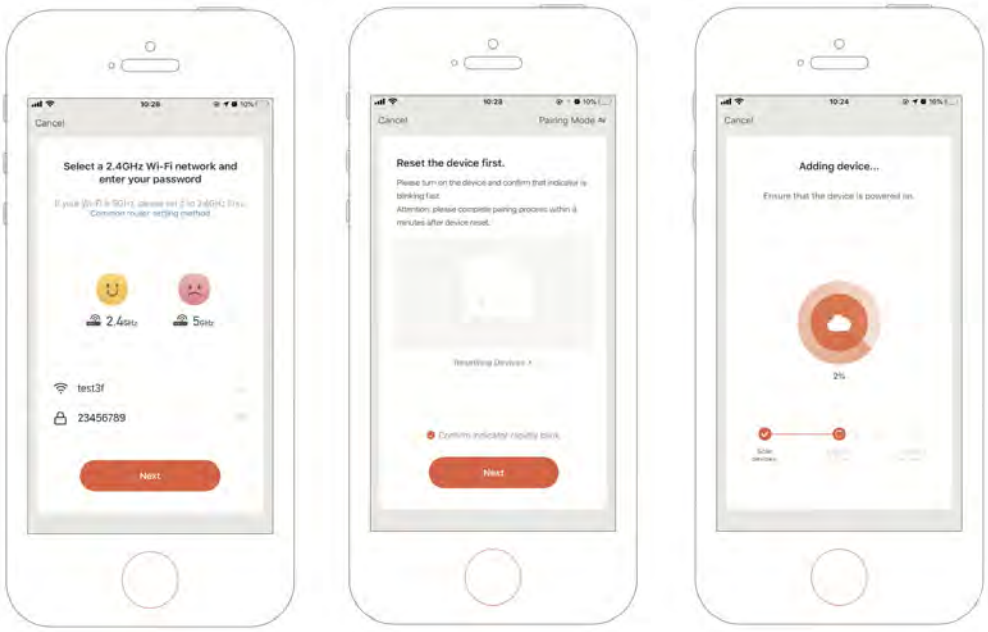
Step 1

Tap Add Device on the home page or+ in the upper right corner to go to the Add Device page.



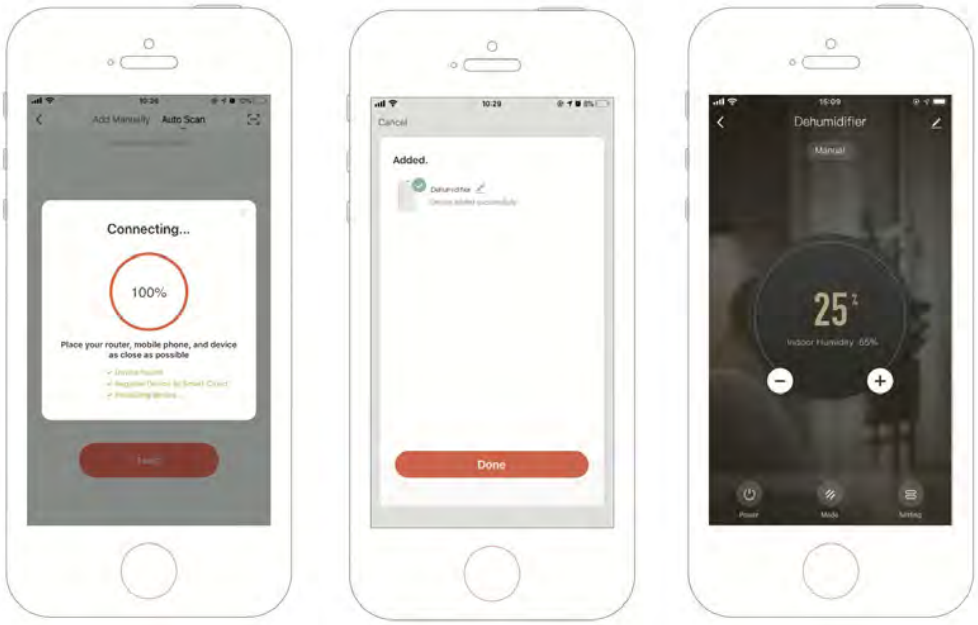
Step 2

Confirm the indicator rapidly blink and enter the Wi-Fi password.



Step 3

Complete the connection to set the dehumidifier with APP.



CONDITIONS OF WARRANTY

The dehumidifier is covered by a five-year (5) warranty on the compressor and a two-year (2) warranty on the remaining parts of the appliance, starting from the date of purchase.

The following apply:

- This warranty does not limit or affect the consumer's statutory rights as provided by the Greek Civil Code, Law 2251/1994, and Law 4967/2022, in accordance with Directive (EU) 2019/771.
- The activation date of the warranty is proven exclusively by the original proof of purchase (receipt or invoice).
- The warranty covers only manufacturing and material defects, as well as the cost of spare parts and labor.
- The remedy (repair or replacement) is provided to the consumer at no cost, as defined by Directive (EU) 2019/771 and Law 4967/2022. The term "no cost" includes the cost of labor and materials, and—when required—the cost of transportation necessary for the provision of the statutory warranty.
- The warranty does not imply any obligation for:
  – replacement of the entire appliance,
  – refund,
  – provision of a replacement unit during repair.
- Consumable parts (e.g., filters, cables) are not covered.
- For safe and efficient operation, regular cleaning and maintenance are recommended, as described in the product's user manual.

The warranty is void in the following cases:

– incorrect use, improper settings, or negligence
– intervention by non-authorized technicians or the user
– use of a household appliance for professional purposes
– incorrect or unsuitable installation
– absence or alteration of the serial number or proof of purchase
– use of non-approved accessories
– damage caused by dust, dirt, or foreign objects
– damage due to incorrect installation or improper handling
– damage from overvoltage, voltage drops, extreme temperatures, or external factors
– connection to an ungrounded electrical outlet
– damage caused by third-party products or materials not approved by Sani hellas

- In the event of a malfunction, the consumer must contact the official authorized Kullhaus service partner.
- Sani hellas reserves the right to determine the method, location, and timing of repairs at its discretion, depending on the specific characteristics of each case.
- For the provision of the commercial warranty beyond the statutory warranty period, the customer may be required to transport the product to the service center at their own responsibility and cost.
- Any repair or replacement of components—or, in exceptional cases and at the discretion of Sani hellas, replacement of the entire appliance—does not renew or extend the duration of the commercial warranty. The warranty remains valid until its original expiration date and is not reset for any replaced component.
- Repaired devices that remain at service centers more than 15 days after the customer has been notified may incur storage fees.

Kullhaus
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distributor of Kullhaus products in Greece

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AIR TREATMENT

SANI HELLAS
IMPORT EXPORT TECHNICAL SA
5-7 Kosti Palama Str.
143 43 Athens, Greece
Tel. (+30) 210 3236627, 3233766
Fax (+30) 210 3247709
e-mail: info@sanihellas.gr
www.sanihellas.gr

www.kullhaus.com