

**User manual and technical specifications
Hetro Dehumidifier DT9K
No water collection, wall mount installation**



Room temp	Possible room target humidity
15° C	70 to 80 %RH
16° C	67 to 80 %RH
17° C	63 to 80 %RH
18° C	60 to 80 %RH
19° C	58 to 80 %RH
20° C	55 to 80 %RH
21° C	53 to 80 %RH
22° C	51 to 80 %RH
23° C	48 to 80 %RH
24° C	46 to 80 %RH
25° C	44 to 80 %RH
26° C	42 to 80 %RH
27° C	39 to 80 %RH
28° C	37 to 80 %RH
29° C	35 to 80 %RH
30° C	32 to 80 %RH

IISC COE approved concept

Hetro Dehumidifiers are heater-based dehumidifiers, enables your AC for removing excess moisture in the room. Works only when AC (cooling) is running in your room.



90 Days – 90% Return policy



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1. Safety Information - Please Read Before Using This Equipment

PLEASE READ ALL INSTRUCTIONS BEFORE OPERATING THIS EQUIPMENT



Electrical equipment, only certified electrician / trained person required for installation.

WARNING - This Hetro dehumidifier must be used only for dehumidification purpose in industrial and commercial applications. Any other use is not recommended by the manufacturer and may cause fire, electrical shocks or injury to person and/or property.

1. Hetro Dehumidifier works only when Air-condition (Cooling) is running.
2. Do not use dehumidifier in high ratio of dust in the room or in powdered environment.
3. Do not use this dehumidifier in outdoors and never operate or store the unit in direct sunlight.
4. Do not use this dehumidifier where accessible to children age below 12 years.
5. Do not use this dehumidifier in condensing environment.
6. Do not use this dehumidifier without proper MCB electrical protection.
7. This is not domestic product, for use in commercial and industrial purpose.
8. Do not use in potentially explosive environments.
9. Keep Children Away: Do not allow children to play with or around this dehumidifier, which could result an injury.
10. Hetro Dehumidifier radiates heat and air outlet temperature of the Dehumidifier is hot, always maintain safe distance.
11. Keep Unit Grounded: Always operate the dehumidifier with a grounding plug and a grounded electrical outlet. A grounding plug is an essential safety feature that helps reduce the risk of shock. This is applicable for metal body, for plastic body not applicable.
12. Protect Power Cord from Damage: Never operate a dehumidifier with a damaged power cord, as this may lead to electrical or fire hazards. If the power supply cord is damaged, it must be replaced by a new power cord of the same type and same ampere rating.

13. Do not place other objects on the dehumidifier or near to the dehumidifier
14. To protect against electrical shocks, do not immerse the dehumidifier, plug or cord in water, or spray with liquids. Do not run power cord under carpets, or cover with rugs.
15. Electrical Extension box must not be used. As they may overheat and cause a risk of fire.
16. Handle with Care: Do not drop or throw the dehumidifier. Rough handling can damage the components and wiring and create a hazardous condition.
17. Make sure wall is strong enough to hold the weight of the dehumidifier. Take certified electrician, or Dewteq engineer or Dewteq Dealer services for installing the equipment.
18. Keep Out of Water: Never operate the unit in pooled or standing water, as this may create a risk of injury from electrical shock. If electrical wiring or components become wet, thoroughly dry them before using the unit.
19. Keep this user manual always available with user or operator, operating this dehumidifier without understanding this user manual is not acceptable, this may cause fire, electrical shocks or injury to person and/or property.
20. Hetro Dehumidifiers are not lifesaving equipment, if you are using this dehumidifier in any critical areas like ICUs or OTs in Hospitals, we recommend keep spare dehumidifier as a standby for any sudden failures or go for redundancy installation.
21. Sealing the room: Do not seal the room completely this may cause reduction of oxygen and increase of carbon dioxide the room based on occupancy, make sure allow sufficient fresh air.
22. Buyer needs to declare that there are no plumbing pipes or electrical wires or any other substances concealed behind dehumidifier install wall area, which might get damage due to drilling activity required at the time of installation.

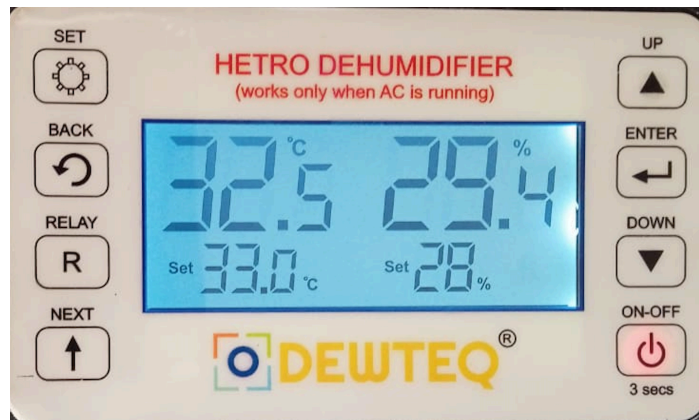
2. How Hetro Dehumidifier works

Hetro Dehumidifier is a patented technology, M/s Dewteq Technologies holds the IP rights, principle of operation is approved by IISC COE Bangalore.

Hetro Dehumidifier works only when room air-conditioner (cooling) is running. This dehumidifier is designed to reduce humidity from the air in a closed room when air-condition is running. The purpose is to prevent issues associated with high humidity in the room.

This Hetro Dehumidifier enables the air-conditioner to reduce the excess humidity in the room. It works on heating and cooling technique until room humidity reduced to the required level.

3. Humidistat Control Panel Settings



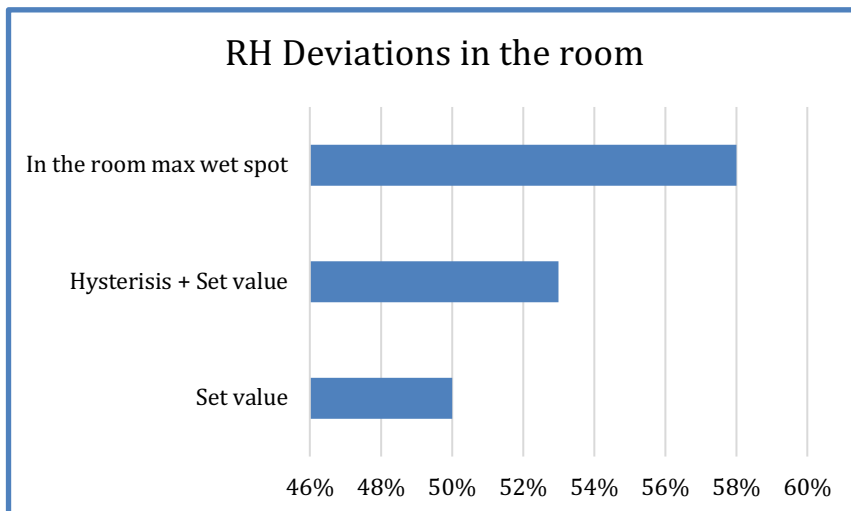
- **ON-OFF Switch:** Used to turn Dehumidifier ON or OFF. Press 3 seconds to turn ON or OFF.
- **UP Switch:** Used to increase the set value.
- **ENTER Switch:** Used to save the new value.
- **DOWN Switch:** Used to decrease the set value.
- **SET Switch:** Used to set the desired room temperature and Humidity.
- **BACK Switch:** Used to go back from the settings screen.
- **RELAY and NEXT Switch:** Not in use.

4. Dehumidifier operation and setting the desired humidity

- 1) Start the Dehumidifier by pressing “ON-OFF” switch for 3 seconds, display shows room temperature and room humidity along with set CUT-OFF temperature and set humidity.
- 2) Press “SET” switch, display blinks set temperature CUT-OFF value, set the value which is maintained by your AC + 2° C (for example 22° C is your room temperature maintained by your AC, then set it for 24° C) use “UP” and “DOWN” switches to change the set temperature CUT-OFF value and press “ENTER” switch.
- 3) Press “SET” switch for two times: Display blinks set humidity value, use “UP” and “DOWN” switches to change the desired room Humidity and press “ENTER” switch.
- 4) Turn OFF the unit by pressing “ON-OFF” switch for 3 seconds, to turn OFF the unit completely disconnect power supply mains plug.

5. Hysteresis effect – dry and wet spots in the room

Factory set value for hysteresis is 3% RH, it can be re-programmed based on the room size and dry & wet spots in the room. For example: We set 50%RH target humidity in the room, and hysteresis is 3%RH, we may observe 58%RH wet spot in the room.



Like in an air-conditioned room, cold and hot spots are common, near to the AC blower we observe cold spots and away from the blower we observe hot spots. Similarly, we observe dry and wet spots in the room, this is common.

Reduce the target humidity, if you observe more wet spots in the room. Please note the lower target humidity, the more power consumption we observe.

Below parameters that causes the deviations of RH value in the room.

- Room size.
- Air circulation in the room.
- AC capacity in Tons Vs Hetro Dehumidifier capacity.
- No of door openings.
- Air leakages in the room.
- Amount fresh air we pump in to the room.
- No of persons in the room, etc.

6. Service Policy

We have made service policy simple, we will replace the failed part instead of service at site. We will send the replacement parts through courier, it will take around 1 to 2 weeks. If you are using this equipment in any critical areas like ICUs or OTs in hospitals, please keep additional unit as a spare or go for double redundancy installation.

After receiving replacement part, please pack the failed part in the same box that you received for replacement. Dewteq will take failed part back to our factory.

7. Equipment Calibration

We recommend calibration yearly once. If you have calibrated temperature and humidity sensors, you can self-calibrate, which avoids the additional costs. We charge Rs. 1200/- for calibrating at factory for specific temperature and humidity values.

8. Maintenance schedule

One of the advantages of Hetro dehumidifiers is low maintenance costs. If your room is clean, once every three months visual observation required at air inlet and air outlets of the heaters, if dust is observed cleaning is required.

If your room is a dusty environment, frequent cleaning is required, if you observe any dust clogs inside the heater, we will take heater to the Dewteq factory for cleaning at additional cost.

9. Advantages of Hetro Dehumidifiers

- 1) No water collection.
- 2) Wall mount installation, duct work not required.
- 3) Warms the room if outside temperature is too low.
- 4) Average power consumption is remains same when compared to compressor dehumidifiers for a specific moisture removal.
- 5) For powdered environments without fan heaters are available.
- 6) Low maintenance costs.
- 7) Long life time.

10. Possible target humidity in the room at different room temperatures.

Please refer page 1 table for possible target humidity at different room temperatures.

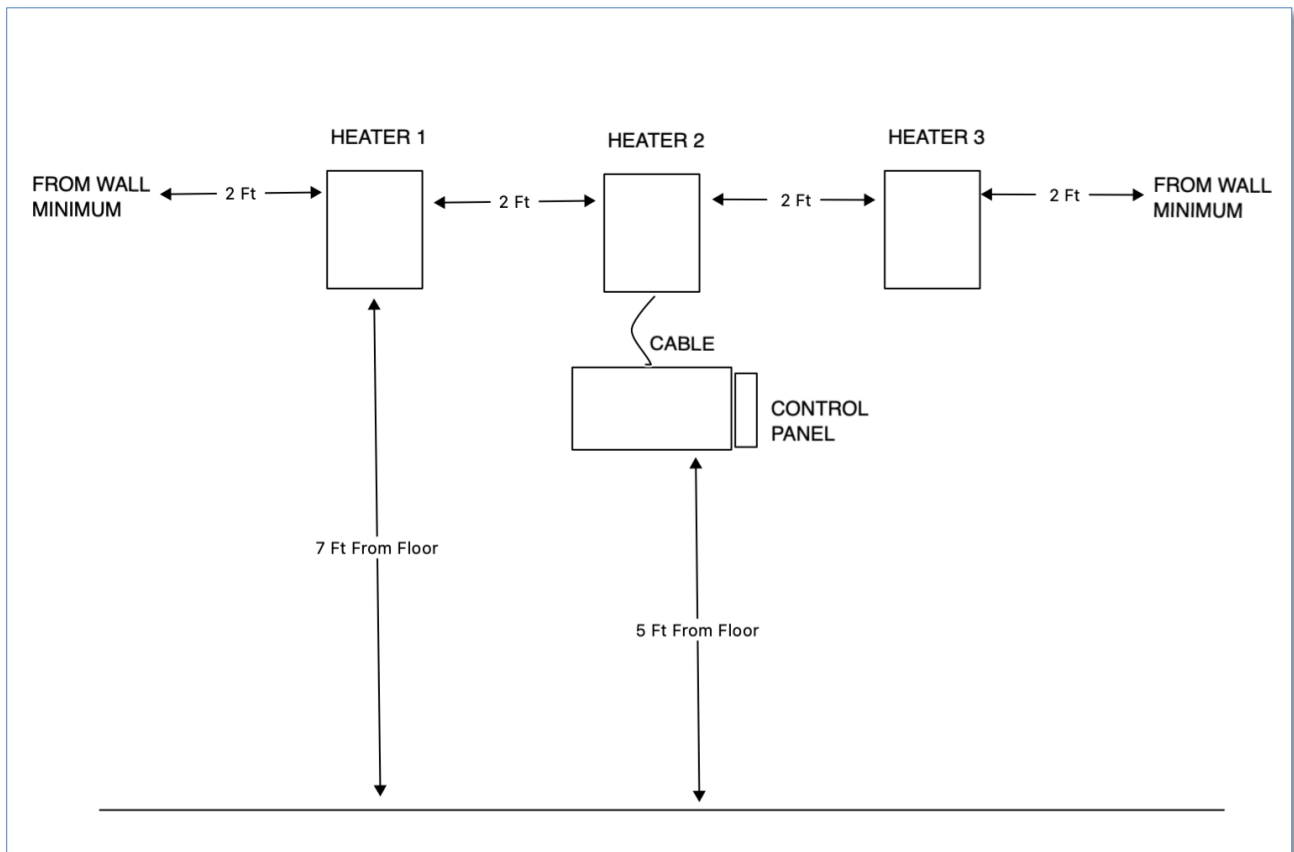
For your information: Reaching target humidity in the room depends on several other factors like infiltration load, occupancy, open holes, fresh air, moisture from production material etc. Please contact Dewteq Technologies for specific moisture load calculations for your room.

11. Wall mount Installation guidelines for DT9K

After receiving the unit unpack and check your dehumidifier for any transport damage. In case of damage please contact us.

Identify safe place for installation, away from children. For installation, please provide three electrical power with MCB protection. Dewteq supplied wall mount screws, PVC rawal plugs and wall marking sheet along with the equipment.

- Do not Install just below the air-conditioner.
- From side wall maintain minimum 2 Feet distance.
- Do not install heater where airflow directly blows on the person or other material.
- Below provided dimensions are approximate based on site conditions may vary.



DT9K installation guidelines

Certified electrician must approve electrical wiring from customer end, before turning ON the Dehumidifier. Please contact us if you need three phase Hetro Dehumidifiers.

Buyer should declare that there are no plumbing pipes or electrical wires or any other substances concealed behind the dehumidifier install wall area, which might get damaged due to drilling activity required for dehumidifier installation.

12. Trouble shooting

Problem	Cause	Solution
The unit does not turn ON.	Power supply and/or heater connections.	Check power supply and if heater connector is inserted properly.
The device does not dehumidify.	Humidity setting may be wrong, Check the target humidity setting.	Set target humidity between 30% to 80%RH.
	Cut-OFF Temperature setting may be wrong, Check.	It shall be 2 Deg C above the AC setting. For example, if your room AC is set for 24 Deg C, then Set the dehumidifier temperature to 26 Deg C.
	AC water out let is not collecting and draining the water.	Check and make sure AC water drain pipe is properly installed and water is draining out from the AC.
	Room is not closed properly.	Check open windows and open doors any other air leakages in the room.
	Room temperature is out of range.	Make sure room is between +15 to +30 Deg C.
The dehumidifier works, but reduces the relative humidity insufficiently.	Check the dehumidifier capacity is sufficient for your room.	Contact Dewteq Technologies for capacity calculations.
	There is too much ventilation .	Reduce ventilation. (Example: Close windows and doors)
	AC water out let is not collecting and draining the water.	Check and make sure AC water drain pipe is properly installed and water is draining out from the AC.
It cannot remove the water drops from my window, or any other cool object in the room.	The surface temperature of the window or any object in the room is too low.	Reduce the target humidity in the room. If any objects in the room are below dewpoint temperature, we cannot control condensation.
Dehumidifier is blowing out hot air.	This is normal for Hetro Dehumidifier to blow hot air when it is dehumidifying, to enable AC.	We only rise max 2 Deg C from your set temperature of AC, while AC working you will not observe any excess temperature in the room.
The dehumidifier is noisy.	Something is blocking the FAN.	Contact Dewteq Technologies, before that TURN OFF the Dehumidifier and disconnect the mains plug.
Display shows Error codes / beeps / flashes continuously.	Humidistat internal problem.	Turn OFF the Dehumidifier, disconnect the power plug and contact us for further support.

13. Warranty and Customer Support

Two years warranty is provided for dehumidifier from the date of purchase. Manufacturing defects will be repaired/replaced free of cost. In case of your dehumidifier failure, we will collect it from your place for repair/replacement.

The following terms are applicable on warranty:

1. Warranty is not valid if dehumidifier is not installed by Dewteq certified engineer.
2. Warranty is not valid if dehumidifier is installed in high dust ratio or high concentration of solvents in the air, or outdoors.
3. Warranty will expire if any alterations have been made, or a third party has repaired the dehumidifier.
4. The warranty is only valid on presentation of the proof of purchase.
5. The warranty does not cover damage caused by actions that deviate from points described in this user manual.
6. The warranty does not cover faults caused by high voltages, EFT, Surge and thunder voltages, use voltage stabilizer if you have voltage fluctuations.
7. The warranty does not cover for accidental damage.
8. Claims for compensation will not be covered for consequential damages.

Due to continuous improvement and customer feedbacks this user manual will be updated time to time. Please contact us for after sales support.

If you have purchased through our dealer, please contact dealer for after sales support.

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14. Technical Specifications and Operating Conditions

Hetro Dehumidifier Model	DT9K
Capacity	> 270 Lit / Day
Suitable Room size	7000 - 12000 Cubic feet For 8 to 12 Ton AC room
Set desired room humidity	30% to 80% RH
Operating room temperature	+15 to +30°C
Digital display	Shows room Humidity and Temperature
Supply Voltage	3 Phase / N / E - 415 VAC – 50 Hz
Normal Current	13.6 Amps – 3 Phase
Total connected load Electrical Power	9 KW (Selectable 9 KW or 7.5 KW)
Air flow	180 CMH X 3 Fans
Water collection tank Size	No tank, No water collection
Sound Level	55 dB(A)
Installation	Wall mount - Duct work not required
Dehumidifier size L x W x H	Heater 1 : 25 x 28 x 30 cm Heater 2 : 25 x 28 x 30 cm Heater 2 : 25 x 28 x 30 cm Humidistat : 50 x 40 x 20 cm
Net Weight	20 Kgs

For your information: Connected electrical load is not continuously ON, the average power consumption depends on room target humidity.