



AIRTECHNIC DDA.1.100 Dehumidifier User Manual

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DDA-1.100 Dehumidifier



Thank you for choosing the DDA-1.100 Dehumidifier.

Please read the instructions carefully in order to use the machine safely and properly. Please keep this MANUAL in a safe place for future use.

Important safety instructions

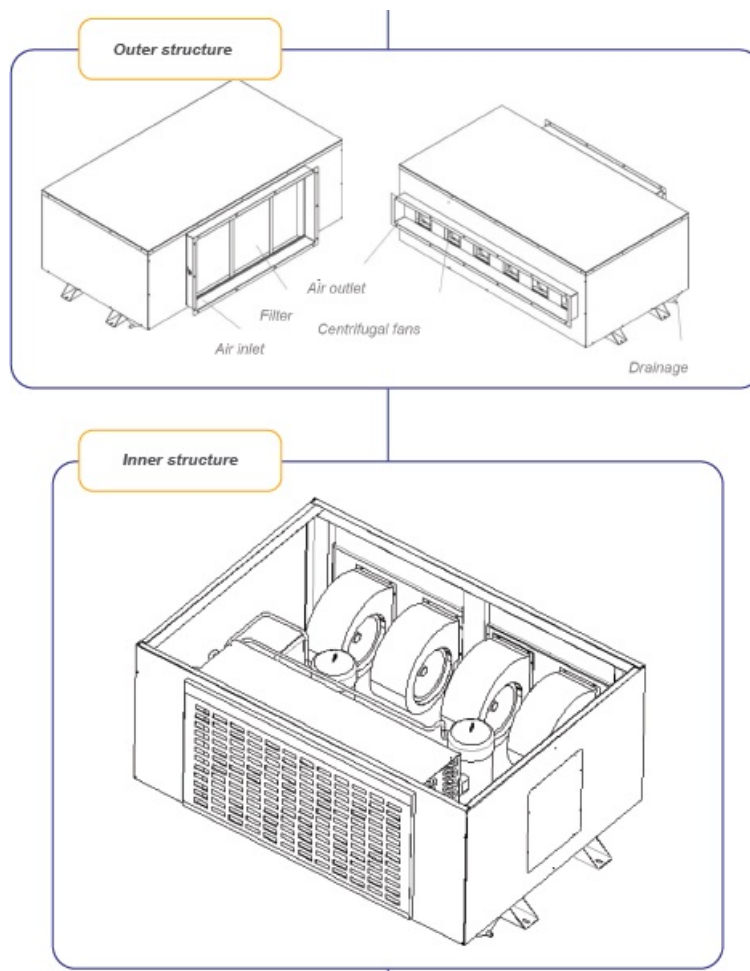
Please read the instructions carefully before using the machine.

- Make sure the power supply is 400V / 50Hz before turning on the machine.
- Don't power on / off the machine by connecting or removing the power cord directly.
- Don't bend or damage the power cord when installing or removing the machine.
- Don't put your fingers or any other rod-like object into the machine.
- Disconnect the power supplier before cleaning or maintaining the machine.
- Make sure to connect the ground lead.
- Don't attempt any modification on the machine unless guided by our authorized technicians.

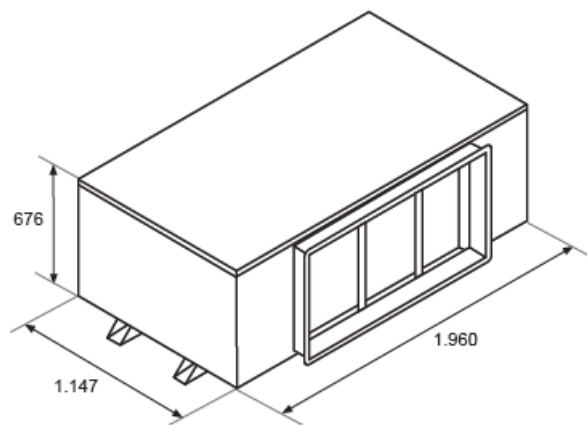
Attention:

The machine has protection from unbalance due to loss of phase. When the three phase connection is not correct and according to design specifications, the control panel will display all indications normally but the protection will prevent the machine from starting. In tha case you must repair the power supply connection, ensure that all phases are connected properly and restart the machine. Any repair must be performed by professional technicians.

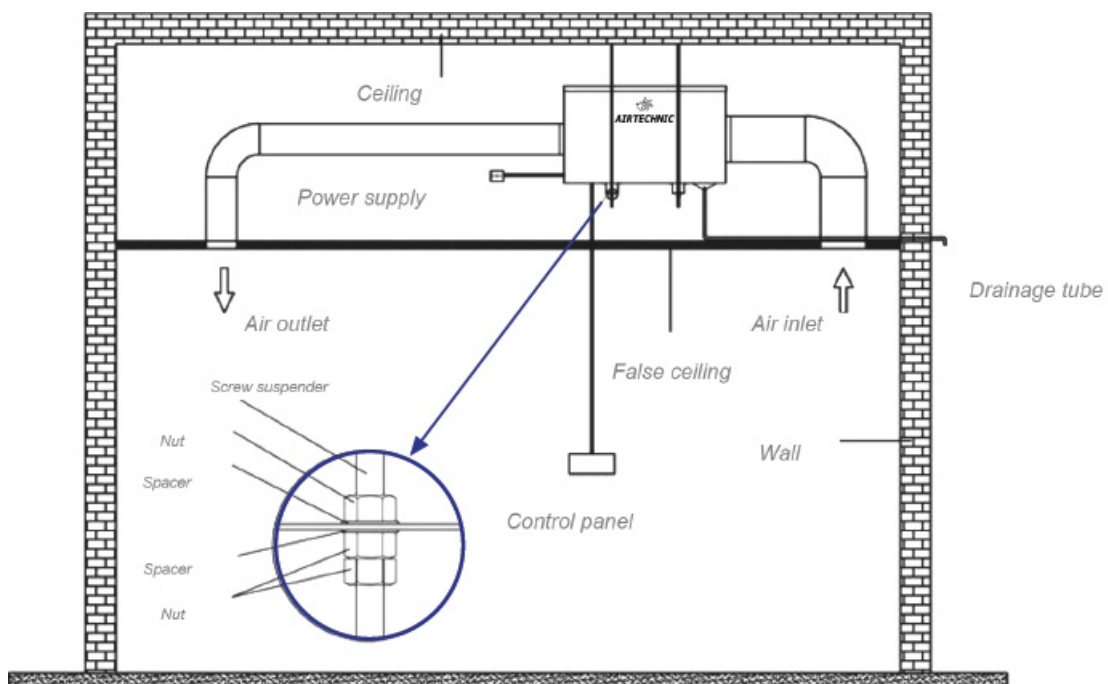
Structure



Dimensions of the shell [mm]

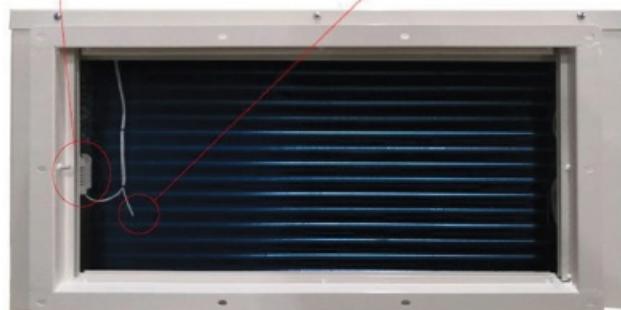


Installation sketch



Humidity sensor
Can be moved to another room using an external wire.

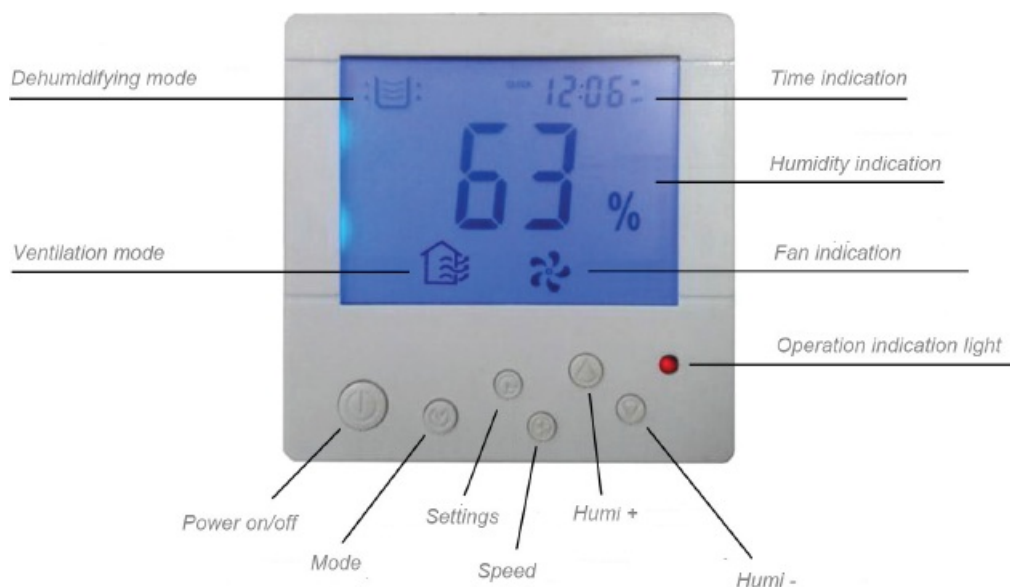
Coil temperature sensor



Attention:

Install the machine firmly using screw suspenders on the ceiling and make sure there is an over 2 degree angle to the drainage tube, for smooth and continuous drainage.

Control Panel



Operation

1. When powering on the dehumidifier the screen will display the ambient humidity.
2. Press "Power on / off" button to start the dehumidifier.
3. Press "Mode" button to select dehumidifying or ventilation mode. The screen will display the corresponding icon.
4. In the dehumidifying mode:
 - ◆ Press "Setting" once to set target humidity.
 - ◆ Press "Setting" twice to set timed on hours.
 - ◆ Press "Setting" thrice to set timed on minutes.
 - ◆ Press "Setting" quartic to set timed off hours.
 - ◆ Press "Setting" five times to set timed off minutes.
 - ◆ Press "Setting" six times to set clock hours.
 - ◆ Press "Setting" seven times to set clock minutes
5. "Humi +". Press the key to set the humidity value up by 1% RH scale in running mode. Press the key to set the hour or minute down by 1 hour or 1 minute scale in timed on / off or clock setting mode.
6. "Humi -". Press the key to set the humidity value down by 1% RH scale in running mode. Press the key to set the hour or minute down by 1 hour or 1 minute scale in timed on/off or clock setting mode.
7. "Humidity display". Displays the current ambient humidity when in standby / ventilation / dehumidifying mode. The value is blinking when in humidity setting mode.
8. "Operation indication light". Blinking when the machine is running.
9. "Frost protection". The dehumidifying icon is blinking when the machine's automatic frost protection is activated.
10. "Timed on/off and clock display". Blinking when in timed on / off or clock setting mode
11. "Ventilation mode". Display the icon when in ventilation mode.
12. "Dehumidifying mode". Display the icon when in dehumidifying mode. Blinking when in the 3 minutes delay protection mode.

Functions

1. The machine goes into standby mode when connected to power supply (plug), LCD screen lights on and display current ambient humidity.
2. Press the “on / off” key to start or shut down the machine.
3. Humidity setting: press “+” or “-” key to adjust humidity you want, the dehumidifier will start working when the set humidity is 3% less than the current humidity. The dehumidifier will stop working when the set humidity is 3% more than the current humidity.
4. Timed on / off setting: press the “setting” key to set timed on mode. With the “on” light blinking, press “+” or “-” to set the hours and minutes. Press the “setting” key again to set timed off mode. With the “off” light blinking, press “+” or “-” to set the hours and minutes. Press the “time” key to exit timed on / off setting mode. The machine will keep the timed on/off settings in memory when powered off and will resume timed function when powered on again. To remove the timed on/off function you must return the hours and minutes of all previous settings to zero.
5. After setting the timed on / off, if the machine is shutdown, it will run all the timed on/off setting. If the machine is running, it will run timed off setting only.
6. Automatic frost protection: DDA units will enter in automatic frost protection status when the coil temperature is under -2 °C after running for 30 minutes. The protection status will last for around 10 minutes, then the units will start the compressor automatically

Protection functions

1. Automatic frost protection

The dehumidifier will activate an automatic frost protection function when ice reaches a certain level on the evaporator, with compressor shutdown. The dehumidifier will restart automatically when the protection function is completed. The factory setting for protection activation is when ambient temperature drops under 18 °C.

2. Compressor 3 min delayed start protection function, after the compressor has shut down.

3. Error codes

Κωδικός σφάλματος <i>Error code</i>	Περιγραφή <i>Description</i>	Λύση <i>Solution</i>
E1	Σφάλμα αισθητηρίου θερμοκρασίας στοιχείου <i>Coil temperature sensor error</i>	Ελέγξτε τις ηλεκτρικές συνδέσεις ή αντικαταστήστε το αισθητήριο <i>Check the data wire or replace the sensor</i>
E2	Σφάλμα αισθητηρίου υγρασίας χώρου <i>Room humidity sensor error</i>	Ελέγξτε τις ηλεκτρικές συνδέσεις ή αντικαταστήστε το αισθητήριο <i>Check the data wire or replace the sensor</i>
E3	Σφάλμα ακολουθίας φάσης <i>Phase sequence error</i>	Ελέγξτε την παροχή ρεύματος ή τις ηλεκτρικές συνδέσεις <i>Check the power supply or wire connection</i>
E4	Λείπει κάποια φάση <i>Phase missing</i>	Ελέγξτε την παροχή ρεύματος ή τις ηλεκτρικές συνδέσεις <i>Check the power supply or wire connection</i>
E5	Προστασία πίεσης συμπιεστή <i>Compressor pressure protection</i>	Ελέγξτε την κατάσταση του ψυκτικού υγρού και το σημείο διαρροής <i>Check the refrigerant status and the leakage point</i>

Caution in use

1. Do not tilt the machine more than 45 ° when moving or installing it to avoid damaging the compressor.
2. Working temperature of the machine is 5 °C ÷ 38 °C.
3. The room temperature will increase around 3 °C from compressor heat dissipation when the dehumidifier is

running. It's a normal phenomenon, please feel free to benefit from it.

4. It's not necessary to use the dehumidifier when the room temperature is below 10 °C, the absolute humidity is quite low at this condition.
5. Please try to seal the environment better to increase the effect of the dehumidifier.
6. Do not place the machine in areas which may come into contact with water or chemicals.
7. Do not use any relay, extension line or adapter to connect the machine to the power line.
8. Do not place the machine next to stoves and areas with direct sunlight, wind or rain.
9. Place the plug firmly and clean the dust on the power cord.
10. Do not damage or modify the power cord, do not repair by yourself and disassemble or modify the machine.
11. Place the drainage tube accordingly for continuous drain.
12. Please shutdown the machine and unplug the power supply when it malfunctions.

Handling Common Faults

Δυσλειτουργία Failure	Ανάλυση αιτίας Cause analysis	Μέθοδος διαχείρισης Processing method
Το μηχάνημα δεν λειτουργεί The machine is not running	Διακοπή ρεύματος Power failure	Αποκαταστήστε το ρεύμα Restore the power
	Η τάση ρεύματος δεν είναι σωστή Power is not normal	Αποκαταστήστε την τάση Restore the power
	Το καλώδιο τροφοδοσίας δεν είναι στην πρίζα Power cord is not plugged in	Βάλτε στην πρίζα το καλώδιο τροφοδοσίας Plug in the power cord
	Καμένη ασφάλεια πίνακα Panel fuse failure	Αντικαταστήστε την ασφάλεια Replace the fuse
Ανεπαρκής λειτουργία αφύγρανσης Poor dehumidification function	Βρώμικο φίλτρο Clogged filter	Καθαρίστε το φίλτρο Clean the filter
	Εμπόδια στα στόμια των αεραγωγίων Blocked air inlet / outlet	Απομακρύνετε τα εμπόδια Remove obstacles
	Ανοιχτές πόρτες ή παράθυρα Opened doors or windows	Κλείστε τις πόρτες και τα παράθυρα Close doors and windows
	Διαρροή ψυκτικού υγρού Refrigerant leakage	Επικοινωνήστε με τους τεχνικούς μας για συντήρηση Contact our technicians for maintenance
Αποτυχία επίτευξης επιθυμητού επιπέδου υγρασίας μετά από αρκετή ώρα λειτουργίας Cannot reach a suitable humidity level after a long time of functioning	Ανοιχτές πόρτες ή παράθυρα Opened doors or windows	Κλείστε τις πόρτες και τα παράθυρα Close doors and windows
	Παρουσία πηγής υδρατμών Vapor source existing in the room	Κλείστε την πηγή υδρατμών Close vapor source
	Ο χώρος είναι πολύ μεγάλος The room is too large	Προμηθευτείτε το κατάλληλο μοντέλο, βάσει της έκτασης του χώρου σας Choose the suitable model, depending on the size of the room
Μη φυσιολογικός θόρυβος λειτουργίας Abnormal functioning noise	Ασταθής τοποθέτηση μηχανήματος Unstable installation of the machine	Τοποθετήστε το μηχάνημα σταθερά Install the machine stably
	Βρώμικο φίλτρο Clogged filter	Καθαρίστε το φίλτρο Clean the filter

- When the cause of the malfunction cannot be recognized or repaired, please contact the supplier for maintenance service. Do not attempt to disassemble the machine and repair it without guide.
- Discharge of hot air from the outlet is a normal phenomenon.

Maintenance of the machine

Shut down the machine and unplug the power supply before maintenance.

General maintenance

Wipe the body of the machine with soft cloth daily. Use a wet hard cloth to wipe out dirt from the body, or use a soft cloth moistened with a little diluted neutral detergent.

Regular maintenance

Filter Cleaning:

The accumulation of dust on the filter will affect the dehumidifying efficiency or cause malfunction. It needs to be cleaned regularly at least once a month. Use dust catcher to remove dust or wash the filter with clean water (<40 °C), then place the filter back again.

Note

The filter must not be placed under direct sunlight to avoid distortion. The filter must be in place before powering up the machine.

Long time of non-use of the machine

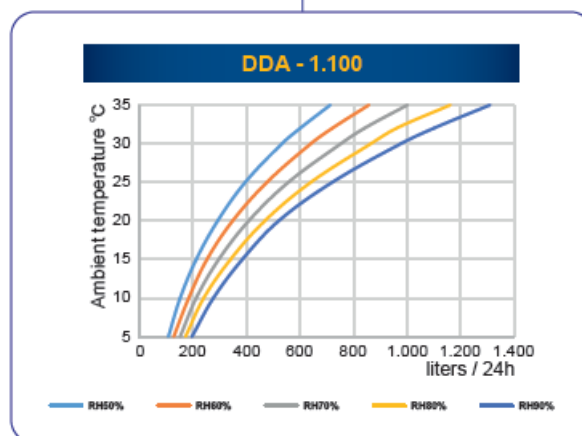
Unplug the power supply and store the machine in a dry and shady place. Do not store the machine on the floor and in places where other work is performed to avoid damage from people and equipment.

Technical parameters

Τύπος Model	DDA - 1.100	
Παροχή αέρα Air flow	m³/h	10.000
Τάση Voltage	400V / 50 Hz	
Ισχύς Power	W	12.000
Ρεύμα Current	A	18,3
Κατάλληλο για χώρο Applying area (2,6 m height)	m²	600 ÷ 800
Ψυκτικό μέσο Refrigerant	R407c / 6.5 Kg	
Ικανότητα αφύγρανσης Dehumidifying capacity	lt / 24h	1.100 (32 °C / RH 90%)
Θερμοκρασία λειτουργίας Working temperature	°C	5 ÷ 38
Καθαρό βάρος Net weight	Kg	350
Διαστάσεις (μήκος x πλάτος x ύψος) Dimensions (length x width x height)	mm	1.147 x 1.960 x 676

Performance

Ικανότητα αφύγρανσης σε διαφορετικές συνθήκες θερμοκρασίας και υγρασίας περιβάλλοντος <i>Dehumidifying capacity at different ambient temperature and humidity conditions</i>										
Θερμοκρασία Temperature	10 °C	10 °C	15 °C	15 °C	20 °C	20 °C	30 °C	30 °C	32 °C	32 °C
Υγρασία Humidity	60%	80%	60%	80%	60%	80%	60%	80%	60%	90%
DDA - 1.100 (lt. / 24 h)	185,0	241,0	253,0	341,0	349,0	469,0	641,0	865,0	721,0	1.100,0



Documents / Resources



[AIRTECHNIC DDA.1.100 Dehumidifier](#) [pdf] User Manual
DDA.1.100, DDA.1.100 Dehumidifier, Dehumidifier

