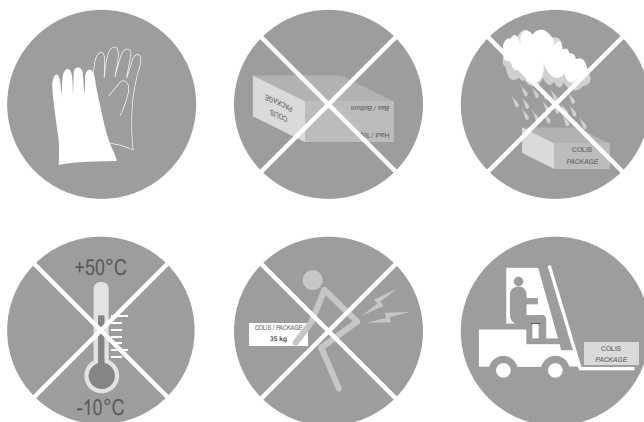




42 GW

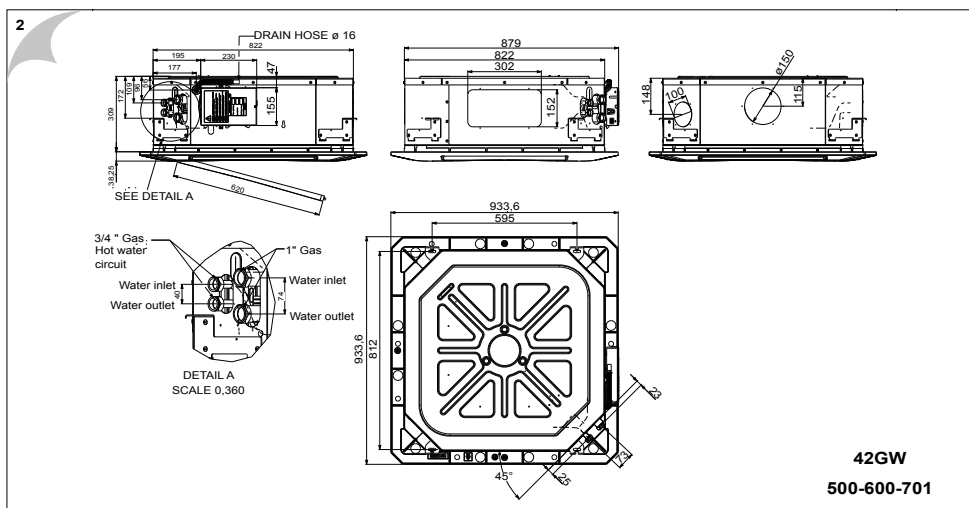
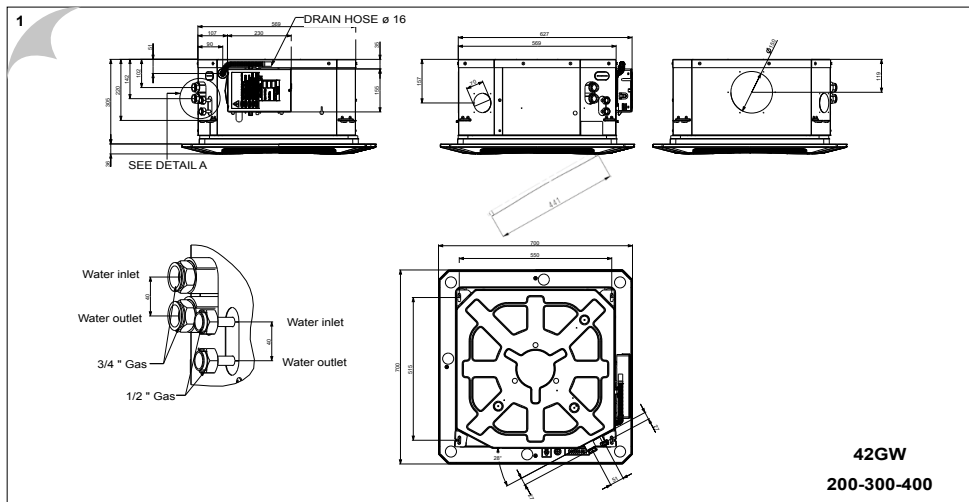
**“Hydronic Global Cassette”
Fan Coil Unit**





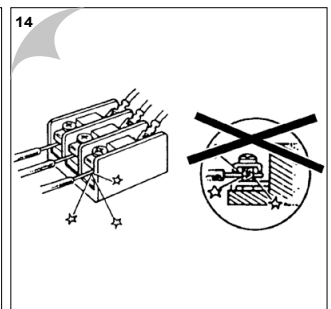
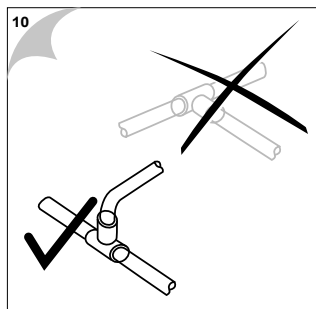
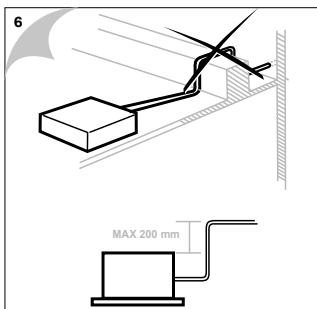
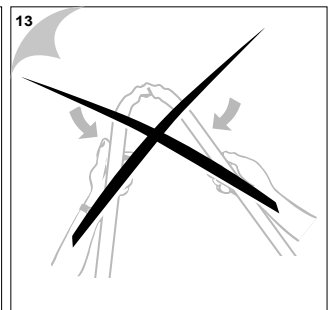
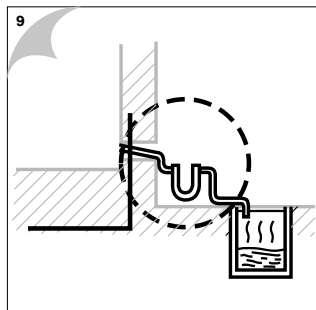
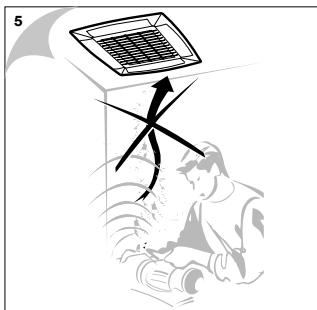
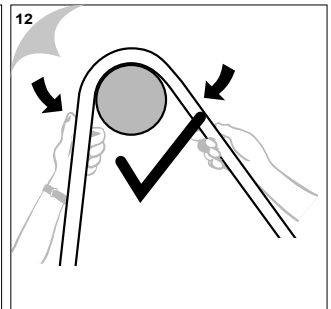
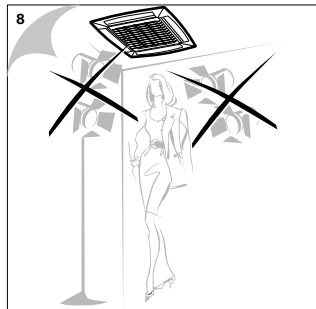
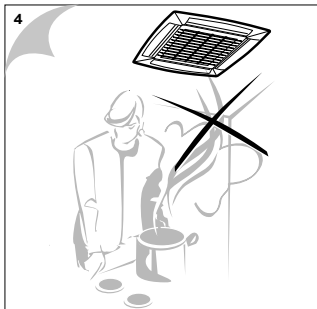
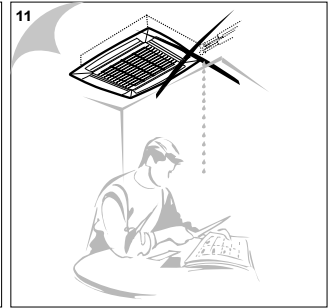
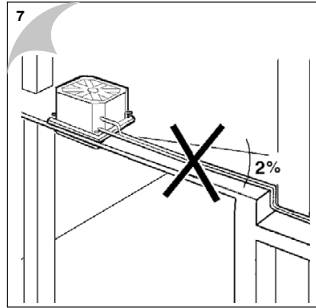
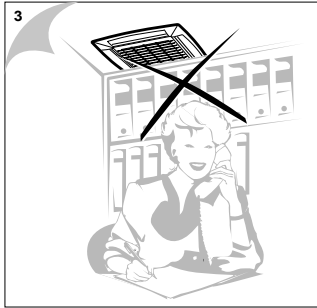
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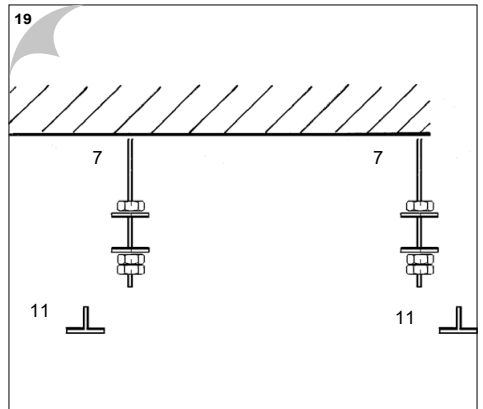
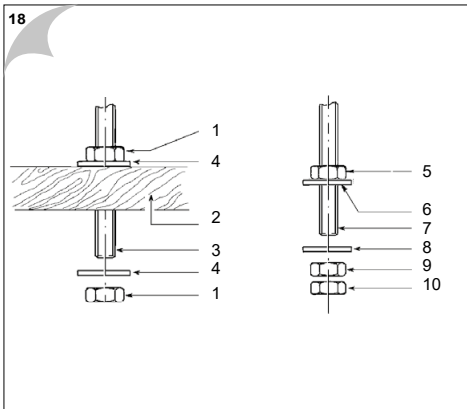
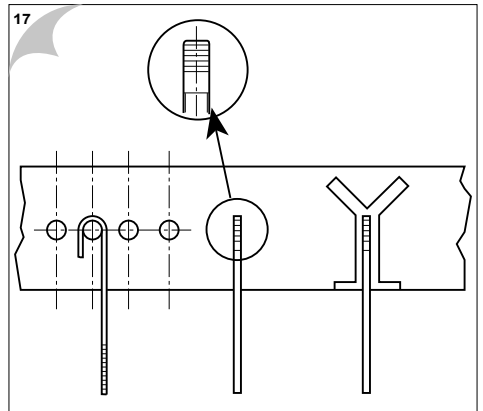
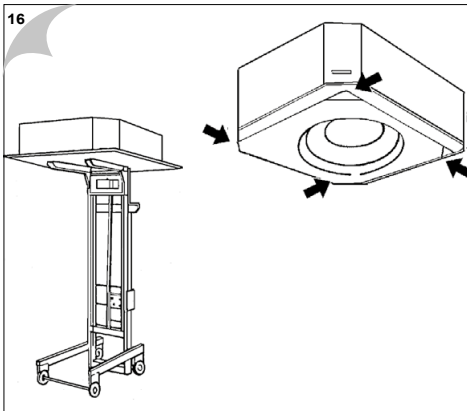
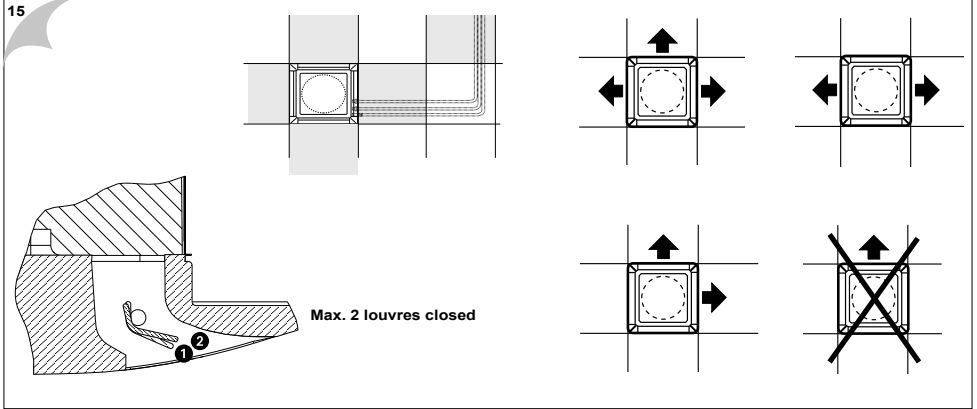
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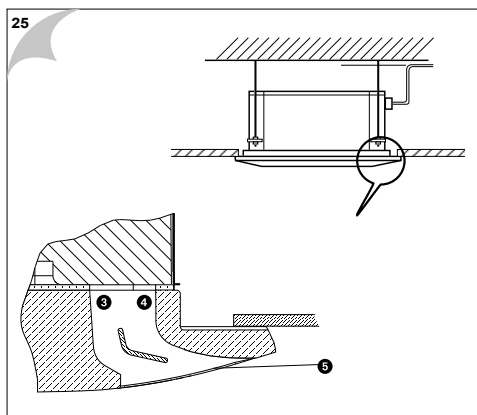
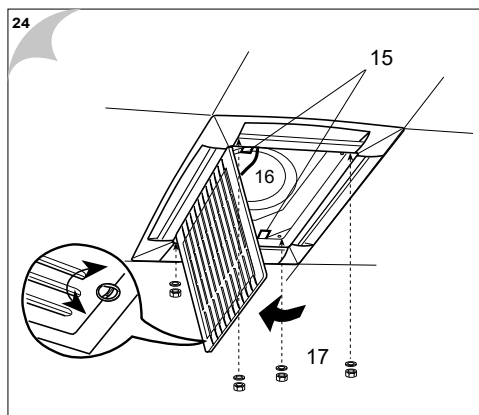
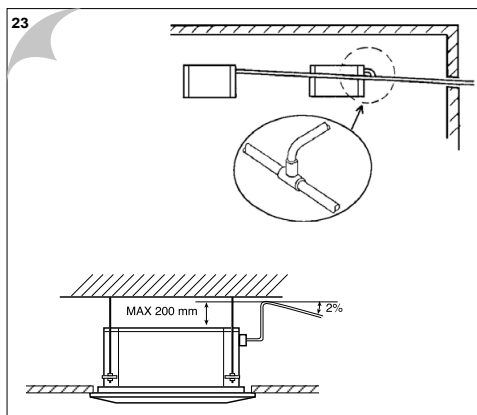
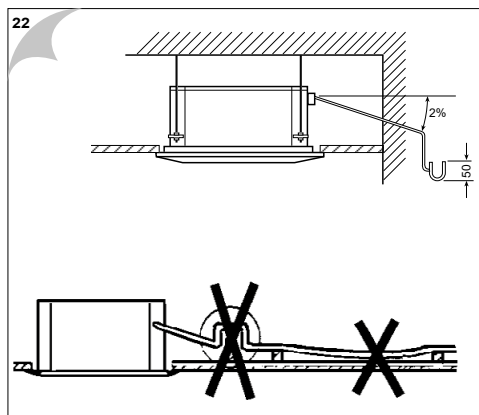
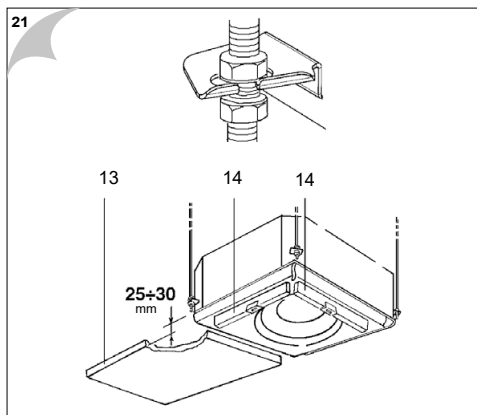
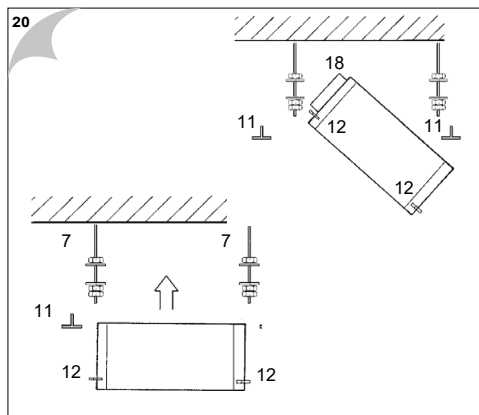
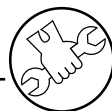


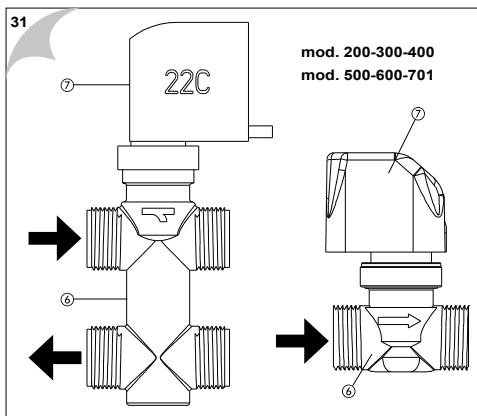
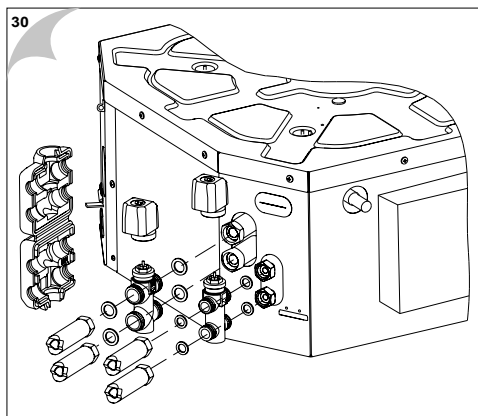
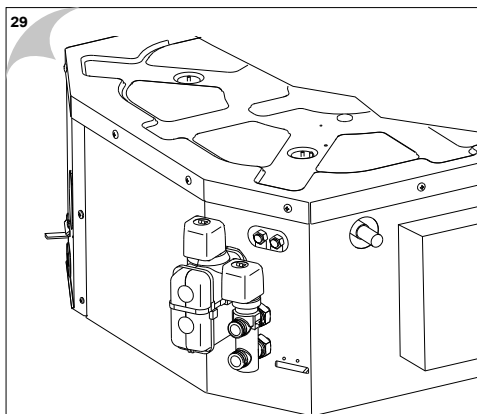
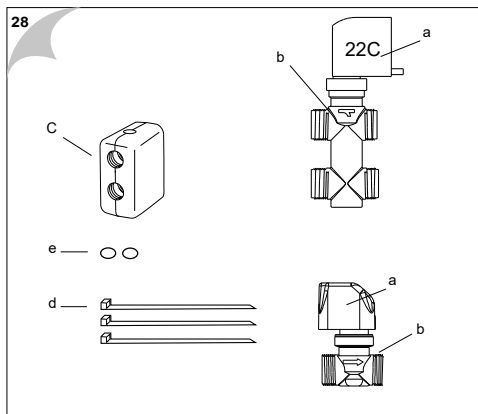
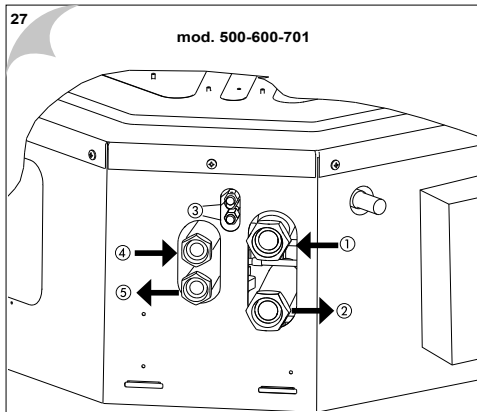
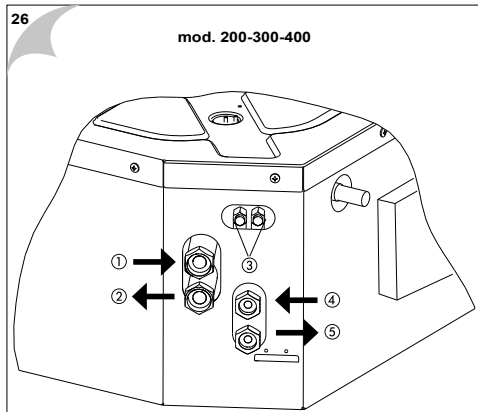
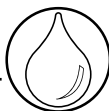
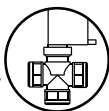
42GW		200	300	400	500	600	701
A ⁽¹⁾	kg	14,8	16,5	16,5	37,1	37,1	39,6
B		3	3	3	5	5	5

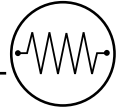
(1) Weights refer to base units without valve.



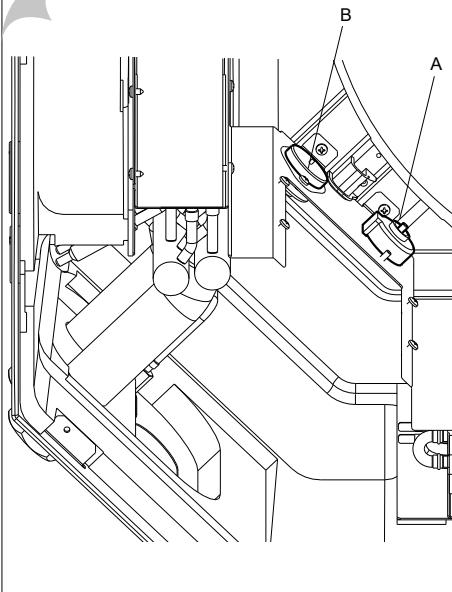




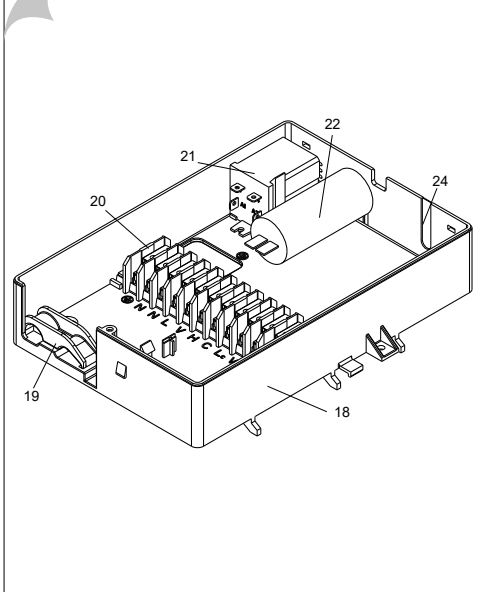




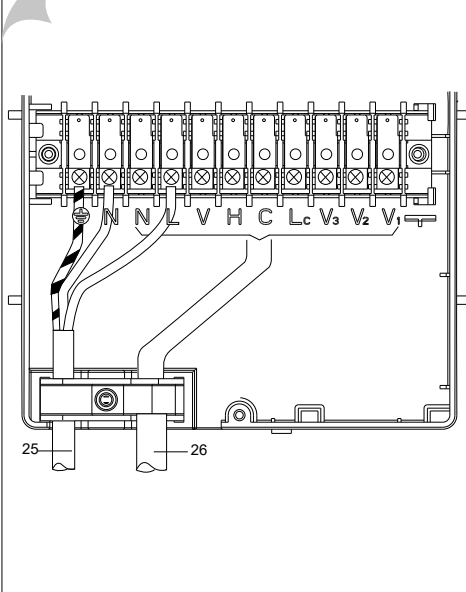
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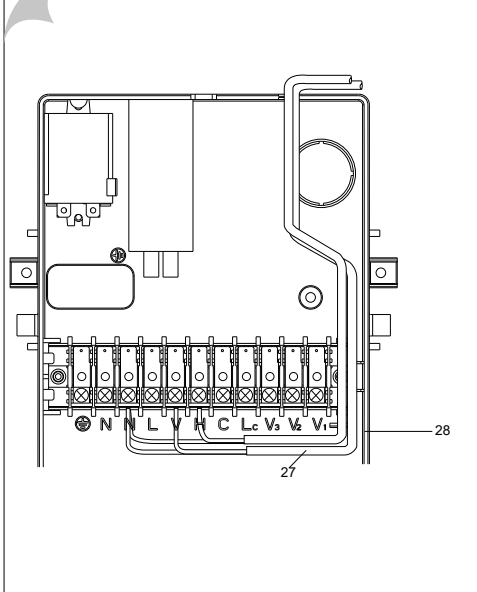
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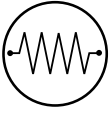


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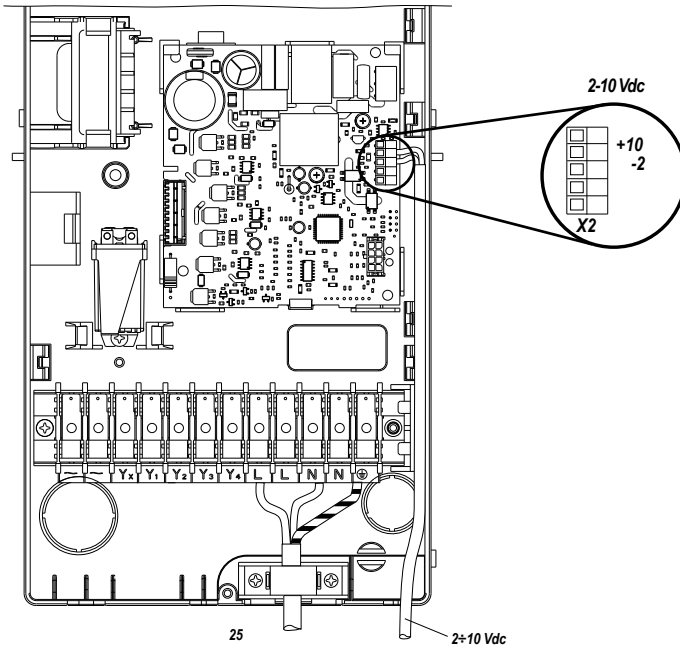
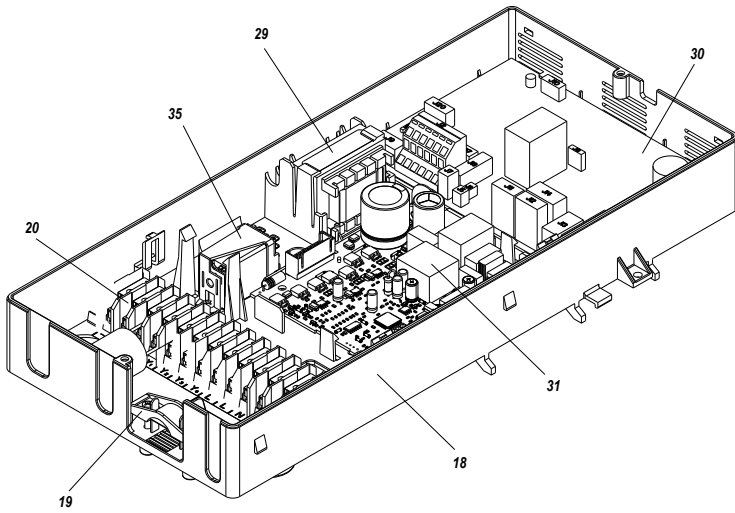


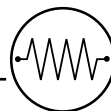
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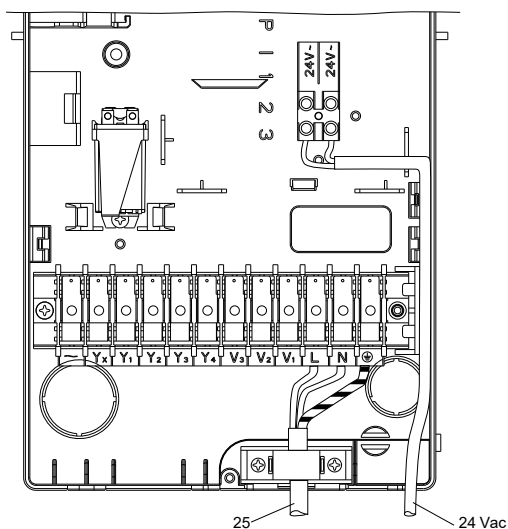
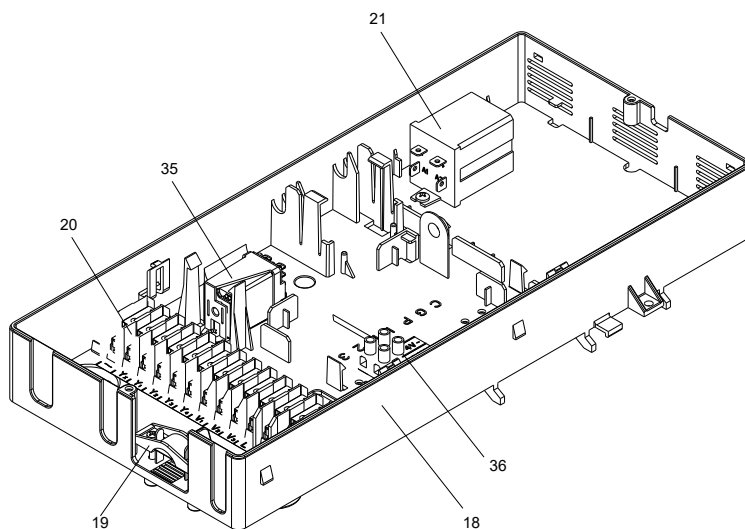


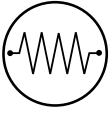
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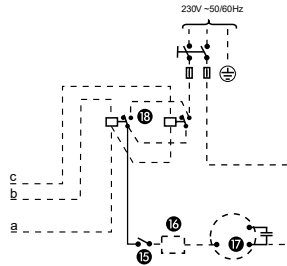


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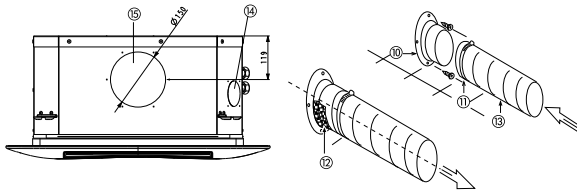




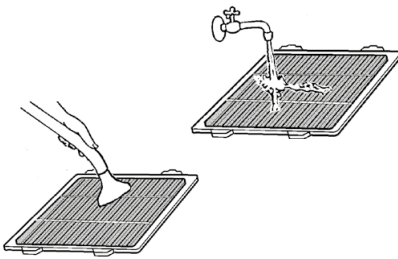
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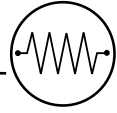


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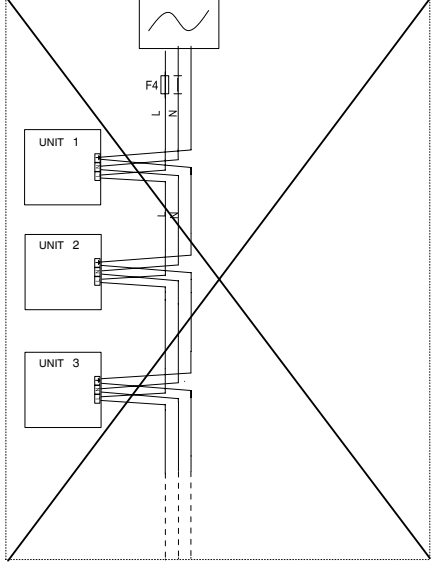
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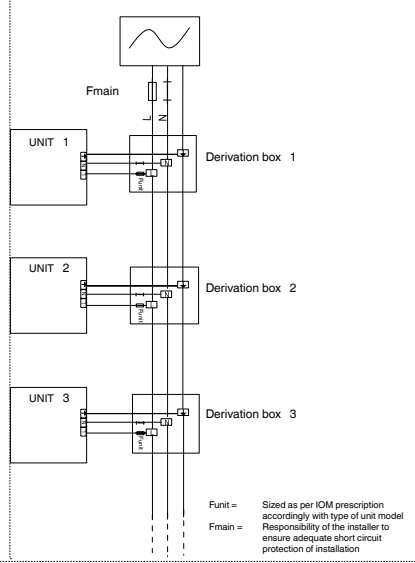


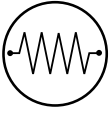
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IMPROPER DAISY CHAIN



CORRECT DAISY CHAIN





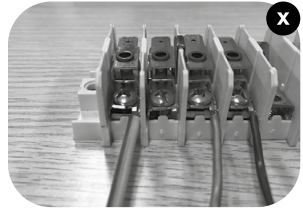
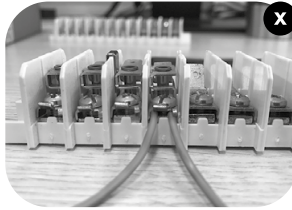
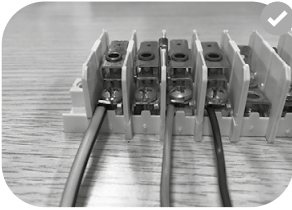
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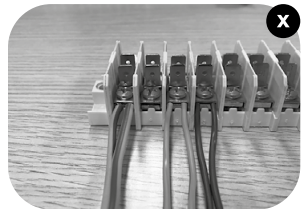
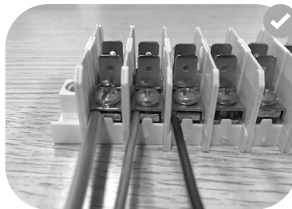
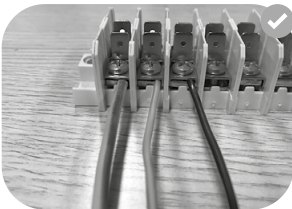
U shape

Hook shape

51a



51b



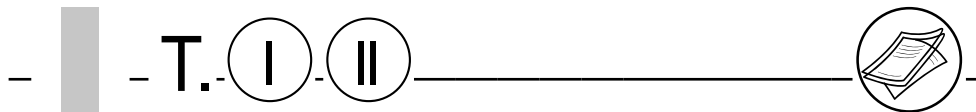


Table I: Nominal data

Power input					
Models	Fuse (tipo gF)	Cooling		Heating	
	Amp	Watt	Amp	Watt	Amp
200	1	70	0,33	61	0,28
300	1	66	0,29	57	0,25
400	1	106	0,46	97	0,42
500	1	66	0,32	57	0,27
600	1	97	0,52	88	0,48
701	1	135	0,69	126	0,64
230V ~ 50/60Hz					
200 (4T)	1	70	0,33	61	0,28
300 (4T)	1	66	0,29	57	0,25
400 (4T)	1	106	0,46	97	0,42
600 (4T)	1	97	0,52	88	0,48
701 (4T)	1	135	0,69	126	0,64
230V ~ 50/60Hz					
Power input					
Modes with electric heater	Fuse (tipo gF)	Cooling		Heating	
	Amp	Watt	Amp	Watt	Amp
200	8	70	0,33	1441	6,28
300	12	66	0,29	2357	10,25
400	12	106	0,46	2397	10,42
500	16	66	0,32	2817	12,27
600	16	97	0,52	2848	12,48
701	16	135	0,69	2886	12,64
230V ~ 50/60Hz					

Table II:

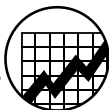
A

L	N	⏏
1,5	1,5	1,5
H05W - F		

B

L	N	⏏
2,5	2,5	2,5
H05W - F		

- The unit power cable must be type H05 VV-F
- A Unit power supply cable section
- B Unit power supply cable section with electric heater



T. III

Table III: Technical data of electric heaters (if installed)

Models		200	300	400	500	600	701
Electric heater capacity	Watt	1380	2300	2300	2760	2760	2760
Supply voltage (ph)	Volt	230	230	230	230	230	230
Max. power input	Amp	6	10	10	12	12	12
Safety thermostat		N° 1 Thermostat with automatic reset ST1 60°C / N° 1 Thermostat with manual reset ST2 100°C					

IMPORTANT: The electric heater is factory installed (mod. 42GW-----A-). The use of other electric heaters is absolutely prohibited. Failure to follow this safety requirement causes unit damage and voids the warranty.



T. IV V

Table IV: Material supplied

Description	Q.ty	Use
Installation instructions	1	Unit installation
Valve insulating shell (only units with factory-installed valves)	1	Insulating Valves
Gaskets (only units with factory-installed valves)	4	
Clips (only units with factory-installed valves)	3	

Table V: Operating limits

Water circuit	Water- side maximum pressure 1400 kPa (142 m w.c.)	Minimum entering water temperature: + 5°C
		Maximum entering water temperature: + 80°C
Room air	Installation for humidity level is validated according to specification prEN 1397:2011	Minimum temperature: 5°C ⁽¹⁾
		Maximum temperature 32°C
Power supply	Nominal single phase voltage Operating voltage limits	230V ~ 50/60Hz
		min. 207V- max. 253V min. 216V max. 244V (unit with electric heaters)

Notes: ⁽¹⁾ If the room temperature can go down to 0°C, it is advisable to empty the water circuit to avoid damage caused by ice (see paragraph on water connections).

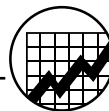


Table VI: Accessories

Description	Size / Code	
	Small	Large
Kit Frame/grill	42GW9001	42GW9002
Kit Frame/grill (motorized louvers)	42GW9011	42GW9012
Kit Frame/grill (I.R. receiver)	42GW9020	42GW9021
Kit Frame/grill (I.R. receiver + motorized louvers)	40KMC9001	40KMC9002
2-pipe 3V valves	42GW9029	42GW9031
2-pipe 3V valves	42GW9030	42GW9032
2-pipe 2V valves	42GW9033	42GW9035
4-pipe 2V valves	42GW9034	42GW9036
Primary air kit	42GW9005	42GW9006

Description	Size / Code	
	Small	Large
I.R. control	33HDB-HR	
I.R. receiver kit	33HDB-HS	
Multiple connection kit (control)	33MC9001	
Wall-mounted control	33NTC-RC	
I.R. control	33NTC-HR	
I.R. receiver kit	33NTC-HS	
1/2" valve kit	42GW9022	
3/4" valve kit	42GW9023	
1" valve kit	42GW9024	
drain pan kit	42GW9037	42GW9038

Description	Size / Code	
	Small	Large
Air supply obstruction kit ⁽¹⁾	40GK-900--- 003-40	40GK-900--- 013-40
Relay board kit	42GW9013	
Photocatalytic + electrostatic filter kit	40GKX9004	40GKX9005
Air sensor kit	42N9083	
Water sensor kit	42N9084	
Seasonal changeover thermostat kit (2-pipes only)	42N9005	
Control type "A" – 2 pipes	33TA0001	
Control type "B" – 4 pipes and electr. heaters	33TB0001	
Wall-mounted control	33HDB-RC	

(1) Not to be used on units equipped with electric heater

Table VII

Sizes	Models		
	2 pipes	4 pipes	Electric heaters
200	●	●	●
300	●	●	●
400	●	●	●
500	●		●
600	●	●	●
701	●	●	●
	230V ~ 50/60Hz		

Legend

Legend		
Fig.1. [A] - Unit [B] - Frame/Grille assembly Fig.15. ① - Heating: louvre position for correct air flow ② - Cooling: louvre position for correct air flow Warning To close one or two air outlets use the special kit Fig.18. 1 - Nut 2 - Wooden frame 3 - Threaded hangers 4 - Washers 5 - Nut 6 - Washers 7 - Threaded hangers 8 - Washers 9 - Nut 10 - Nut Fig.19. 7 - Threaded hangers 11 - "T" bar (to be removed) Fig.20. 7 - Threaded hangers 11 - "T" bar (to be removed) 12 - Suspension brackets 18 - Electrical box Fig.21. 13 - False ceiling 14 - Spirit level Fig.24. 15 - Frame pre-hooking support 16 - Safety belt 17 - Frame supporting nuts and spacers Fig.25. ③ - Gasket "A" ④ - Gasket "B" ⑤ - Air discharge	Fig.26-27. ① - Cold circuit water inlet ② - Cold circuit water outlet ③ - Air purge valve ④ - Hot circuit water inlet ⑤ - Hot circuit water outlet Fig.28. See section "Motorized valve" Fig.31. Automatic operation position ⑥ - Valve body ⑦ - Thermo-electric valve head Fig.32. Electric heater protections A - Manual reset thermostat B - Automatic reset thermostat Fig.35-36. Standard. 18 - Electrical box 19 - Cable holder 20 - Terminal block 21 - Electric heater relay 22 - Capacitor 24 - Valve cable inlet Fig.37. Standard with valves 25 - Power supply cable 26 - Control cable 27 - Cold valve cables 28 - Hot valve cables (4 pipes only) Fig.39e. Brush less motor with heaters Fig.39h. 24V valves and electric heaters. Fig.40e. Winter operation diagram with fresh air intake ⑫ - Antifreeze thermostat ⑬ - Speed controller ⑭ - Fresh air fan motor ⑮ - Relay 230V a= neutral b= cooling signal 230V c= heating signal 230V	Fig.45. ⑩ - Duct connection flange ⑪ - Clip ⑫ - 6 mm neoprene gasket ⑬ - Insulated flexible duct ⑭ - Fresh air intake ⑮ - Conditioned air supply to an adjacent room Fig.48. Filter cleaning Fig.49. It is forbidden to supply other devices from the terminal block Fig.50. Screw clamp terminal connector types Fig.51a. When connecting power supply it is forbidden to put more than one wire end per screw clamp terminal with "hook" shape connector Fig.51b. When connecting power supply it is forbidden to put more than one wire end per screw clamp terminal with "U" shape connector



Unit installation

Read this instruction manual thoroughly before starting installation.

In cases where the CARRIER REGULATIONS are NOT used, the installer is responsible for verifying compliance with the regulations applicable in the country of installation.

- 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.
- The installation must be carried out by a qualified installer.
- The unit should be installed according to the national standards on plants.
- Check that the voltage and frequency of the mains power supply are as required for the unit to be installed; the available power source must be adequate to operate all other appliances connected to the same line.
- Also ensure that national safety code requirements have been followed for the main supply circuit.
- Where necessary, use 16 mm I.D. PVC pipe of appropriate length (not supplied) and with the correct thermal insulation for the condensate drain extension.
- After installation thoroughly test system operation and explain all system functions to the owner.
- Use this unit only for factory approved applications: **the unit cannot be used in laundry or steam pressing premises.**

WARNING: Disconnect the mains power supply switch before servicing the system or handling any internal parts of the unit.

- The manufacturer declines any liability for damage resulting from modifications or errors in the electrical or water connections.
- Failure to observe the installation instructions, or use of the unit under conditions other than those indicated in Table "Operating limits" of the unit installation manual, will immediately invalidate the unit warranty.
- Failure to observe electric safety codes may cause a fire hazard in the event of short circuits.
- Inspect equipment for damage during transport. In case of damage file an immediate claim with the shipping company.
- Do not install or use damaged units.
- In case of malfunction turn the unit off, disconnect the mains power supply and contact a qualified service engineer.
- Maintenance must only be carried out by qualified personnel.
- **All of the manufacturing and packaging materials used for this appliance are biodegradable and recyclable.**
- Dispose of the packaging material in accordance with local requirements.

Choosing the installation site

Positions to avoid:

- Exposure to direct sunlight.
- Areas close to heat sources.
- On damp walls or in positions that may be exposed to water hazard.
- Where curtains or furniture may obstruct free air circulation.

Recommendations:

- Choose an area free from obstructions which may cause uneven air distribution and/or return.
- Consider using an area where installation is easy.
- Choose a position that allows for the clearances required.
- Look for a position in the room which ensures the best possible air distribution.
- Install unit in a position where condensate can easily be piped to an appropriate drain.

CE certificate of conformity



Declaration of Conformity UE

This unit complies with the provisions of European Directives:

- 2006/42/EC (Machinery)
- 2014/30/EU (EMC)
- 2011/65/EU (RoHS)
- 2009/125/EC (Eco Design) and regulations 327/2011/UE
- REGULATION (EC) No 1907/2006 (REACH)



UK Declaration of Conformity

This unit complies with the requirements of:

- Supply of Machinery (Safety) Regulations 2008
- Electromagnetic Compatibility Regulations 2016
- The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
- The Ecodesign for Energy-Related Products and Energy Information Regulations 2019, and following amendments
- UK REACH Regulations 2019

UK Importer:

- Toshiba Carrier UK Ltd, Porsham Close, Roborough, Plymouth, PL6 7DB



Warnings: Avoid

- ... any obstruction of the unit air intake or supply grilles ([See fig. 3](#)).
- ... exposure to oil vapours ([See fig. 4](#)).
- ... installation in areas with high frequency waves ([See fig. 5](#)).
- ... ascending sections of condensate drain piping.
These may only be used near the unit with a maximum height difference of 200 mm from the top of the unit ([See fig. 6](#)).
- ... horizontal sections or curves of condensate drain piping with less than 2% slope ([See fig. 7](#)).
- ... exposure to direct sunshine, when the unit is operating in the cooling mode; always use shutters or shades.
- ... positions too close to heating sources which may damage the unit ([See fig. 8](#)).
- ... connecting condensate piping to sewage system drain without appropriate trap.
Trap height must be calculated according to the unit discharge head in order to allow sufficient and continuous water evacuation ([See fig. 9-10](#)).
- ... only partial insulation of the piping.
Non-level installation which will cause condensate dripping ([See fig. 11](#)).
- ... flattening pipes or condensate pipes ([See fig. 12-13](#)).
- ... slack on electrical connections ([See fig. 14](#)).



For your safety, wear protective gloves!



See fig. 15.

- A device of this kind is not publicly accessible. It must be installed at least 2.5 m above ground level.
- If possible, install the unit in the centre of the room. The air flow direction may be adjusted manually by moving the deflector fins depending on the operating mode (cooling or heating); this helps to optimise the distribution of air in the room.
- During cooling mode operation the best position for the deflecting louvres is one which allows air diffusion close to the ceiling (Coanda effect). In heating mode, the louvres should be positioned so that the air is directed towards the floor, in order to prevent layers of hot air forming in the upper part of the room.
- In order to allow easy and rapid installation and maintenance, make sure that in the selected position it is possible to remove the ceiling panels or, if the ceiling is constructed of masonry, that access to the unit is guaranteed.

ATTENTION:

Only restrict the air outlets as indicated in the drawing fig.15
For units equipped with electric heaters the use of the "AIR SUPPLY OBSTRUCTION" kit is NOT allowed.

Prior to installation

It is advisable to place the unit as close as possible to the installation site before removing it from the packaging. The grille panel and the control are separately packed for maximum protection (See fig. 16).

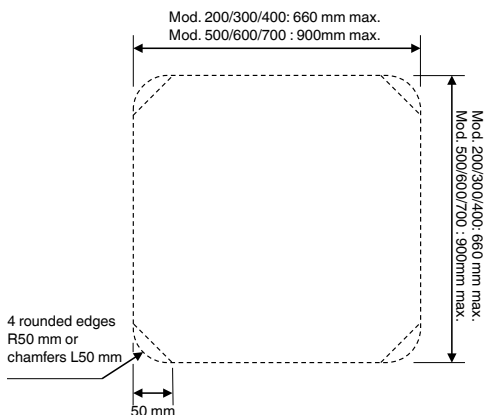
IMPORTANT:

Do not lift the unit by the condensate drain discharge pipe; hold it by its four corners only.

Unit installation will be facilitated using a stacker (See fig. 16).

In the case of plasterboard suspended ceilings, the cut-out for housing the unit must have maximum dimensions of 660x660 mm (mod. 61-62-63) and 900x900 mm (mod. 92-93-94), taking care to make a 50 mm fillet or chamfer in the corners as shown in the figure below.

For rooms with high humidity, insulate the suspension flanges.



Installation

Mark the position of the suspension rods, the heat-transfer medium duct and the condensate drain pipe, the electrical wires and the remote control cable (see dimensions). The cardboard template (supplied with the kit) may be of assistance for this operation.

Depending on the type of ceiling the hangers can be fixed as shown in the drawing 17.

Once the threaded hangers have been positioned, **do not tighten** the nuts, and insert the washers as shown in the drawing 18.

First position the connection lines, as described in the chapter "Water connections". Remove the "T" bar in order to facilitate installation operations (See fig. 19).

Carefully lift the unit (without the frame) using the four suspension brackets (or the four corners), inserting it into the false ceiling.

If the "T" bar cannot be removed the unit may need to be tilted (this operation may only be carried out with false ceilings with a minimum height of 300 mm) (See fig. 20).

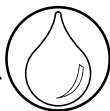
Position the unit horizontally using a spirit level by adjusting the nuts and lock nuts on the threaded tie-rods and maintaining a distance of 25-30 mm between the sheet metal body and the lower surface of the suspended ceiling.

Reposition the "T" bar and align the unit in relation to the bar by tightening the nuts and locknuts. After the condensate drain pipe and the water ducts have been connected check, check to make sure that the unit is level (See fig. 21).

Condensate drain

See fig. 22 - 23.

- Use a siphon at least 50 mm deep to prevent unpleasant odours from circulating in the room.
- Condensate may be discharged at a maximum height of 200 mm above the unit, as long as the ascending tube is vertical and aligned with the drainage flange.
- To drain the water from a level higher than 200 mm, install an auxiliary drain pump with a condensate drain pan and a level controller.
- A float valve is recommended to stop the flow switch if there is a fault at the auxiliary pump.
- The condensate drain pipe must be covered with insulating material to prevent the risk of condensation.
- If more than one unit is installed in the room, the drain system can be made as shown in the drawing fig.23.



Water connections

The unit is provided with inlet and outlet female connections for both 2 and 4 pipe models. An air bleed valve is also provided (See fig. 26), which can be adjusted using an 8 mm wrench.

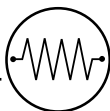
Models	Connections dimension (Ø)	Models	Connections dimension (Ø)
200	3/4"	500	1"
300	3/4"	600	1"
400	3/4"	700	1"
200 ⁽¹⁾	1/2"	600 ⁽¹⁾	3/4"
300 ⁽¹⁾	1/2"	701 ⁽¹⁾	3/4"
400 ⁽¹⁾	1/2"	-	-

(1) Hot water circuits, four-pipe version

To drain the unit, refer to the paragraph "DRAINING THE INSTALLATION" in the Maintenance section.

Checking

On the unit startup, check if water flows correctly from the pump or check the pipe slope and make sure the pipes are not obstructed.



Electrical connections

IMPORTANT:

- The unit must be installed in accordance with the local regulations governing installations.
- All cables for connection to the unit, as well as its accessories, must be H05 VV-F with PCV insulation in compliance with EN60335-2-1.
- Disconnect the power from all the circuits before accessing live components.
- Make earthing before any other electric connections.

In compliance with the installation instructions, the contact opening of all disconnecting devices (4 mm) must allow full disconnection under the conditions of overvoltage class III.

Connect power supply L (phase), N (neutral) and  (earthing) according to the wiring diagram and respect the polarities shown on the bottom of the electrical boxes, see fig. 36-38-39-40.

When connecting the power supply, it is forbidden to insert more than one electrical wire per terminal clamp.

All unit must be installed with a **fuse for machine protection**. Refer to table I for fuse installation and replacement.

Control box panels: The control box panel is positioned on the external side of the unit (fig. 1-2). Remove the fixing screws and the cover of the control box panel. The control box panels contain the terminal blocks for connections as shown in the wiring diagrams and fig. 36-38-39-40.

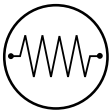
WARNING : it is forbidden to supply other devices from the thermal block

Table X

Kind of unit	fig. 36	fig. 38	fig. 39	fig. 39e	fig. 39f	fig. 39g	fig. 39h	fig.40
42GW_0_	x							
42GW_0K_		x						
42GW_9K_			x					
42GW_9_				x				
42GW_9K_C_					x			
42GW_0K_C_						x		
42GW_0_C_							x	
42GW_0_D_							x	
42GW_0J_								x

IMPORTANT:

- To power the unit, use cables with minimum section as according to table II.
- After all connections are made, fasten the cable using the special tear protections (ref. 19).
- Close the control box panel with the protecting cover and tighten the screw(s) which were previously removed.



Units with electric heater

The unit is equipped with two safety thermostats: one with automatic reset and one with reactivatable manual reset fig. 32 (ref. A), to protect the unit against overheating due to insufficient cleaning of the filters or obstructions to the air flow.
The manual thermostat must be reset by skilled personnel only after the cause for which the intervention was required has been removed.



The use of hot water and electric heaters is allowed only if the “Booster Heating” option is active (control B + 42N9084 kit).

If actuated using a thermostat or controller, you must refer to its technical documentation.
You have sole responsibility for checking its capacity to accept the output of the electrical heater.
If the selected controller (thermostat or controller) and/or relay is missing or inadequate, there is a risk of electrical overload and a risk of a thermal event.
Under no circumstances can the manufacturer be held responsible for direct or indirect damage caused by or in connection with the absence or incorrect choice of relay and/or thermostat.

Low Energy Consumption Fan Motor



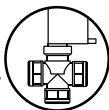
Low Energy Consumption Fan Motor version

Units in the 42GW series are capable of modulating the air flow (and, as a result the heating and cooling capacity) continuously from 0% to 100% thanks to the latest generation high energy efficiency electric motor (EC).
The table below shows the electrical characteristics of the four types of motors.

NOTE:
•The values shown in the table only refer to Low Energy Consumption Fan Motors; the output of the controller, the pump and the valves should be added to them.

No further electrical connections are necessary (beside power supply and communication bus) for this unit (fig.39).
All connections between electric components and motor are factory made.

		209	309	409	509	609	709
LO	W	7	7	13	7	9	11
	A	0,08	0,08	0,12	0,08	0,1	0,12
Hi	W	23	33	57	25	46	115
	A	0,19	0,27	0,46	0,23	0,4	0,86



Valve and regulation system

- The unit control circuit only allows opening of the motorized valve when the fan motor is working.
- When the thermostat requests cooling, the V and H outputs supply the water valve.

WARNING: The pump control circuit stops water supply to the cold valve if an irregular increase of the condensate water level is detected into the drain pan

- If an irregular increase of the condensate water level is detected into the drain pan (for example: possible defective drain, pump malfunction, fan motor not working) the contact of the "safety level 2" float switch opens to close the regulation valve, stopping the cold water flow towards the coil and avoiding further condensation.

Control

The water flow has to be controlled:

- Via the assembly of valves supplied as accessories or
- Via the assembly of valves to be fitted by the installer.

Valve and component assembly (See fig. 28).

Mod.42GW		200	500	200	600
		300	600	300	701
		400	701	400	
		2-pipe		4-pipe	
Ref.	Description	q.ty	q.ty	q.ty	q.ty
a	Servomotor	1	1	2	2
b	Valve 1"gas	-	1	-	1
	Valve 3/4"gas	1	-	1	1
	Valve 1/2"gas	-	-	1	-
c	Shell	1	1	1	1
d	Clips	3	3	3	3
e	Gasket	2	2	4	4

Instructions for installation of the valve assembly

(see accessories table)

Assembly (Fig. 30)

For 4-tube models, the first valve assembly is installed on the cooling circuit first, followed by the second valve assembly on the heating circuit.

Fit the actuator motor on the valve body, feed the valve cable into the casing and connect it to the terminal strip as shown in fig. 37.

- If the system is filled with water, check all fitting seals.
- After ending the hydraulic connections, make sure there are no leaks insulate the valve using the shell, fix it by means of the clips and make sure that all cold parts are insulated (fig. 29 – 30).
- For 4-pipe hot water, repeat all the operations with gas adaptors, as per the table.

Operation of the thermo-electric valve (See fig. 31)

- The 2-way valve is normally closed to the coil with no powered actuator side. The 3-way valve is normally closed to the coil with no powered actuator side while is open to the bypass way side.
- If an emergency occurs, the valve may be manually opened, removing the electric head, unscrewing the ring nut. **When the emergency ends, remember to reset the valve to automatic operation, repositioning the electric head; failure to do this can result in condensate formation due the water pipes, even if the unit is switched off.**
- On units with a changeover sensor, this must be positioned on the inlet of the duct on the installation side.

Instructions for field supplied valves

Water connection

- Install valves following manufacturer's instructions; refer to the relevant figures for connection to the unit.
- Carefully insulate pipes, valve assemblies and coil connections (cold water side) to avoid condensation forming on the pipes and dripping on the false ceiling.

Electrical wiring

- Connect the room control following instructions for the control used.

ATTENTION: Route the cables through the electrical box as shown in fig. 37.

- Connect the valves according to the instructions and the wiring diagrams attached to the machine documents.
- **Valves, closing the unit water inlet when there is no power supply, must be used.**

230 V ON/OFF type valves on units with electrics box.

- The chilled water valve must be operated by the 230V on-off signal from terminal V and the hot water valve from terminal H.
- **If these connections are not made as described the drain pan condensate may overflow.**
- Valves should open only when the fan is working, that is, when one of terminals V1, V2, V3 is energized by L mains supply.



- When the system is filled with water, verify all couplings for tightness.
- **The manufacturer does not accept responsibility for the tightness of the field - installed valve assembly and this is not tested in the factory.**
- **It accepts no responsibility for malfunctions on the assemblies or for damage caused by leaks.**

Fresh air supply



Fresh air (See fig. 45)

- Remove the precut sheet metal (ref. 14) and install the air control device by fixing it to the unit frame.
- Use materials that can withstand a permanent temperature of 60° C. The ducts may be flexible or rigid, and coated with an anti-condensation material.
- To complete the installation, all non-insulated ducts must be covered with anti-condensate insulation.

Failure to follow these instructions may result in the appearance of condensation; the manufacturer accepts no responsibility for this.

Fresh air renewal (See fig. 40e)

- If an optional auxiliary fan is installed to extract outdoor air (supplied by the installer), it must be connected to the electrical installation in accordance with the attached diagrams.
- Fan motor operation is parallel to the thermo-electric control valve, and the motor stops when the valve shuts off.
- For winter operation with fresh air intake, an anti-freeze thermostat set at 2°C is recommended, with the bulb placed on the water outlet pipe, before the supplementary fan.
- The fresh air flow must be less than 10% of the total air flow, to avoid operating problems or excessive noise.
- For fresh air flow rates above 10 %, a "fresh air kit" is available for connection. Connect the duct to the knockout to supply an adjacent room with air via a diffuser.
- Install an outdoor intake grille and hatch with an inspection filter to prevent the accumulation of dust and leaves. Filter installation also makes the installation of a duct closing damper during shut-down periods unnecessary.

Installation of grille/frame assembly



See fig. 24 - 25.

Carefully unpack the grille and inspect it to identify any damage that may have occurred during transportation.

Assemble it on the unit, attaching it to the two mounting brackets (ref. 15) and tighten the four mounting nuts with their washers (ref. 17).



To fix the frame use only the screws supplied with it.

For IR controlled units, connect the power cables between the unit and the frame.

The frame must not show any signs of deformation caused by excessive pulling. It must be centred in relation to the suspended ceiling and must provide a perfect seal between the air suction and discharge.

In the drawing gasket "3" prevents return air from mixing with the supply air and gasket "6" prevents the supply air from leaking into the ceiling void.

Slight, occasional crackling noises may be heard in the case of severe temperature gradients between the temperature of the water circulating in the exchanger and the ambient room temperature. These noises will disappear after a few minutes when the system has stabilised



Maintenance and user guide

Maintenance

The cleaning and maintenance operations must be performed by qualified personnel.

Before performing any service or maintenance operations, turn OFF the main power switch.

Note to the installer:

To open the unit grille: turn the two screws through 90° (1/4 turn).

Filter cleaning by the installer

The filter cleaning operations depend on the unit's operating conditions.

- The filter can be cleaned with water.

Extract the filter.

First vacuum clean the filter, then wash under tap water and finally dry.

Refit the filters correctly.

Prolonged shutdown:

- Before switching the unit back on:

- Clean or replace the unit air filters.
- Check and clean the drain pan and the condensate discharge of the unit.
- Check tightness of electric connections.

Additional maintenance

- The electric panel is easily accessible

The condensate drain pan must be removed to allow internal components such as the fan motor assembly, heat exchanger, condensate drain pump, changeover sensor or electric heater (if fitted) to be inspected or replaced.

Condensate drain pan removal

- Before removing the condensate drain pan, protect the floor by placing a plastic sheet under the unit to collect any condensation that may escape.
- Remove the frame-grille assembly by loosening the screws.
- Undo the 4 mounting bolts on the metal cross members and carefully remove the condensate drain pan.

Draining the installation: If you wish to drain the circuit, please note that a certain amount of water will remain in the coil. This water may freeze if the temperature drops below 0°C and cause the exchanger to rupture.

User guide

Once installation and tests are complete, explain to the user the main points in the operating and maintenance manual points, paying particular attention to the unit's main operating modes.

- Switching the unit on and off.
- Changing the operation modes.
- Temperature selection.

Safety considerations relating to final shutdown

Separate the units from their energy sources, allow them to cool down and then drain completely.

Dismantling

Never work on a unit that is still powered on.

Respect the local environmental laws and regulations.

Presence of waste electrical and electronic equipment (WEEE): At the end of its life, units must be disassembled, with any contaminated fluids removed by professionals, and then processed via approved channels for waste electrical and electronic equipment (WEEE).

Check whether any part of the unit can be recycled for another purpose.

Sort the components according to their material for recycling or disposal, in accordance with regulations in force.

Materials to be recovered for recycling - Steel - Copper - Brass - Aluminium - Plastics - Insulation.

The proportions of materials for each unit are listed in the Product Environmental Profile (PEP) available at the following website: <http://www.pep-ecopassport.org/fr/consulteur-les-pep/> or on request from our departments.

Any contaminated fluids must be disposed of by specialist professionals.

The quality management system of this product's assembly site has been certified in accordance with the requirements of the ISO 9001 standard (latest current version) after an assessment conducted by an authorized independent third party.

The environmental management system of this product's assembly site has been certified in accordance with the requirements of the ISO 14001 standard (latest current version) after an assessment conducted by an authorized independent third party.

The occupational health and safety management system of this product's assembly site has been certified in accordance with the requirements of the ISO 45001 standard (latest current version) after an assessment conducted by an authorized independent third party.

Please contact your sales representative for more information.

Order No.: EN00DCG000171600G, 10.2024 - Supersedes order No.: EN00DCG000171600F, 09.2024.
The manufacturer reserves the right to change any product specifications without notice.

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