EN

TECHNICAL MANUAL

ACQVARIA

Cassette fan coils with ON/OFF motor

3 - 10 kW

Supervision GARDA | 2 pipes systems | 4 pipes systems | Touch screen device | Recess ceiling-mount

PLUS

- Reliability and sturdiness in a compact design
- Fresh air with direct or mixed introduction
- Heat exchanger up to 3 rows
- Condensate drainage pump for height differences of up to 0.9 m
- Air intake and diffusion grille in two colors (RAL9010 and RAL9030)
- Reduced installation and commissioning time

CE

WC66000496-05 10/22

Galletti AIR CONDITIONING

Dear Customer,
Thank you for placing your trust in one of the products of Galletti S.p.a
This product is the result of our work and our commitment to design, research, and production and has been made from the finest materials, employing state-of-the-art components and production technology.
The CE marking of the product ensures its compliance with the safety requirements of the following directives: the Machinery Directive, the Electromagnetic Compatibility Directive, the Electrical Safety Directive, and the Pressure Equipment Directive. Fulfillment of the Ecodesign requirements is fully in keeping with the environmental awareness that has always guided our company.
The company certification of the Quality and Safety management system ensures that product quality is constantly checked and improved, and that the product is manufactured in full compliance with the highest standards.
By choosing our product, you have opted for Quality, Reliability, Safety, and Sustainability.
At your disposal, once again.
Galletti S.p.a

TABLE OF CONTENTS

1 MAIN FEATURES

Comfort, low noise, and efficiency in perfect harmony!
The new series of hydronic cassette units ACQVARIA, with ON/OFF motor, consists of 6 models (10-20-30-40-50-60) for 2-pipe systems and 6 models (10-20--30-35-40-60) for 4-pipe systems.
The engineering of the unit makes it possible to develop up to 5 kW in the cooling mode in a standard 600x600 mm modular suspended ceiling and over 9 kW in the 860x860 mm modularity, with exceptionally low noise levels in the phases for maintaining interior comfort.
ACQVARIA leverages the entire Galletti, MYCOMFORT, EVO , and TED microprocessor controller platform that incorporate sophisticated adjustment logics based on air temperature, air humidity, and water temperature.
These benefits translate into greater accuracy in achieving and maintaining the desired comfort conditions through appropriate modulation of the fan speed as well as the reduction of noise emissions, which adapt to the actual thermal load.
The suspended ceiling unit houses all the components, heat exchange coil, fan drive assembly, and condensate collection and drainage system. Its structure is designed for introducing fresh air into the space, mixing it with recovered air, and distributing the treated air from the cassette unit to adjacent rooms.
Two tipes of intake and oulet air grilles:

Standard grill: ABS material, available in RAL9003 or RAL9010 guarantee optimal integration into the suspended ceiling panels.
Effetto gille : design grille with Coanda effect: DIBOND material with possibility to configurate the color, thanks to Coanda effect, the air is expelled parallel to the ceiling, cooling the walls before mixing with the ambient air at the ground. In this way the operation will be optimized during the summer, ensuring more comfort for the occupants.
Both with easy access to air filter for cleaning operations.
The unit can be supplied complete with valves, including pressure-independent balancing and control valves, the use of which significantly reduces commissioning time.

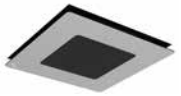
OPERATING LIMITS

Thermal carrier fluid: **water**
Water temperature: **5°C ÷ 80°C**
Air temperature: **5°C ÷ 43°C**
Supply voltage: **230 V - 50 Hz**
Maximum water pressure during operation: **10 bar**
Relative humidity limit of the ambient air:**RH < 75% not condensing**

AVAILABLE VERSIONS

AQB0 - Unit with one coil for 2-pipe systems

AQBB - Unit with one coil for 4-pipe systems

ACQVARIA	**ABS grille with adjustable fins, colors**		**EFFETTO - 600x600 mm design module with the Coandă effect.**		
					
Colour	White RAL9003	White RAL9010	Alluminium brushed finish	White RAL9010	Black RAL9005
Material	ABS			Aluminium	

Accessories supplied with the unit

— Auxiliary water drip tray;
— Installation and use manual;
— Brackets for securing the unit.

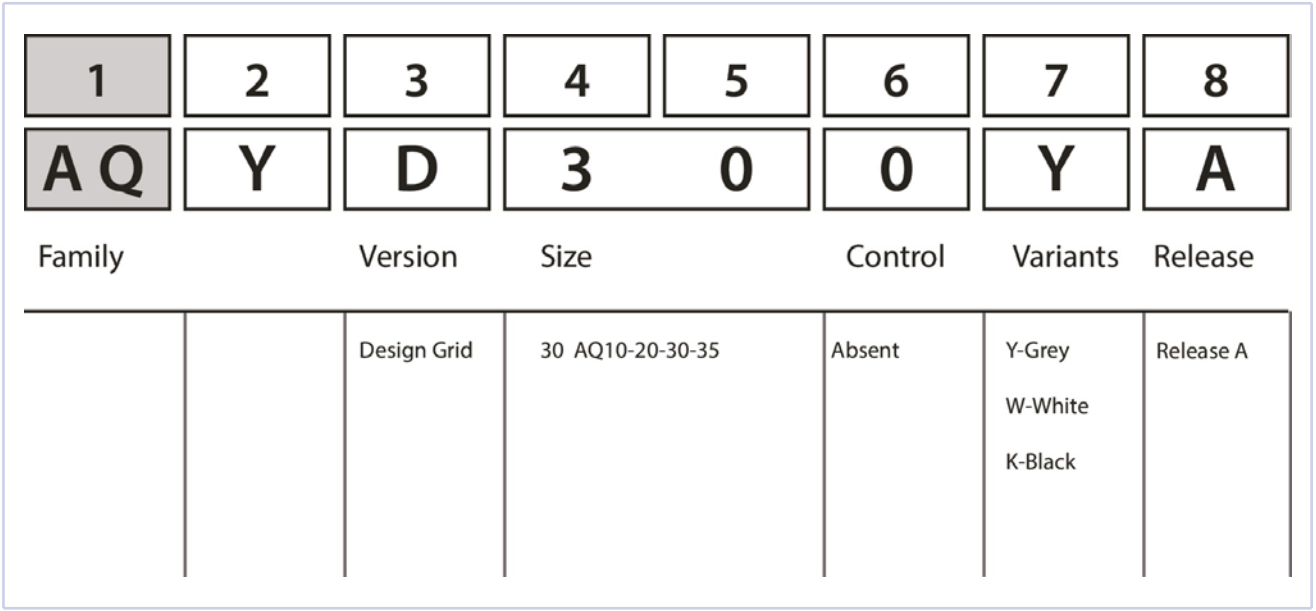
CONFIGURATOR

1	2	3	4	5	6	7	8	9	10	11	12	13
A Q	1 0	Q	0	B	0	0	0	0	0	0	0	A
Family	Size	Version	Motor	Std.Coil	DF Coil	Valves	Control	Probe	Accessories various	Various options	Release / Special	
	10 20 30 35 40 50 60	Q hydronic cassette	0 3 speed I Brushless	B standard	0 absent B coil 1R	0 absent A 3 way - on/off 230V 2 2 way - on/off 230V B 3way - modulating 4 2 way - modulating C 3 way - on/off 24V 6 2 way - on/off 24V 7 3V on/off 230V C.A. 8 2V on/off 230V C.A. H 2V press. Ind. ON/OFF I 2V press. Ind. Modul.	0 absent E EVO board G opz.E + NAVEL wifi	0 absent 1 SA 2 SW 3 SU 4 SA+SW 5 SA+SU 6 SA+SU+SW	0 absent 2 JONIX 6 shell valves	0 none	0A first release	

STANDARD GRILLE CONFIGURATOR

1	2	3	4	5	6	7	8
A Q	Y	G R	3	0	F	1	A
Family		Version	Size		Control	Variants	Release
		GR grid	30 AQ10-20-30-35 60 AQ40-50-60		F wire	1 RAL9003 2 RAL9010	A first release

EFFETTO GRILLE CONFIGURATOR



AVAILABLE ACCESSORIES

Electronic microprocessor control panels with display	
DIST	MY COMFORT controller spacer for wall mounting
EVO-2-TOUCH	2.8" touch screen user interface for EVO control
EVOBOARD	Circuit board for EVO control
EVODISP	User interface with display for EVO controller
EYNAVEL	Device for Wi-Fi or Bluetooth communication between EVOBOARD and smartphone
LED503	Recessed wall-mounted electronic display controller LED 503
MCBE	MYCOMFORT BASE electronic controller with display
MCLE	Microprocessor control with display MY COMFORT LARGE
MCME	MYCOMFORT MEDIUM electronic controller with display
MCSUE	Humidity sensor for MY COMFORT (medium e large), EVO
MCSWE	Water sensor for MYCOMFORT and EVO controllers
Electronic microprocessor control panels	
TED 2T	Electronic controller for AC fan control and one ON/OFF 230 V valve
TED 4T	Electronic controller for AC fan control and two ON/OFF 230 V valves
TED SWA	Water temperature sensor for TED controls
Power interface and regulating louver controllers	
KP	Power interface for connecting in parallel up to 4 fun coil units to the one controller
Valves	
PIC-AQ	PRESSURE-INDEPENDENT 2-way valves
V2-AQ	2-way valve, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for model with 1 or 2 heat exchangers
V3-AQ	3-way valve, ON/OFF or MODULATING actuator, 230 V or 24 V power supply, hydraulic kit, for model with 1 or 2 heat exchangers
Plenum, air intake modules, air inlet and outlet connectors and cabinets	
BAR	Spigot for introduction of mixed renewal air
MOB	Cabinet for cassette
PAR	Plenum for introduction of unmixed renewal air
PMAA	Air outlet plenum

2 MAIN COMPONENTS

2.1 STRUCTURE

Made of galvanised steel sheet with internal polyurethane foam coating and external closed-cell polyethylene foam to guarantee heat and sound insulation. Fresh air can be introduced into the room directly through the unit due to the provision of connections for neutral or mixed introduction. Accessories are available for connection to ducts. There are systems on the unit for anchoring it to the ceiling. The electrical wiring is housed in a containment box and is easily accessible from the side for easy connection.

2.2 AIR FILTER

Honey-comb polypropylene washable air filter, easily removable for maintenance operations.

2.3 HEAT EXCHANGER

Copper pipe and high efficiency aluminium fins secured to the pipe by mechanical expansion. With at least two rows in the models for 2-pipe systems, it is available in the 2+1 configuration in the models for 4-pipe systems. The coil comes complete with manual air vent valves. On request, valves can be connected to the coil to regulate and balance the operation of the unit.

2.4 FAN DRIVE ASSEMBLY

Three-speed electrical motor, directly connected to a centrifugal fan with backward-curving blades with profile optimised for stable operation at all speeds.

2.5 CONDENSATE COLLECTION SYSTEM

Located under the heat exchanger, the main drip tray is made of polystyrene and is inserted inside the profiles optimised for the distribution of air in the room. The supply is completed by the auxiliary water drip tray for the collection of condensate from the regulating valves.

2.6 CONDENSATE DISCHARGE SYSTEM

The condensate drainage pump, with built-in check valve, can lift the condensate up to 0.9 m from the exit point from the unit. The operation of the pump is controlled by a float switch with three levels of action that activate it and stop it during normal operation. If the critical water level inside the main drip tray is exceeded, an alarm signal closes the control valves, stopping the flow of water inside the exchanger.

2.7 STANDARD GRILLE

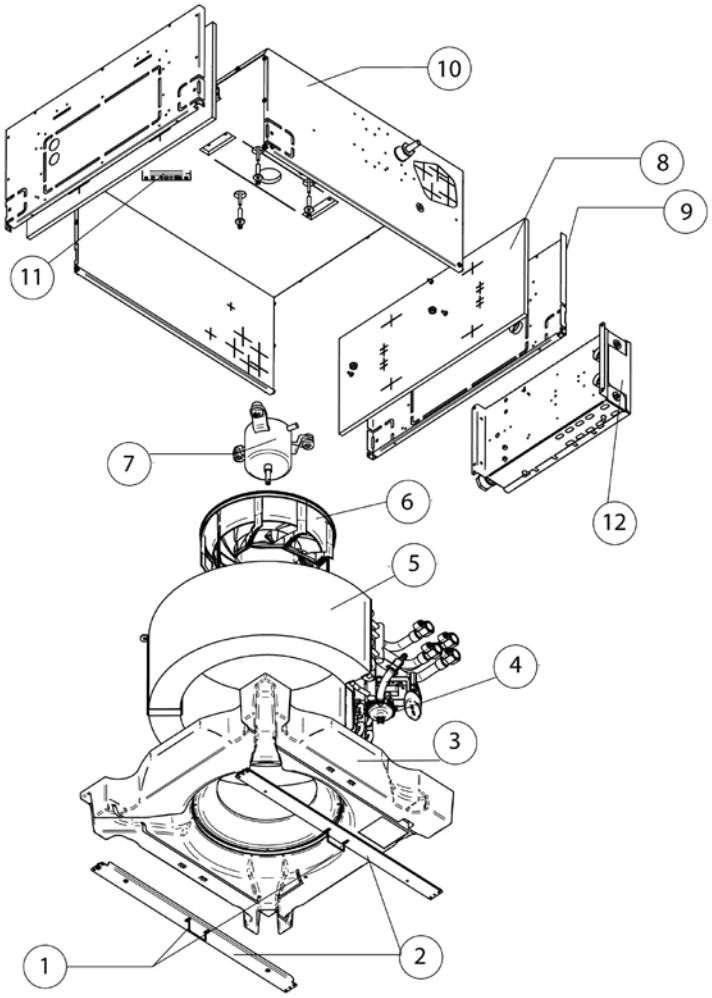
It is square shaped for the intake and diffusion of air in the space, and it is made of ABS, colour RAL9003 or RAL9010. The air intake louvre can be opened for access to the air filter. Air is diffused in the space through the 4 sides, each of which is equipped with an adjustable fin with suitable thermal insulation.

2.8 EFFETTO GRILLE: DESIGN GRILLE WITH COANDA EFFECT

It is square shaped with circle intake hole,it is made in DIBOND material with possibility to configurate the color. The intake grille is opened for access to the air filter. Air is diffused in the space through the conveyors in 4 sides and takes advantage of the fluid dynamic Coanda effect.
Thanks to Coanda effect, the air is expelled parallel to the ceiling, cooling the walls before mixing with the ambient air at the ground. In this way the operation will be optimized during the summer, ensuring more comfort for the occupants.

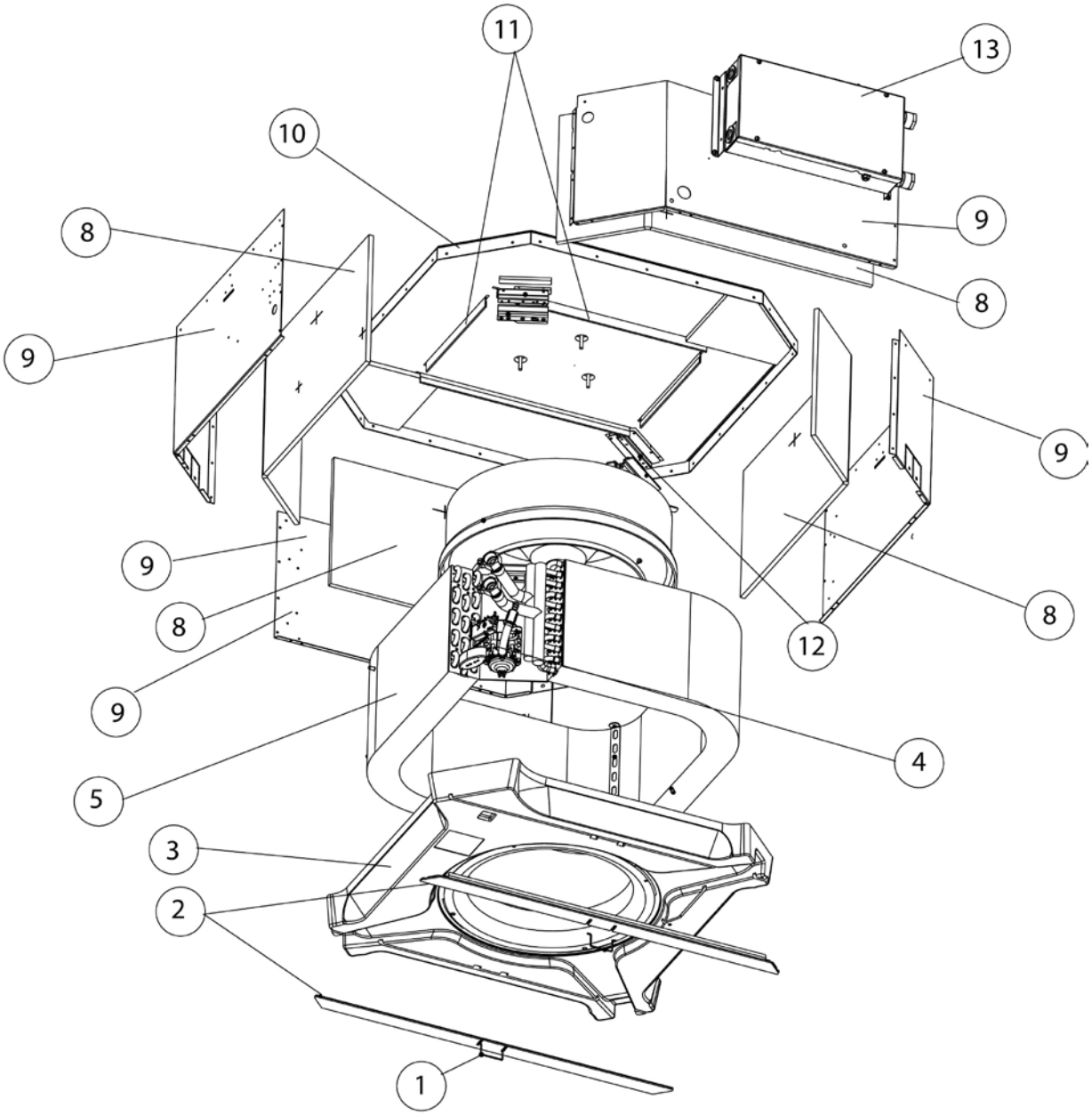
2.9 EXPLODED VIEW

» 2.1 Exploded view, units AQ 10-20-30-35



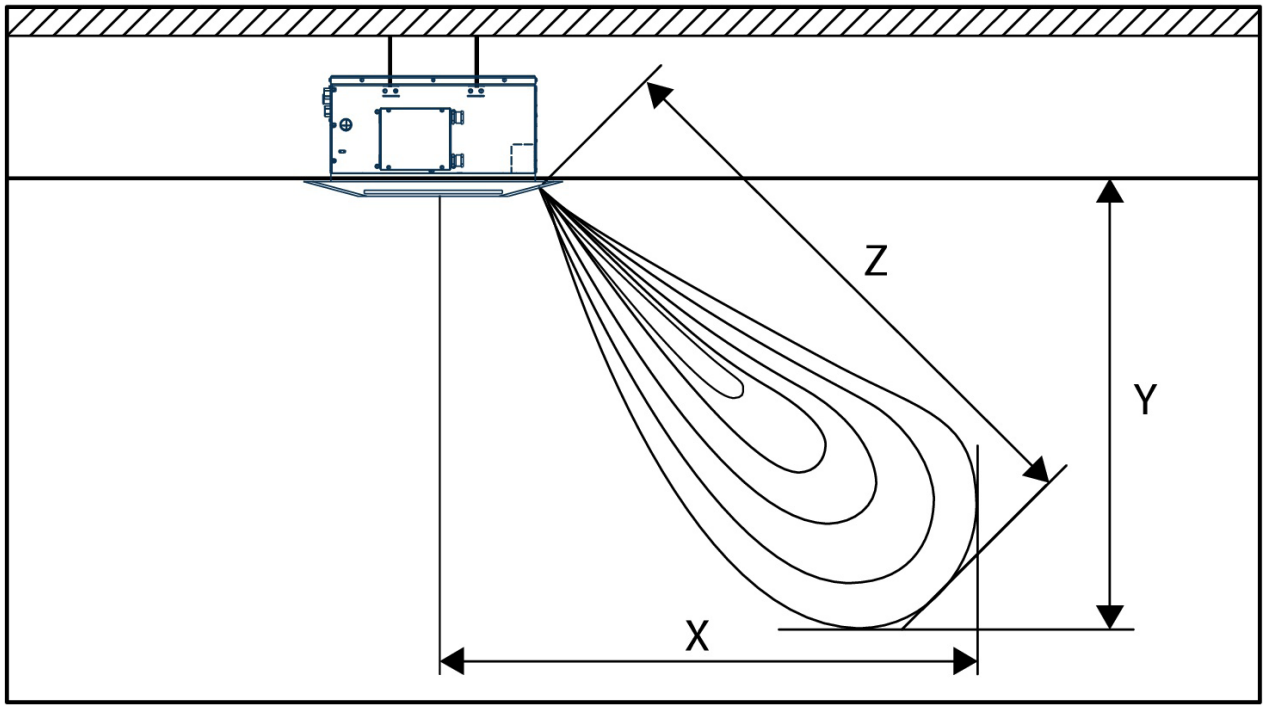
1. Locking clips
2. Tie rods
3. Condensate drip tray
4. Condensate drainage pump
5. Heat exchanger
6. Fan drive assembly
7. External insulation
8. Internal insulation
9. Lateral sheet metal
10. Sheet metal back
11. Fan drive assembly support bracket
12. Exchanger support brackets
13. Electric box

» 2.2 Exploded view, units AQ 40-50-60



1. Locking clips
2. Tie rods
3. Condensate drip tray
4. Condensate drainage pump
5. Heat exchanger
6. Fan drive assembly
7. External insulation
8. Internal insulation
9. Lateral sheet metal
10. Sheet metal back
11. Reinforcement brackets
12. Exchanger support brackets
13. Electric box

3 AIR RANGE



- Flap inclination 45°

» Air range 2T

ACQVARIA		AQ10Q0B0			AQ20Q0B0			AQ30Q0B0			AQ40Q0B0			AQ50Q0B0			AQ60Q0B0		
		min	med	max	min	med	max	min	med	max	min	med	max	min	med	max	min	med	max
Speed		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Air range (Z)	m	3	4	4	3	4	4	4	5	5	4	4	5	4	4	5	4	5	5
Height (Y)	m	2	2	3	2	3	3	3	3	3	2	3	3	2	3	3	3	3	3
Distance (X)	m	2	3	3,00	2	3	3,30	3	4	3,60	3	4	4,00	3	3	3,90	3	4	4,20

» Air range 4T

ACQVARIA		AQ10Q0BB			AQ20Q0BB			AQ30Q0BB			AQ35Q0BB			AQ40Q0BB		
		min	med	max	min	med	max	min	med	max	min	med	max	min	med	max
Speed		1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
Air range (Z)	m	3	4	4	3	4	4	4	5	5	4	5	5	4	5	5
Height (Y)	m	2	2	3	2	3	3	3	3	3	3	3	3	2	3	3
Distance (X)	m	2	3	2,90	2	3	3,30	3	4	3,60	3	4	4,00	3	4	3,90

ACQVARIA		AQ60Q0BB		
		min	med	max
Speed		1	2	3
Air range (Z)	m	4	5	5
Height (Y)	m	3	3	3
Distance (X)	m	3	4	4,20

4 INSTALLATION

⚠ **WARNING:** unit installation and start-up must be entrusted to competent personnel and performed in a workmanlike manner, in accordance with current regulations.

⚠ **WARNING:** **It is mandatory to install the 3-way (or 2-way) valve accessory in order to avoid the circulation of cold water in the exchanger if the unit is not operated for long periods of time, with the fan off. Install the auxiliary water drip tray, provided together with the base unit, in order to prevent valve kits from dripping.**

For each unit an (IL) switch should be mounted on the power supply, with opening contacts at a distance of at least 3 mm and a suitable protection fuse (F) .

⚠ **WARNING:** **before carrying out any operation, check that the voltage and frequency of the unit correspond exactly to those of the main power supply.**

⚠ **WARNING:** Install the unit, circuit breaker (IL) and/or any remote controls in a place out of reach of persons who may be taking a bath or shower.

⚠ **WARNING:** keep the unit's grille in its original packaging until final assembly.

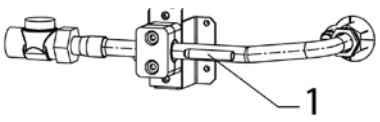
☞ **RECOMMENDED:** to ensure optimal comfort (homogeneous air temperature in the room), it is recommended not to exceed a heat exchanger water inlet temperature of 55 °C.

⚠ **WARNING:** during a shutdown for installation, in the event of a connection to a fresh air intake or an ambient temperature close to 0 °C, there is a risk of the pipes freezing. Provide drainage for the water circuit.

4.1 INSTALLATION REQUIREMENTS

The fan coils should be installed in a position where the room can be heated or cooled evenly, on ceilings able to support their weight. Store the unit in its packaging until you are ready to install it.
For installation and use of accessories, please refer to the relative technical sheets.
Install any remote **control panel** in an easily accessible position allowing the user to set the functions while ensuring an accurate reading of the ambient temperature, if provided.
Avoid therefore:
— positions directly exposed to sunlight;
— positions exposed to direct currents of warm or cold air
— placing obstacles that impede an accurate temperature reading

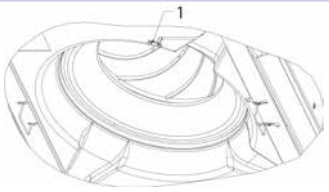
☞ **NB:** The water sensor, where present, must be mounted in the appropriate trap on the valve kit, on the INLET pipe.



1 Water sensor holder

— If a valve kit other than the one suggested is used, it is necessary to install the sensor on the INLET pipe, by means of the special copper socket filled with conductive paste.
— Lastly, the sensor must be properly isolated to ensure that it reads the water temperature correctly.

☞ **NB:** The air and humidity sensors, where present, must be attached in the appropriate section located in the intake area of the base unit.



1 Sensor retainer

Make the plumbing connections to the heat exchanger and, where the cooling function is to be used, to the condensate drainage outlet.

⚠ **WARNING:**

In normal operation, particularly with the fan at minimum speed and ambient air with high relative humidity, condensation may form on the air outlet and on some external parts of the unit.
To avoid such issues while always remaining within the operating limits envisaged for the unit, it is necessary to limit the inlet temperature of the water inside the heat exchanger. In particular, the difference between the air dew point (T_A,D_P) and the inlet water temperature (T_W) must NOT exceed 14 °C, according to the following relationship: **TW>TA,DP-14 °C**
Example: in the case of ambient air at 25 ° C with 75% relative humidity, the dew point temperature is about 20 ° C and therefore the inlet temperature of the water in the battery must be greater then:
— 20-14 = 6 °C in order to avoid condensation on a fancoil equipped with a valve.

Fan coil with valve								
		Air temperature dry bulb (°C)						
		21	23	25	27	29	31	33
Relative humidity %	40	5	5	5	5	5	5	5
	50	5	5	5	5	5	6	8
	60	5	5	5	5	7	9	11
	70	5	5	6	8	9	11	13
	80	5	6	8	10	12	14	16
	90	6	8	10	12	14	16	18

If the valves are not installed, there could be abundant condensation, especially if the unit is not operated for long periods of time.

During wintertime periods of quiescence, drain water from the system, to prevent ice from forming. If anti-freeze solutions are used, check for their freezing point using the table below.

% Glycol by weight	Freezing temperature (°C)	Capacity adjustment	Pressure drop adjustment
0	0	1,00	1,00
10	-4	0,97	1,05
20	-10	0,92	1,10
30	-16	0,87	1,15
40	-24	0,82	1,20

4.1.1 Electrical connections

Make the electrical connections whilst the power supply is disconnected, in accordance with current safety regulations, carefully following the wiring diagram and its legend.
Check that the mains electricity supply is compatible with the voltage shown on the unit rating plate.
The electrical connections indicated must be made by the installer.
For each fan coil a switch (IL) should be mounted on the power supply, with opening contacts at a distance of at least 3 mm and a suitable protection fuse (F).
For the electrical connections of the controls, follow the diagrams in the figures from: p. 23.

WARNING! Cassette is predisposed for standard control MYCOMFORT, for TED2T disconnect the gray wire of the float from terminal 4 and connect to free terminal 8, remove the blue bridge between terminals N and 4, then complete the connections of the TED2T to the terminal board as in the wiring diagrams:

— p. 26 for ACQVARIA 10-20;
— p. 27 for ACQVARIA 30;
— p. 28 for ACQVARIA 40-50-60;

CASSETTE is predisposed for standard control MYCOMFORT, for TED4T disconnect the gray wire of the float from terminal 4 and connect it through a flying terminal to terminal 3 of the TED4T, remove the blue bridge between terminals N and 4, then complete the connections of the TED4T to the terminal board as in the wiring diagrams:

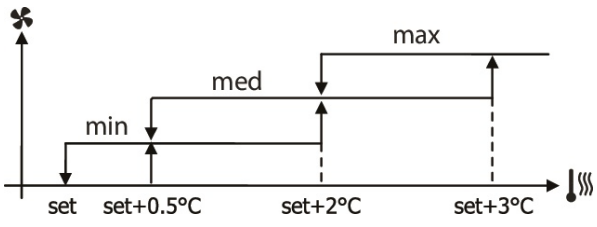
— p. 29 for ACQVARIA 10-20;
— p. 30 for ACQVARIA 30-35;
— p. 31 for ACQVARIA 40-50-60;

WARNING: The power supply to the pump-float switch device must never be interrupted.

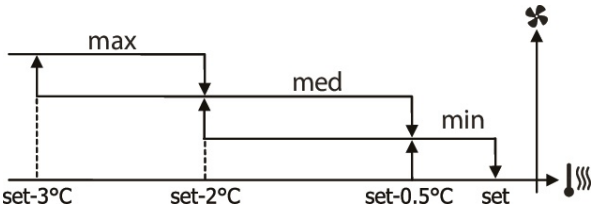
4.1.2 Galletti control dedicated (EVO - TED - MY COMFORT)

Galletti controls implement a logic that makes it possible to set a fixed speed between minumum, medium and maximum, or automatic speed modulation.
The automatic logic varies the analog signal to the motor between minimum, medium and maximum speed, based on the distance from the set-point, in order to accelerate the implementation phases.

» Cooling



» Heating

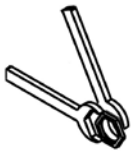


4.1.3 Hydraulic connections

Unit	Exchanger connection	
AQ10Q0B0, AQ20Q0B0, AQ30Q0B0(2 pipes)	1/2" gas F	
AQ40Q0B0, AQ50Q0B0, AQ60Q0B0 (2 pipes)	3/4" gas F	
	Cooling	**Heating**
AQ10Q0BB, AQ20Q0BB, AQ30Q0BB, AQ35Q0BB (4 tubi)	1/2" gas F	1/2" gas F
AQ40Q0BB, AQ60Q0BB (4 pipes)	3/4" gas F	1/2" gas F

To optimise performance, it is advisable to make the following connections on the exchanger:
— Unit outlet: connection below.
— Unit return: connection above.

WARNING: While making the connections, hold the water connections of the unit tightly in place with a hexagonal wrench or make sure that they do not rotate, in order to prevent the pipes inside the unit from being damaged.



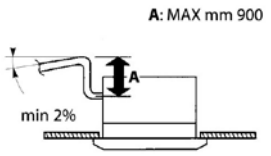
— Carefully insulate the inlet and outlet water pipes as well as the devices installed in the network (on/off valves…). Use a material that is suitable for the operating conditions and water temperature.
— Bleed air from the exchanger by means of the air vent valves located next to the water connections of the coil. Depending on the installation, it may be necessary to place other vent valves on the hydraulic system.

4.1.3.1 Condensate drain connection

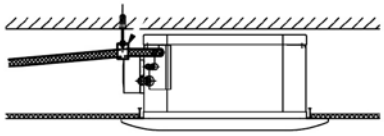
Connect a rigid PVC pipe to the end of the hose and secure it with a clamp
Correctly insulate the pipe with polyethylene foam.
— Be careful of the risk of freezing in winter in suspended ceilings.
— If necessary, the condensate pipe can be routed immediately after the unit's outlet. Maximum height: 900 mm (FIGURE 1).
— Make sure that the drainpipe has a slight slope in the direction of flow and that it does not form a siphon (FIGURE 1).
— The piping must have several supports (FIGURE 2).

— Do not install an air vent (FIGURE 3) in the wrong position.

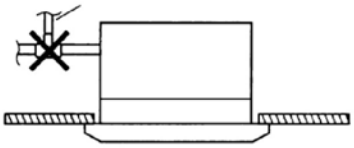
» Fig.1



» Fig.2



» Fig.3



4.2 DIMENSIONAL UNIT ASSEMBLY

— Use the dimensional drawings to determine the position of the suspension rods (Fig.4 AQ 10-20-30) (Fig.5 AQ 40-50-60)
— Position the suspension rods (not supplied) in place.
— Attach the supplied brackets (Fig.6) to the suspension rods (Fig.7). The length of the suspension rods depends on the space between the suspended ceiling and the structural ceiling.
— The distance C (Fig.7) must be:

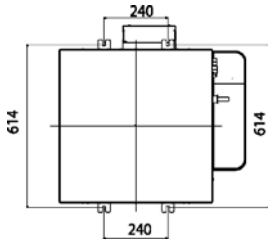
Model	C- Bracket distance to the false ceiling
ACQVARIA 10-20-30-35	270
ACQVARIA 40-50-60	312

— Pay attention to the excess length B of the suspension rod (Fig.7): it may interfere with the unit's electrical box.
— Place the fan coil unit in the suspended ceiling, orienting the side with the water connections in the most appropriate position, using the hooks on the brackets to provide quick temporary installation.
— Then attach the unit to the threaded bars with the screws provided and check that it is level (Fig.8)
— Adjust the distance between the unit and suspended ceiling D (Fig.9 AQ 10-20-30 andFig.10 AQ 40-50-60) using the nuts of the suspension rods:

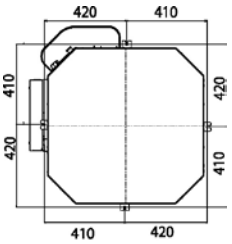
Model	D - Distance from unit to false ceiling
ACQVARIA 10-20-30-35	23
ACQVARIA 40-50-60	48

— Make sure that the unit does not touch the ceiling: contact may cause noise.

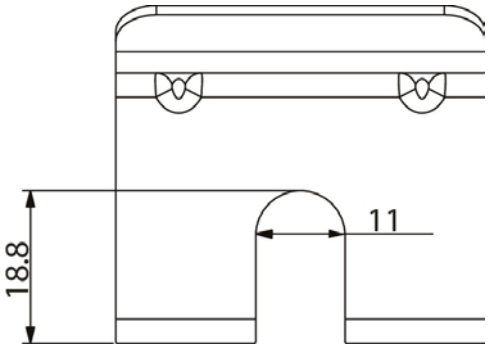
» Fig.4 AQ 10-20-30-35



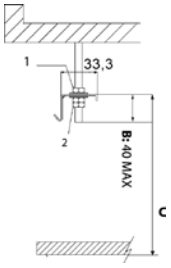
» Fig.5 AQ 40-50-60



» Fig.6

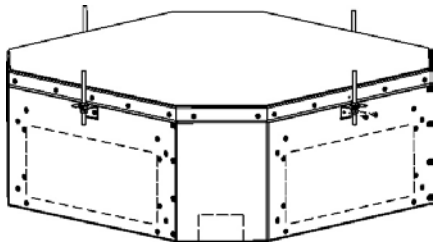


» Fig.7

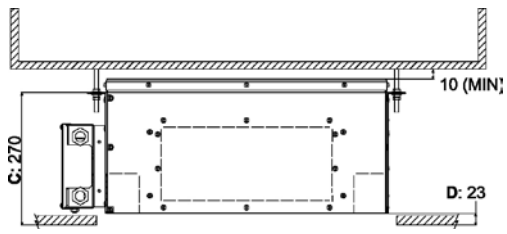


1. Nut + washer
2. Washer + nut + lock nut

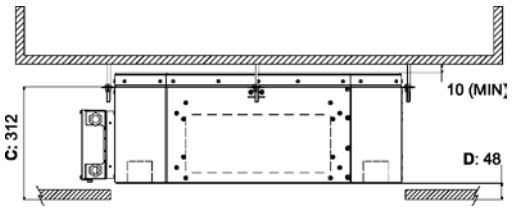
» Fig.8



» Fig.9 AQ10-20-30-35



» Fig.10 AQ40-50-60



4.2.1 Front panel/grille assembly

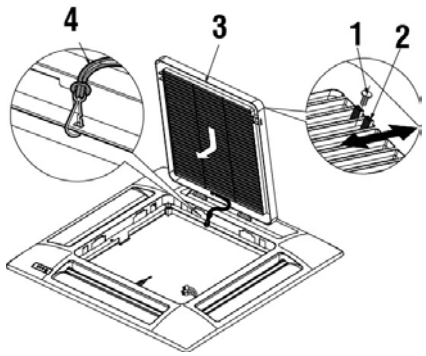
The front panel/grille, available in RAL9003 and RAL9010 versions, is delivered in a separate cardboard box:

— AQYGR30 for models AQ 10-20-30-35
— AQYGR60 for models AQ 40-50-60

Before installing the front panel: (Fig.11)

— Remove the screws (1) securing the retainers (2) on each side (remember to put these screws back in place after installation).
— To open the grille (3), move the two retainers (2) in the direction of the arrow.
— Open the grille (3) by 45°.
— Detach the control panel's safety cable (4) (remember to attach it again after installation).
— Lift the grille to remove it from the control panel.

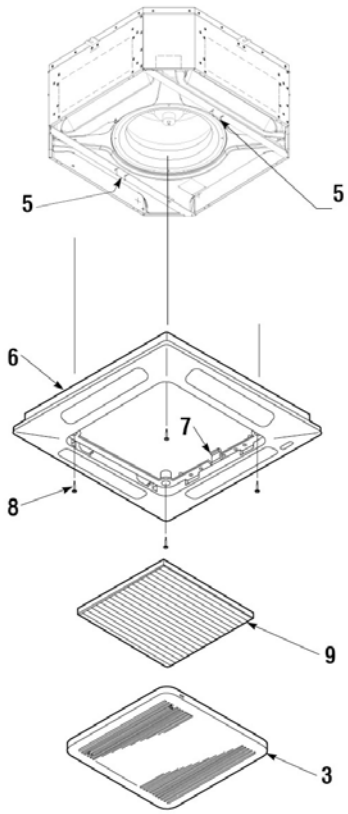
» Fig.11



To install the front panel: (Fig.12)

— Turn the two locking clips (5) downwards.
— Attach the control panel of the panel (6) to the unit by means of the two hooks (7), matching them to the locking clips (5).
— Check the exact position of the panel's control panel in relation to the suspended ceiling. Adjust the position of the indoor unit as necessary.
— Attach the panel's control panel to the unit using the special screws and washers (8) provided.
— Put the grille (3) in place, making sure that the filter (9) is correctly positioned.
— Hook the safety cable to the control panel, close the grille, and put the screws securing the retainers (2) back in place.

» Fig.12



4.2.2 Front panel/grille Effetto assembly

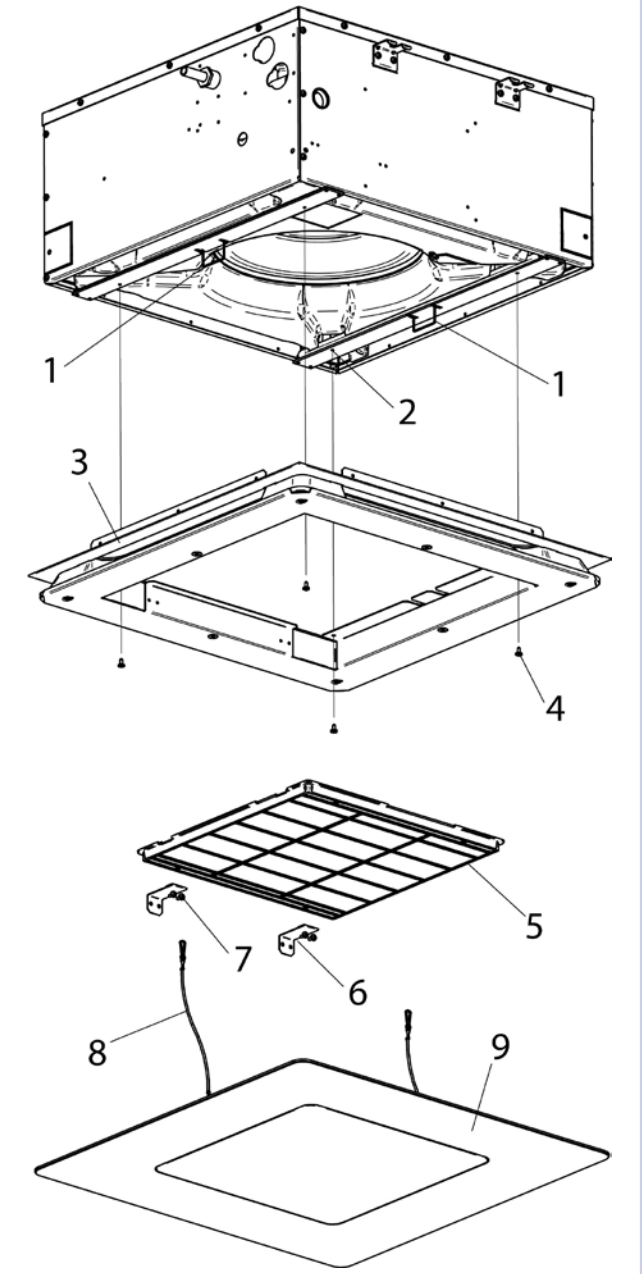
The front panel/grille, available for **AQ 10-20-30** versions, is delivered in a separate cardboard box:

— AQYD30 for models AQ 10-20-30

To install the panel (Fig.13):

— Turn the two locking clips (1) downwards.
— Attach the panel body (3) with appropriate screws (4) at the inserts (2) already present on it.
— Place the filter (5) resting on the cassette unit and block it fixing the supplied brackets (6) with relatives screws (7).
— Place the covering panel (9) hooking up safety cables first (8) to the clip (1) and then join the panel with unit (3) through magnet.

» Fig.13



5 RATED TECHNICAL DATA

» Rated technical data ACQVARIA - 2 pipes

ACQVARIA			AQ10Q0B0			AQ20Q0B0			AQ30Q0B0		
Speed			min	med	max	min	med	max	min	med	max
Total cooling capacity	(1)(E)	kW	1,70	1,97	2,53	2,39	3,55	4,31	3,40	4,61	5,00
Sensible cooling capacity	(1)(E)	kW	1,33	1,60	2,14	1,66	2,53	3,18	2,43	3,44	3,79
FCEER class	(E)			C			C			D	
Water flow	(1)	l/h	295	342	441	416	616	749	593	803	873
Water pressure drop	(1)(E)	kPa	3	4	6	9	19	26	9	16	18
Heating capacity	(2)(E)	kW	1,97	2,33	3,10	2,29	3,44	4,30	3,49	4,92	5,35
FCCOP class	(E)			C			D			E	
Water flow	(2)	l/h	342	404	539	399	597	747	607	855	930
Water pressure drop	(2)(E)	kPa	3	5	8	7	15	22	8	15	17
Rated air flow		m^3/h	297	379	557	306	487	640	479	717	805
Power input	(E)	W	18	23	42	32	40	50	57	74	89
Total sound power level	(3)(E)	dB(A)	33	37	45	40	44	50	47	55	58
Water content - standard coil		dm^3		1,14			1,63			1,63	
Cross-section area of power cables	(4)	mm^2		1,00			1,00			1,00	
Power supply cable type						N07V-K					
Safety fuse F		A		2			2			2	
Fuses type							gG				

ACQVARIA			AQ40Q0B0			AQ50Q0B0			AQ60Q0B0		
Speed			min	med	max	min	med	max	min	med	max
Total cooling capacity	(1)(E)	kW	4,64	5,36	7,01	5,16	6,11	8,24	6,34	8,61	9,73
Sensible cooling capacity	(1)(E)	kW	3,42	3,99	5,29	3,68	4,37	6,10	4,59	6,40	7,35
FCEER class	(E)						C				
Water flow	(1)	l/h	805	930	1223	893	1060	1434	1097	1498	1696
Water pressure drop	(1)(E)	kPa	14	18	28	12	16	26	16	26	32
Heating capacity	(2)(E)	kW	5,16	6,06	8,17	5,22	6,53	9,18	6,71	9,53	11,1
FCCOP class	(E)			D			C			D	
Water flow	(2)	l/h	897	1053	1420	908	1136	1596	1167	1656	1930
Water pressure drop	(2)(E)	kPa	14	18	30	10	15	26	15	26	33
Rated air flow		m^3/h	801	997	1494	718	902	1380	902	1380	1651
Power input	(E)	W	47	64	108	47	64	108	64	108	147
Total sound power level	(3)(E)	dB(A)	35	40	51	35	40	51	40	51	56
Water content - standard coil		dm^3		2,30			3,34			3,34	
Cross-section area of power cables	(4)	mm^2		1,00			1,00			1,00	
Power supply cable type						N07V-K					
Safety fuse F		A		2			2			2	
Fuses type							gG				

(1) Water temperature 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity) according to EN1397:2015
(2) Water temperature 45°C / 40°C, air temperature 20°C
(3) Sound power measured according to standards ISO 3741 and ISO 3742
(4) The shown section is to be considered as the minimum recommended section. The cables must be chosen in compliance with CEI - UNEL 35024/1. standard.
(E) EUROVENT certified data
Power supply 230-1-50 (V-ph-Hz)

» Rated technical data ACQVARIA - 4 pipes

ACQVARIA			AQ10Q0BB			AQ20Q0BB			AQ30Q0BB			AQ35Q0BB		
			min	med	max	min	med	max	min	med	max	min	med	max
Speed			1	2	3	1	2	3	1	2	3	1	2	3
Total cooling capacity DF	(1)(E)	kW	1,56	1,85	2,35	2,01	2,83	3,38	2,58	3,38	3,62	3,50	4,39	4,68
Sensible cooling capacity DF	(1)(E)	kW	1,24	1,49	1,94	1,49	2,22	2,77	2,00	2,77	3,02	2,56	3,17	3,50
FCEER class DF	(E)		C			E			E			D		
Water flow DF 1R		l/h	271	321	410	351	493	589	453	593	637	602	755	805
Water pressure drop DF 1R	(E)	kPa	3	4	6	10	16	22	5	8	9	8	12	15
Heating capacity DF 1R	(2)(E)	kW	2,53	2,88	3,55	2,75	3,62	4,22	3,67	4,54	4,81	2,57	2,94	3,18
FCCOP class DF 1R	(E)		C			D			E			E		
Water flow DF 1R	(2)	l/h	222	258	311	241	317	369	322	398	421	221	253	273
Water pressure drop DF 1R	(2)(E)	kPa	4	5	8	6	9	12	5	8	9	7	12	14
Rated air flow DF 1R		m^3/h	289	366	533	306	487	640	479	717	805	479	717	805
Power input DF 1R	(E)	W	18	23	42	35	55	73	57	74	89	44	67	75
Total sound power level DF 1R	(3)(E)	dB(A)	33	37	45	40	44	50	47	55	58	47	55	58
Water content - additional coil DF 1R		dm^3	0,49			0,49			0,49			0,49		
Cross-section area of power cables	(4)	mm^2	1,00			1,00			1,00			1,00		
Power supply cable type			N07V-K											
Safety fuse F		A	2			2			2			2		
Fuses type			gG											

ACQVARIA			AQ40Q0BB			AQ60Q0BB		
			min	med	max	min	med	max
Speed			1	2	3	1	2	3
Total cooling capacity DF	(1)(E)	kW	4,73	6,60	7,45	5,83	8,48	9,00
Sensible cooling capacity DF	(1)(E)	kW	3,47	5,04	5,81	4,29	6,56	6,98
FCEER class DF	(E)		C			D		
Water flow DF 1R		l/h	822	1148	1299	1010	1477	1571
Water pressure drop DF 1R	(E)	kPa	10	20	25	16	31	34
Heating capacity DF 1R	(2)(E)	kW	7,20	9,60	10,6	8,64	11,7	12,4
FCCOP class DF 1R	(E)		C					
Water flow DF 1R	(2)	l/h	634	840	929	757	1026	1083
Water pressure drop DF 1R	(2)(E)	kPa	12	19	23	16	27	30
Rated air flow DF 1R		m^3/h	718	1147	1380	902	1544	1651
Power input DF 1R	(E)	W	47	86	108	64	128	147
Total sound power level DF 1R	(3)(E)	dB(A)	35	47	51	40	54	56
Water content - additional coil DF 1R		dm^3	1,04			1,04		
Cross-section area of power cables	(4)	mm^2	1,00			1,00		
Power supply cable type			N07V-K					
Safety fuse F		A	2			2		
Fuses type			gG					

(1) Water temperature 7°C / 12°C, air temperature dry bulb 27°C, wet bulb 19°C (47% relative humidity) according to EN1397:2015
(2) Water temperature 65°C / 55°C, air temperature 20°C
(3) Sound power measured according to standards ISO 3741 and ISO 3742
(4) The shown section is to be considered as the minimum recommended section. The cables must be chosen in compliance with CEI - UNEL 35024/1. standard.
(E) EUROVENT certified data
Power supply 230-1-50 (V-ph-Hz)

ACQVARIA		AQ 10-20-30-35	AQ 40-50-60
CONDENSATE DRAINAGE PUMP			
Power supply	V - ph - Hz	230 - 1 -50	230 - 1 -50
Rated current	l/h	24	24
Lifting height above the unit	mm	900	900
Power input	kW	0,011	0,011
INTAKE OF FRESH AIR TO BE TREATED			
Number of intakes	nr	3	
Connection dimensions	mm	Ø 100	
OUTLET OF AIR IN ADJACENT ROOMS			
Number of intakes	nr	2	2
Connection dimensions	mm	Ø 150	Ø 180
INTRODUCTION OF FRESH AIR DIRECTLY INTO THE ROOM			
Number of intakes	nr	2	2
Connection dimensions	mm	Ø 150	Ø 180

6 WEIGHTS

ACQVARIA		AQ10Q0B0	AQ10Q0BB	AQ20Q0B0	AQ20Q0BB	AQ30Q0B0	AQ30Q0BB
Weight	kg	23 + 2,5	23 + 2,5	24 + 2,5	24 + 2,5	24 + 2,5	24 + 2,5

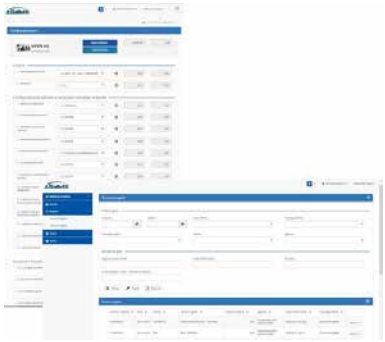
ACQVARIA		AQ35Q0BB	AQ40Q0B0	AQ40Q0BB	AQ50Q0B0	AQ60Q0B0	AQ60Q0BB
Weight	kg	24 + 2,5	42 + 5	42 + 5	43 + 5	43 + 5	43 + 5

Note: Panel + grid weight

7 PERFORMANCES

Galletti has developed on its www.galletti.com web-area the new ON-LINE integrated platform for product selection, configuration and the making of the economic offer.
The software, whose use is easy and intuitive, allows the identification of the desired products by calculating their performances based on real working conditions and their configuration helping the user in choosing options and accessories. It also allows to obtain a detailed report which includes performances, dimensional drawings, tender specifications and the economic offer.

Product selection:
Filters to make the identification of the requested product easier
Performance calculation and saving of results
Performance comparison between products belonging to different series



Configuration and project history
Wizard configuration of accessories and options for chillers, heat pumps and hydronic units
Creation of a project which collects all products of interest
Complete management of the storaged history projects

Report:
Generation of a detailed list report in pdf format
Choice of the sections to be included in the print:
— Products performances
— Dimensional drawings
— Tender specifications

8 SOUND LEVELS

» 2 pipes

ACQVARIA		125 Hz(1)	250 Hz(1)	500 Hz(1)	2000 Hz(1)	1000 Hz(1)	4000 Hz(1)	8000 Hz(1)	LwA(2)
	Speed	dB	dB	dB	dB	dB	dB	dB	dBA
AQ10Q0B0	min	37	36	36	18	27	10	11	33
	med	41	39	39	25	32	12	9	37
	max	48	46	46	36	39	26	14	45
AQ20Q0B0	min	45	43	43	25	34	17	18	40
	med	48	46	46	32	39	19	16	44
	max	53	51	51	41	44	31	19	50
AQ30Q0B0	min	51	49	45	35	42	22	19	47
	med	59	57	53	43	50	30	27	55
	max	62	60	56	46	53	33	30	58
AQ40Q0B0	min	40	38	38	20	29	12	13	35
	med	44	42	42	28	35	15	12	40
	max	54	52	52	42	45	32	20	51
AQ50Q0B0	min	37	38	38	20	29	12	13	35
	med	44	42	42	28	35	15	12	40
	max	54	52	52	42	45	32	20	51
AQ60Q0B0	min	44	42	42	28	35	15	12	40
	med	54	52	52	42	45	32	20	51
	max	58	57	57	46	50	39	27	56

(1) Sound power level by octave band, not weighted
(2) Total sound power level, weighted A

» 4 pipes

ACQVARIA		125 Hz(1)	250 Hz(1)	500 Hz(1)	2000 Hz(1)	1000 Hz(1)	4000 Hz(1)	8000 Hz(1)	LwA(2)
	Speed	dB	dB	dB	dB	dB	dB	dB	dBA
AQ10Q0BB	min	38	36	36	18	27	10	11	33
	med	40	38	38	28	32	15	5	37
	max	48	46	46	36	39	26	14	45
AQ20Q0BB	min	45	43	43	25	34	17	18	40
	med	47	45	45	35	39	22	12	44
	max	53	51	51	41	44	31	19	50
AQ30Q0BB	min	51	49	45	35	42	22	19	47
	med	59	57	53	43	50	30	27	55
	max	62	60	56	46	53	33	30	58
AQ40Q0BB	min	40	38	38	20	29	12	13	35
	med	50	48	48	38	41	28	16	47
	max	54	52	52	42	45	32	20	51
AQ60Q0BB	min	44	42	42	28	35	15	12	40
	med	57	55	55	45	48	35	23	54
	max	58	57	57	46	50	39	27	56

(1) Sound power level by octave band, not weighted
(2) Total sound power level, weighted A

9 ELECTRICAL CONNECTION DIAGRAMS

Make the electrical connections with the power supply disconnected, in accordance with current safety regulations.
Check that the mains electricity supply is compatible with the voltage shown on the unit rating plate.
The electrical connections indicated must be made by the installer

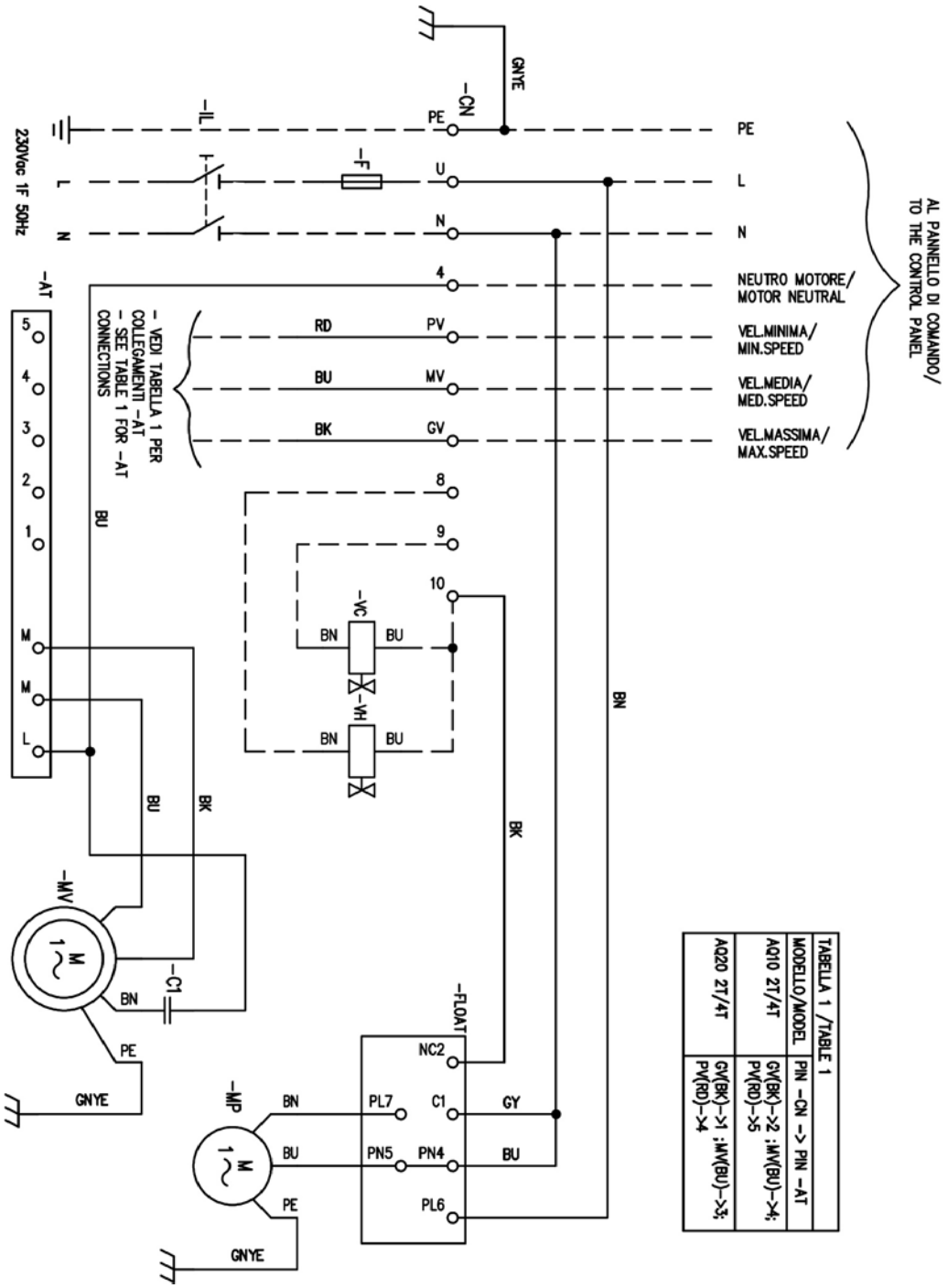
- **IL:** Circuit breaker (not supplied)
- **F:** Safety 2A fuse (not supplied)
- **CN:** Fast on/screw terminal board
- **MV:** Fan motor
- **C1:** Condenser for fan motor
- **AT:** Autotransformer for fan motor
- **MP:** Condensate drainage pump
- **FLOAT SWITCH:** Float
    - **BN:** Brown = pump power supply phase
    - **BK:** Black = float switch alarm signal
    - **BU:** Blue = pump power supply neutral
    - **GY:** Grey = common float alarm
- **VC ON/OFF:** ON/OFF cold/hot water valve (2 pipes system) (accessory)
- ON/OFF cold water valve (4 pipes system)
- **VH ON/OFF:** hot water valve (4 pipes system) (accessory)
    - **BN:** Brown = valves power supply phase
    - **BU:** Blue = neutral valve power supply
- **SAI:** Pre-installed internal air temperature probe
- **SAE:** Remote air temperature probe (accessory)
- **SW:** Water temperature sensor (accessory)
- **SWH:** Hot water temperature probe additional coil (4-pipe units). Available in option only with SW.
- **SUI:** Pre-installed internal air relative humidity probe
- **SUE:** Remote air relative humidity probe (accessory)
- **JONIX:** Air ionizer module (accessory)

Specific for wiring diagrams with EVO-BOARD control

- **T1:** Transformer 230Vac/24Vac (not supplied)
- **VC 0-10:** modulating cold/hot water 2 pipes system (accessory); modulating cold water valve 4 pipes system (accessory)
- **VH 0-10:** Hot water valve modulating 0/10V 4 pipes system (accessory)
    - **RD:** Red = + 24V valves power supply
    - **BK:** Black = 0V valve power suppliy / control signal GND
    - **grey:** Grey = 0-10 Vdc valve control signal for modulating

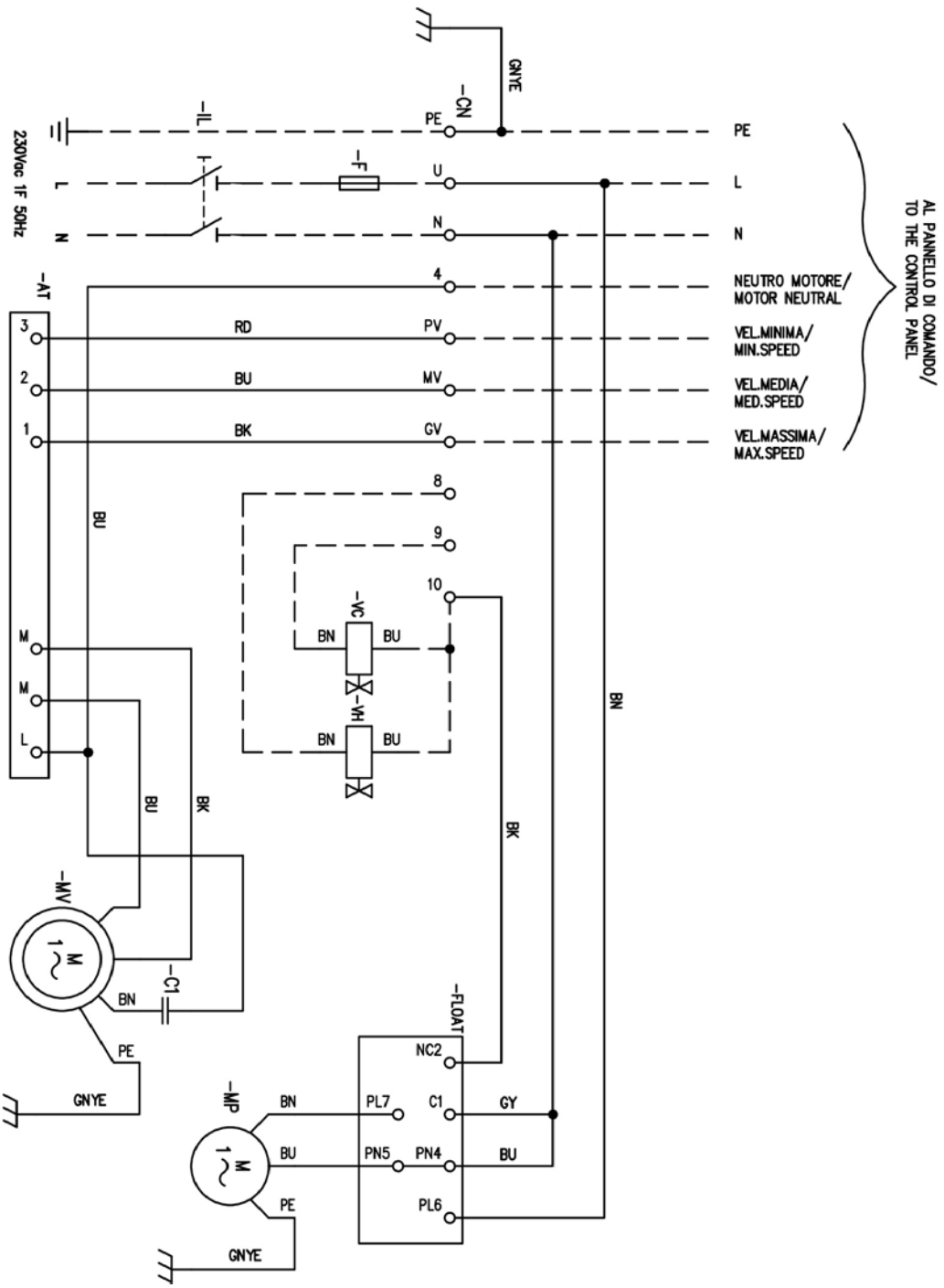
» Electrical wires 3 speed base AQ 10-20 + ON/OFF valve

» 9.1



» Electrical wires 3 speed base AQ 30 + ON/OFF valve

» 9.2



» Electrical wires 3 speed base AQ 40-60 + ON/OFF valve

» 9.3

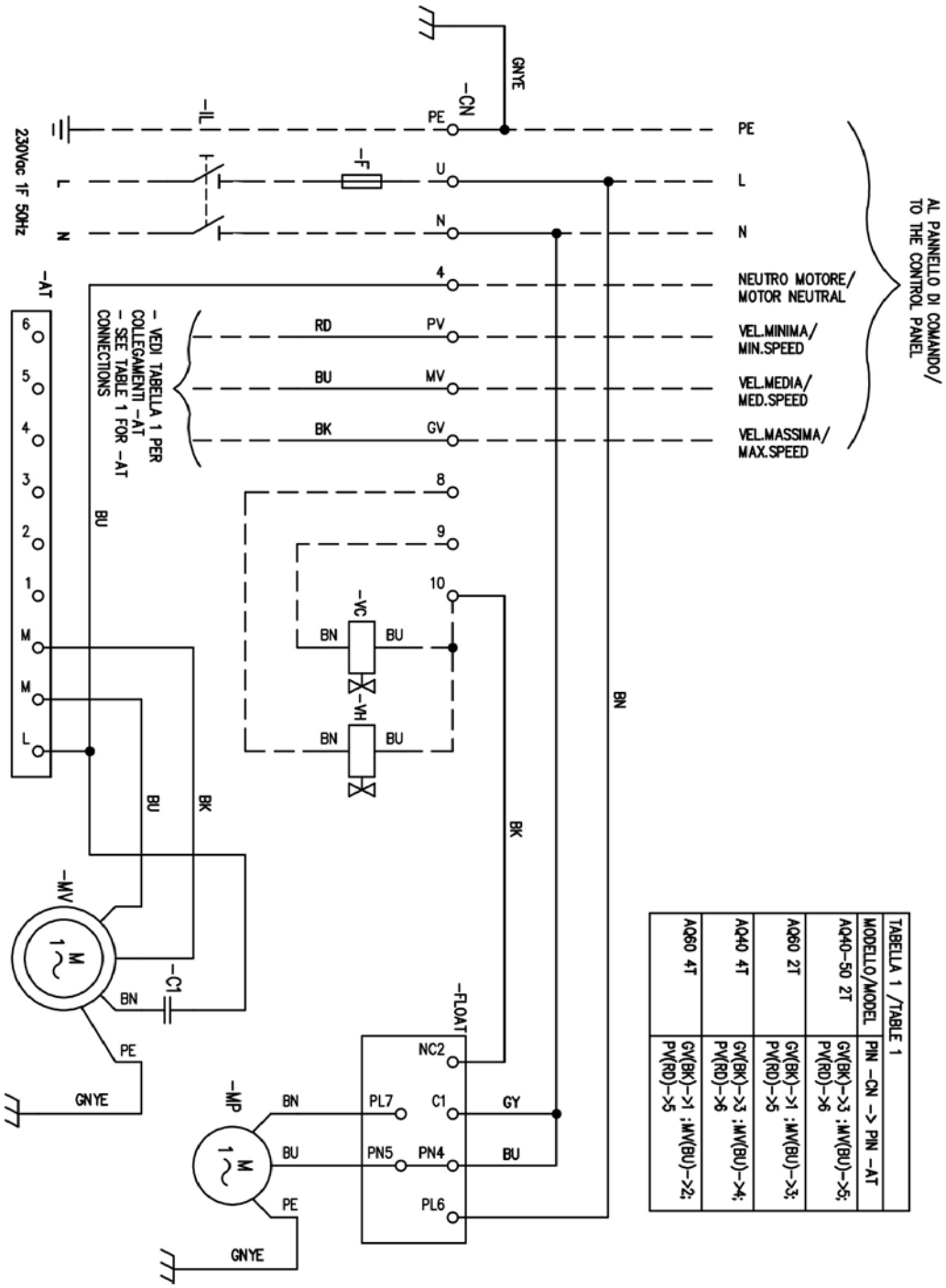
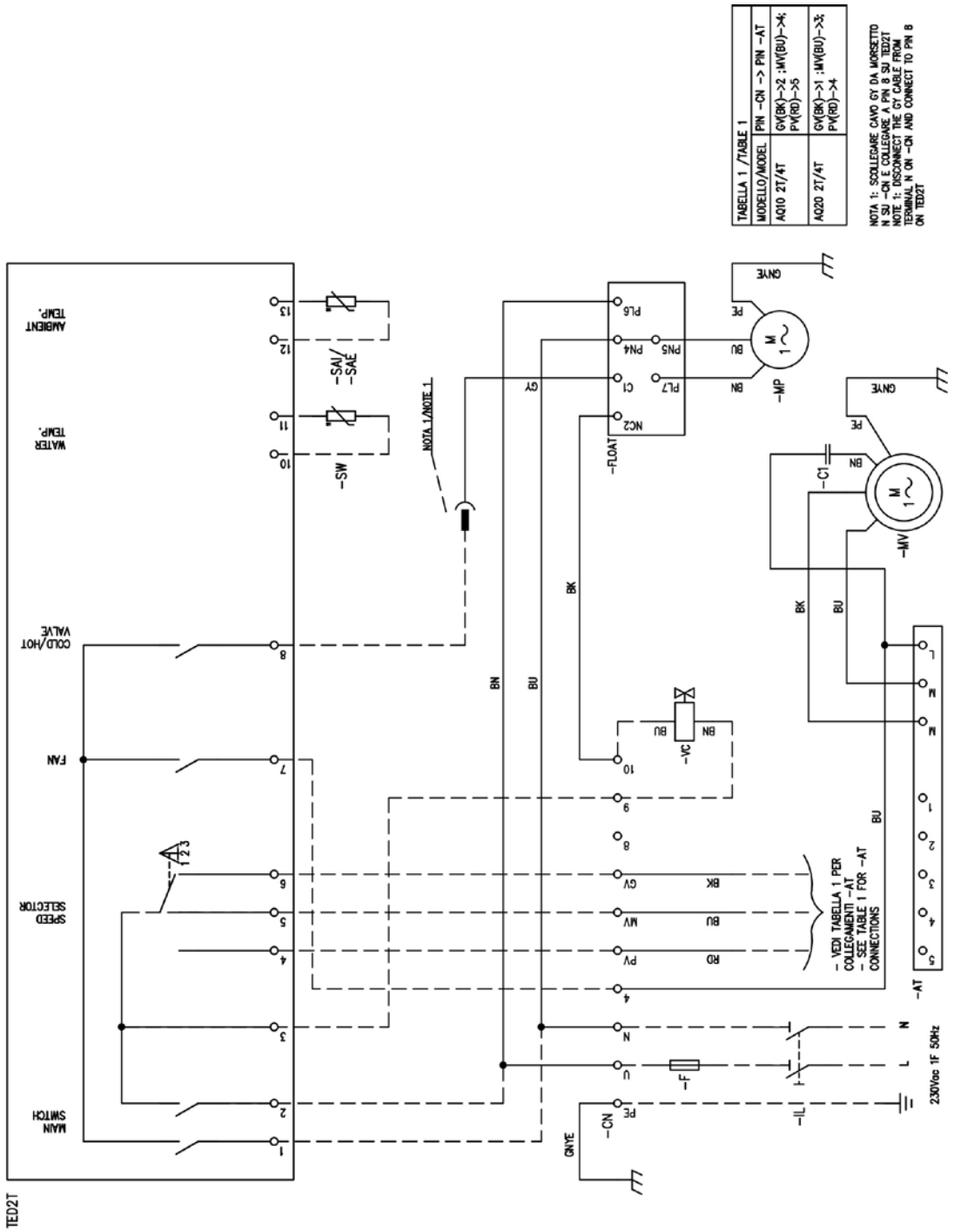


TABELLA 1 /TABLE 1	
MODELLO/MODEL	PIN -CN -> PIN -AT
AQ40-50 2T	GV(BK)->3 ;MV(BU)->5; PV(RD)->6
AQ60 2T	GV(BK)->1 ;MV(BU)->3; PV(RD)->5
AQ40 4T	GV(BK)->3 ;MV(BU)->4; PV(RD)->6
AQ60 4T	GV(BK)->1 ;MV(BU)->2; PV(RD)->5

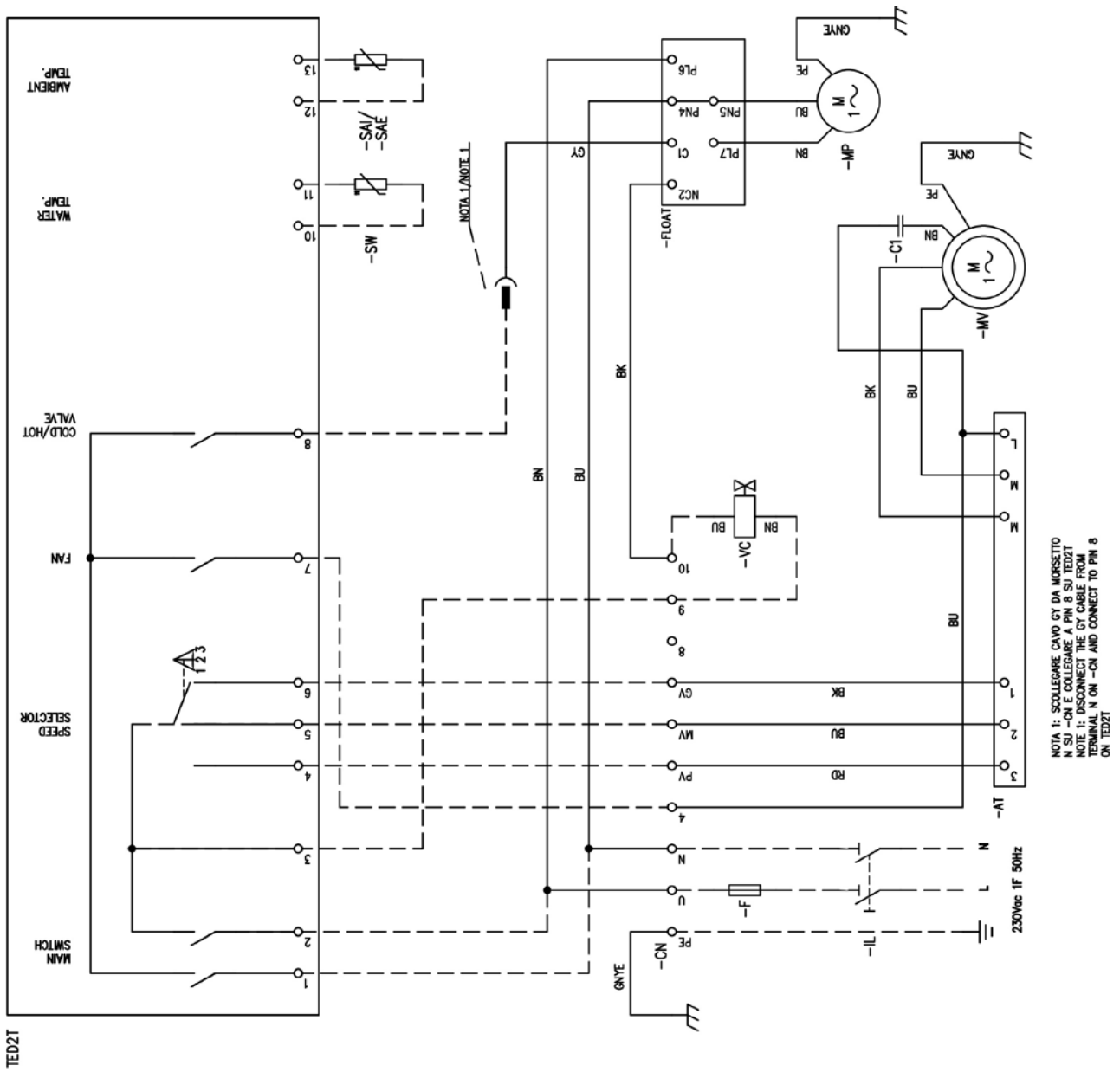
» TED2T 3 speed wiring diagram for models AQ 10-20

» 9.4



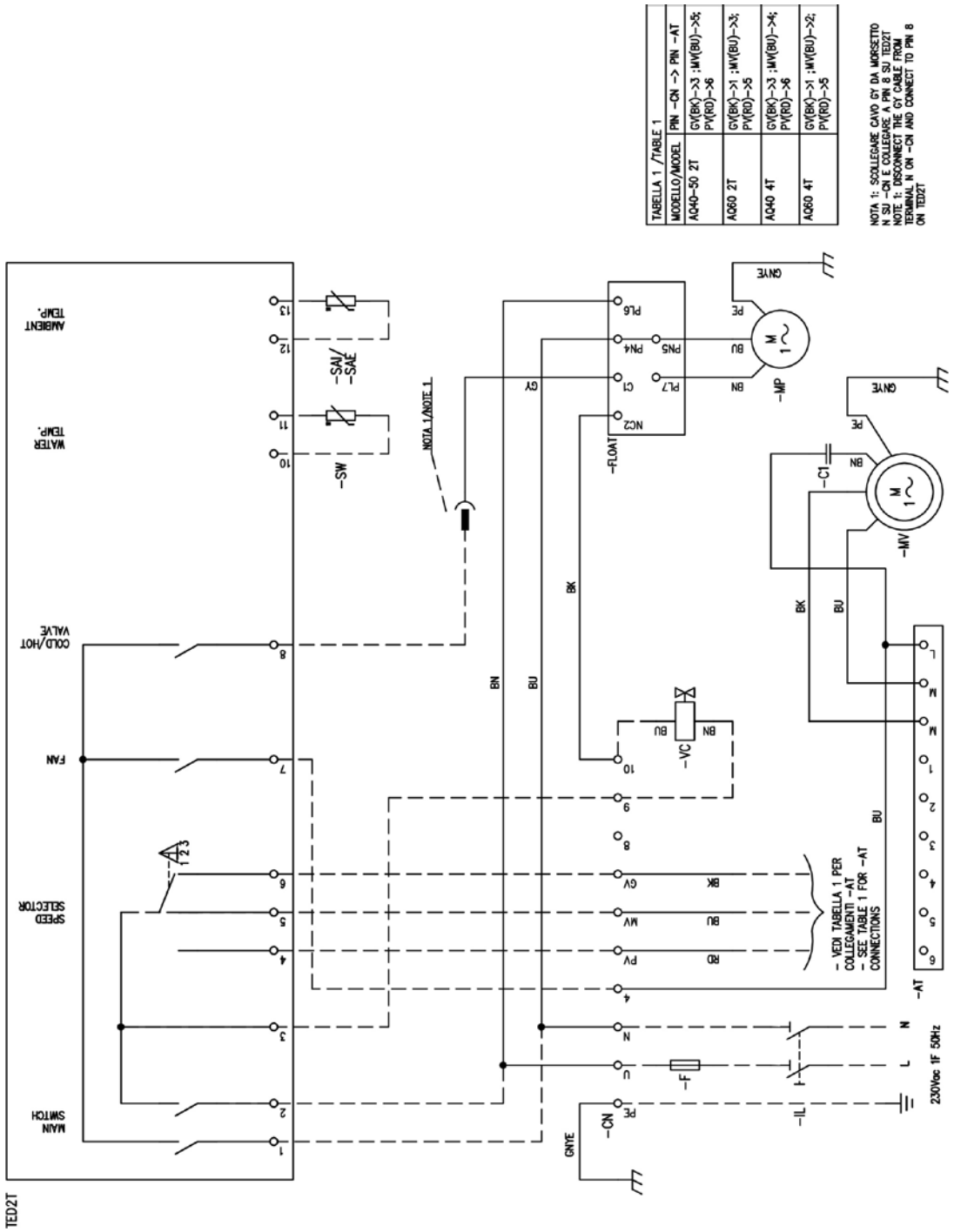
» TED2T 3 speed wiring diagram for models AQ 30

» 9.5



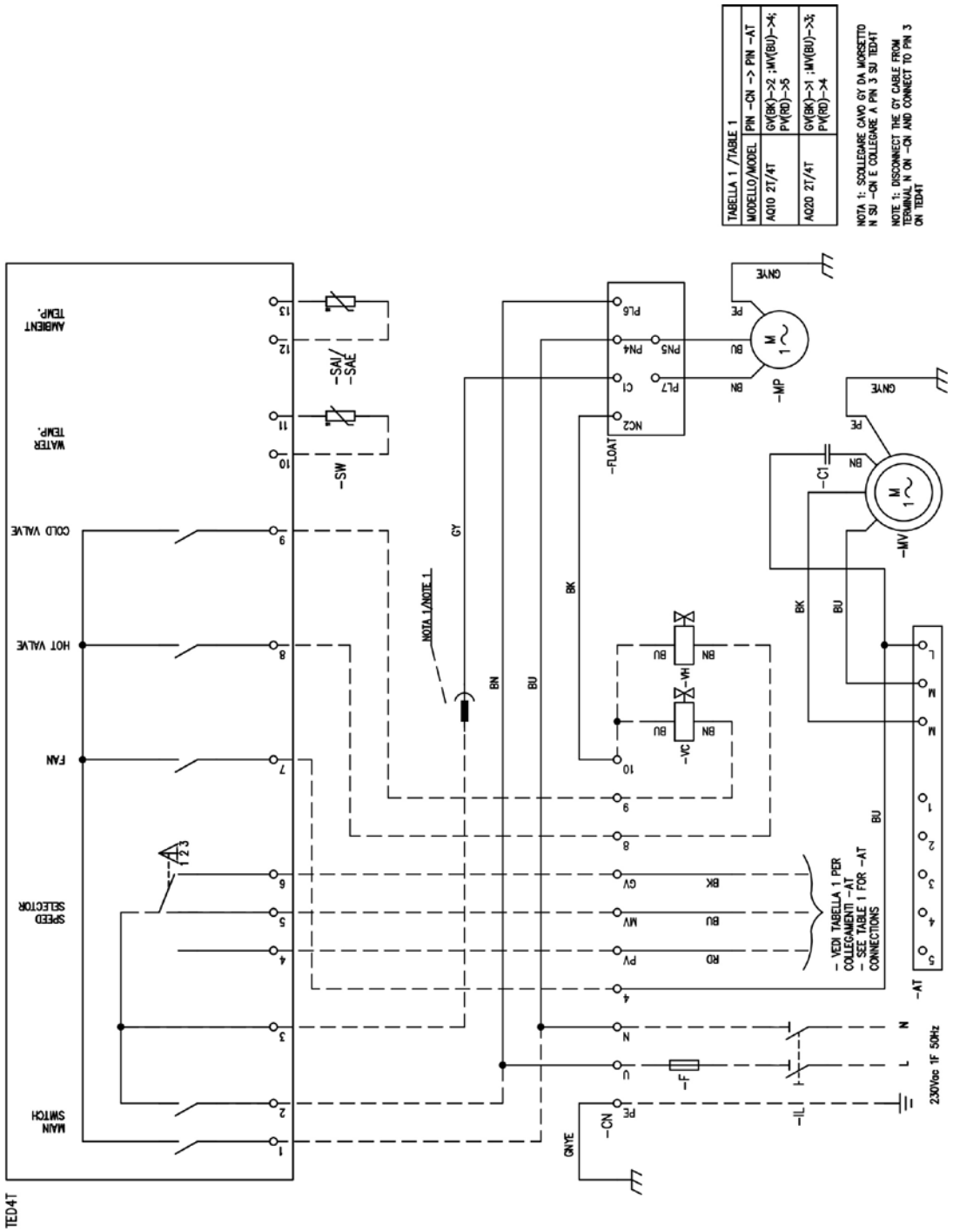
» TED2T 3 speed wiring diagram for models AQ 40-60

» 9.6



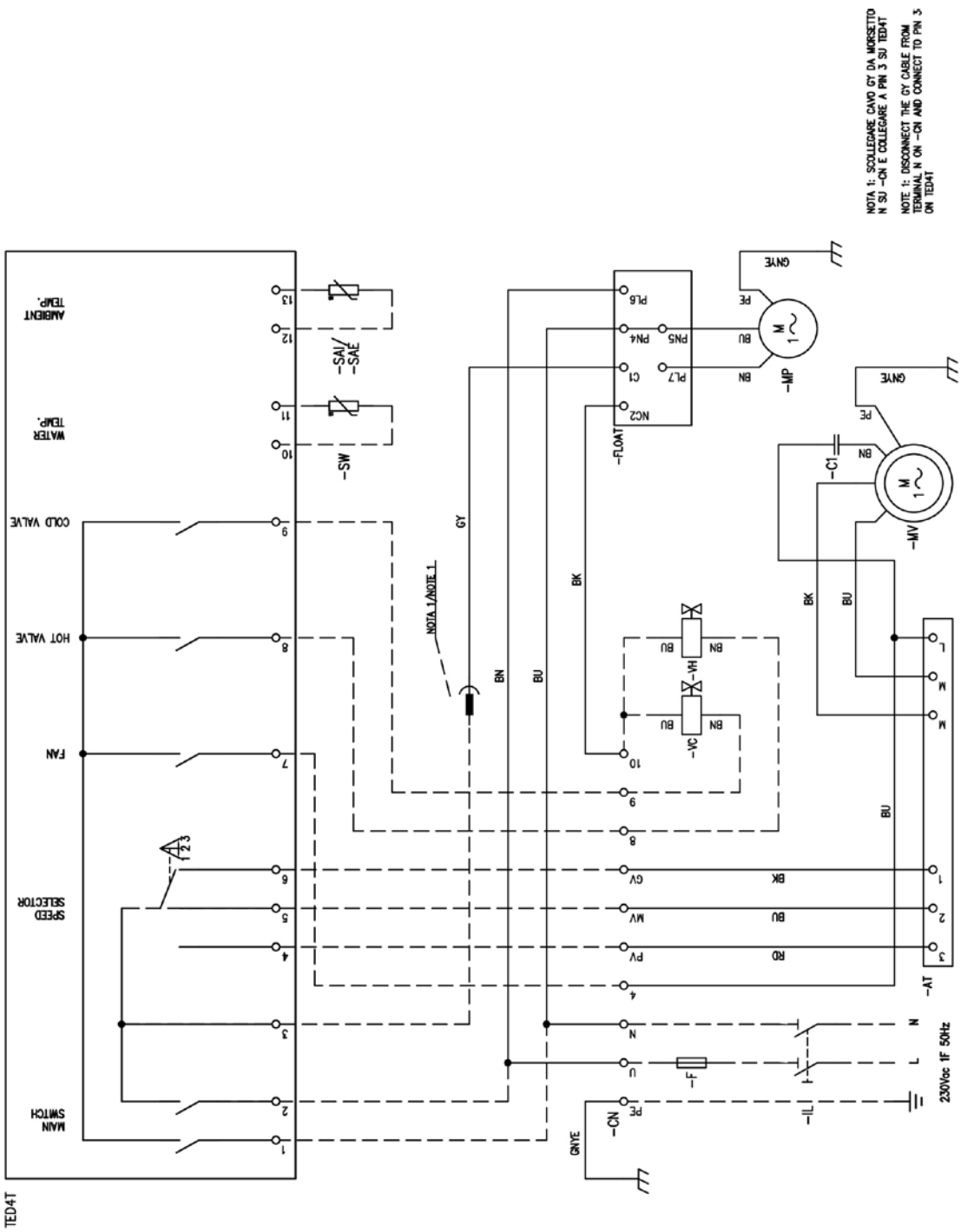
» TED4T 3 speed wiring diagram for models AQ 10-20

» 9.7



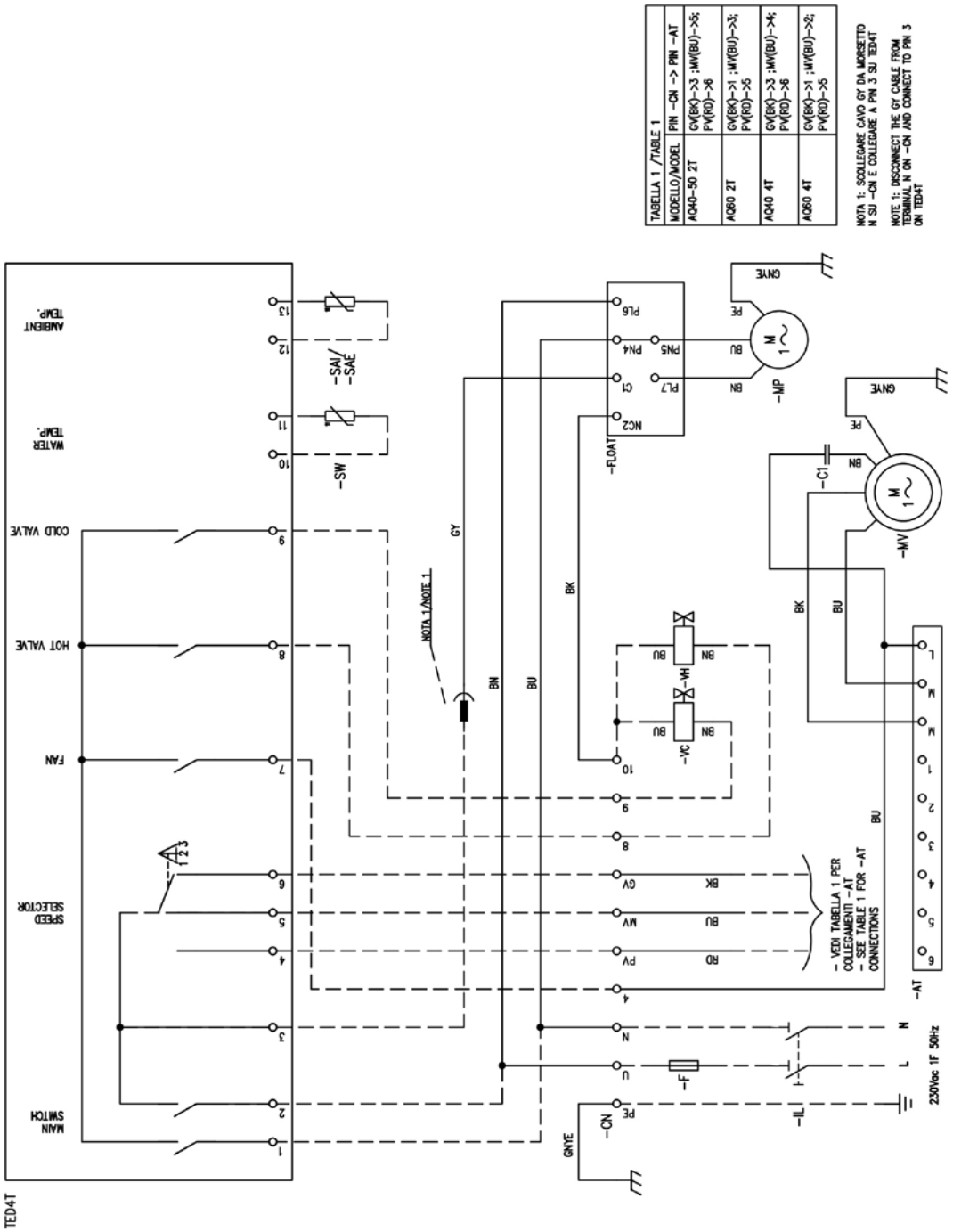
» TED4T 3 speed wiring diagram for models AQ 30

» 9.8



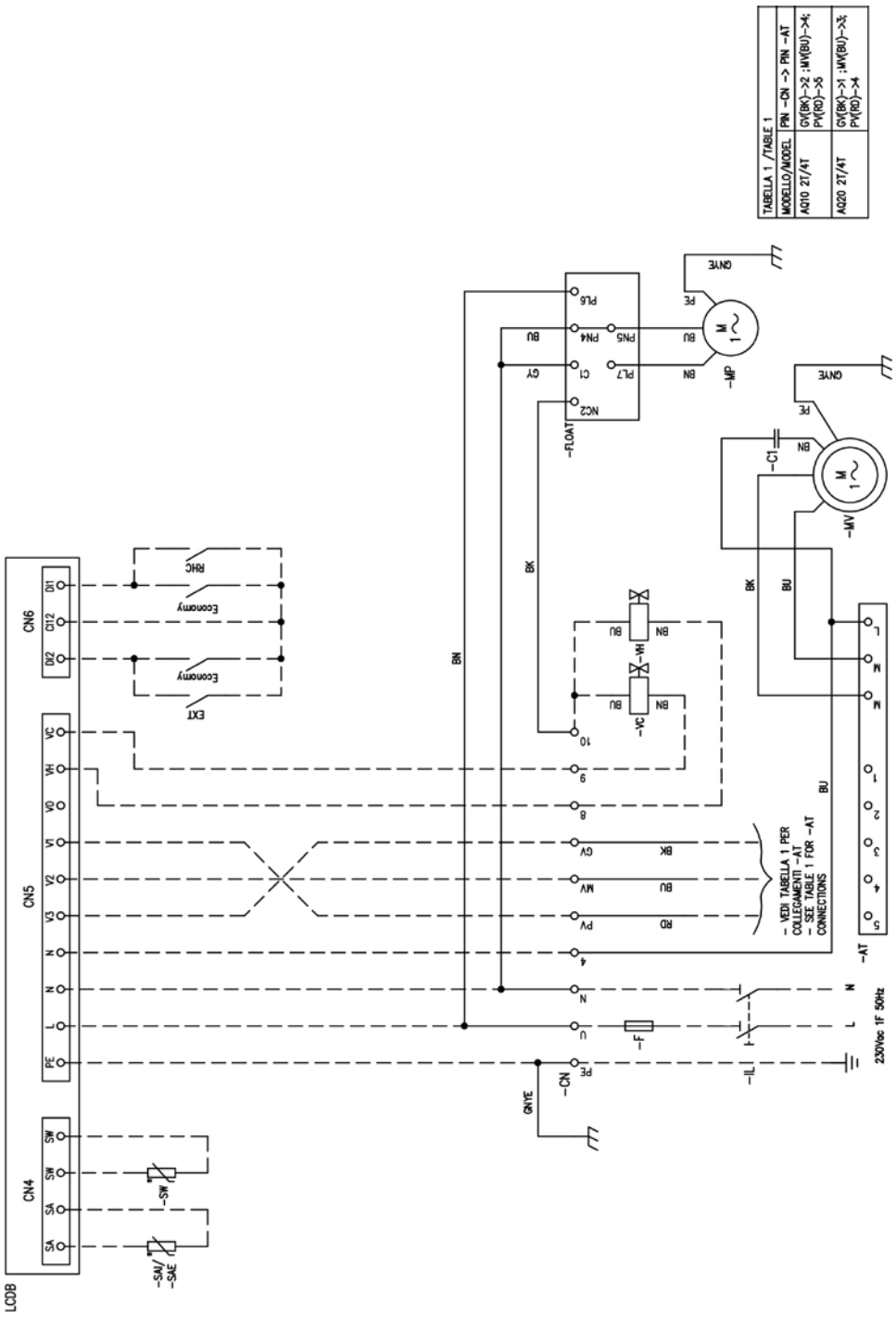
» TED4T 3 speed wiring diagram for models AQ 40-60

» 9.9



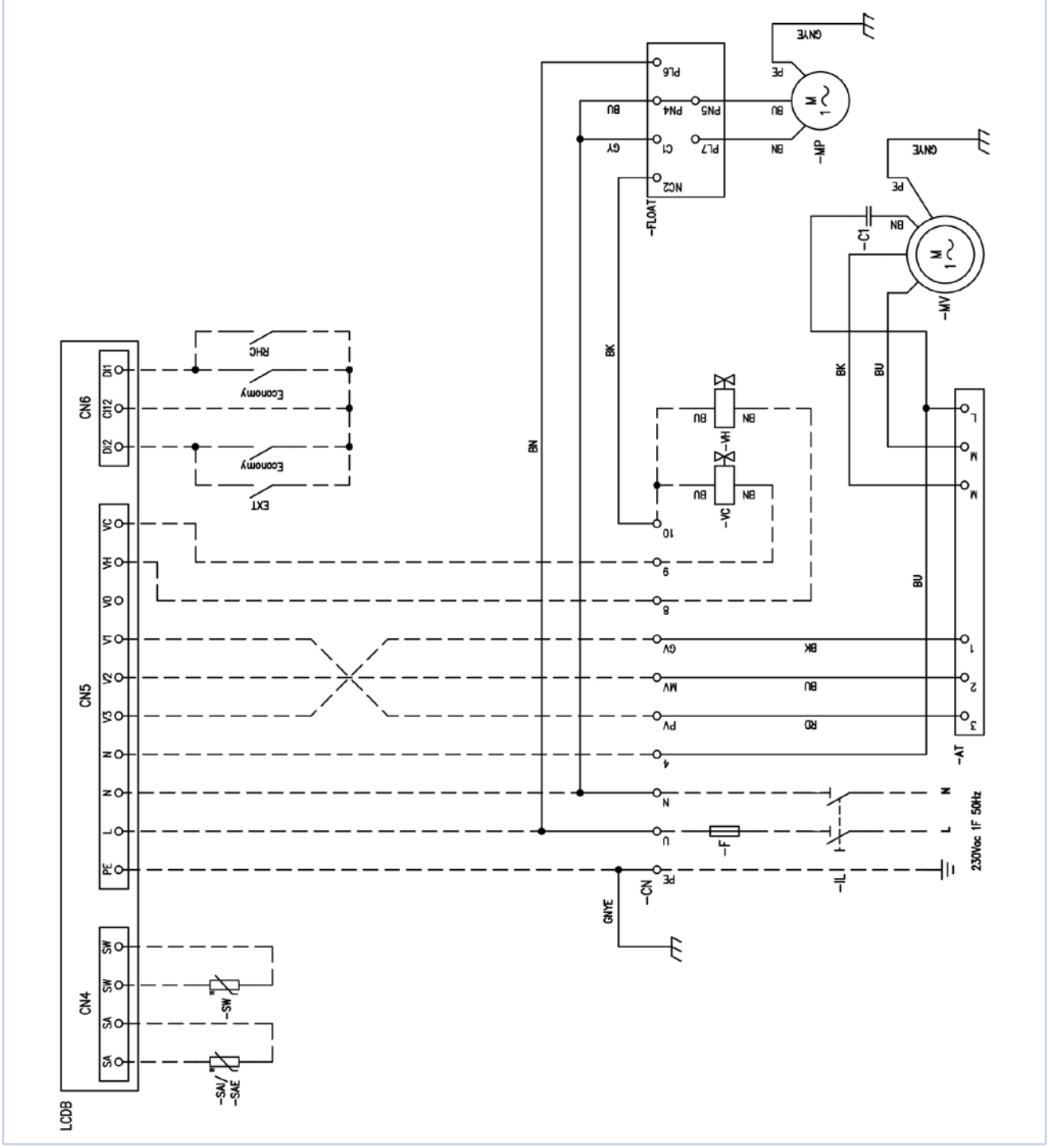
» My Comfort Base 3 speed wiring diagram for AQ 10-20

» 9.10



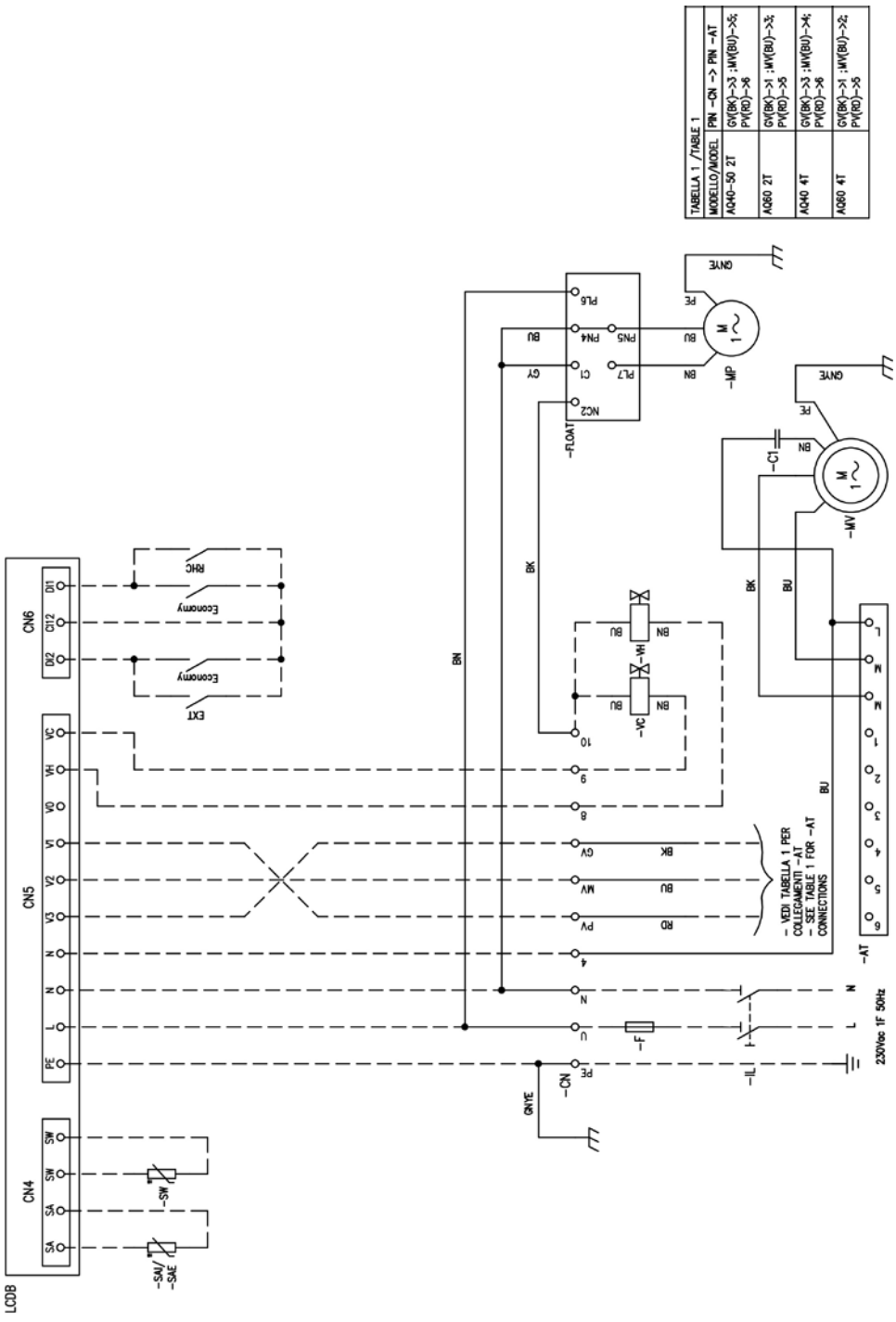
» My Comfort Base 3 speed wiring diagram for AQ 30

» 9.11



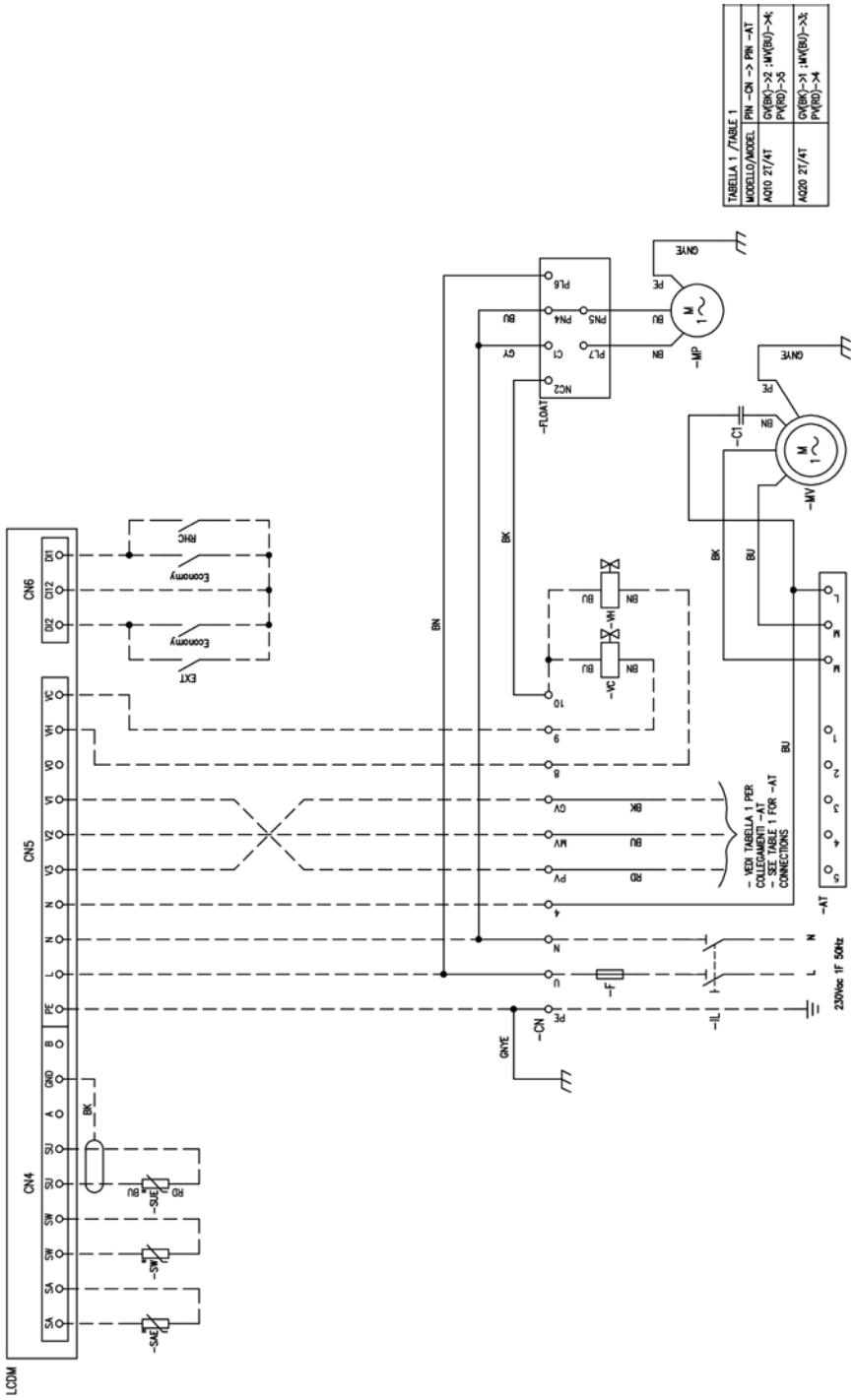
» My Comfort Base 3 speed wiring diagram for AQ 40-60

» 9.12



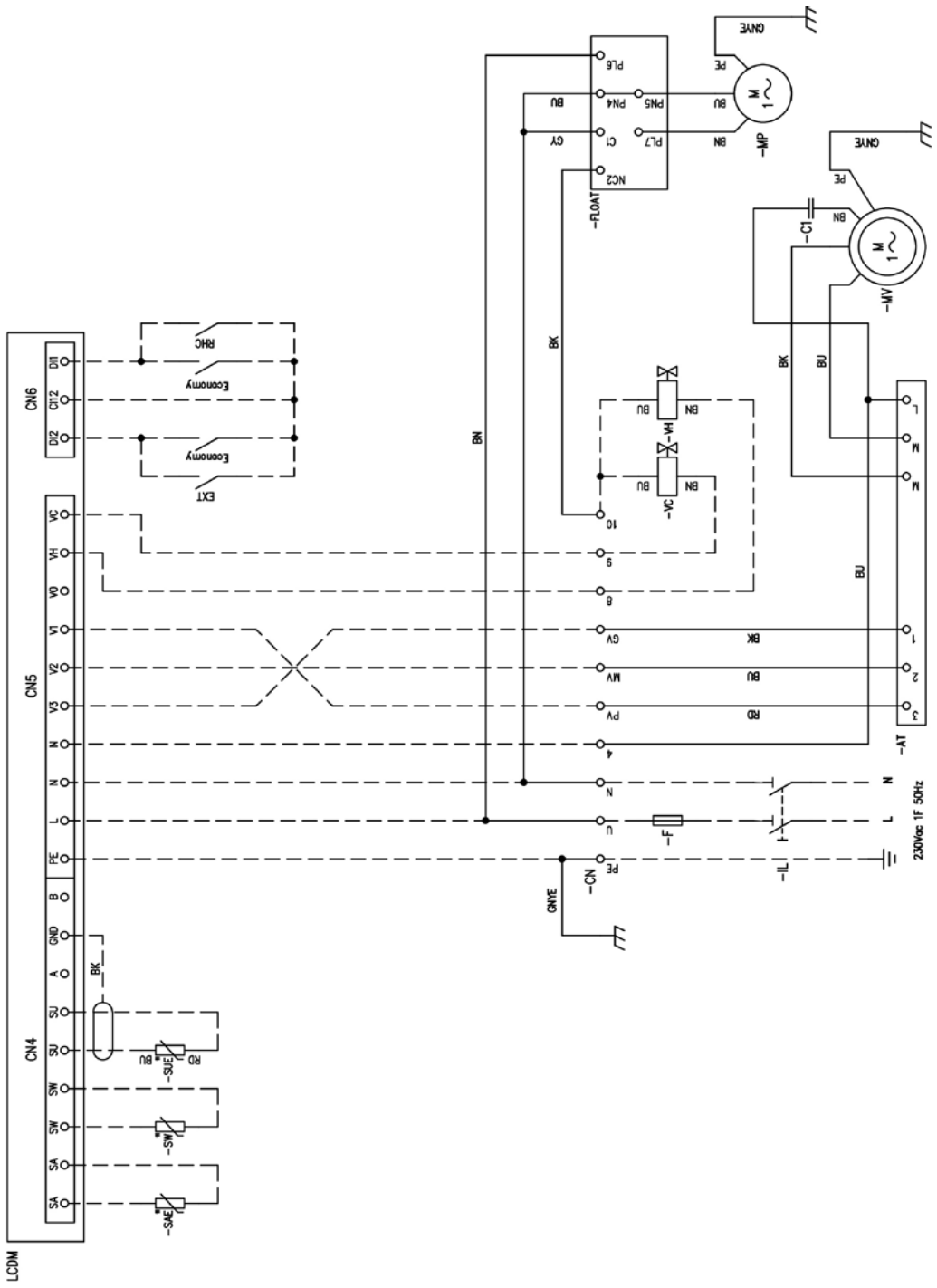
» My Comfort Medium 3 speed wiring diagram for AQ 10-20

» 9.13



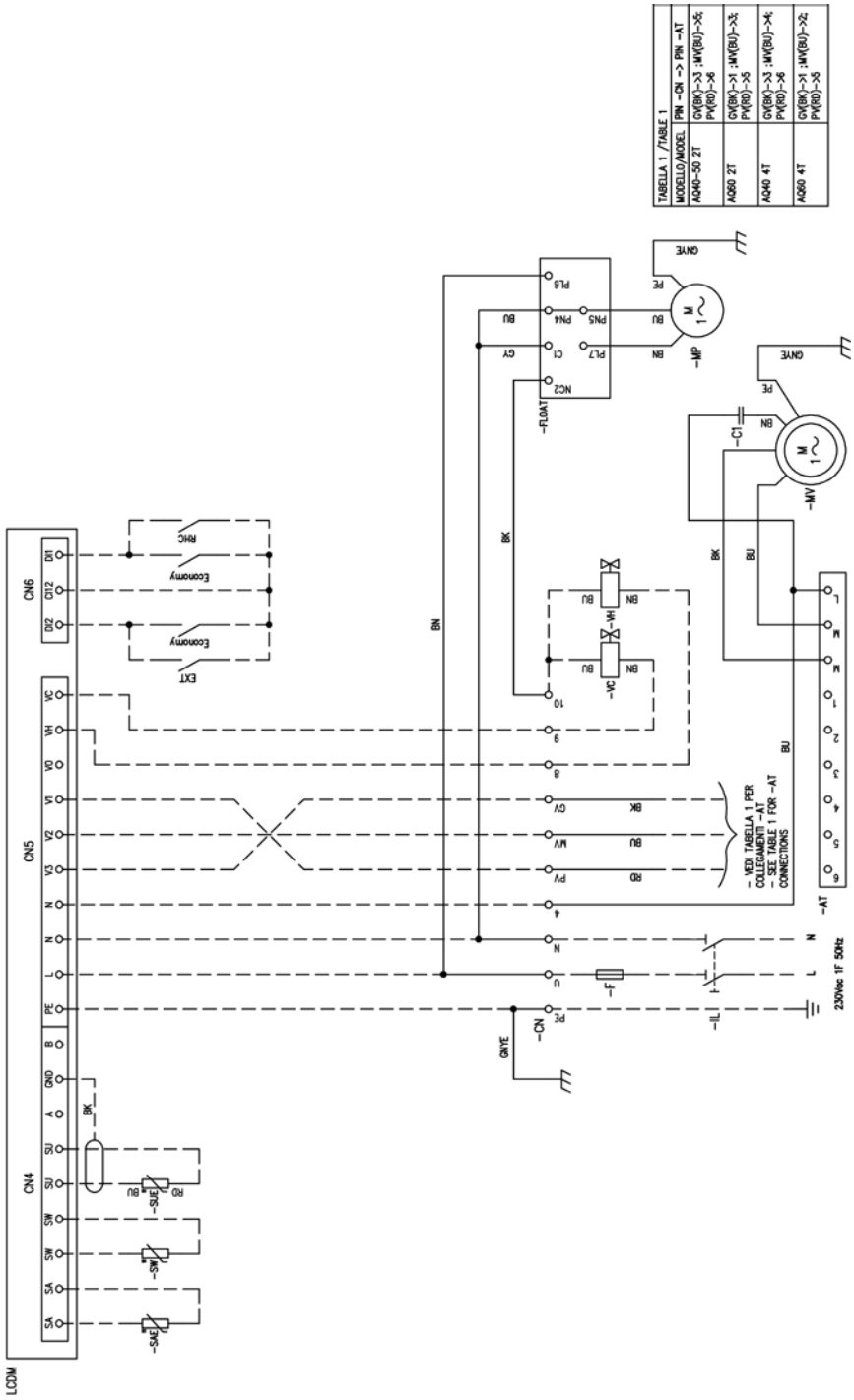
» My Comfort Medium 3 speed wiring diagram for AQ 30

» 9.14



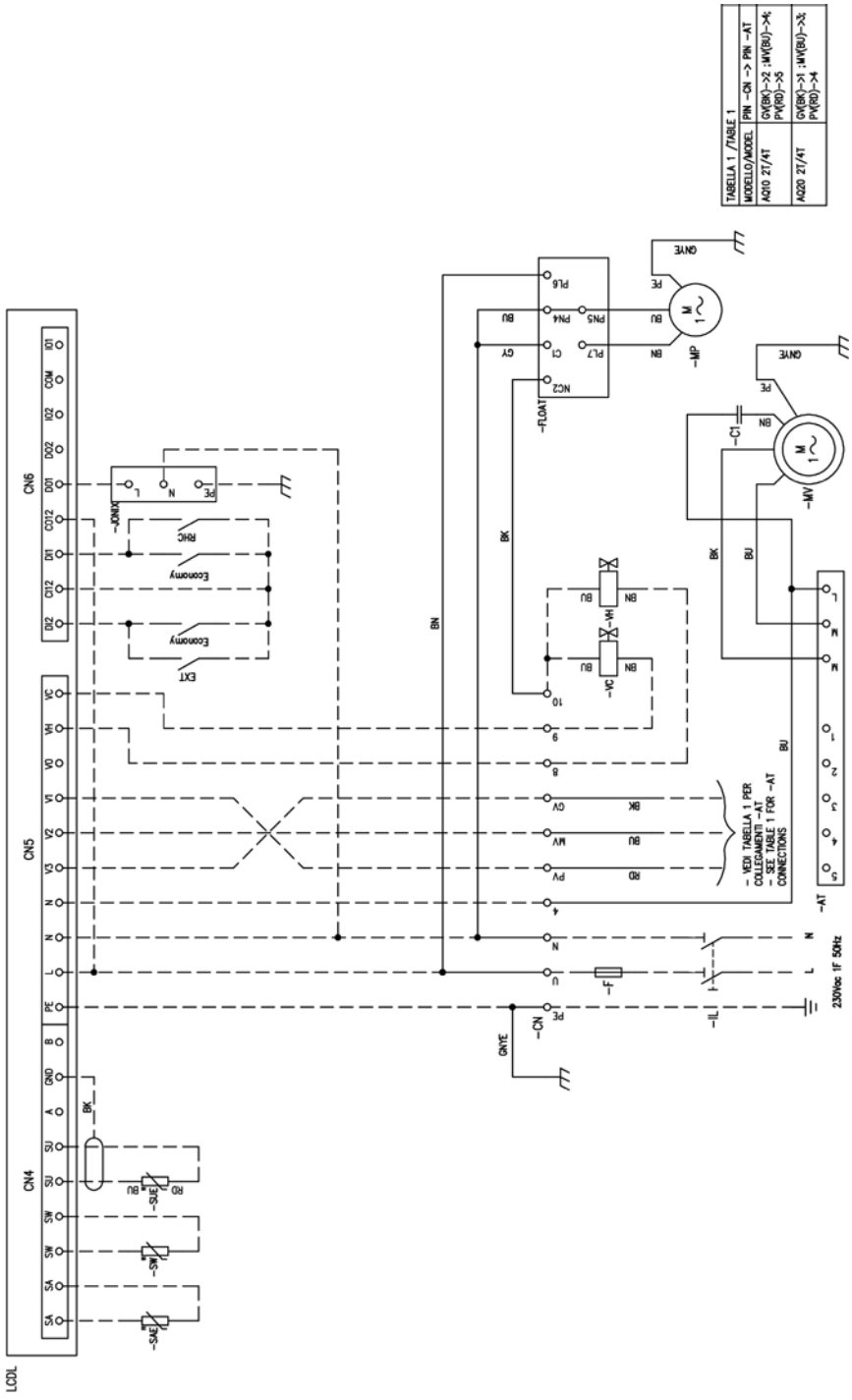
» My Comfort Medium 3 speed wiring diagram for AQ 40-60

» 9.15



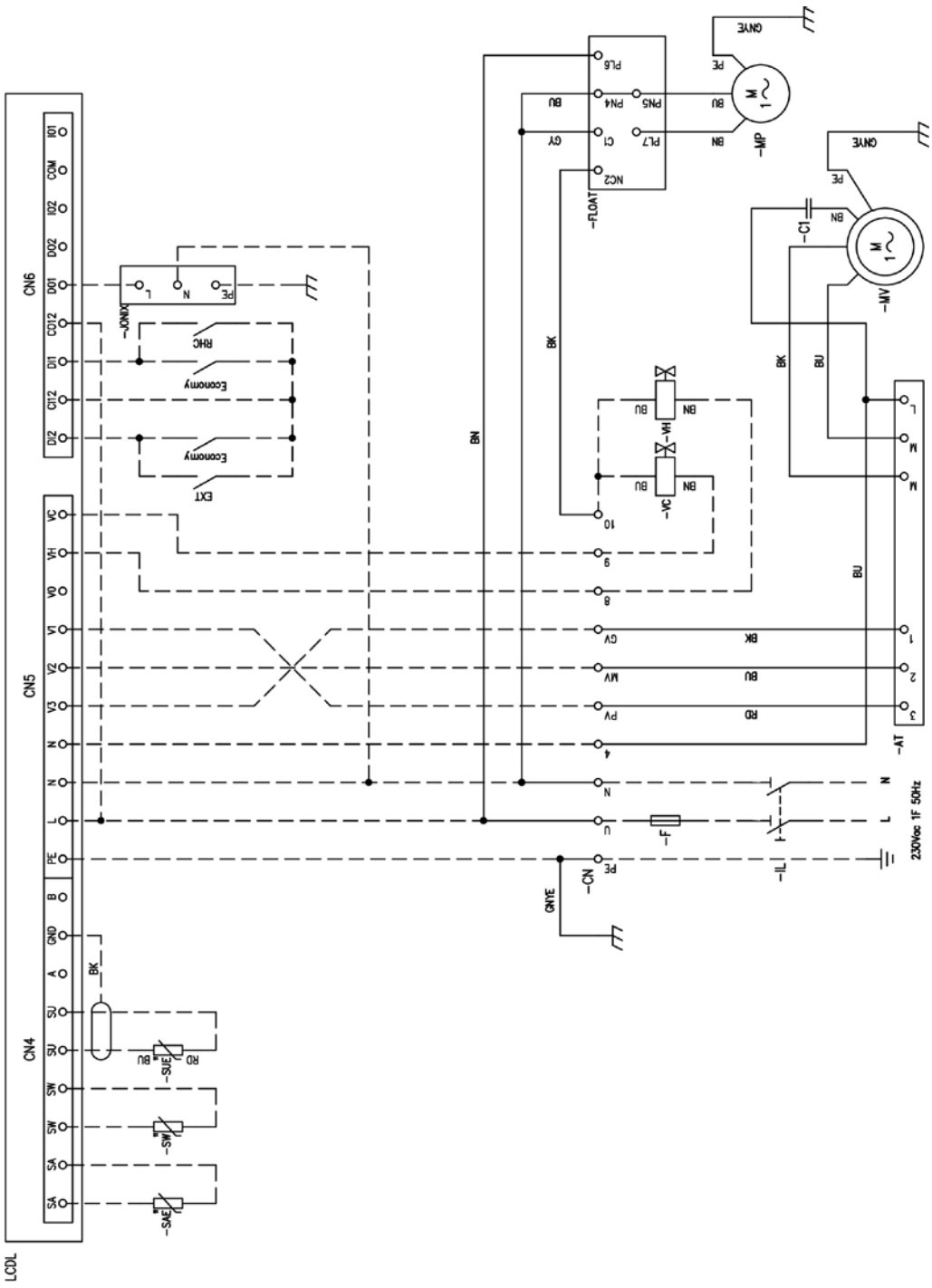
» My Comfort Large 3 speed wiring diagram for models AQ 10-20

» 9.16



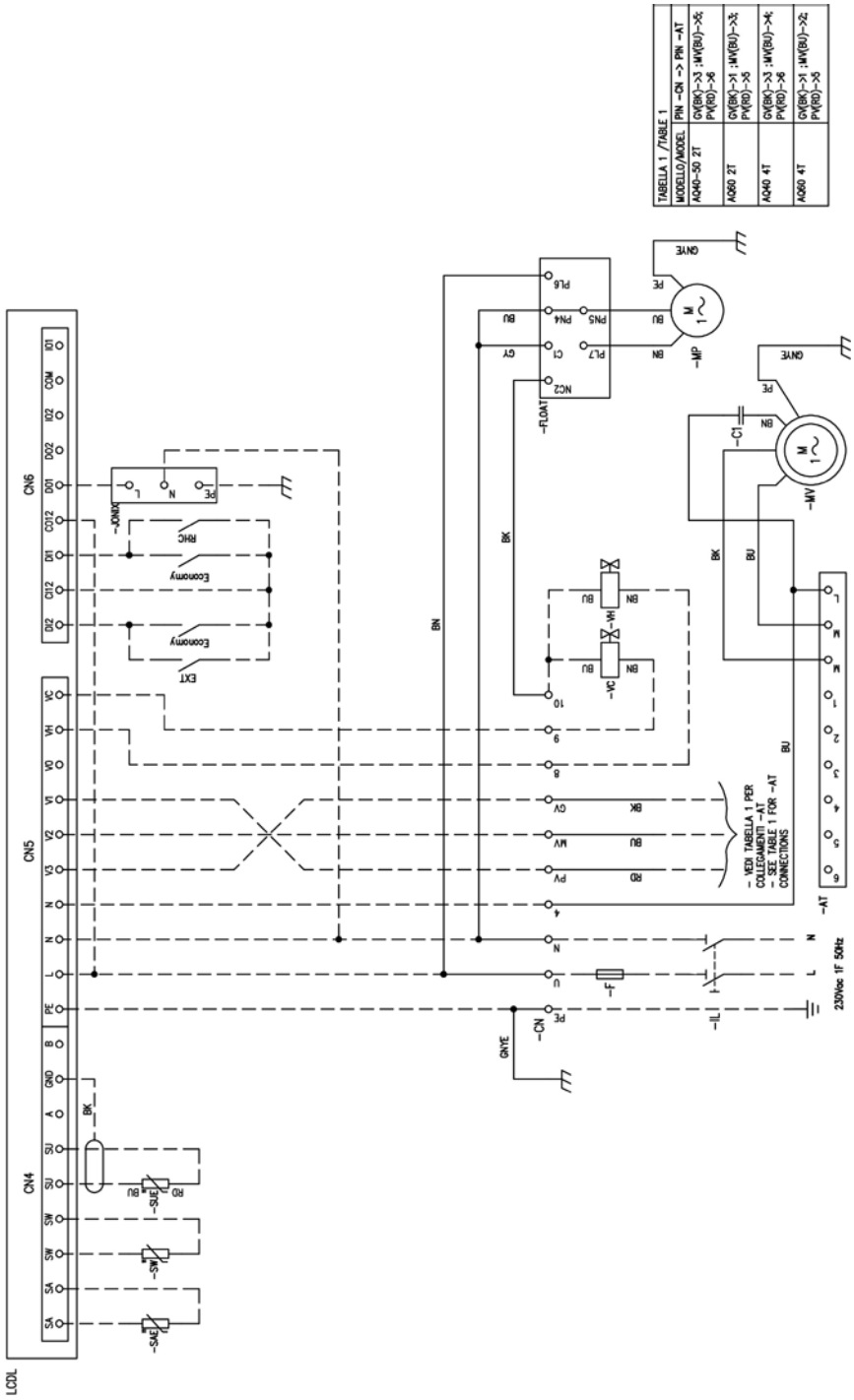
» My Comfort Large 3 speed wiring diagram for models AQ 30

» 9.17



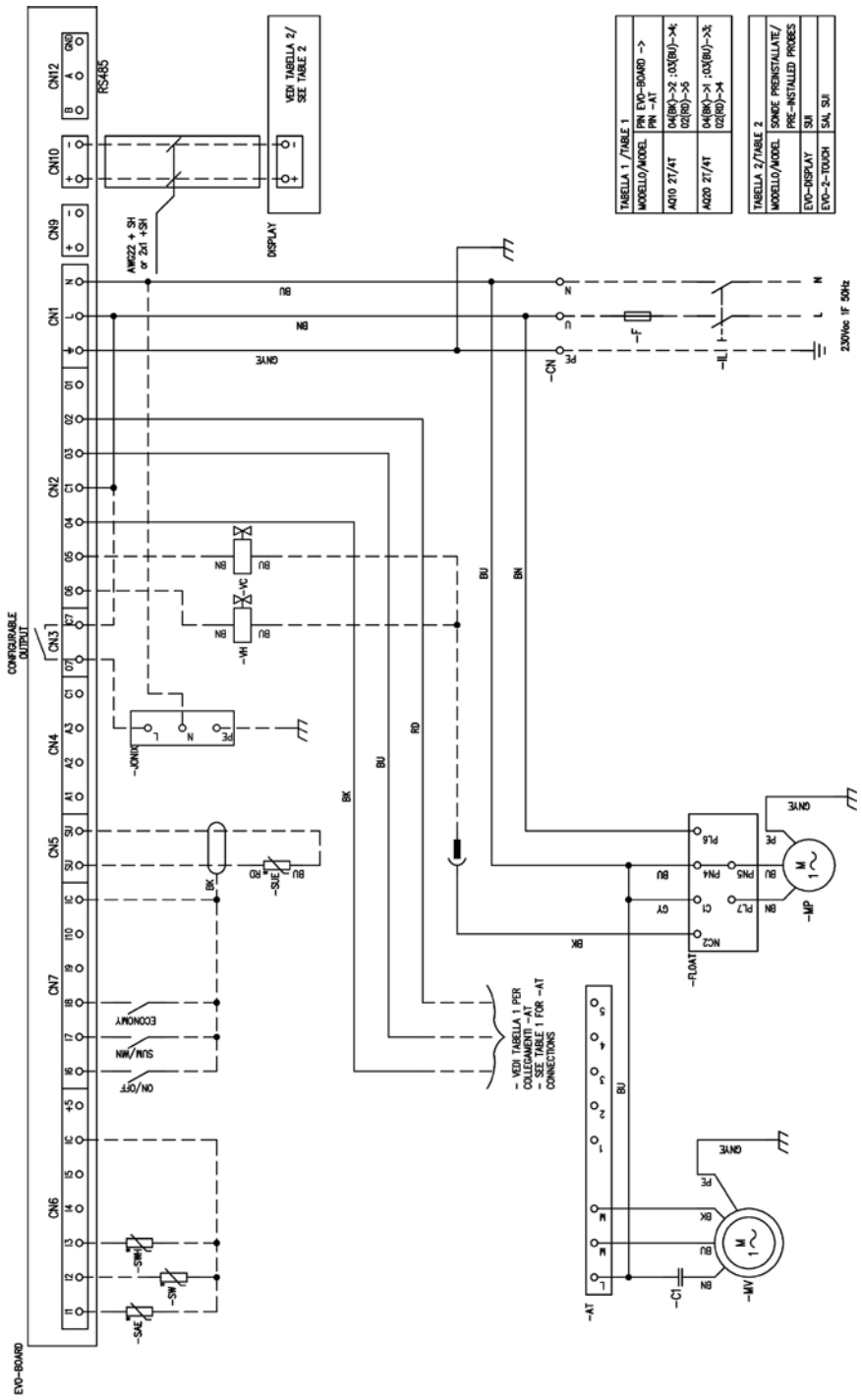
» My Comfort Large 3 speed wiring diagram for models AQ 40-60

» 9.18



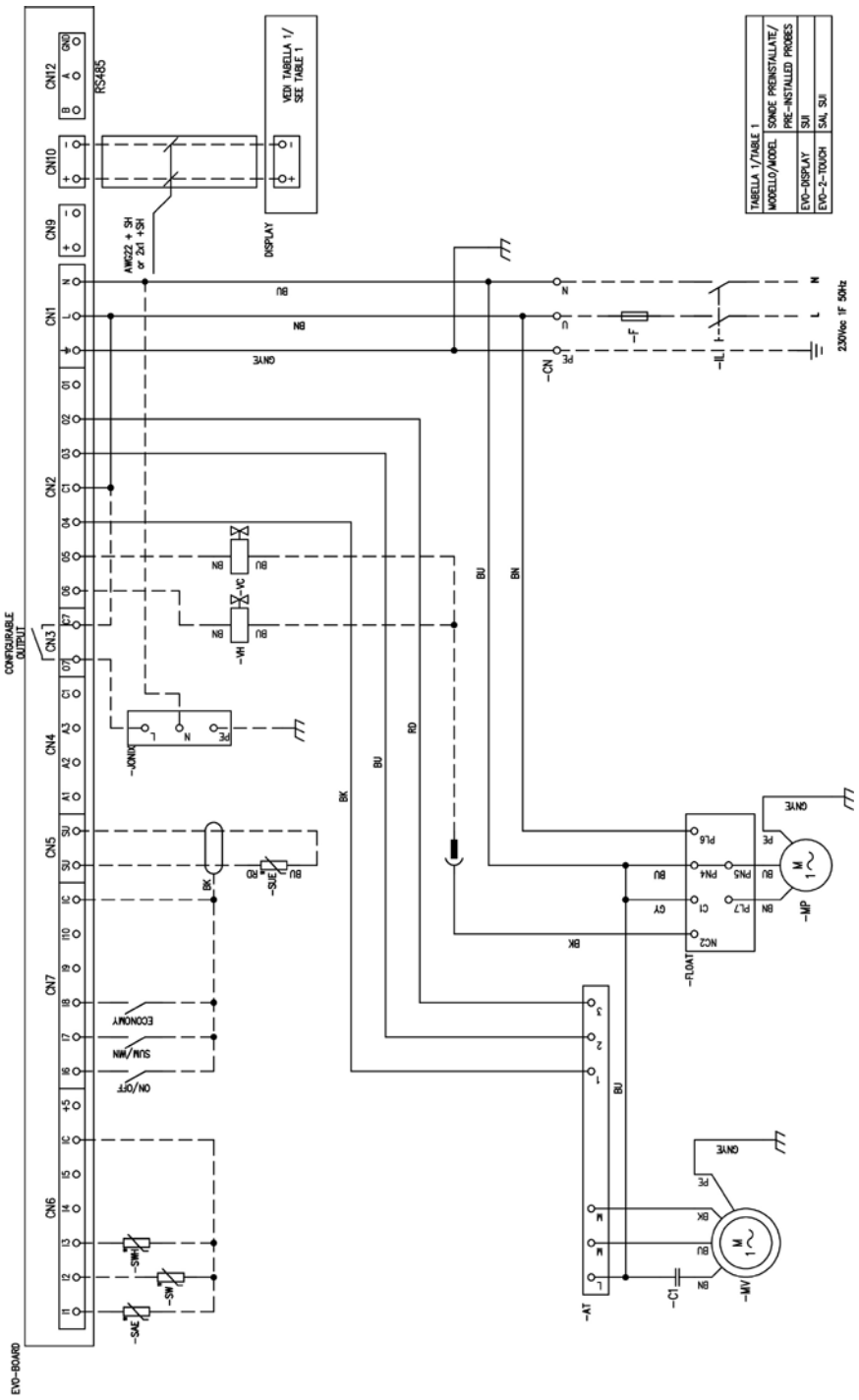
» EVO 3 speed wiring diagram for models AQ 10-20 + ON/OFF valve

» 9.19



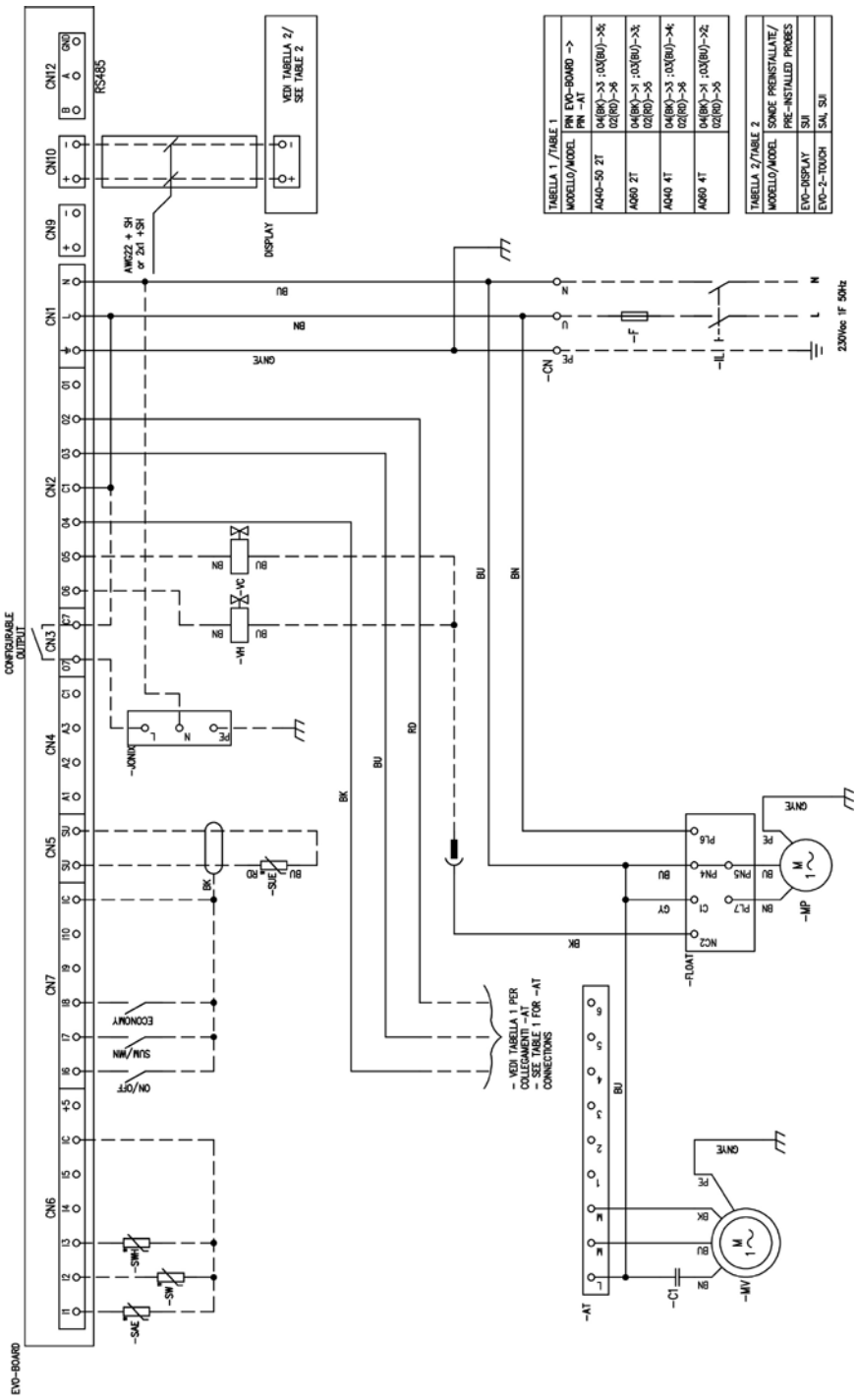
» EVO 3 speed wiring diagram for models AQ 30 + ON/OFF valve

» 9.20



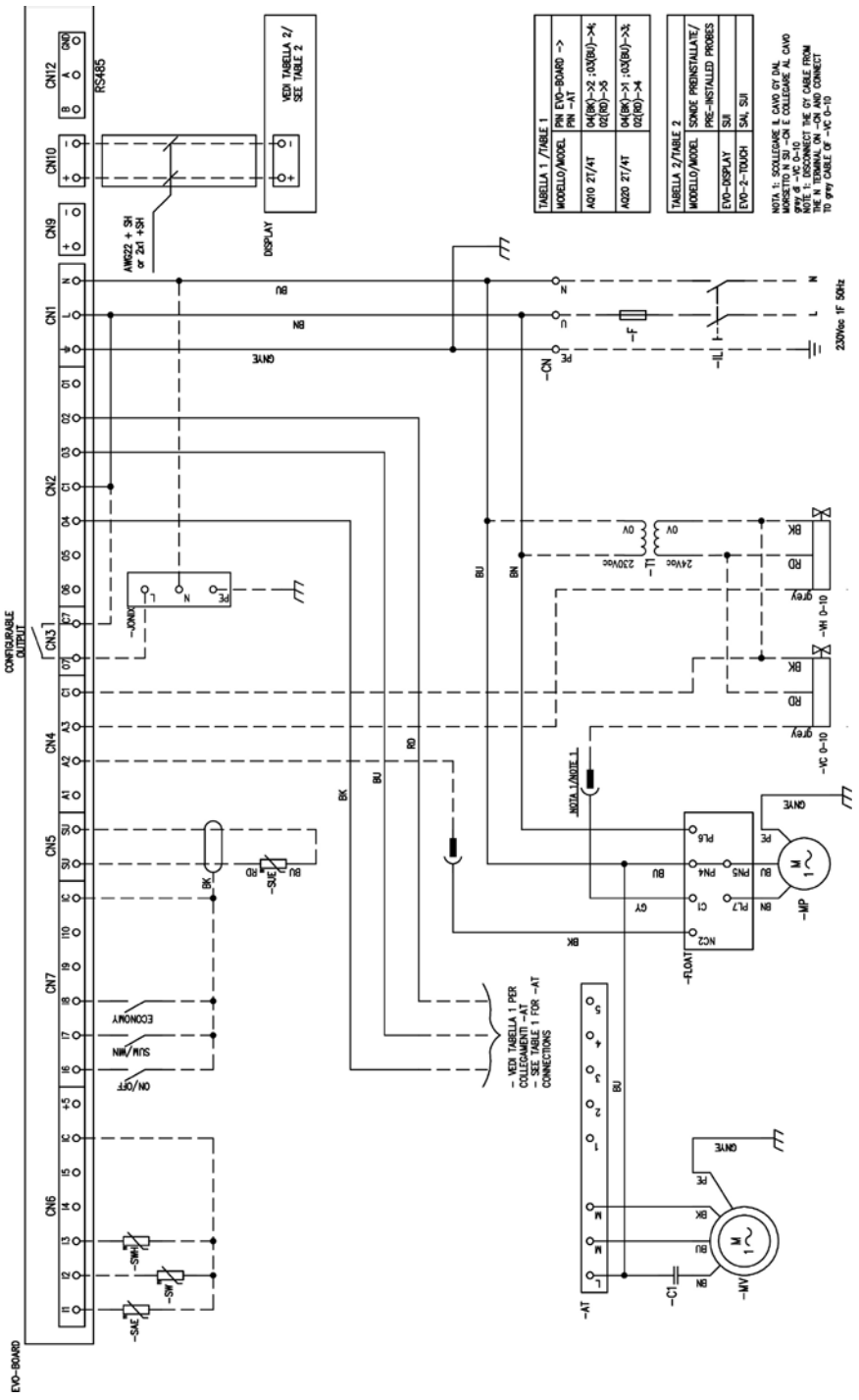
» EVO 3 speed wiring diagram for models AQ 40-60 + ON/OFF valve

» 9.21



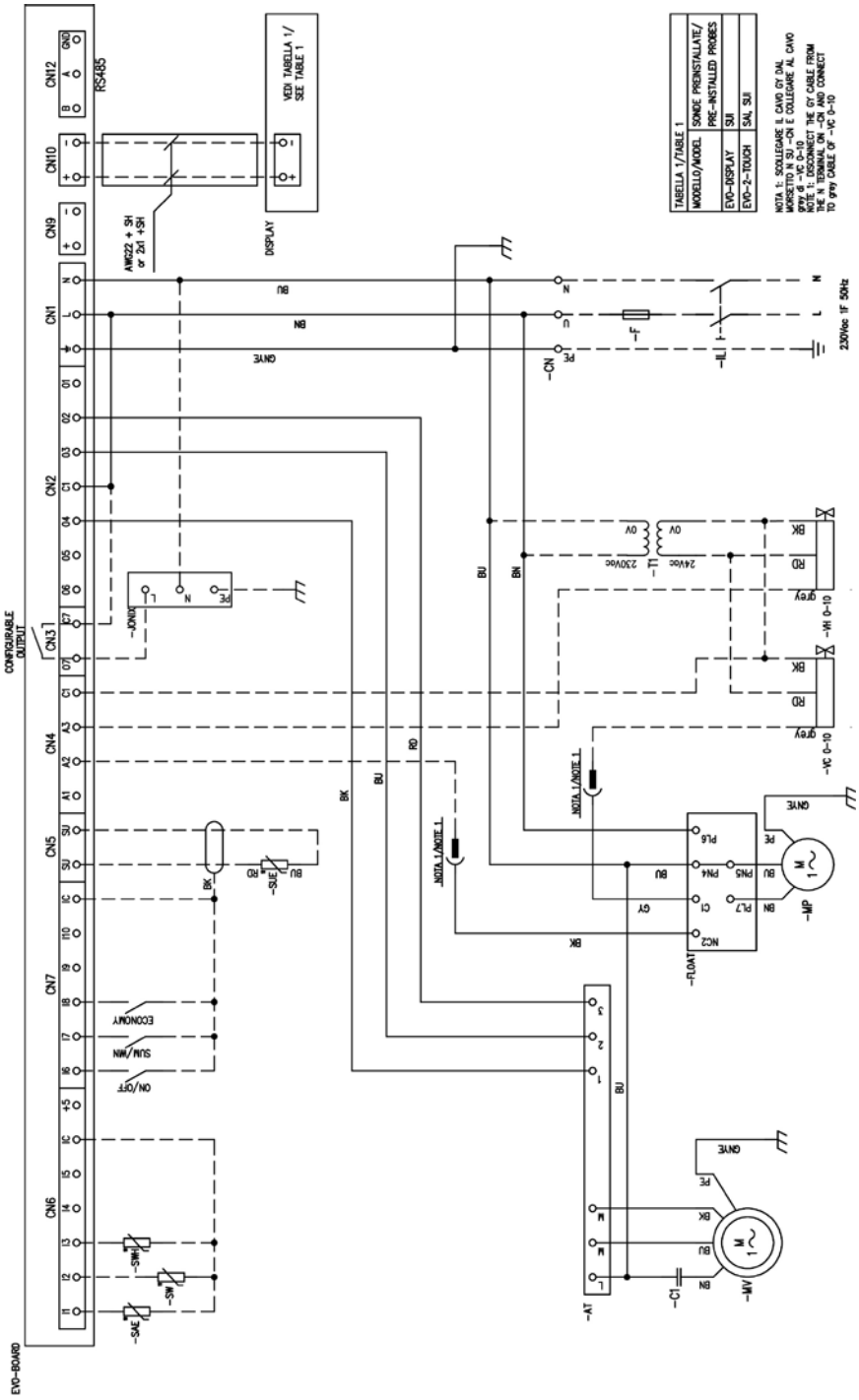
» EVO 3 speed wiring diagram for models AQ 10-20 + modulating valve

» 9.22



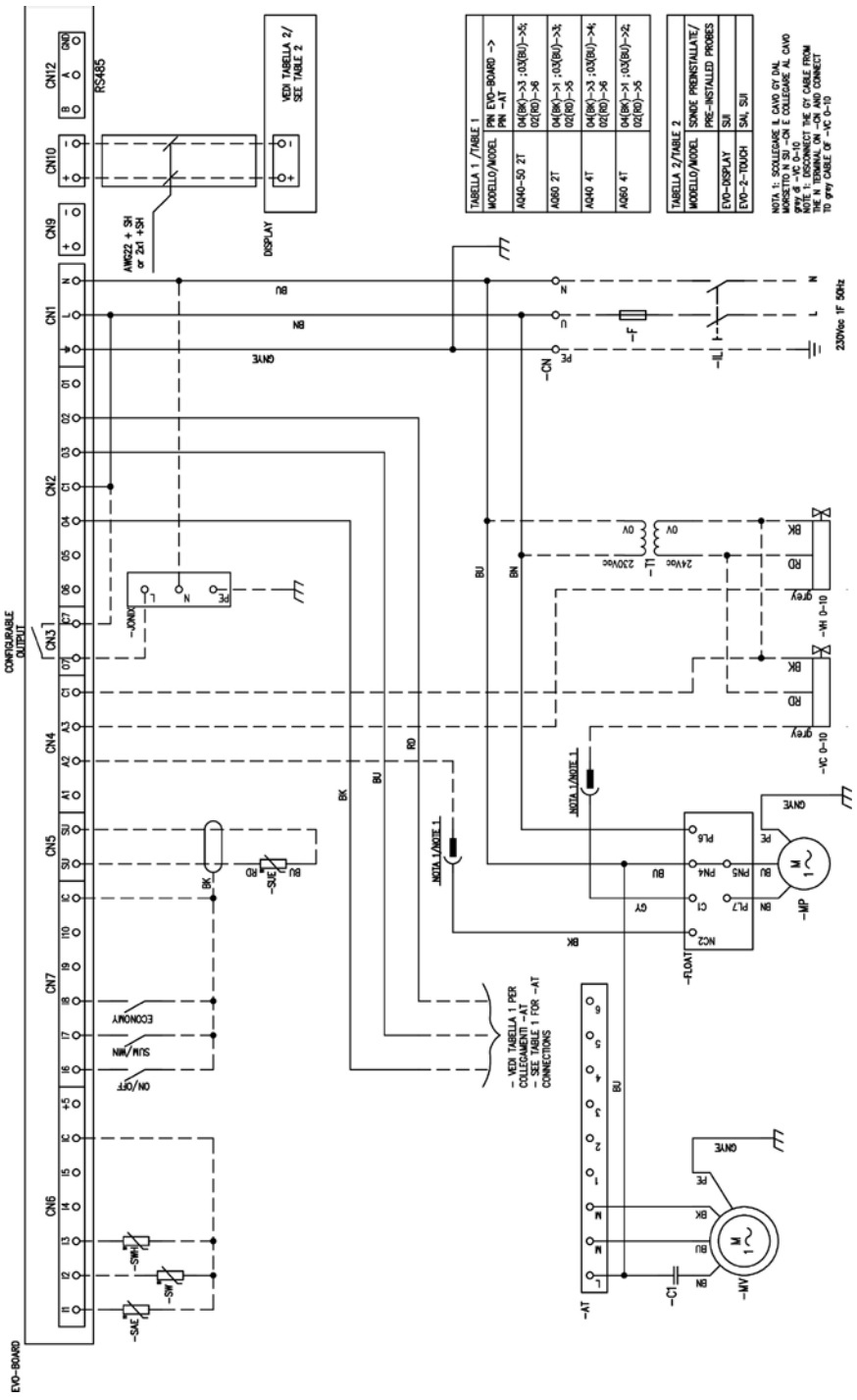
» EVO 3 speed wiring diagram for models AQ 30 + modulating valve

» 9.23



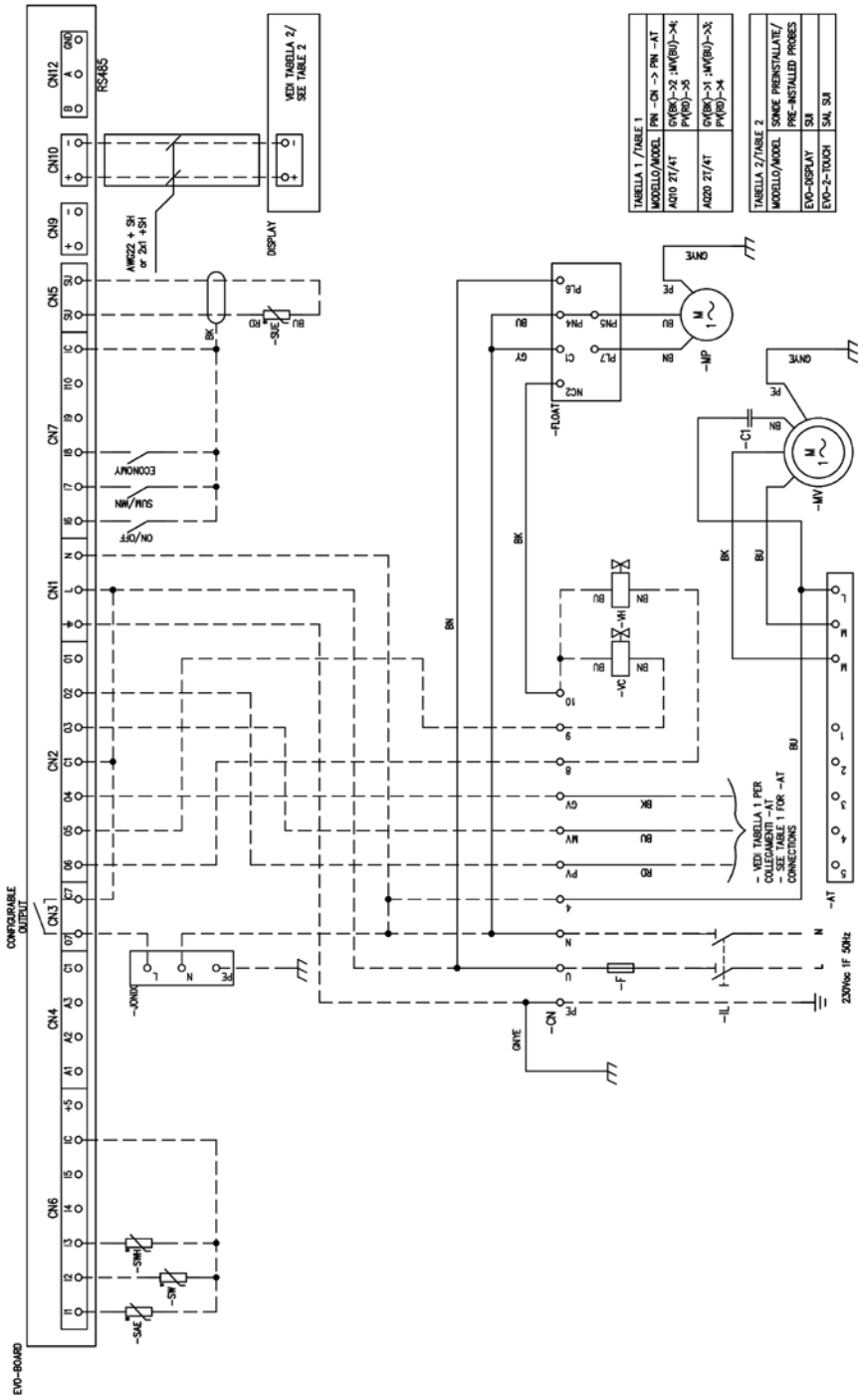
» EVO 3 speed wiring diagram for models AQ 40-60 + modulating valve

» 9.24



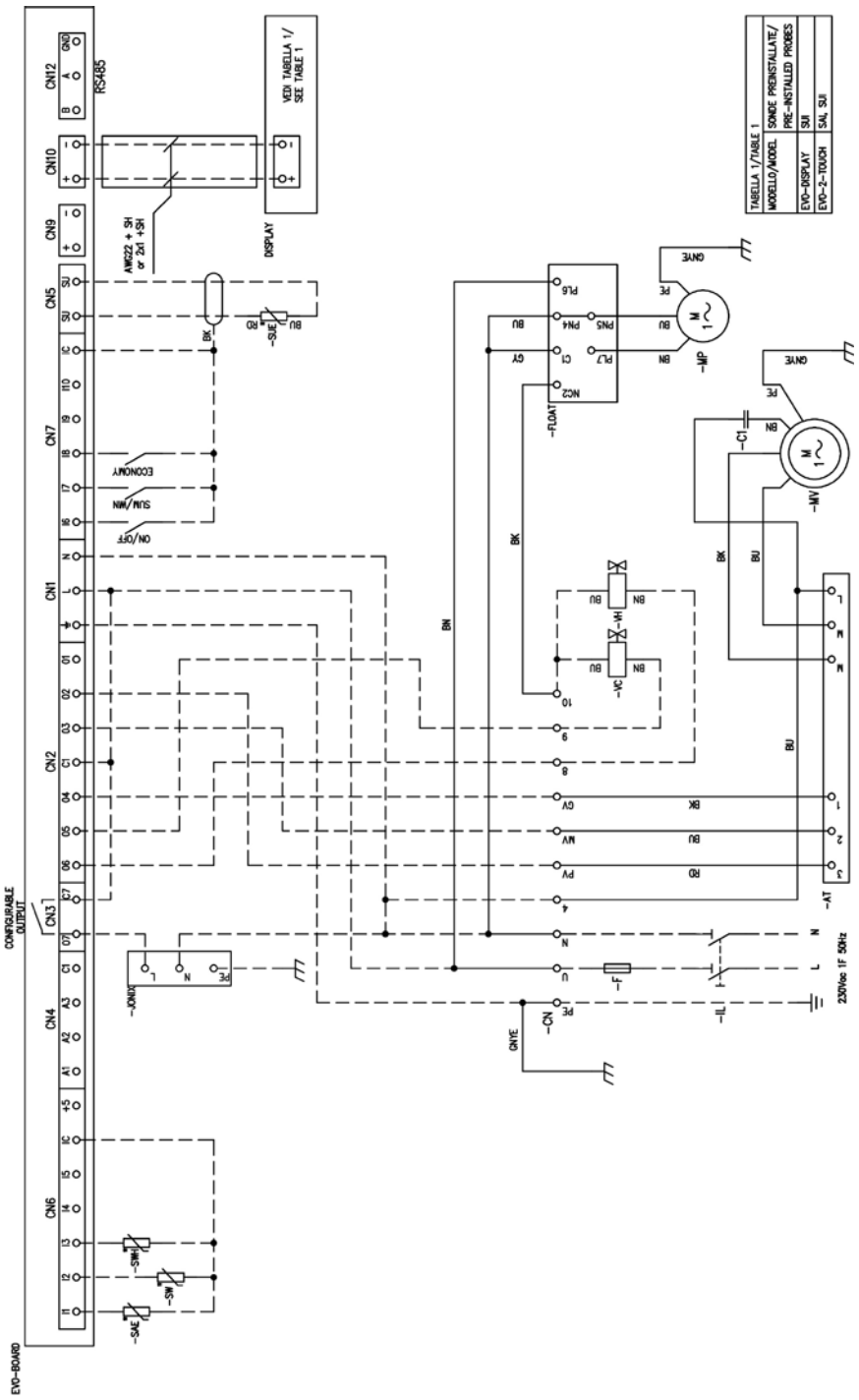
» EVO BOARD 3 speed wiring diagram for models AQ 10-20 + ON/OFF valve

» 9.25



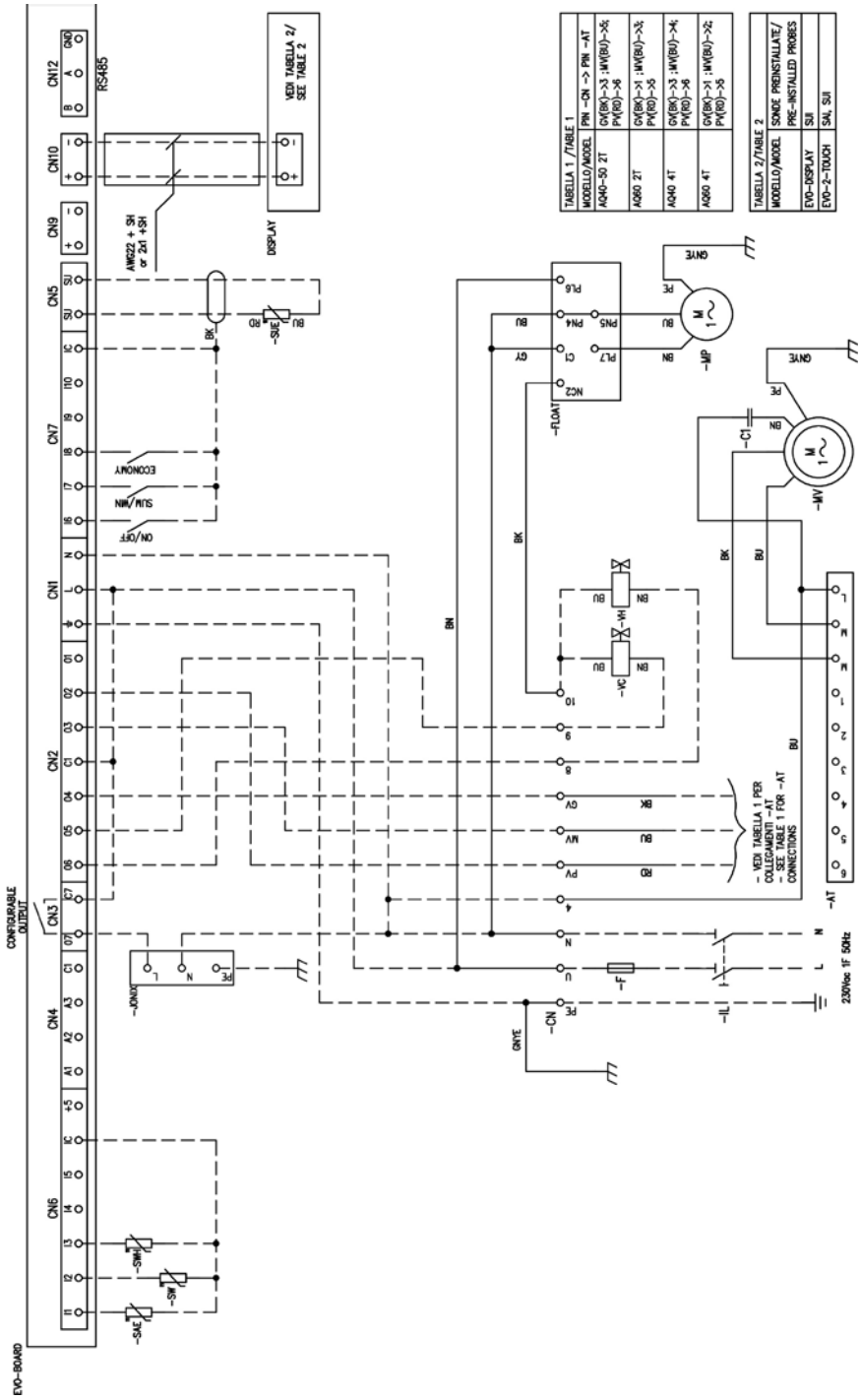
» EVO BOARD 3 speed wiring diagram for models AQ 30 + ON/OFF valve

» 9.26



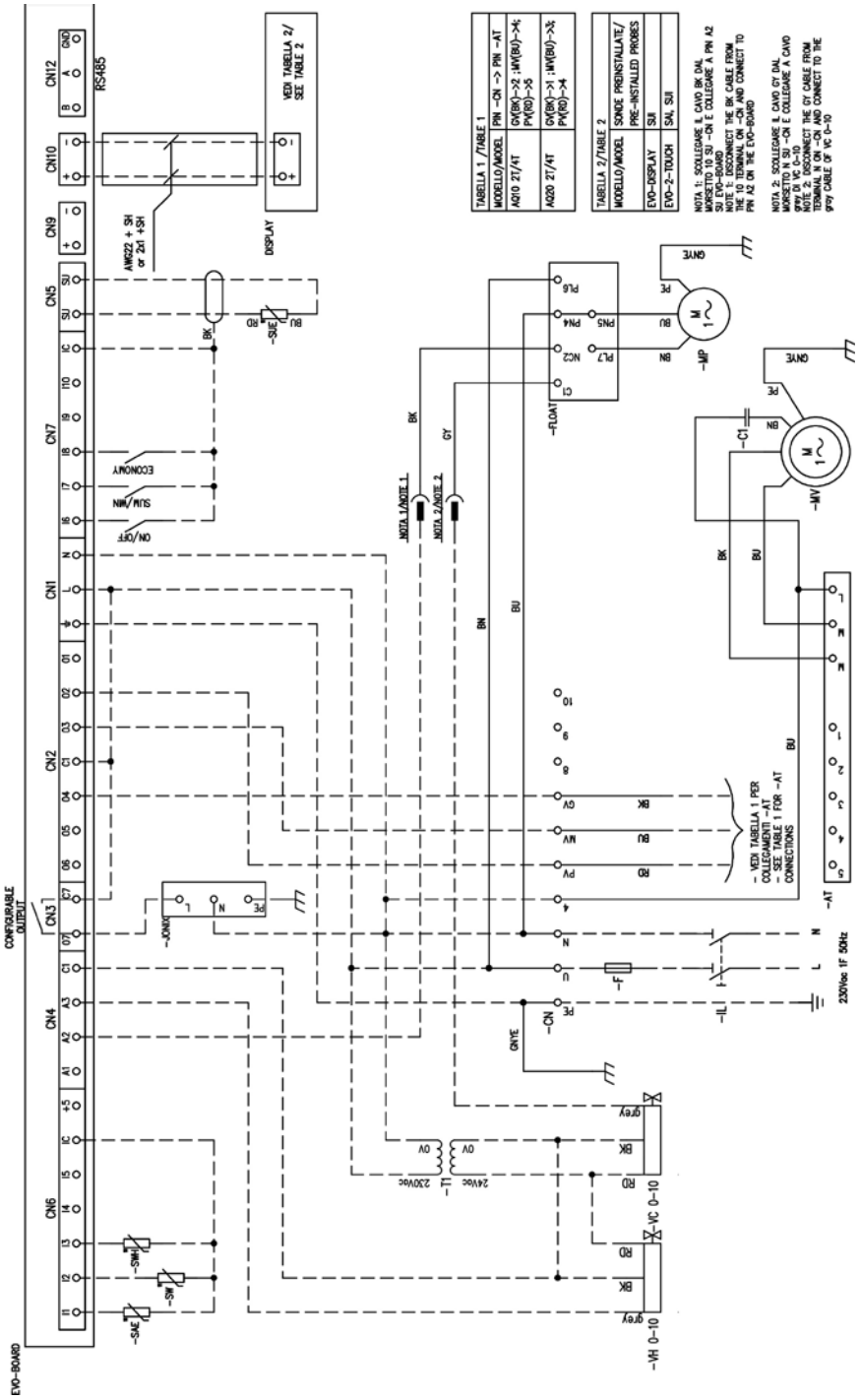
» EVO BOARD 3 speed wiring diagram for models AQ 40-60 + ON/OFF valve

» 9.27



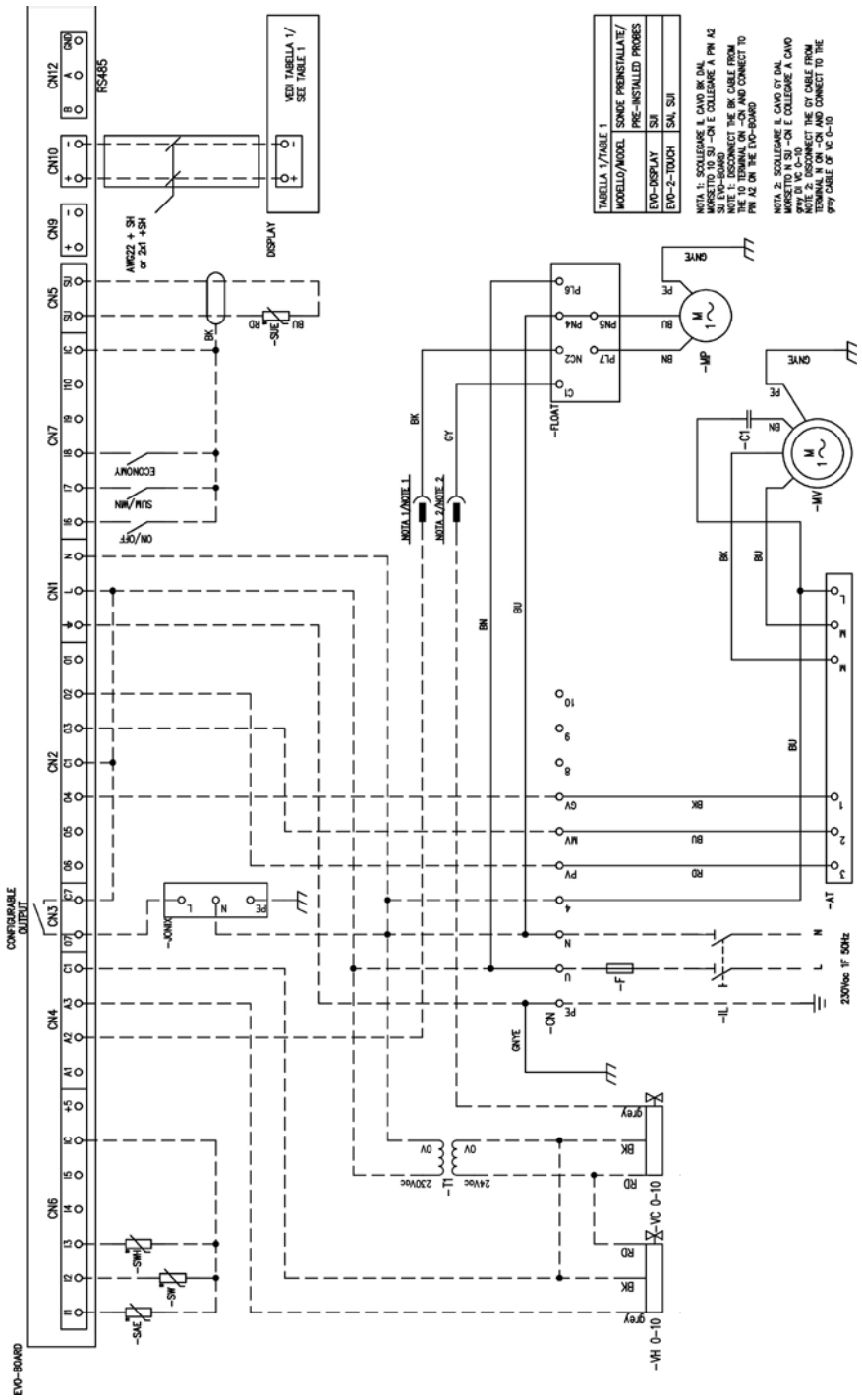
» EVO BOARD 3 speed wiring diagram for models AQ 10-20 + modulating valve

» 9.28



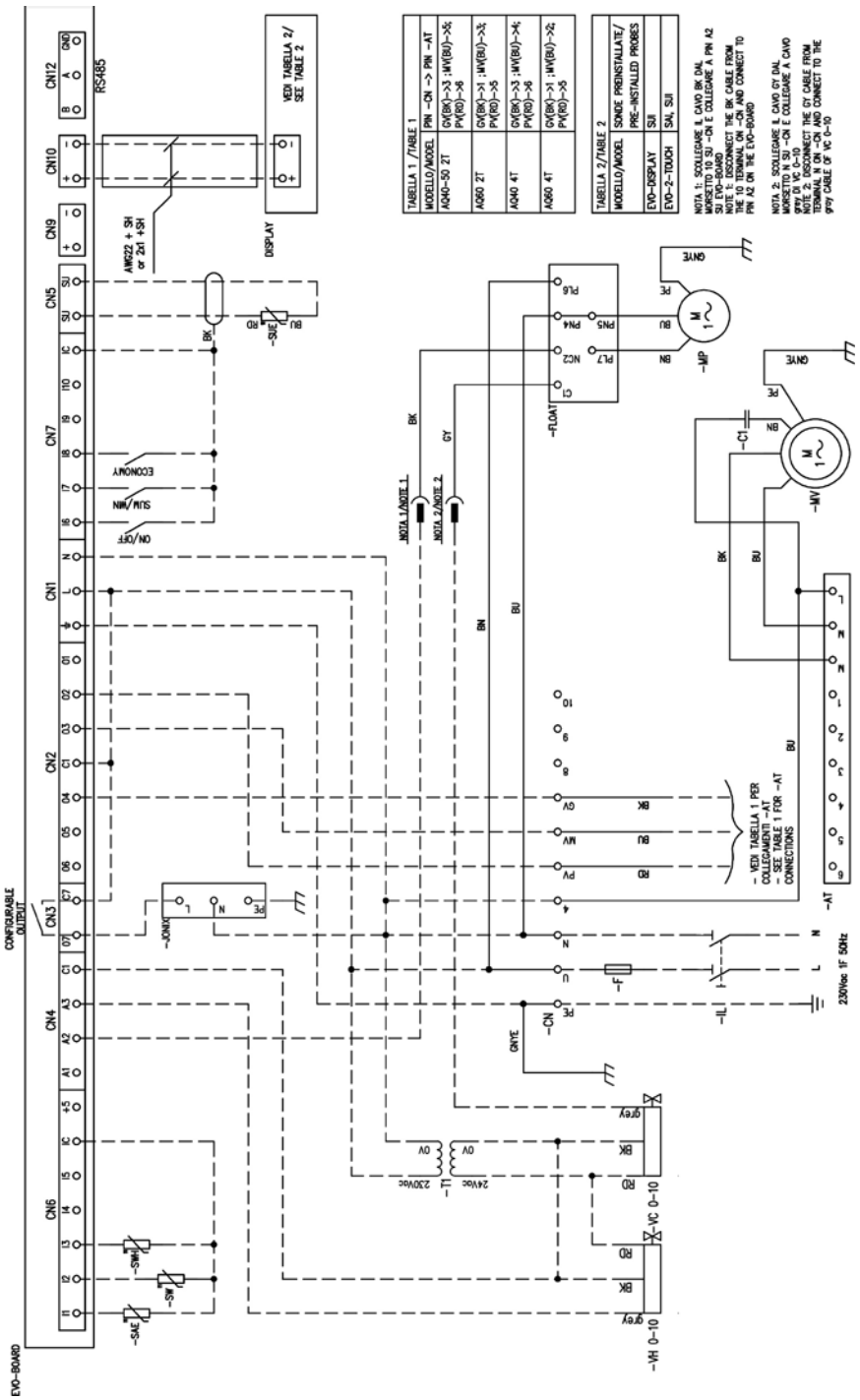
» EVO BOARD 3 speed wiring diagram for models AQ 30 + modulating valve

» 9.29



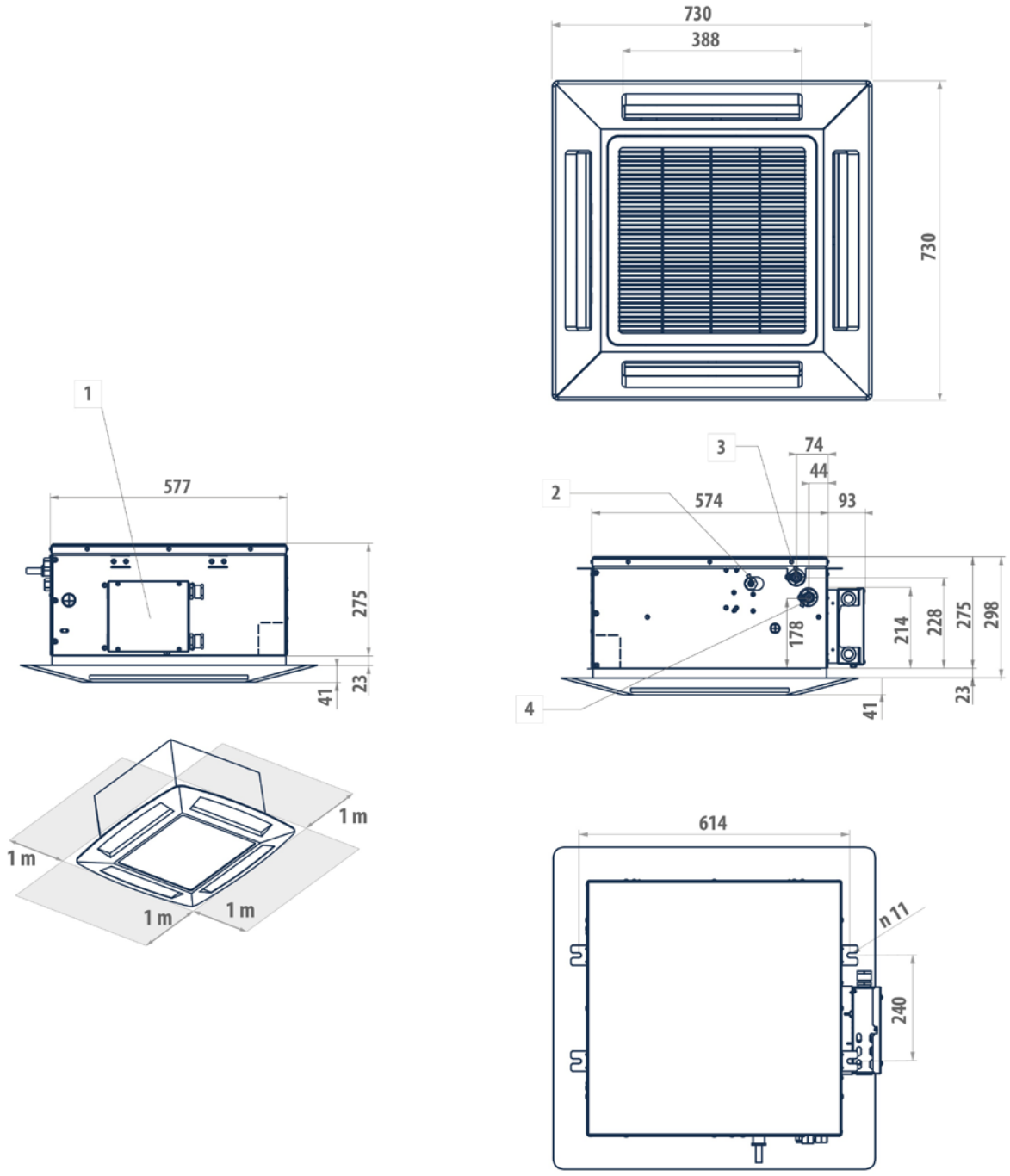
» EVO BOARD 3 speed wiring diagram for models AQ 40-60 + modulating valve

» 9.30



10 OVERALL DIMENSIONS

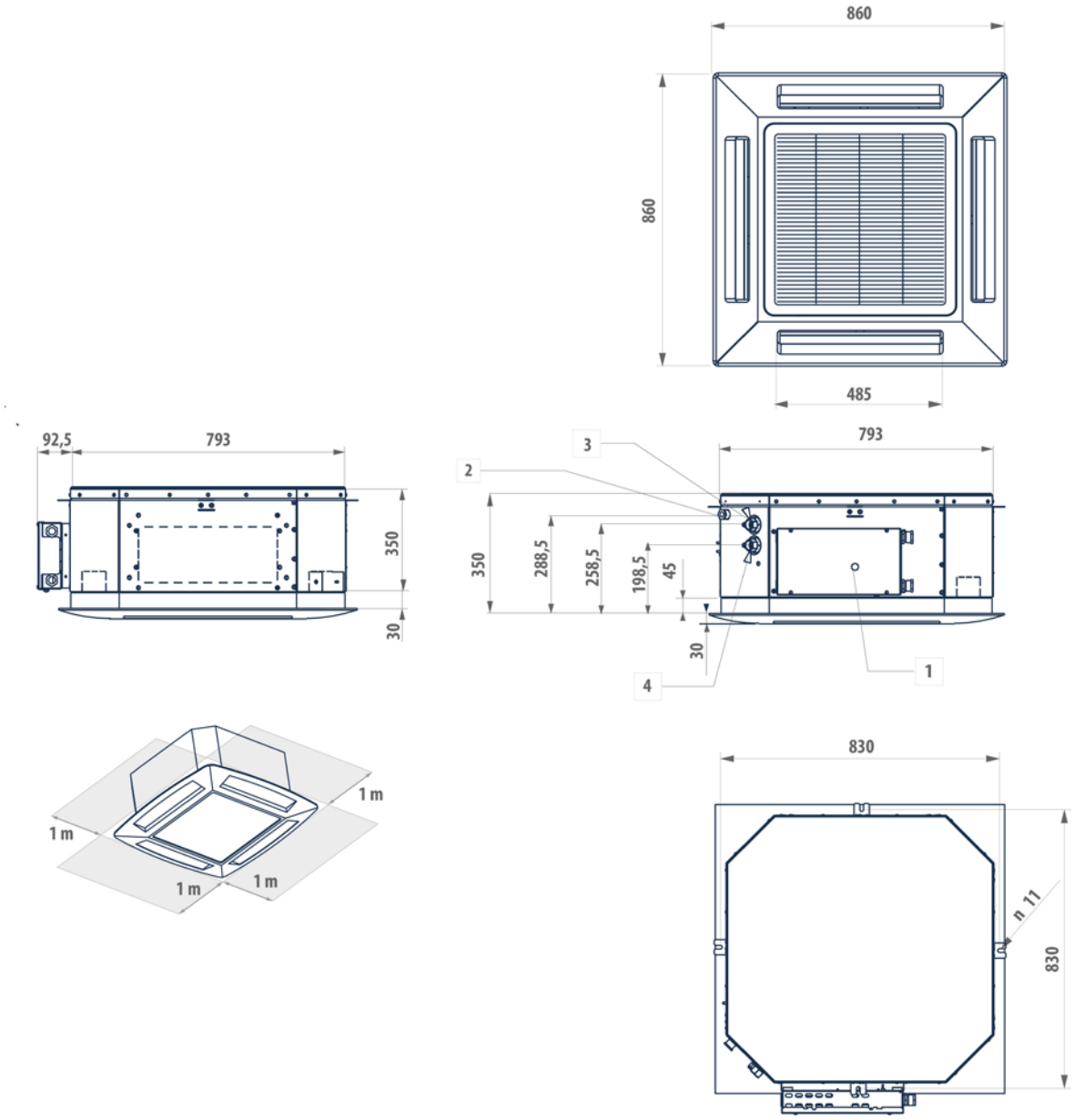
» Dimensional drawing AQ 10-20-30, 2 pipes



LEGEND

1 Electric box
2 Condensate discharge ø 10
3 Water outlet ø 1/2" female gas
4 Water inlet ø 1/2" female gas

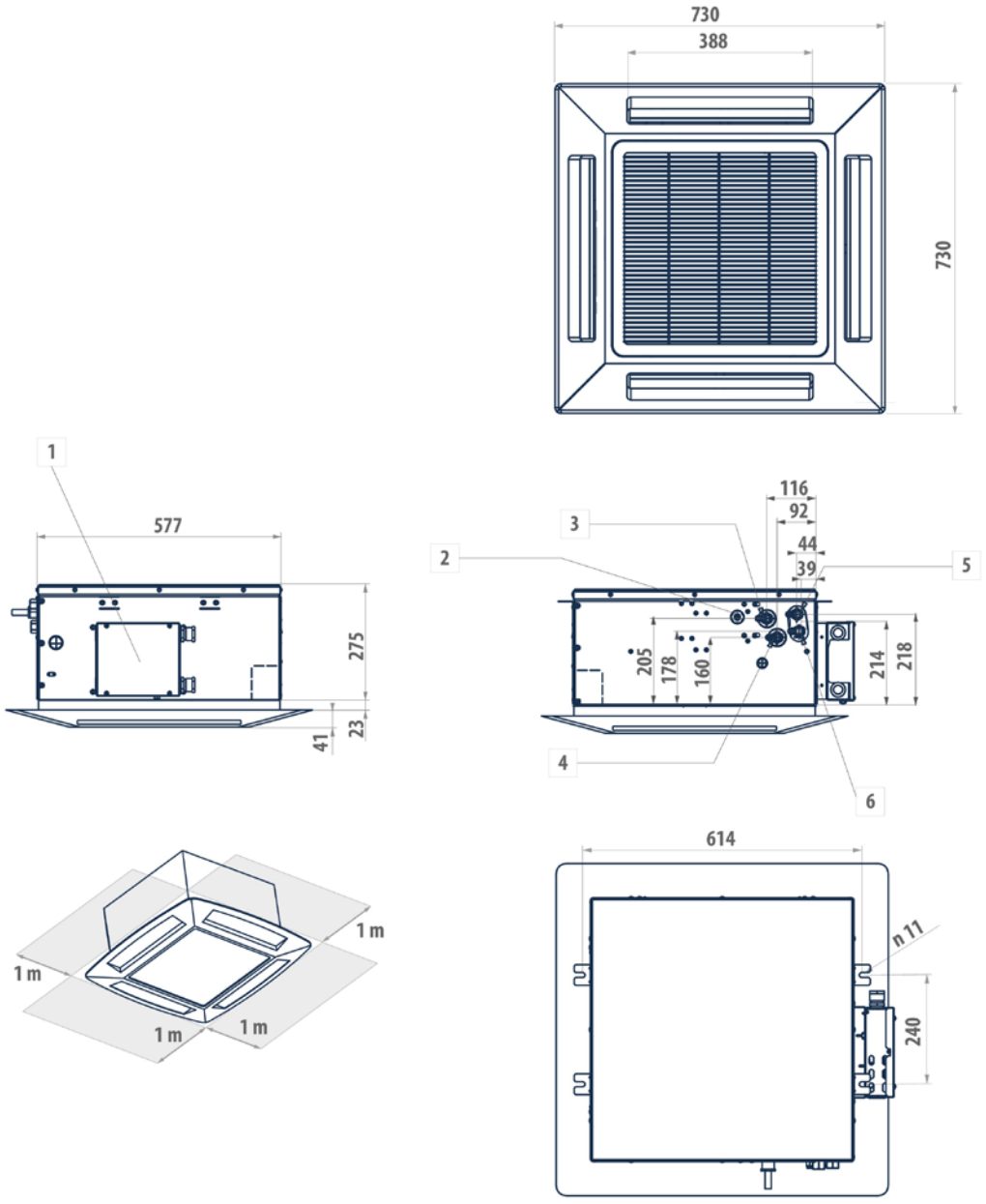
» Dimensional drawing AQ 40-50-60, 2 pipes



LEGEND

1 Electric box
2 Condensate discharge ø 10
3 Water outlet ø 3/4" female gas
4 Water inlet ø 3/4" female gas

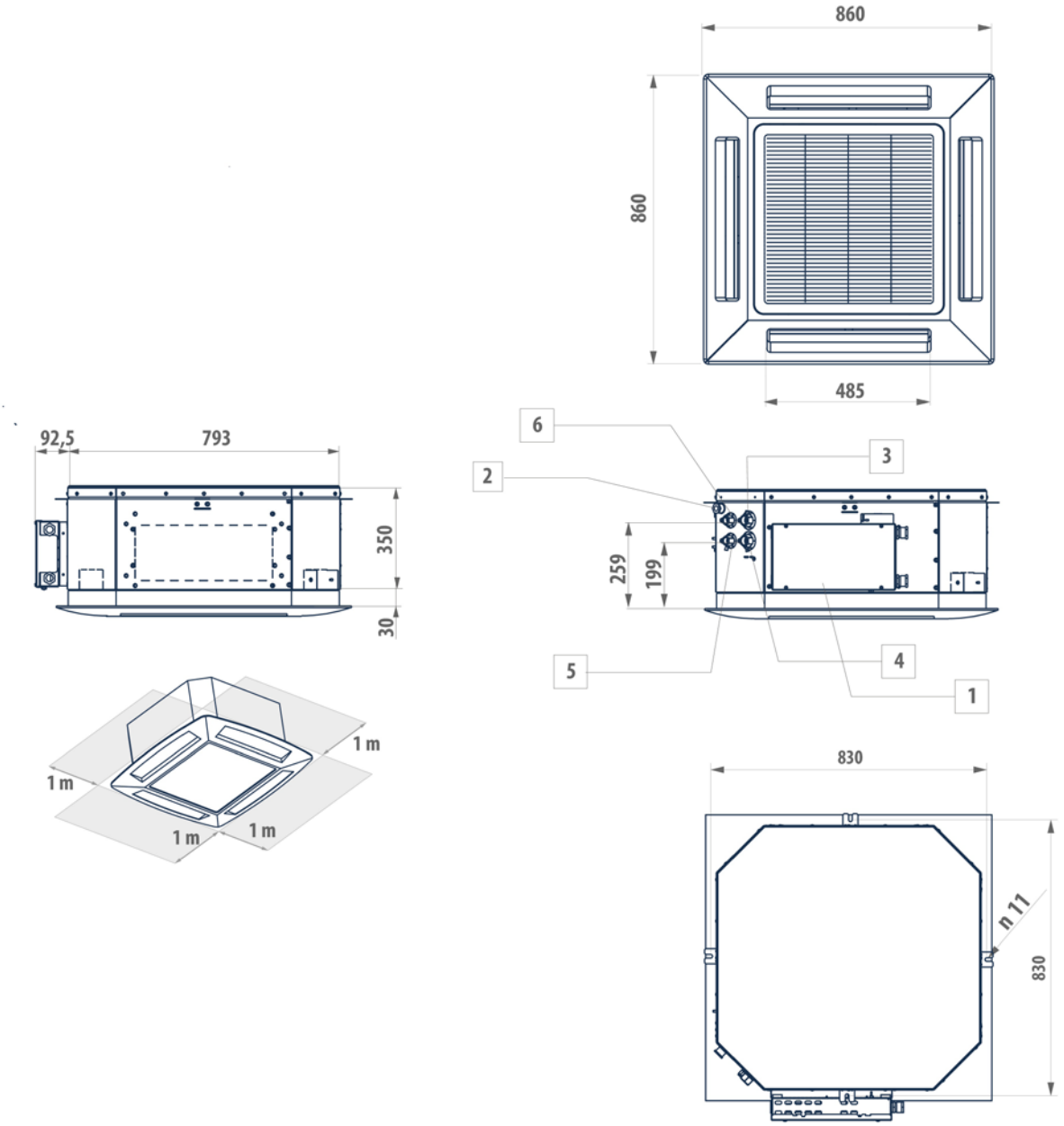
» 10.3 Dimensional drawing AQ 10-20-30-35, 4 pipes



LEGEND

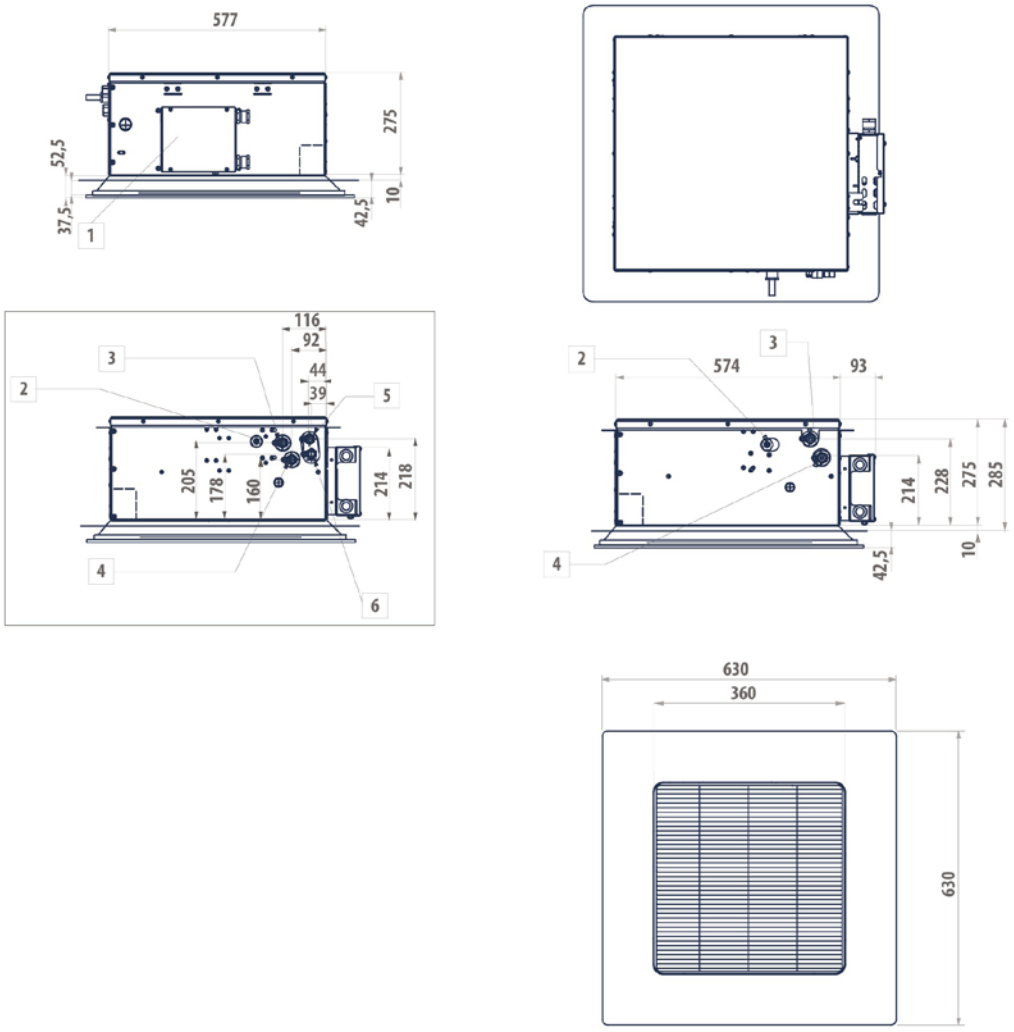
1 Electric box
2 Condensate discharge ø 10
3 Cooling exchanger water outlet, 1/2" gas F
4 Cooling exchanger water inlet, 1/2" gas F
5 Heating exchanger water outlet, 1/2" gas F
6 Heating exchanger water inlet, 1/2" gas

» 10.4 Dimensional drawing AQ 40-60, 4 pipes



LEGEND

1 Electric box
2 Condensate discharge ø 10
3 Cooling exchanger water outlet, 3/4" gas F
4 Cooling exchanger water inlet, 3/4" gas F
5 Heating exchanger water inlet, 1/2" gas F
6 Heating exchanger water outlet, 1/2" gas F



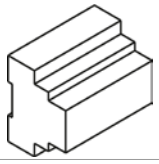
LEGEND
1)
Electric box
2)
Condensate discharge ø 10
3)
Cooling exchanger water outlet, 1/2" gas F
4)
Cooling exchanger water inlet, 1/2" gas F
5)
Heating exchanger water outlet, 1/2" gas F
6)
Heating exchanger water inlet, 1/2" gas F

11 ACCESSORIES

E2TY - 2.8" touch screen user interface
Touch screen 2.8" user panel for EVO-2-TOUCH control EVO, frame in natural brushed aluminium. (to combined with EVO BOARD)
Main functions:
- 2.8'' capacitive touch screen display
- Integrated temperature and humidity probe
- Low-voltage power supply drawn from the power component
- Wall mounted
- Designed for the main electrical connection boxes
- User-friendly
- Aluminium foil and polyethylene frame with various chrome plating options

E2TK - 2.8" touch screen user interface
Touch screen 2.8" user panel for EVO-2-TOUCH control EVO, frame in aluminium color black RAL9005. (to combined with EVO BOARD)
Main functions:
- 2.8'' capacitive touch screen display
- Integrated temperature and humidity probe
- Low-voltage power supply drawn from the power component
- Wall mounted
- Designed for the main electrical connection boxes
- User-friendly
- Aluminium foil and polyethylene frame with various chrome plating options

KP - power interface for connection of up to 4 units to a single control panel
The KP master sleeve can be installed to control with a single control panel up to 4 units (connected in parallel).



MYCOMFORT BASE - wall-mounted microprocessor control
having the following main features:
- Room air temperature reading and adjustment
- Water temperature reading (water probe as an optional)
- Manual and automatic adjustment of fan speed
- Manual and automatic switching of heating and cooling mode depending on the water temperature within the heat exchanger or on the room temperature, with a neutral zone that can be selected in the range from 2° to 5°C.

The controller is equipped with a large display (3") to show and set all the functions of the unit.

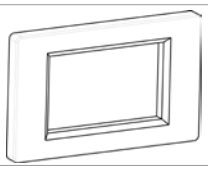
MYCOMFORT MEDIUM - wall-mounted microprocessor control
having the following main features:
- Room air temperature reading and adjustment
- Room humidity reading and adjustment
- Water temperature reading (water probe as an optional)
- Manual and automatic adjustment of fan speed
- Manual and automatic switching of heating and cooling mode depending on the water temperature within the heat exchanger or on the room temperature, with a neutral zone that can be selected in the range from 2° to 5°C.
- Serial port for Bus connection

The controller is equipped with a large display (3") to show and set all the functions of the unit.

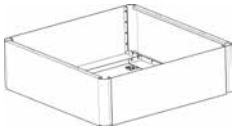
MYCOMFORT LARGE - wall-mounted microprocessor control
having the following main features:
- Room air temperature reading and adjustment
- Room humidity reading and adjustment
- Water temperature reading (water probe as an optional)
- Manual and automatic adjustment of fan speed
- Manual and automatic switching of heating and cooling mode depending on the water temperature within the heat exchanger or on the room temperature, with a neutral zone that can be selected in the range from 2° to 5°C.
- Clock and hourly timer-programmed operation
- 2 Analogue outputs for controlling modulating evices -10V
- 2 Digital outputs for controlling (On/Off) external devices (novoltage contacts)
- Serial port for Bus connection

The controller is equipped with a large display (3") to show and set all the functions of the unit.

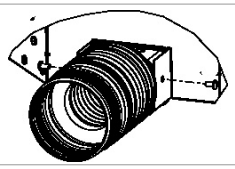
DIST - MYCOMFORT controller spacer for wall mounting
ABS wall mounting support to separate the MYCOMFORT controllers from the wall.

EVO - wall-mounted microprocessor split controller with display EVO controller is a system composed of: • Circuit board comprising the power circuit, the microprocessor system and the removable screw connectors for the connection of the inlet and outlet devices; • User interface comprising a graphic display and a keyboard (six keys) provided with clock and sensor to read the ambient temperature. Main functions: • Room air temperature reading and adjustment • Room humidity reading and adjustment • Water temperature reading (water sensor as an optional) • Manual/automatic regulation of the fan speed with ON -OFF step and modulating control • Automatic adjustment of valve opening with ON/OFF and modulating controller • Manual and automatic switching of heating and cooling mode depending on the water temperature within the heat exchanger or on the room temperature, with a selectable neutral zone • Clock and hourly timer-programmed operation • 3 Analogue outputs for controlling modulating evices -10V • E conomy function and minimum temperature • 1 Digital outputs for controlling (On/Off) external devices (novoltage contacts) • Serial port for RS485 connection • Serial port for OC connection • 3 digital inputs for ON-OFF, Economy, Operating mode remote setting Operating mode The controller is provided with a programmable display that allows you to view and set the hydronic unit functions by means of the specific interface with parameter description.	
TED 2T- Recess wall-mounted microprocessor control Electronic controller for fan control and one ON/OFF 230 V valve. Features: • Easy application • Wall mounted Main functions: • It supports terminal units equipped with asynchronous electric motor in 2 pipes plants • ON/OFF valve supported • Water consent on the basis of temperature	
TED 4T- Recess wall-mounted microprocessor control Electronic controller for fan control and two ON/OFF 230 V valves: Features: • Easy application • Wall mounted Main functions: • It supports terminal units equipped with asynchronous electric motor in 4 pipes plants • Two ON/OFF valves supported • Seasonal manual or automatic switch (on the basis of air temperature) • Water consent on the basis of temperature	
LED503 - Recess wall-mounted microprocessor control The proposed microprocessor control panels for Galletti indoor units is completed by the LED503 command with LED display that is designed for recess wall mounting. CONTROLLER The control software developed by the Galletti Software Dept., features: • Manual fan speed selection • Automatic selection of fan speed according to the difference between the set temperature and the room air temperature • Manual selection of heating/cooling operating mode; • automatic selection of heating/cooling operating mode; • Control of 1 or 2 ON/OFF valves; • Control of additional heating element; • on board timer function to detect the actual ambient air temperature; • Reading of air ambient temperature, set point, fan speed and mode selection on the LED display.	
C0 (W-G-B) - plate for LED503, white W (RAL 9003), grey G (RAL 7031), black B (RAL 9005) Covering plates available in three colours matching the 503 connectors.	
MCSWE - water temperature sensor for microprocessor controls model EVO, MYCOMFORT Directly connected to the microprocessor controllers EVO and MYCOMFORT to measure the water temperature through the heat exchanger. If the temperature registered is lower than 17 °C the unit works in cooling mode and the temperature range of the control panel will be referred to the cooling mode (19/31 °C); if the temperature registered is higher than 37 °C the unit works in heating mode and the temperature range of the control panel will be referred to the heating mode (14/26 °C). If the temperature registered is between 17 °C e 37 °C the control panel will disable the unit operation.	
MCSUE - Humidity sensor for EVO and MYCOMFORT microprocessor controller Directly connected to the microprocessor controllers EVO and MYCOMFORT, it enables the control of the heating element ventilation (if present, as support in heating mode) and the automatic cooling/heating changeover according to the water temperature.	
NAVEL - Device for Wi-Fi or Bluetooth communication between EVO BOARD and smartphone device for connect hydronic unit with control EVO to a WI-FI network or BLUETOOTH local device for remote or local management by GALLETTI APP dedicated.	

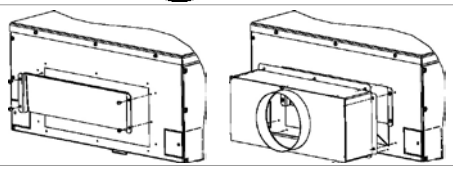
MOB - Cabinet for installation of the cassette in spaces without a suspended ceiling
RAL 9010 Color



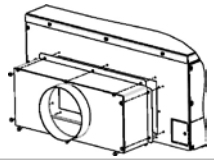
BAR - Spigot for introduction of mixed renewal air
- The BAR accessory is a fitting for Ø100 pipe to be connected to the inlets located on the unit.
- It is possible to insatll 3 accessory BAR according to the user's needs.
- The installation of accessory BAR is compatible with accessory PAR and PMAA.



PAR - Plenum for introduction of unmixed renewal air (not use with MOB)
- The PAR accessory consisting of a duct and a plenum: fresh air is introduced into the installation room bypassing the heat exchanger by means of a supply fin of the unit.
- It is possible to insatll 1 or 2 PAR according to the user's needs.
- The installation of accessory PAR is compatible with accessory BAR.

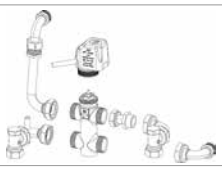


PMAA - Plenum for outlet air (not use with MOB)
- The PMAA accessory is a plenum to connect the rectangular outlets located on the unit to the round distribution ducts.
- It is possible to insatll 1 or 2 PMAA according to the user's needs.

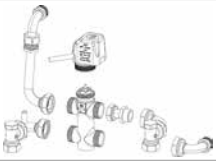


TP- Plastic cap
Plastic cap Ø 200 mm for the closing on the PCOF, of the air outlet not used.

VK - ON-OFF 3-way motor driven valve with hydraulic kit
It controls the room temperature by stopping the water flow through the heat exchanger. The kit, available for all models with standard heat exchanger or additional DF heat exchanger, comprises the following components: Valve body: 3-way with incorporated by-pass (4 connections), 230V single-phase electro-thermal normally closed ON/OFF servo control, it acts directly on the valve shutter. Hydraulic plumbing kit made with copper piping and brass connectors.



VKM- 3-way motor-driven modulating valve complete with hydraulic kit
It controls the room temperature by stopping the water flow through the heat exchanger. The kit, available for all models with standard heat exchanger or additional DF heat exchanger, comprises the following components: Valve body: 3-way with incorporated by-pass (4 connections), 24V electro-thermal normally closed modulating servo control. It acts directly on the valve shutter. Hydraulic plumbing kit made with copper piping and brass connectors.



KV - 2-way motor-driven ON/OFF valve complete with hydraulic kit
It controls the room temperature by stopping the water flow through the heat exchanger. With 230V electro-thermal actuator. Available for all models, with standard heat exchanger or additional DF heat exchanger.

KVM - 2-way motor-driven modulating valve complete with hydraulic kit
It controls the room temperature by stopping the water flow through the heat exchanger. With 24 V electro-thermal actuator. Available for all models, with standard heat exchanger or additional DF heat exchanger.

VPIK - 2-way valve - pressure independent - 230 V - ON/OFF with hydraulic kit
It controls the room temperature by stopping the water flow through the heat exchanger. With 230V electro-thermal actuator. Available for all models, with standard heat exchanger or additional DF heat exchanger.

VPIKM - 2-way valve - pressure independent - MODULATING, with hydraulic kit
It controls the room temperature by stopping the water flow through the heat exchanger. With 230V electro-thermal actuator. Available for all models, with standard heat exchanger or additional DF heat exchanger.

11.1 2- OR 3-WAY MOTOR-DRIVEN VALVE KITS

⚠ **WARNING:** The installation of a valve kit on the fan coil unit is mandatory ACQVARIA.

The kit is made up of:

— Brass 2- or 3-way valve with 4 connections with built-in by-pass, maximum operating pressure 16 bar.
— Electrothermal actuator with 230 V or 24 V power supply, ON/OFF (or modulating) function, total opening time 3 minutes.
— Hydraulic kit with O-ring for connection with the exchanger and paper gasket for connection with the valve
— Brackets for fastening the hydraulic kit on the side of the unit in order to ensure stability during transport if the valves are already installed.

☞ **NOTE:** for units AQ10-AQ20-AQ30-AQ35 it is necessary to install the 3-way valves inclined so as to comply with the space constraint regarding the height of the base unit.

The valve kits are shown in the figures from: p. 61.
Pressure drops of the valve/hydraulic kit assembly are calculated using the following formula:

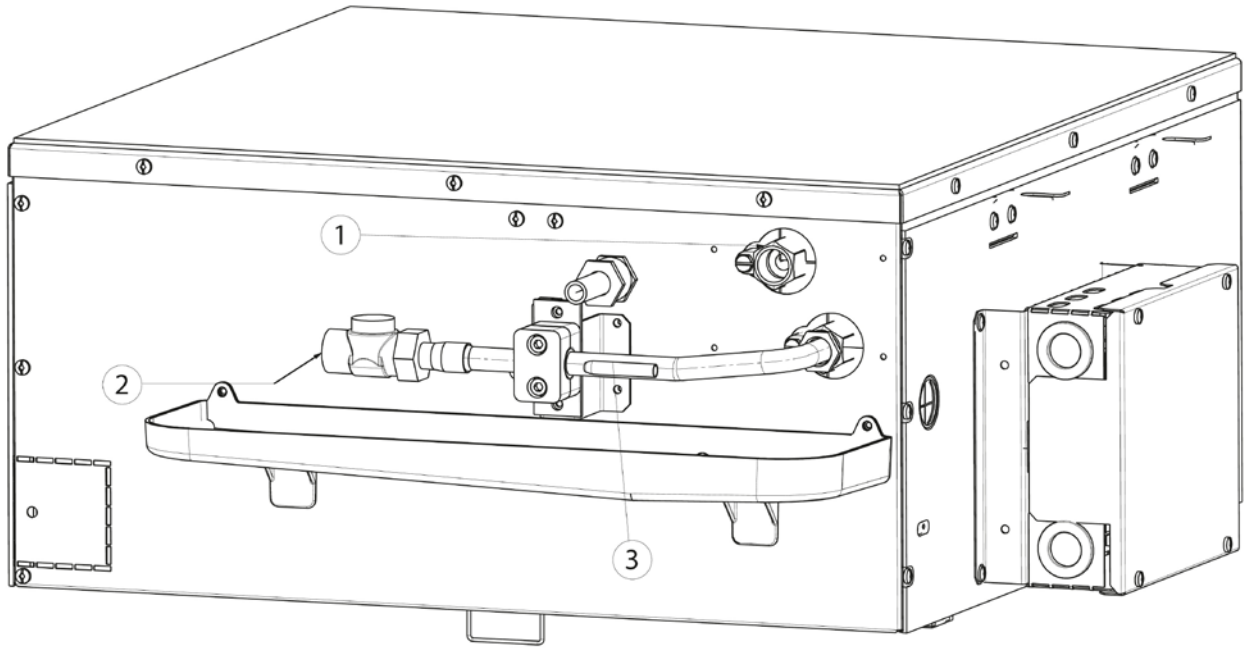
$$\Delta P_W = (Q_W / K_V)^2$$

Where:
ΔP_W = pressure drop in bar
Q_W = water flow rate in m^3/h
K_V = water flow rate coefficient of the valve obtained from the table

Unit	Valve type	Connection		Kvs straight		Kvs by-pass	
AQ10Q0B0, AQ20Q0B0, AQ30Q0B0 (2 pipes)	3-way	3/4" M		2,5		1,6	
AQ40Q0B0,AQ50Q0B0, AQ60Q0B0 (2 pipes)	3-way	3/4" M		4		1,6	
		Cooling			Heating		
Unit	**Valve type**	**Connection**	**KVS direct way**	**Kvs by-pass**	**Connection**	**KVS direct way**	**Kvs by-pass**
AQ10Q0BB, AQ20Q0BB, AQ30Q0BB, AQ35Q0BB (4 tubi)	3-way	3/4" M	2,5	1,6	3/4" M	2,5	1,6
AQ40Q0BB, AQ60Q0BB (4 pipes)	3-way	3/4" M	4	1,6	3/4" M	2,5	1,6

Unit	Valve type	Connection		KVS	
AQ10Q0B0, AQ20Q0B0, AQ30Q0B0 (2 pipes)	2-way	3/4" M		2,8	
AQ40Q0B0, AQ50Q0B0, AQ60Q0B0 (2 pipes)	2-way	3/4" M		4	
		Cooling		Heating	
Unit	**Valve type**	**Connection**	**KVS**	**Connection**	**KVS**
AQ10Q0BB, AQ20Q0BB, AQ30Q0BB, AQ35Q0BB (4 tubi)	2-way	3/4" M	2,8	3/4" M	2,8
AQ40Q0BB, AQ60Q0BB (4 pipes)	2-way	3/4" M	4	3/4" M	2,8

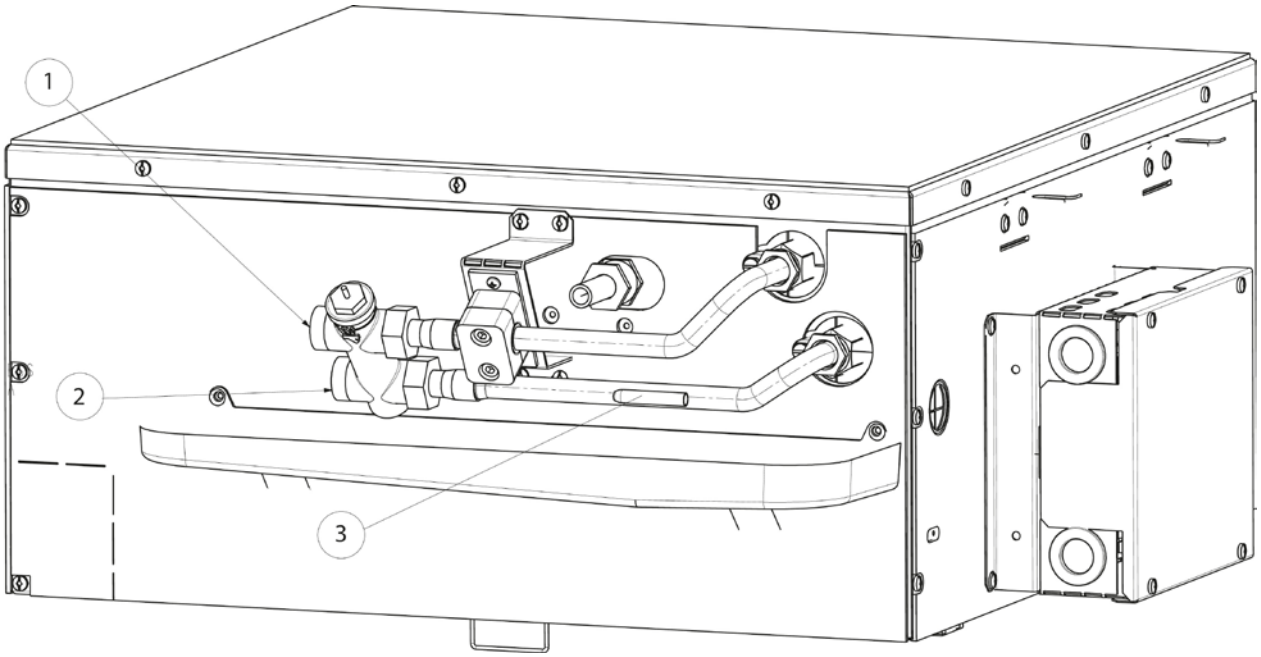
» 2-way valve kit - 2 pipes, AQ 10-20-30



1 Water outlet
2 Water inlet

NOTE: The actuator is not shown.

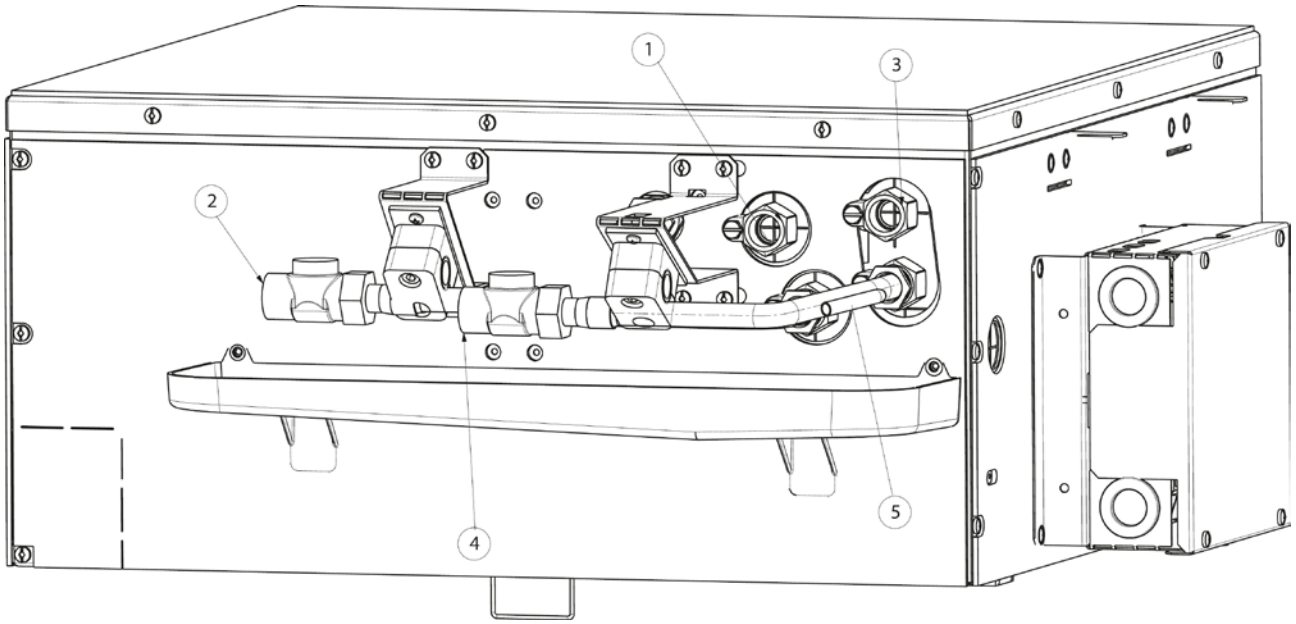
» 3-way valve kit - 2 pipes, AQ 10-20-30



1 Water outlet
2 Water inlet

NOTE: The actuator is not shown.

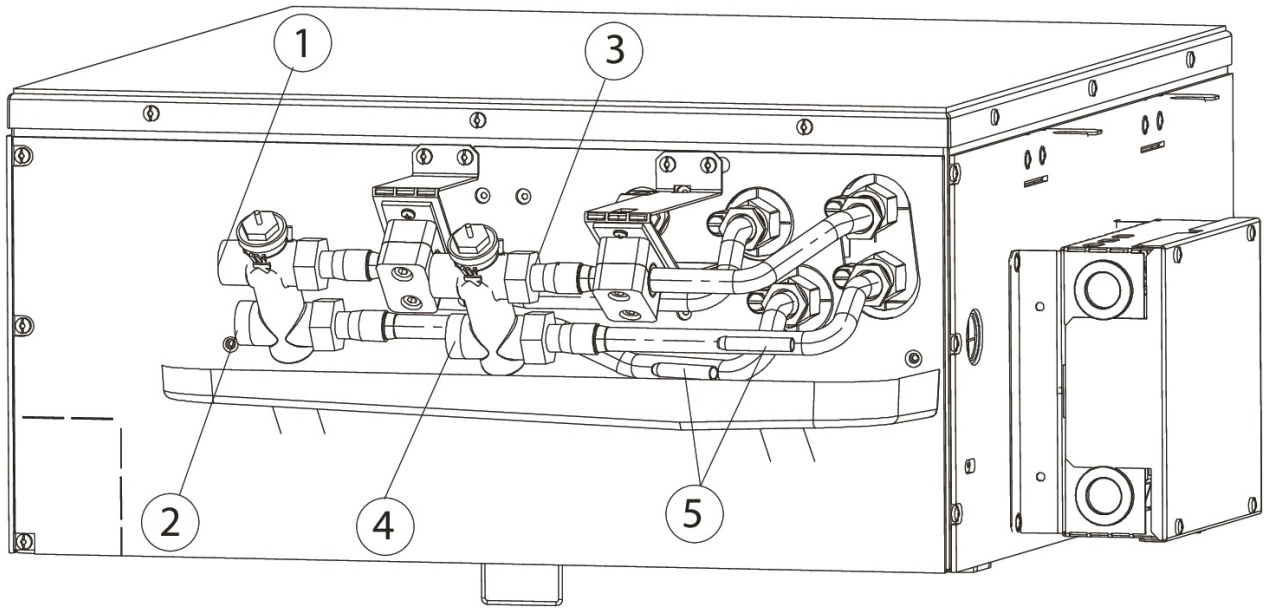
» 2-way valve kit - 4 pipes, AQ 10-20-30-35



1 Cold water outlet
2 Cold water inlet
3 Hot water outlet
4 Hot water inlet

NOTE: The actuators are not shown.

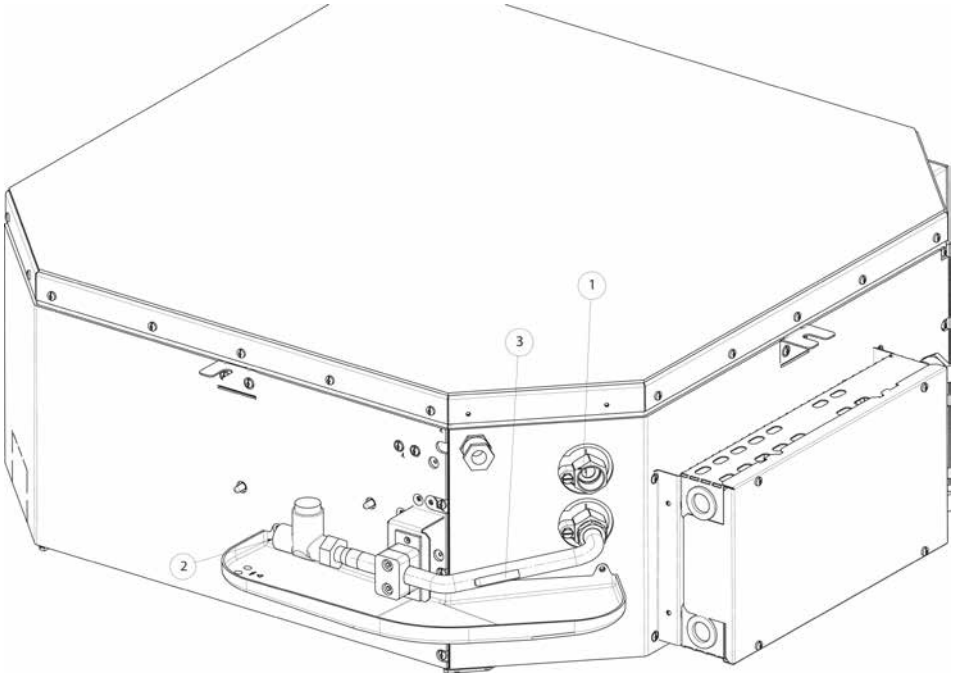
» 3-way valve kit - 4 pipes, AQ 10-20-30-35



1 Cold water outlet
2 Cold water inlet
3 Hot water outlet
4 Hot water inlet

NOTE: The actuators are not shown.

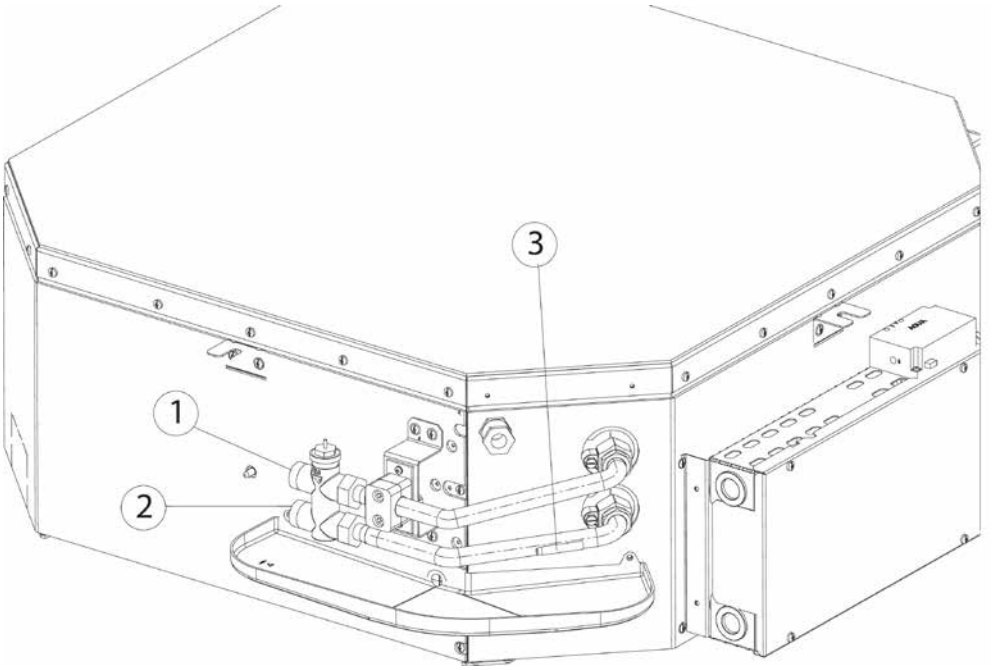
» 2-way valve kit - 2 pipes, AQ 40-50-60



1 Water outlet
2 Water inlet

NOTE: The actuator is not shown.

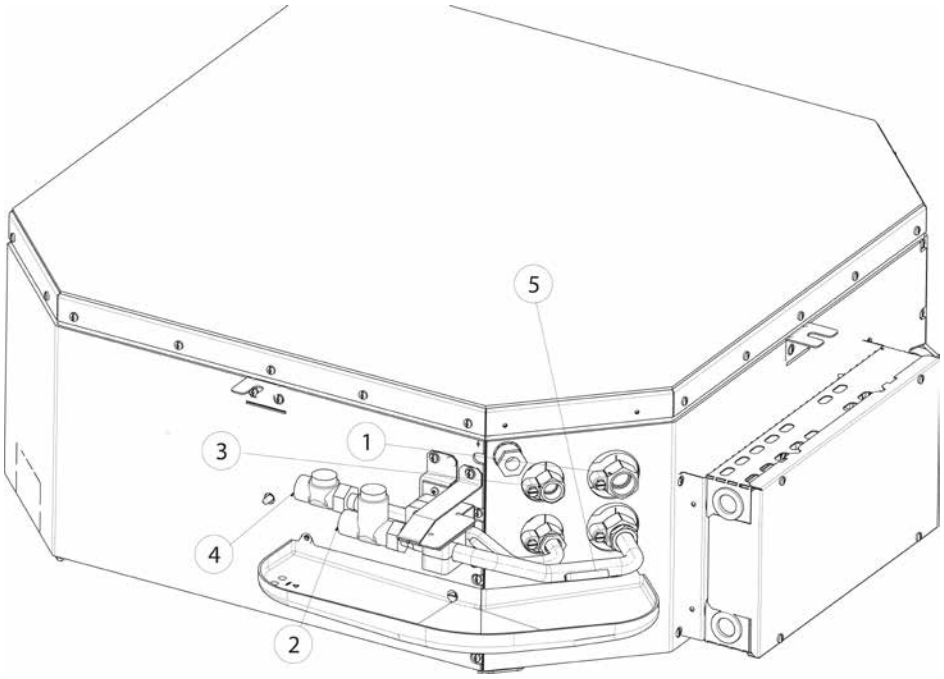
» 3-way valve kit - 2 pipes, AQ 40-50-60



1 Water outlet
2 Water inlet

NOTE: The actuator is not shown.

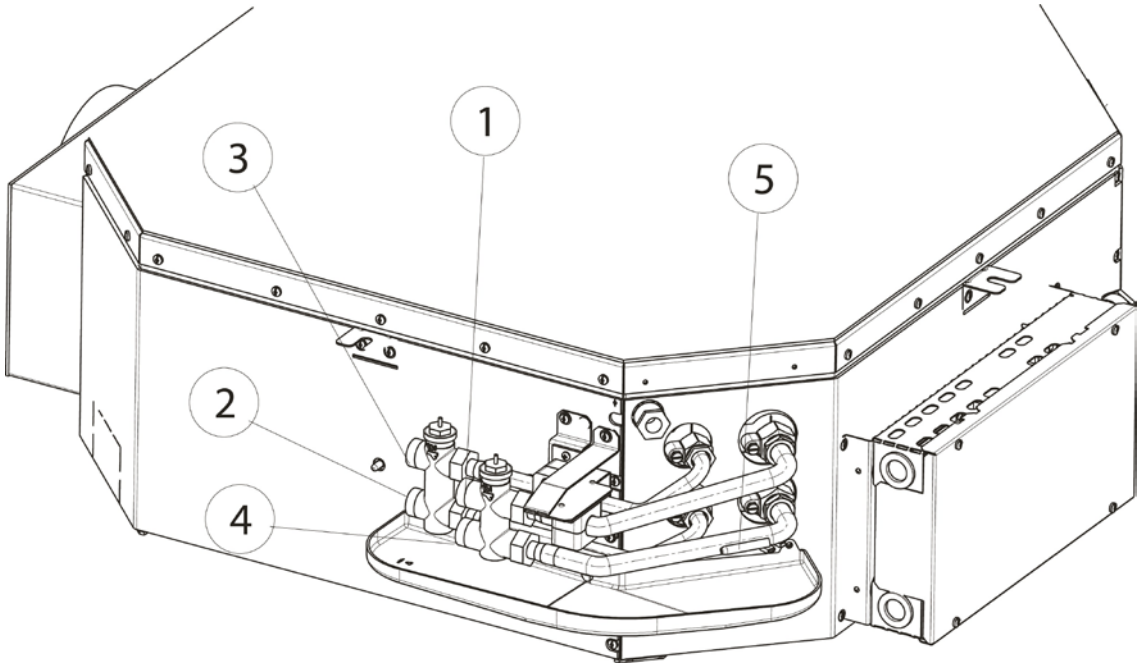
» 2-way valve kit - 4 pipes, AQ 40-60



1 Cold water outlet
2 Cold water inlet
3 Hot water outlet
4 Hot water inlet

NOTE: The actuators are not shown.

» 3-way valve kit - 4 pipes, AQ 40-60



1 Cold water outlet
2 Cold water inlet
3 Hot water outlet
4 Hot water inlet
NOTE: The actuators are not shown.

11.2 PRESSURE-INDEPENDENT MOTOR-DRIVEN 2-WAY VALVE KIT

⚠ **WARNING:** The installation of a valve kit on the fan coil unit is mandatory ACQVARIA.

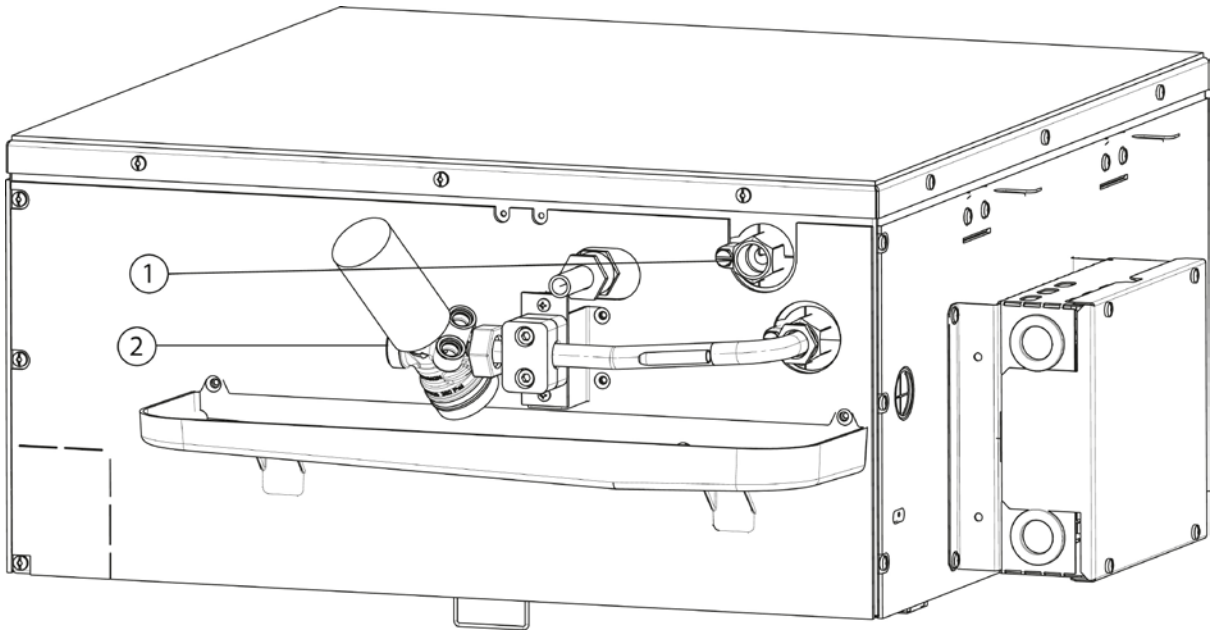
The pressure-independent 2-way valve kit consists of:

— 2-way valve with maximum operating pressure of 16 bar.
— Electrothermal actuator with 230 V or 24 V power supply, ON/OFF (or modulating) function, total opening time 3 minutes.
— Hydraulic kit with O-ring for connection with the exchanger and paper gasket for connection with the valve.
— Brackets for fastening the hydraulic kit on the side of the unit in order to ensure stability during transport if the valves are already installed.

The valve kits are shown in the figures: 11.9 p. 66 and 11.12 p. 68.

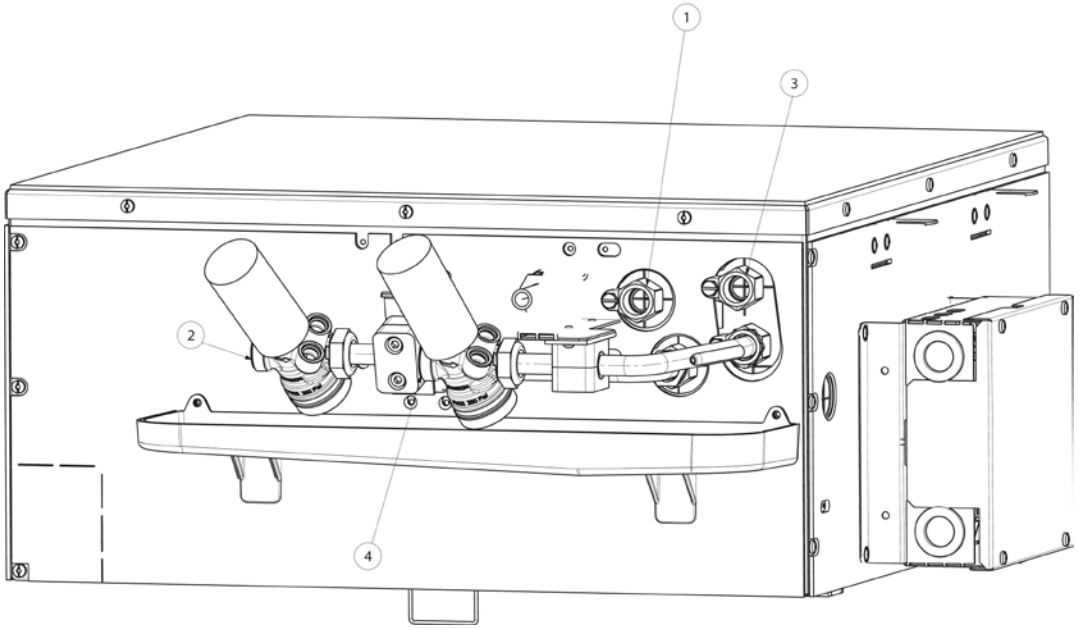
Unit	Valve type	Connection		Δp min [kPa]	
AQ10Q0B0, AQ20Q0B0, AQ30Q0B0 (2 pipes)	2-way	3/4" M		32	
AQ40Q0B0, AQ50Q0B0, AQ60Q0B0 (2 pipes)	2-way	1 1/4" M		20	
		Cooling		**Heating**	
Unit	**Valve type**	**Connection**	**Δp min [kPa]**	**Connection**	**Δp min [kPa]**
AQ10Q0BB, AQ20Q0BB, AQ30Q0BB (4 pipes)	2-way	3/4" M	16	3/4" M	16
AQ40Q0BB, AQ60Q0B0 (4 pipes)	2-way	1 1/4" M	20	1" M	16

» 2-way VPIC valve kit - 2 pipes, AQ 10-20-30



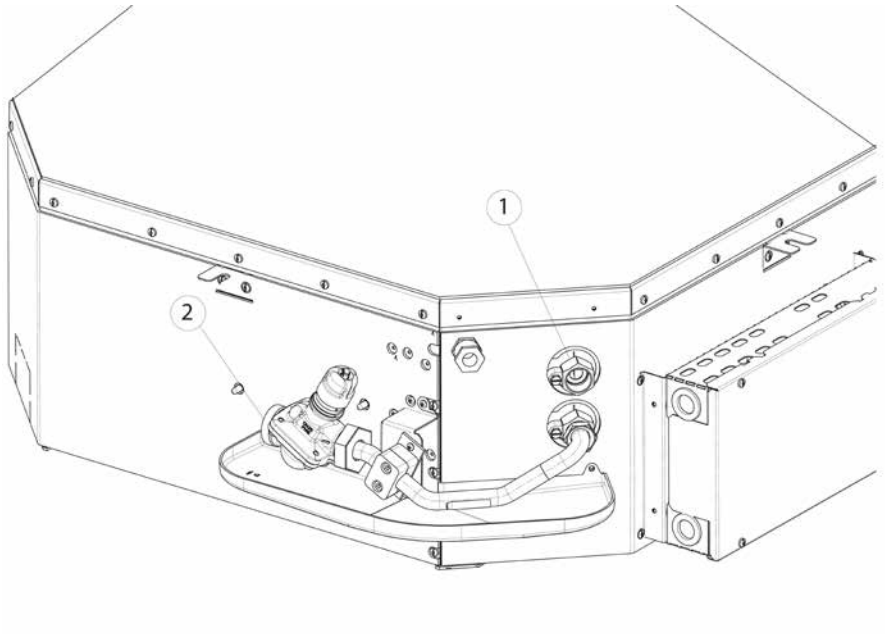
1 Water outlet **2** Water inlet

» 2-way valve kit VPIC - 4 pipes, AQ 10-20-30-35



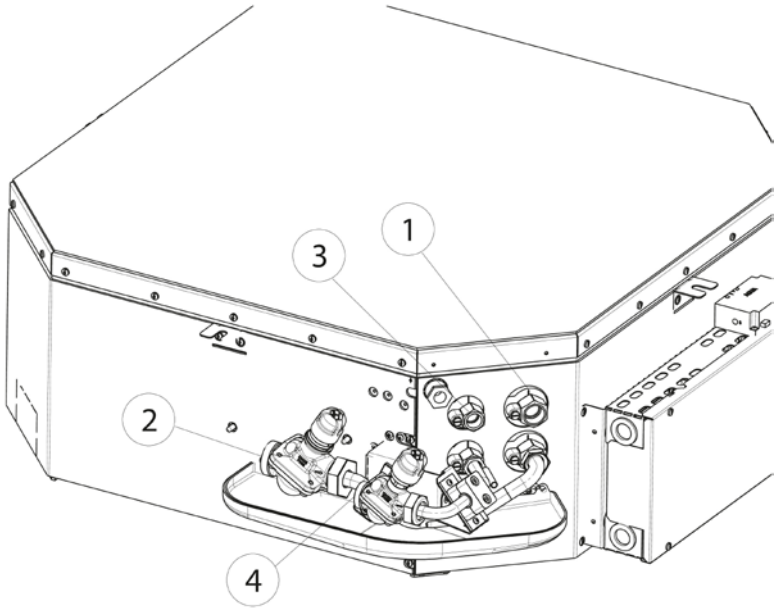
1 Cold water outlet
2 Cold water inlet
3 Hot water outlet
4 Hot water inlet

» 2-way VPIC valve kit - 2 pipes, AQ 40-50-60



1 Water outlet
2 Water inlet

» 2-way valve kit VPIC - 4 pipes, AQ 40-60

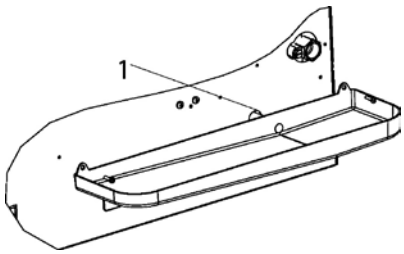


1 Cold water outlet
2 Cold water inlet
3 Hot water outlet
4 Hot water inlet

11.3 AUXILIARY WATER DRIP TRAY FOR COLLECTING CONDENSATE FROM THE CONTROL VALVES

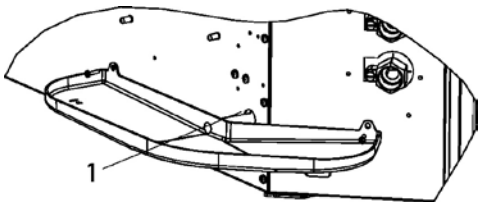
The auxiliary water drip tray is supplied with the base unit together with two fastening screws.
Its function is to collect the condensate generated by the control valves and to convey it inside the main condensate drip tray of the unit. (Fig.15 , Fig.16)

» Fig.15



1 Condensate discharge

» Fig.16



1 Condensate discharge

⚠ **WARNING:** The installation of the auxiliary water drip tray is mandatory.

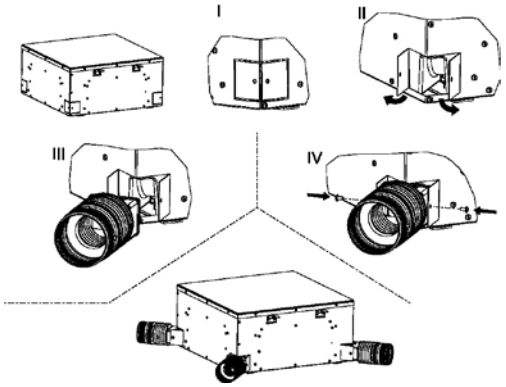
11.4 CONNECTION FOR INTAKE OF FRESH AIR TO BE TREATED

The units are equipped with 3 fresh air inlets, positioned in the corners. This air mixes with the air drawn in from the indoor environment and is then treated by the heat exchanger. (Fig.17 - Fig.18)

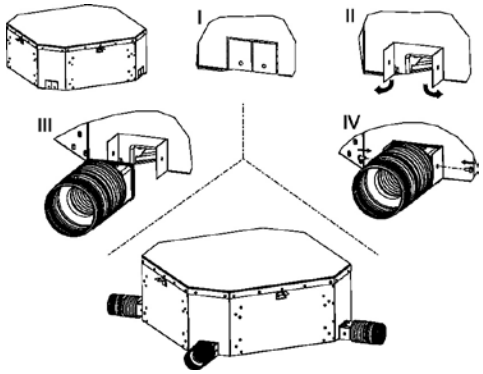
— The BAR accessory is available: a fitting for Ø100 pipe to be connected to the inlets located on the unit.
— It is necessary to filter the fresh air before introducing it in the unit, making sure that its temperature is not too low.
— To avoid operating and noise-related problems, the fresh air flow rate is limited to 20% of the unit's air flow at average speed, with a maximum of 110 m^3/h for each intake.

⚠ **WARNING:** It is necessary to prevent the intake of dust and impurities that could foul the unit's exchanger.

» AQ 10-20-30-35



» AQ 40-50-60



11.5 CONNECTION FOR OUTLET OF AIR IN ADJACENT ROOMS

The units are equipped with 2 rectangular air outlets for connection to separate distribution ducts.

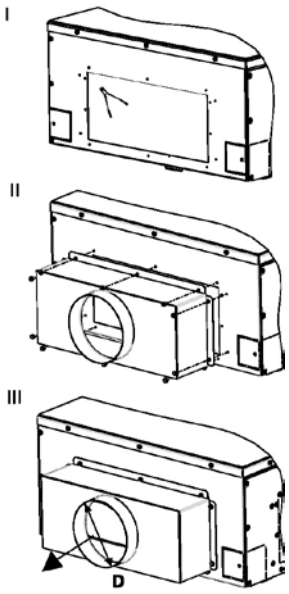
— These outlets are located on the sides not occupied by the electrical box and water connections.
— The PMAA accessory is available: a plenum to connect the rectangular outlets located on the unit to the round distribution ducts with diameter D:

Model	D
ACQVARIA 10-20-30-35	150
ACQVARIA 40-50-60	180

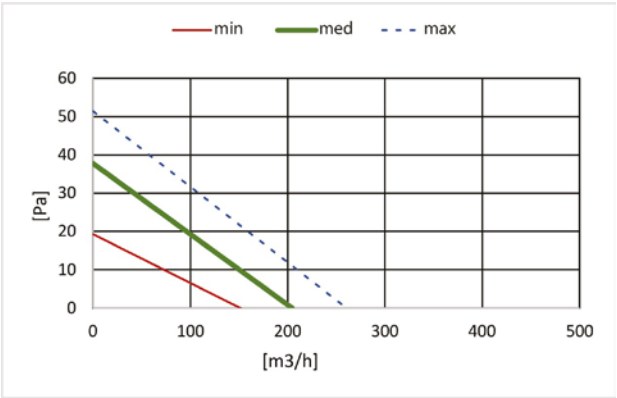
WARNING: The air ducts from the fan coil unit must be thermally insulated to prevent the formation of surface condensation.

The following graphs show the air flow values as a function of the pressure drops of the duct at different fan speed.

» PMAA

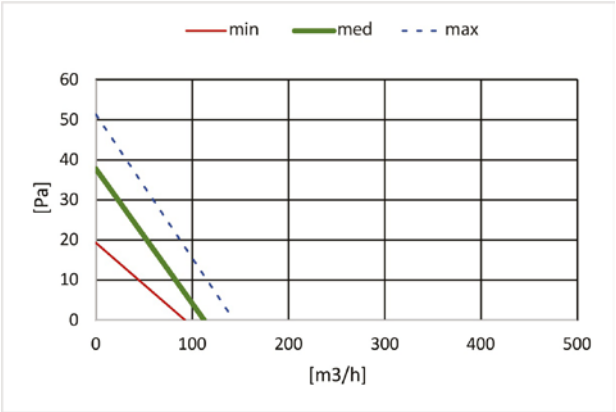


» AQ 10-20-30-35 n. 1 output used



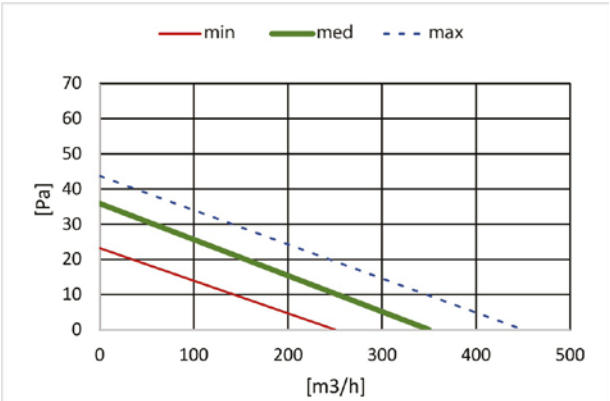
- Pa: Water pressure drop
- m³/h: Air flow

» AQ 10-20-30-35 n. 2 output used



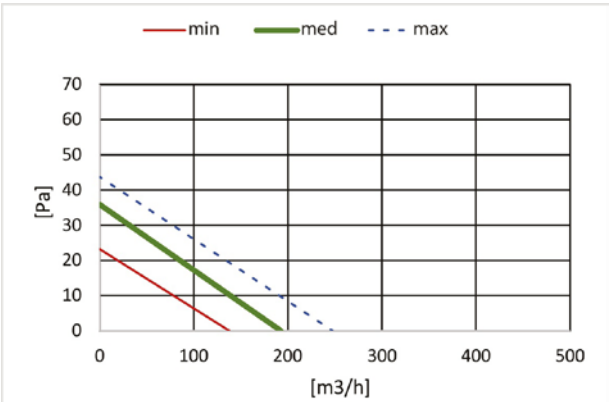
- Pa: Water pressure drop
- m³/h: Air flow

» AQ 40-50-60 n. 1 output used



- Pa: Water pressure drop
- m³/h: Air flow

» AQ 40-50-60 n. 2 output used



- Pa: Water pressure drop
- m³/h: Air flow

11.6 CONNECTION FOR INTRODUCTION OF FRESH AIR INTO ROOM

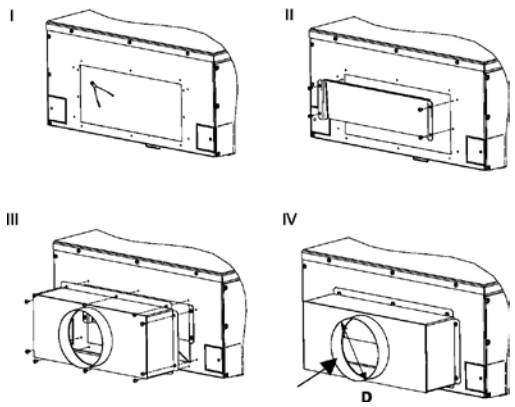
The units are equipped with 2 rectangular arrangements for connection to ducts for the introduction of fresh air directly into the room.

— • These arrangements are located on the sides not occupied by the electrical box and water connections.
— The PAR accessory is available, consisting of a duct and a plenum: fresh air is introduced into the installation room by-passing the heat exchanger by means of a supply fin of the unit.
— The dimensions of diameter D are:

Model	D
ACQVARIA 10-20-30-35	150
ACQVARIA 40-50-60	180

— It is necessary to filter the fresh air before introducing it in the unit, making sure that its temperature is not too low.

» Intake air



Below is the correlation between the flow of primary air introduced and the pressure drop of the PAR accessory.

» .Intake bypass air

AQ10-20-30		AQ40-50-60	
Air flow rate [m^3/h]	Water pressure drop [Pa]	Air flow rate [m^3/h]	Water pressure drop [Pa]
50	8	100	8
100	11	200	11
160	22	320	22
200	32	400	32
220	39	440	39

12 MAINTENANCE

For safety reasons, before carrying out any maintenance or cleaning jobs, turn off the unit by moving the fan speed selector to "OFF" and putting off the main switch 0 (OFF).
Any work must be carried out by personnel qualified and authorised to work on this type of unit.

⚠ **DANGER!** Due caution must be taken while carrying out maintenance: some metal parts may cause injuries; wear protective gloves.

The material must undergo maintenance in order to retain its characteristics over time. Lack of maintenance may have the effect of voiding the product warranty. The operations consist of cleaning the air filter, the internal and external exchangers, the cabinet, and cleaning and protecting the condensate drip trays. Odour treatment and disinfection of the surfaces and spaces also contribute to the healthiness of the air breathed by users.
Whenever starting up the unit after it has not been used for a long time, check that there is no air in the heat exchanger.
Before the period of operation in the cooling mode, check that condensate is properly drained.
Adequate periodic maintenance will ensure save both energy and cost savings.

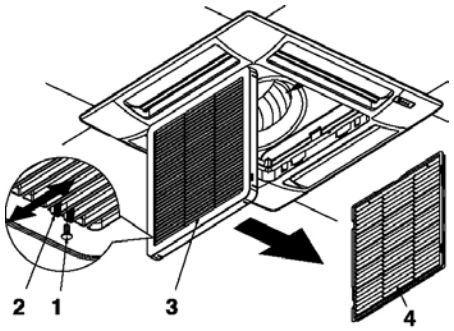
12.1 CLEANING THE AIR FILTER STANDARD GRILLE

Clean the air filter at least once a month and in any case at the start of the period of use (before the heating and the air conditioning season).
For filter cleaning, proceed as follows (Fig.21):

1. Before performing any work on the unit, disconnect it from the power supply.
2. Remove the screws (1) securing the retainers (2) on each side.
3. To open the grille (3), push on the two retainers (2) in the direction of the arrow.
4. Open the grille (3) downwards.
5. Remove the filter (4) from the grille.
6. Use a vacuum cleaner to remove dust. If dust is glued to the filter, remove it with clean or soapy water, rinse the filter with clean water and dry it.
7. Put the filter back into its place in the grille, close the grille, moving the two retainers outwards, then put the screws securing the retainers back in place.

It is recommended to replace the air filter once a year, using an original replacement filter; the indoor unit model can be found on the identification plate located on the tank inside the unit, behind the air filter.

» Fig.21

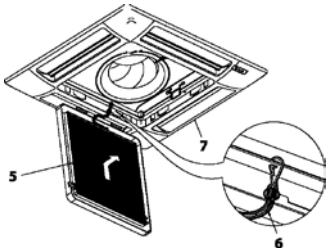


12.2 CLEANING THE AIR INTAKE GRILLE

The grille can be removed for cleaning (Fig.22).

- After opening the grille (5), detach the safety cable (6) of the control panel (7) (remember to attach it again after maintenance and cleaning).
- Lift the grille and pull it towards you to release the two hinges
- Clean the grille gently using a soft sponge, then dry well. A neutral detergent can be used to remove difficult residues. Rinse well with water, then dry.
- Never use harsh chemical solvents.
- Do not use excessively hot water to clean the unit.

» Fig.22



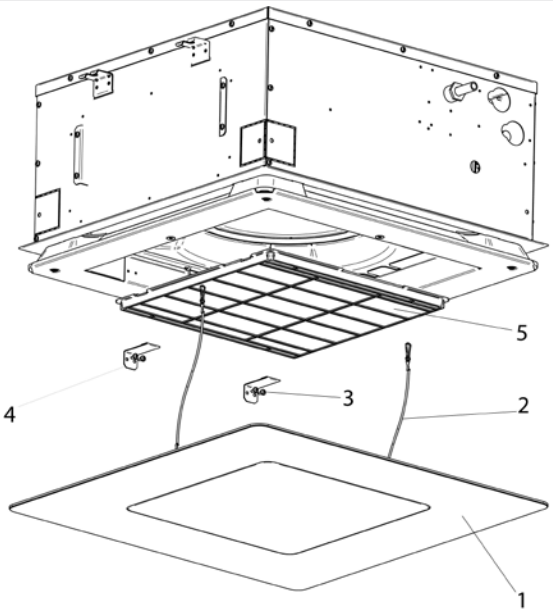
12.3 CLEANING THE AIR FILTER EFFETTO GRILLE

Clean the air filter at least once a month and in any case at the start of the period of use (before the heating and the air conditioning season).
For filter cleaning, proceed as follows (Fig.23):

1. Before performing any work on the unit, disconnect it from the power supply.
2. Remove the magnet covering panel (1) pull down.
3. Remove one of the two safety cables (2) to have free access to the filter.
4. Remove the blocking screws (3) in two of the four brackets (4) on one of the two sides.
5. Remove the air filter (5) pulling out it.
6. Use a vacuum cleaner to remove dust. If dust is glued to the filter, remove it with clean or soapy water, rinse the filter with clean water and dry it.
7. Put the grille (5) back in place and tighten the brackets again (4).

It is recommended to replace the air filter once a year, using an original replacement filter; the indoor unit model can be found on the identification plate located on the tank inside the unit, behind the air filter.

» Fig.23



12.4 CLEANING OF EFFETTO GRILL COVER PANEL

— Use a soft and dry cloth.
— Never pour liquids onto the unit, as this could cause electrical discharges and damage the internal components.
— Never use harsh chemical solvents.

⚠ **WARNING:** NEVER USE ABRASIVE TOOLS of any kind. Failure to follow this instruction may result in irreversible damage to the surface of the graphics.

12.5 ELECTRIC CONTROL BOARD

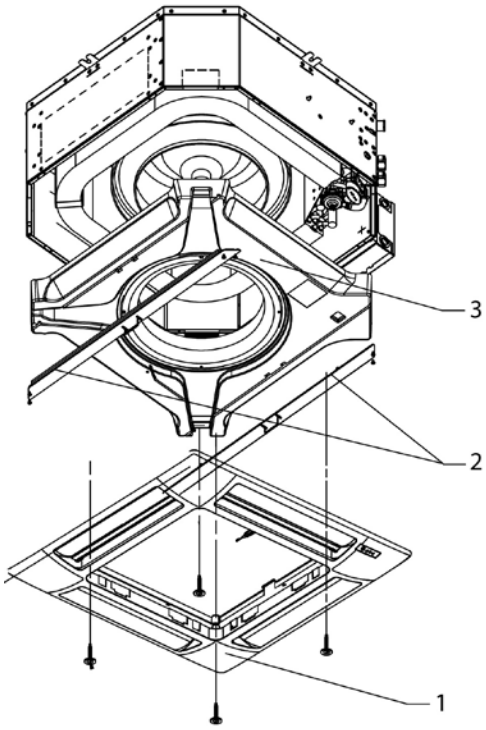
Once a year, check that the electrical wires are properly tightened on their terminal blocks.

12.6 ADDITIONAL MAINTENANCE

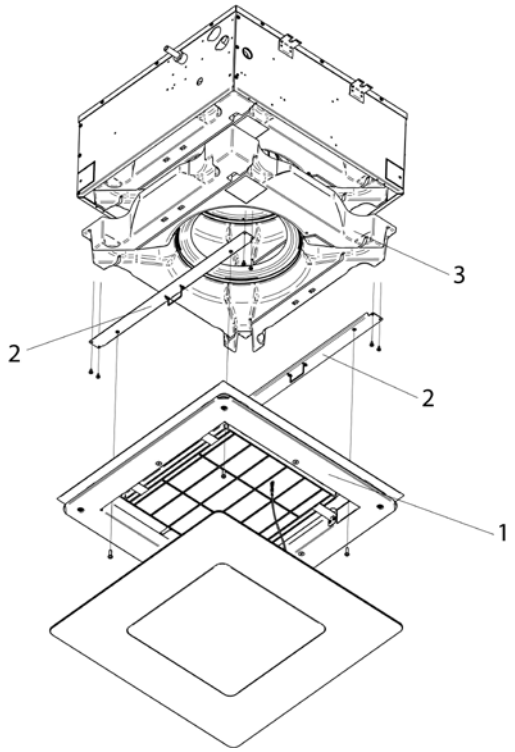
Inspecting, cleaning, or replacing internal components requires the removal of the main condensate tank.
Tank removal (Fig.24) :
— Remove the air intake grille (for standard grille); Remove the DIBOND cover panel pull down it and separete from the unit (for Effetto grille).
— Empty the condensate remaining in the tank into a bucket by means of a pump through the condensate drain opening of the auxiliary water drip tray (Fig.15 and Fig.16 p. 69).
— Remove the front panel assembly (panel assembly) (1) by unscrewing the four fastening screws. Remove the support plates (2) of the tank (3) by removing the screws.
— Remove the tank, handling it with care.
— Clean the inside of the tank.
— Check that the heat exchanger is clean. If needed, use a vacuum cleaner with a rubber tip to remove dust being careful not to damage the fins.

Reinstallation of the tank:
— Put the tank (3) back in place with its supporting plates (2) and tighten the fastening screws.
— Put the front panel (1) back in place using the two tank plate clips to keep it suspended on the unit.
— Tighten the fastening screws.
— Put the grille back in place together with the air filter.
— Hook the grille's safety cable to the appropriate supports.
— Close the grille and put back the retainers fastening screws (for standard grille), Put back tha cover panel in original position. (for Effetto grille).

» Fig.24



» Fig.25



12.7 ABNORMAL WATER LEVEL

In case of abnormal backflow of water into the condensate tank (due to a faulty pump, a dirty tank, a plugged drain pipe, etc.), a safety contact (float switch) closes the control valves.

Galletti S.p.A Organization has a Management System Certified by Kiwa Cermet Italia S.p.A, according to the UNI EN ISO 9001:2015, UNI EN ISO 14001:2015 and UNI ISO 45001:2018 standards.

via Romagnoli 12/a
40010 Bentivoglio (BO) - Italy
Ph. +39 051/8908111 - Fax +039 051/8908122

www.galletti.com