CONTROL PROCEDURE

RATING	3/4.5	4/6	6/9	8/12	10/15	9/18	12/24
DESIGN							
FUNCTIONS							
ENGINE TYPE							
PROPELLER							
CONTACTOR TYPE							
TEMPO START							
INTENSITY							
WALL MOUNTING BRAC.							
SCREWS : NUTS							
SENS DE ROTATION DE L'HELICE							

WARRANTY

APPLIANCE :
REFERENCE :
PROD. DATE :
RATING :
TENSION :
CONTROL :

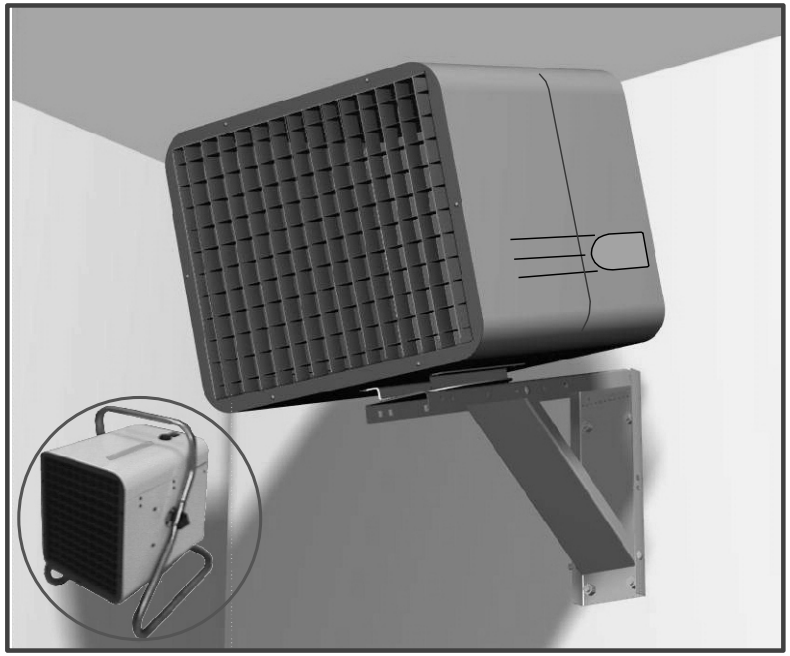
RETAILLER

Date of sales :

USER

Name :
Complete address :

AEROTHERMES



AT RECEPTION PLEASE CHECK YOUR APPLIANCE

INSTALLATION AND USER MANUAL

TO BE KEEPT BY THE USER

1- CHARACTERISTICS

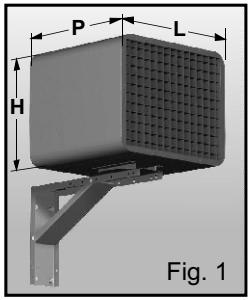


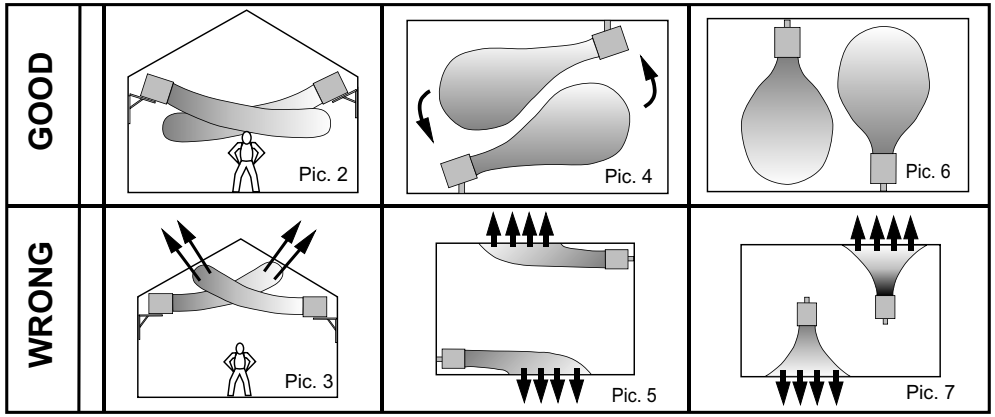
Fig. 1

- Adjustable fixation frame.
- Power supply junction box.
- Power contactor.
- Start and stop temporisation.
- Thermal cutout.
- Connection to Control box Réf. A750790 sold as accessory making possible the functions described page 8 .
- Feet assembly available as accessory
- Five versions are possible :
  Wall mounted fan heater without control box
  Wall mounted fan heater with in board control box
  Wall mounted fan heater with wall mounted control box
  Mobile fan heater witout control box
  Mobile fan heater with in board control box .

REFERENCE	HEATING		VENTILATION			Noise	Temp. increase	DIMENSIONS (out of fixation)	weight
	RATING (kW)	Tension (V)	Speed (tr / mn)	Flow (m3/ h)	Air flow Cold (m)	(dB)	(°K)	L x H x P (mm)	(kg)
	3 / 4.5	230 Mono 230 Tri 400 Tri 400 Tri+N	1300	540	14	48	16 / 25	420 x 330 x 520	21
	4 / 6		1300	660	15	49	18 / 27	420 x 330 x 520	21
	6 / 9		1300	1000	16	50	18 / 27	470 x 380 x 520	26
	8 / 12	230 Tri 400 Tri 400 Tri+N	1000 / 1400	930 / 1200	16 / 18	50 / 53	25 / 29	470 x 380 x 520	27
	10 / 15		1000 / 1400	930 / 1200	16 / 18	50 / 53	32 / 37	470 x 380 x 520	32
	9 / 18		1000 / 1400	1200 / 1650	17 / 19	52 / 55	22 / 32	520 x 430 x 660	36
	12 / 24		1000 / 1400	1600 / 2310	18 / 20	53 / 56	22 / 31	520 x 430 x 660	36

2- INSTALLATION ADVICES

- Lean slightly the fan heater to the soil in order to avoid air stratification under the ceiling. (Pic. 2 and 3).
- Do not focus the air flow to directly cold walls or near to cold walls. (Pic. 5 and 7).
- If several fan heaters are installed, the flows should not interfer (Pic. 4 and 6).
- Do not blow direct to people.
- **In following these advices, you will save energy and ensure comfort.**



6- WORKING WITH CONTROL BOX

A) VENTILATION :

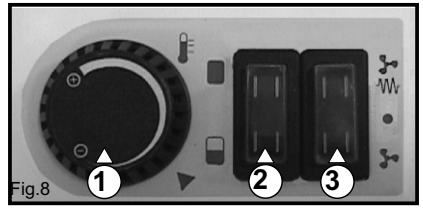


Fig.8

- Switch Rep. 3 on position cold ventilation
  The other functions like thermostat and heating element are not in use.

B) HEATING :

- Switch Rep.3 on position ventilation-Heating
- Switch Rep. 2 on position Half speed when mild weather and on position Full speed when cold weather.

Position the dial Rep.1 on position"⊕". You can hear the fan heater contactors connecting, the fan will only start to blow when the heating element reach its accurate temperature to offer a confortable air flow temperature.

When the desired room temperature is reached, turn slowly the dial of the thermostat on a on a lower position until you ear a click comming from the relay or the built-in thermostat.

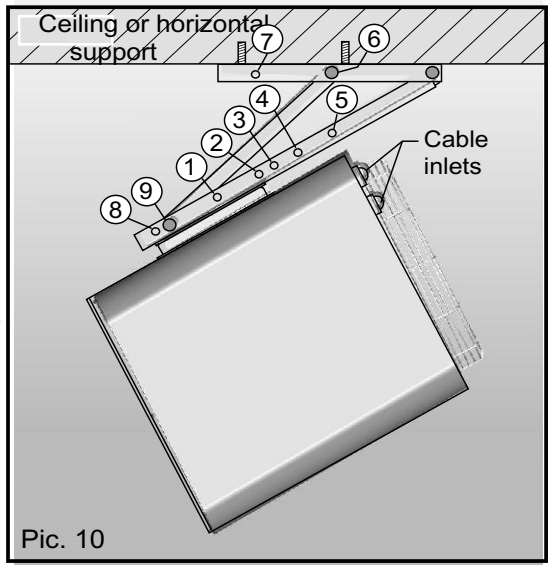
To avoid over comsumption, the fan will stop working only when the heat of the heating element is gone.

7- CLEANING

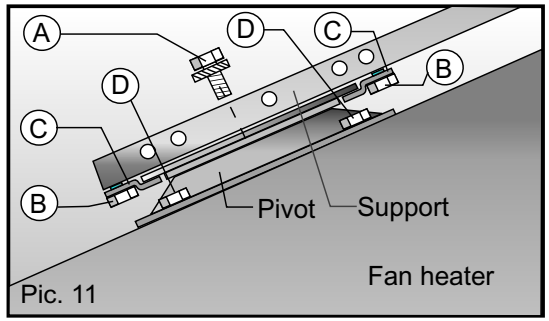
This device is designed to cope to most difficult conditions, no need for maintenance.
However, in dusty aeras just clean the back grid.
IMPORTANT : Should you need to service the heater, it is compulsory to turn of the current. with omnipolar switch off devices mounted on the main board. (Rating and controls)

B) Fixation under ceiling : (Pic. 10)

- Choose the support angle position in fixing the cross bar in following holes thanks to 2 M8 x 120 screws :
  7.3 w/o cross bar = 0° (horizontal)-
  6.8 = 20° - 6.9 = 30° - 7.8 = 40° -
  7.9 = 43° - 7.1 = 57° - 6.1 = 58° -
  7.2 = 67° - 7.3 = 72° - 7.4 = 78° -
  6.2 = 80° - 6.3 = 90° (vertical) .
  Position 7.3 is not suitable for ceilling mounting but only on a support at more than 1 meter down to the ceilling level. In position from 7.1 to 6.3 the heater becomes stratificator free and offers important runing costs cutings .
- Unscrew the 4 screws and place the pivot on the top of the heater Rep. D then rescrew them . (Pic11).
- Further intallation procedure, see section A of page 3 .
- Place the heater on its support and tight the M12 screw (19 mm wrench) Rep. A.
- Place the blocage clutches (Rep. C).
- Fix the heater in the desired position tighten the screw A and the B nut (10 mm wrench).



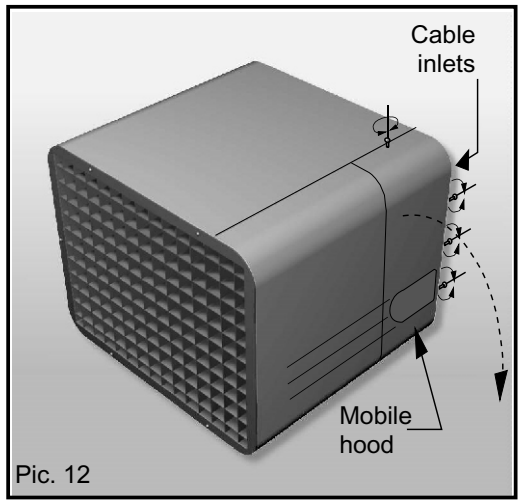
Pic. 10



Pic. 11

4- WIRING AND CONNECTION

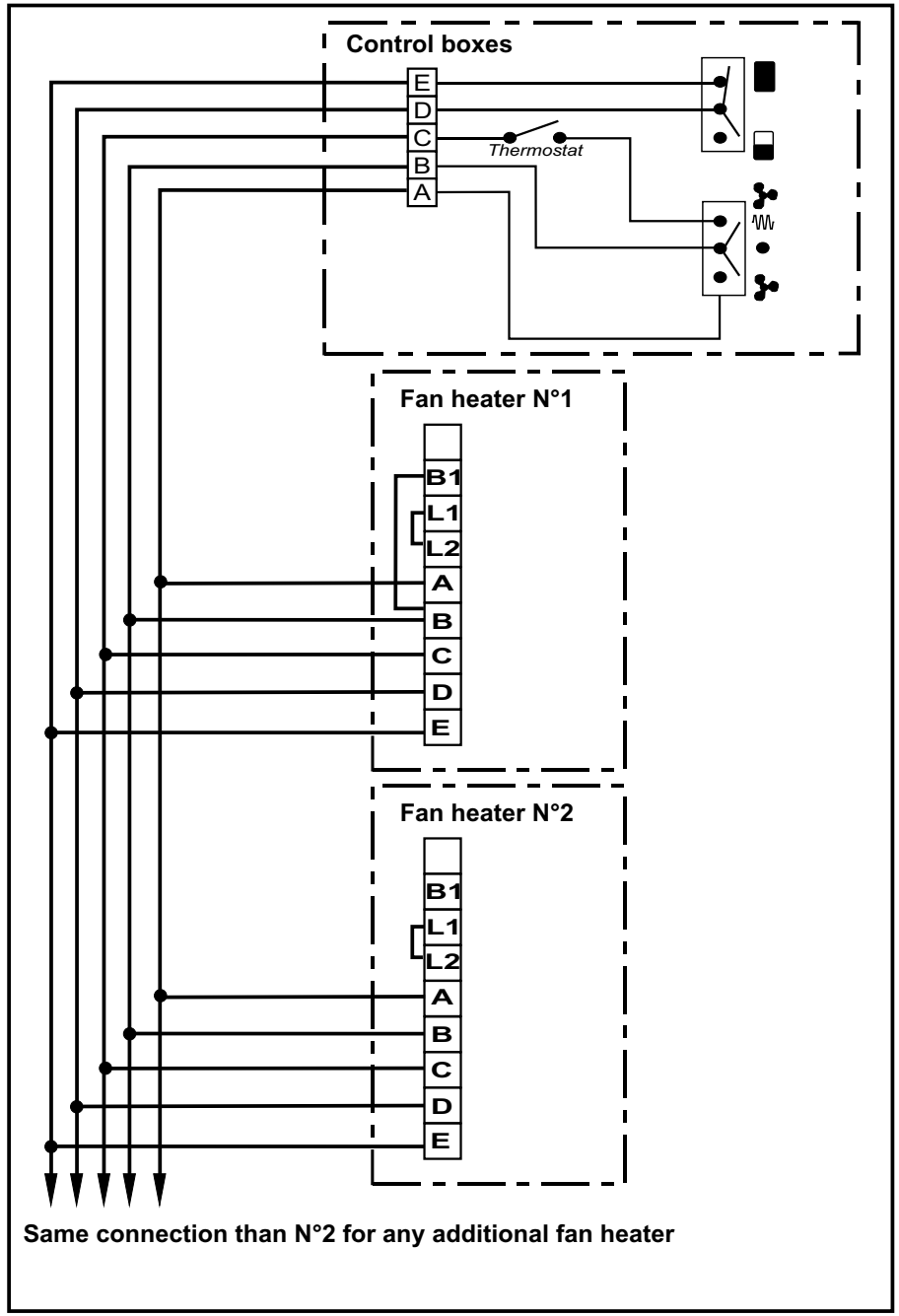
- All fan heater installation shall be made in accordance to the C15-100 norms the section and protection of the power cord wires must be in accordance to the intensity board of page 5.
- Cables inlets are located at the back of the fan heater (Pic. 12).
- Connection and the tension change of the heater must be conducted as shown in pic. 13 and 14.
- To access to the junction box, unscrew the 4 screws without removing them, and sleeve the mobile hood down .



Pic. 12

C)Driving several fan heaters with one control box - A750790

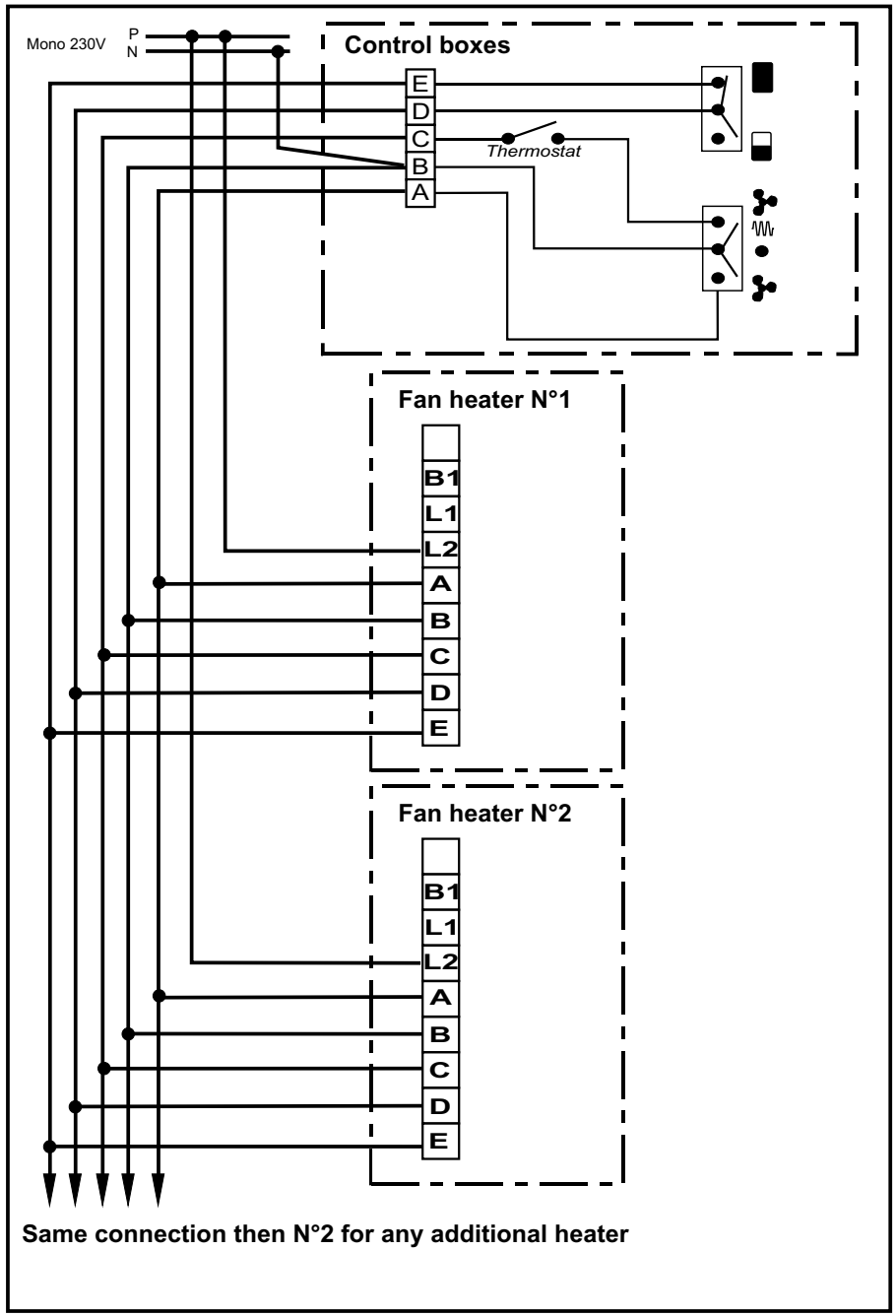
230 mono - Tri 230+N - Tri 400V+N



Same connection than N°2 for any additional fan heater

D) Driving several fan heater with only one control box

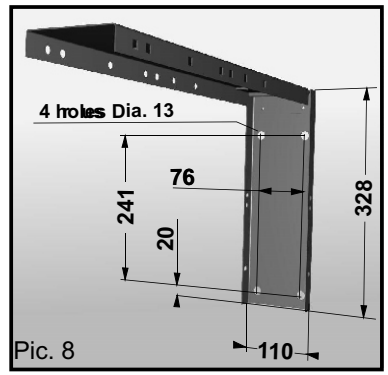
Tri 400V without neutral



Same connection then N°2 for any additional heater

3- INSTALLATION AND FIXING ON SUPPORT

The support is included in the carton box lining, consisting in a) a hinged square
b) a cross bar
c) a pack of screws

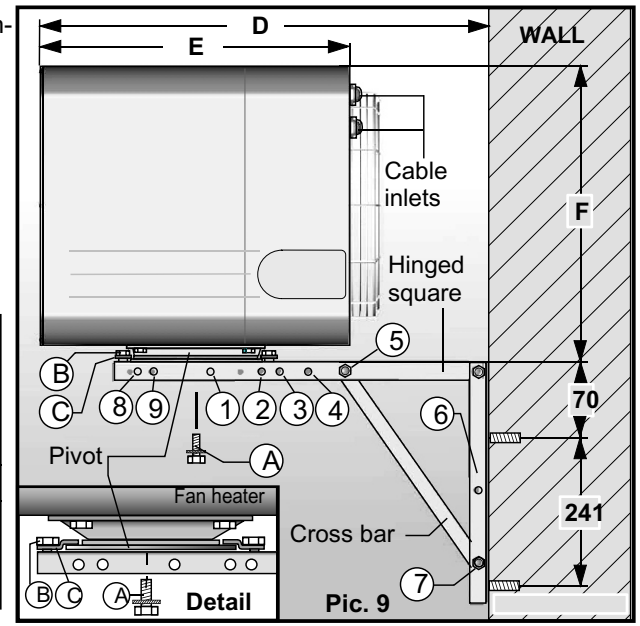


Pic. 8

The orientation pivot is fixed under the fan heater as a standard.
Two fixation ways are possible:
A) Vertical fixation to a wall, a post, aso... :
- Use the hinged square (Pic. 8) for the elevation of the fixation holes.
- Fix the support with 4 screws or cramps.
- Adjust the cross bar in the hinged square, fins toward inside. The gigger holes should be positionned same side than the square holes of the hinged square. (Pic. 9).
- Insert a M8 x 120 screw (from square holes side) in holes Pic. 6 or 7.
- Tighten with hand a M8 stop nut.
- Insert a second M8 x 120 screw in the desired inclination hole :

  - 6.3 or 7.5 = 0° (horizontal) 6.2 = 10° - 7.4 = 12° - 7.3 = 18° - 7.2 = 23° - 6.1 = 32° - 7.1 = 33° - 7.9 =47° - 7.8 = 50° - 6.9 = 60° - 6.8 = 70° - 7.3 without cross bar = 90° (vertical)
- The recommanded inclinations are shown in bold.
- Tighten the second M8 nut and block both M8 stop nuts.

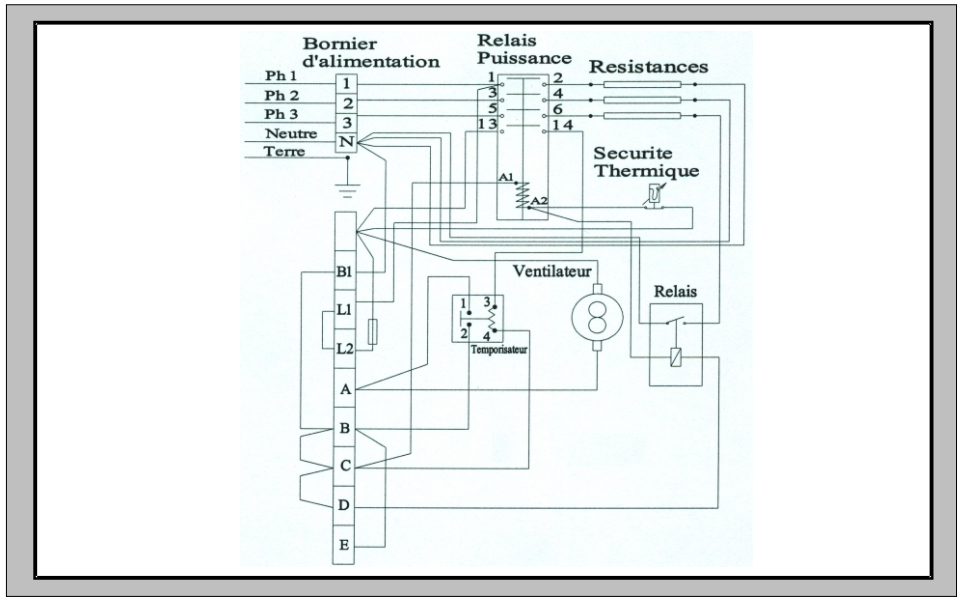
Pic. 8 shows the dimension of the support together with the fixation drillings (in mm) of the hinged square.
Mounting the heater on the support (see details) :
- Place the heater on its support and screw the A assembly (screw M12+fins ring) with a 19 mm wrench.
- Place the 2 blocage clutch (Rep. C) and screw the nuts (Rep. B) by hand .
- Adjust the fan heater in the choosen position .
- Block the A & B assemblies with 19 and 10 mm wrenches .



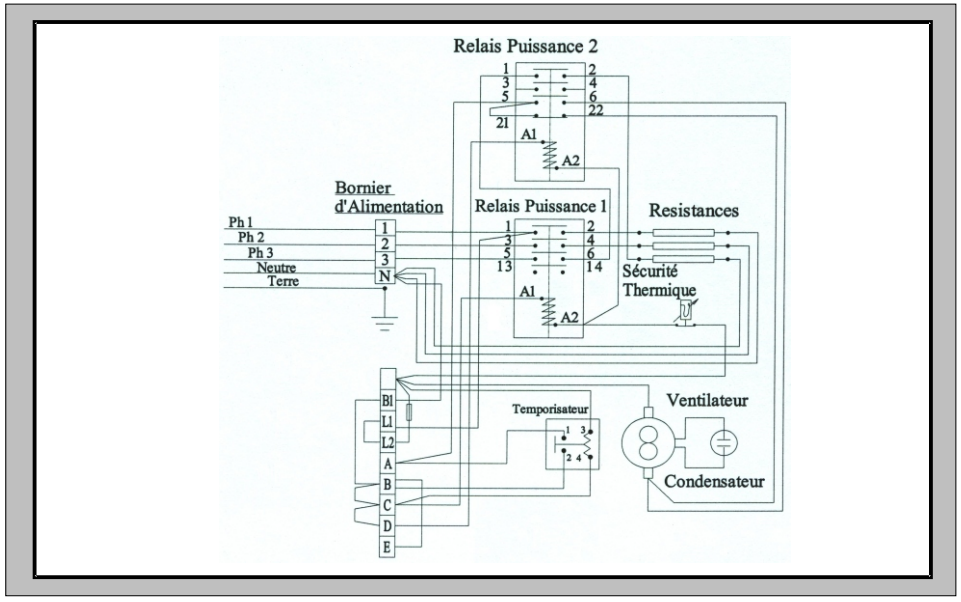
Pic. 9

Models	D	E	F
3/4.5 kW	635	430	350
4/6 kW	635	430	350
6/9 kW	635	430	400
8/12 kW	635	430	400
12/15 kW	635	430	400
9/18 kW	685	480	450
12/24 kW	685	480	450

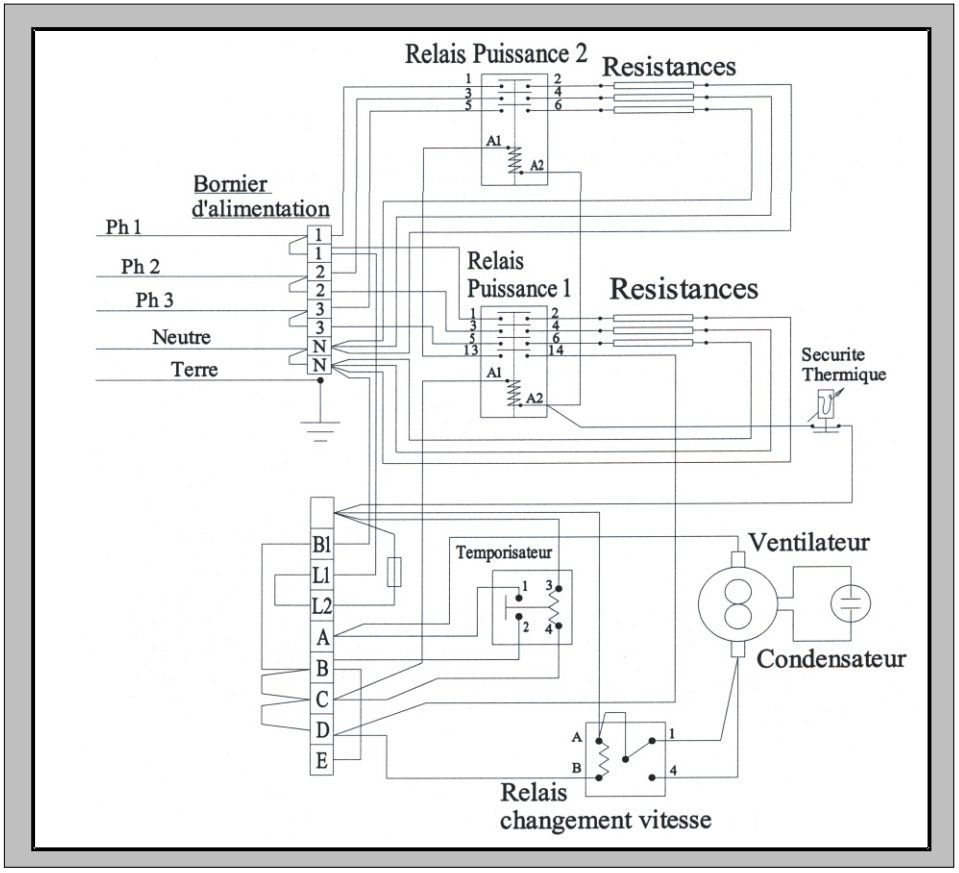
A) Cabling schem of fan heaters 3 / 4.5 kW , 4 / 6 kW et 6 / 9 kW :



B) Cabling schem for fan heaters 8 / 12 kW et 10 / 15 kW :



C) Cabling schem of fan heaters 9 / 18 kW et 12 / 24 kW :

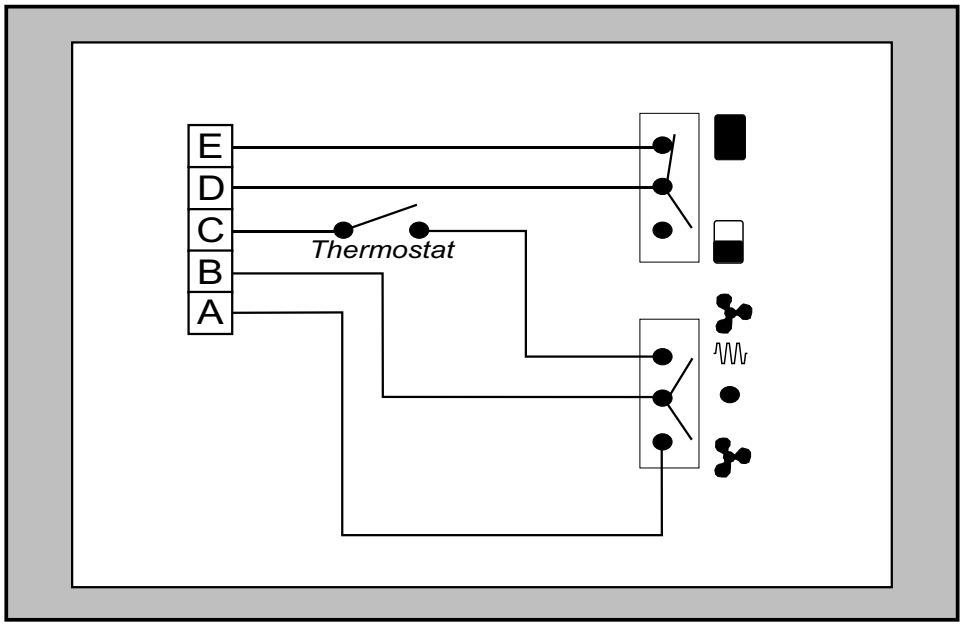


5- CONTROL BOX

A) Connection of the control box :

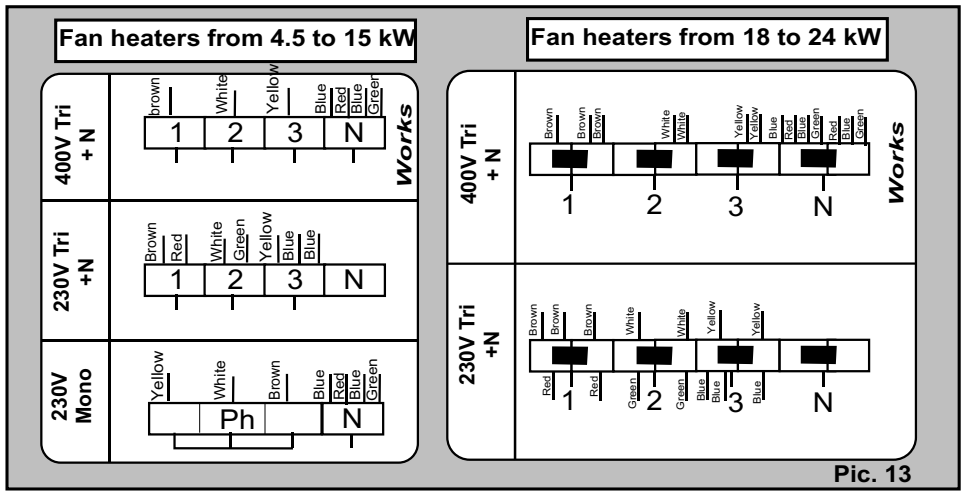
- This control box is fitted with :
  one 3 position switch : Arrêt ● Cold ventilation Ventilation + heating
  one 2 position switch : Low speed Full spee :
  one accurate room thermostat only working when in position
- It can be fitted in board or on a wall.
- It should be connected on remote control junction boxes A, B, C, D , E respecting the drawings of pages 9 and 10.
- Cord to be used : 5 x 1.5 mm² (+ Hearth in case of fixation at the back of the heater)
- The control box can drive up to 5 fan heaters.
- Note : the functions can also be insured with not supplyed accessories.

B) Control box cabling drawing :



Output Fan heater	Speeds	INPUT POWER PER PHASE		
		230 V MONO	230 V TRI	400 V TRI
3 / 4.5 kW	1	13.04 A	7.53 A	4.33 A
	2	19.57 A	11.30 A	6.49 A
4 / 6 kW	1	17.39 A	10.04 A	5.77 A
	2	26.09 A	15.06 A	8.66 A
6 / 9 kW	1	26.09 A	15.06 A	8.66 A
	2	39.13 A	22.59 A	12.99 A
8 / 12 kW	1	34.78 A	20.08 A	11.55 A
	2	52.17 A	30.12 A	17.32 A
10 / 15 kW	1	43.48 A	25.10 A	14.43 A
	2	65.22 A	37.65 A	21.65 A
9 / 18 kW	1		22.59 A	12.99 A
	2		45.18 A	25.98 A
12 / 24 kW	1		30.12 A	17.32 A
	2		60.24 A	34.64 A

- The fan heaters are delivered in Triphase 400V + Neutral.
- The main current wires should be connected to dedicaded junction boxes taking to tighten the screws.
- It is compulsory to connect the Neutral to the dedicated junction.
  The resistances support frame is insulated and should remain insulated (double isolation).
- To change tension, please refer to Pic. 13 taking care to tighten carrefully the screws.



NOTE :
The ventilator always work under 230 volts monophased

Type of fan heater	Engine input current + Relais 2nd rating
3 / 4.5 kW	0.32 A
4 / 6 kW	0.32 A
6 / 9 kW	0.52 A
8 / 12 kW	0.79 A
10 / 15 kW	0.79 A
9 / 18 kW	0.74 A
12 / 24 kW	0.78 A