INSTRUCTION MANUAL

Bar
1200-1800-3600

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R.8 - 05/11/07 (MRM 018/07)

1) MOTOR TECHNICAL SPECIFICATIONS

Motor 60.2.50M+ C2µF	Single-phase motor type
Rated voltage	230 VAC ±10%
Nominal power	50 W
Frequency	50 Hz
Number of poles	2
Capacitor	2 µF
Insulation class	B
Protection class	IP40
Stator height	30 mm

PERFORMANCE DATA

Shaft power	50 W
Power Consumption	95 W
Efficiency	0.53
Current Consumption	0.415 A
Power factor Cosn	1.0
No. Revolutions / minute	2750
Rated torque C_n	1.74 daN x cm
Max torque C_{max}	2.96 daN x cm
Static torque C_s	1.47 daN . cm
C_{max} / C_n	1.70
C_s / C_n	0.84
Capacitor voltage	375 V

2) COMPONENTS INCLUDED IN THE KIT.

Bar is supplied with disassembled fans.
A complete ventilation kit is composed of:

- 2 wired ventilation bars
- 6 fans:
  - TG180 (Bar 1200)
  - TG360 (Bar 1800)
  - TG500 (Bar 3600)
- 12 piercing screws to fix the fans on the bars

3) FAN MOUNTING ON THE BAR

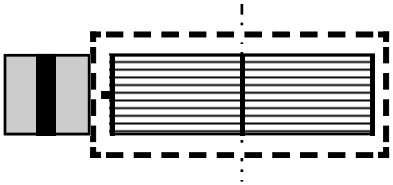
Place the central fan, letting the distance between centers of the impeller match the middle sign and fix it to the bar by the piercing screws "**A**" and "**B**" as shown in the **figures 2 and 4**.

The screws must be tightened using an electric screwer. Measure the distance between centers of the transformer coils and place on the bar one by one the side fans, letting the impeller middle (**figure 1**) match the distance between centers of the coils:

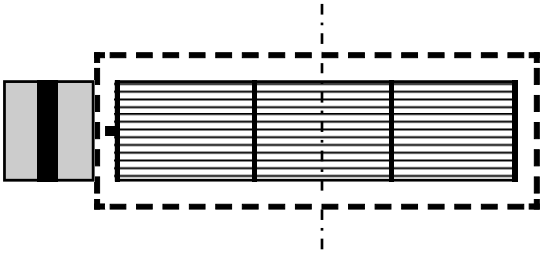
Bar 1200: from 470 to 585 mm
Bar 1800: from 470 to 700 mm
Bar 3600: from 670 to 770 mm

Fix them to the bar by the piercing screws "**A**" and "**B**" as shown in the **figure 4**.

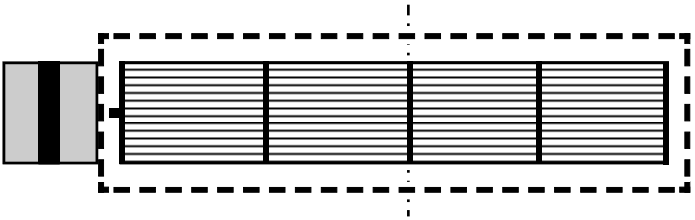
Figure 1: drawing of the impeller middle



Barra 1200, TG180 fan:
middle at the second ring (central ring).



Bar 1800, TG360 fan:
middle between the second and the third ring.



Bar 3600, TG500 fan:
middle connected with the third ring

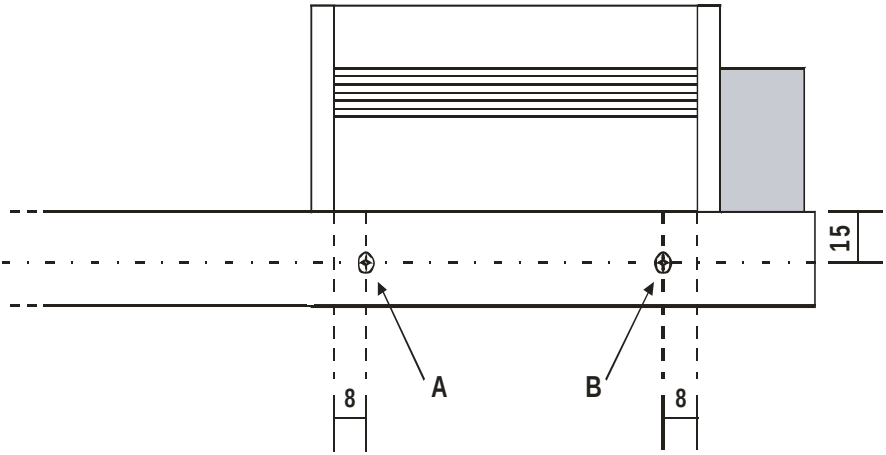


Figure. 2: fan fixing, upper view

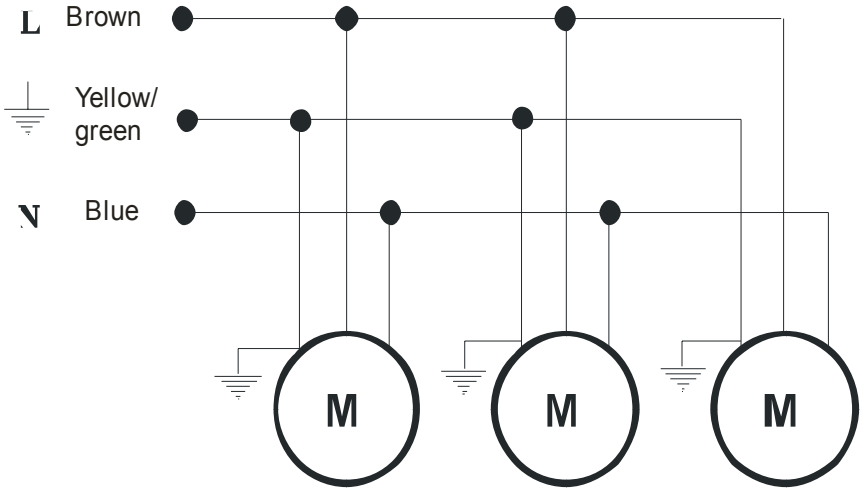
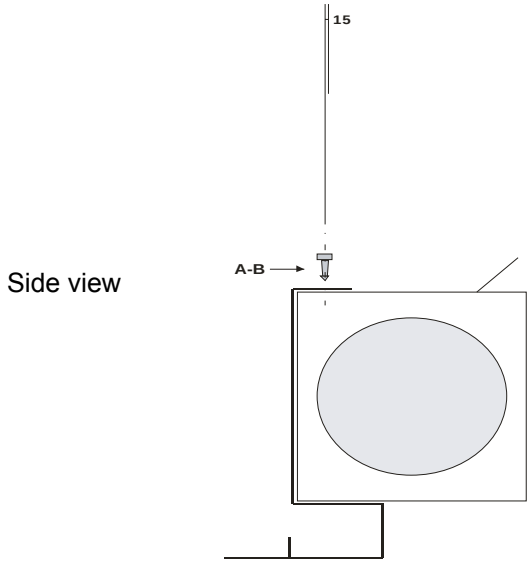


Figure 3: electrical diagram

Figure 4: fan fixing



4) MOUNTING OF THE BAR ON THE TRANSFORMER

Place the cooling fan unit on the I-beams of the transformer track in order to direct the air flow inside the coil air ducts (**figure 5**).
Drill two holes of at least 11 mm where the bar rests on the track and fix it with bolts of minimum 10MA, interposing a spring washer as shown in **figure 6**.

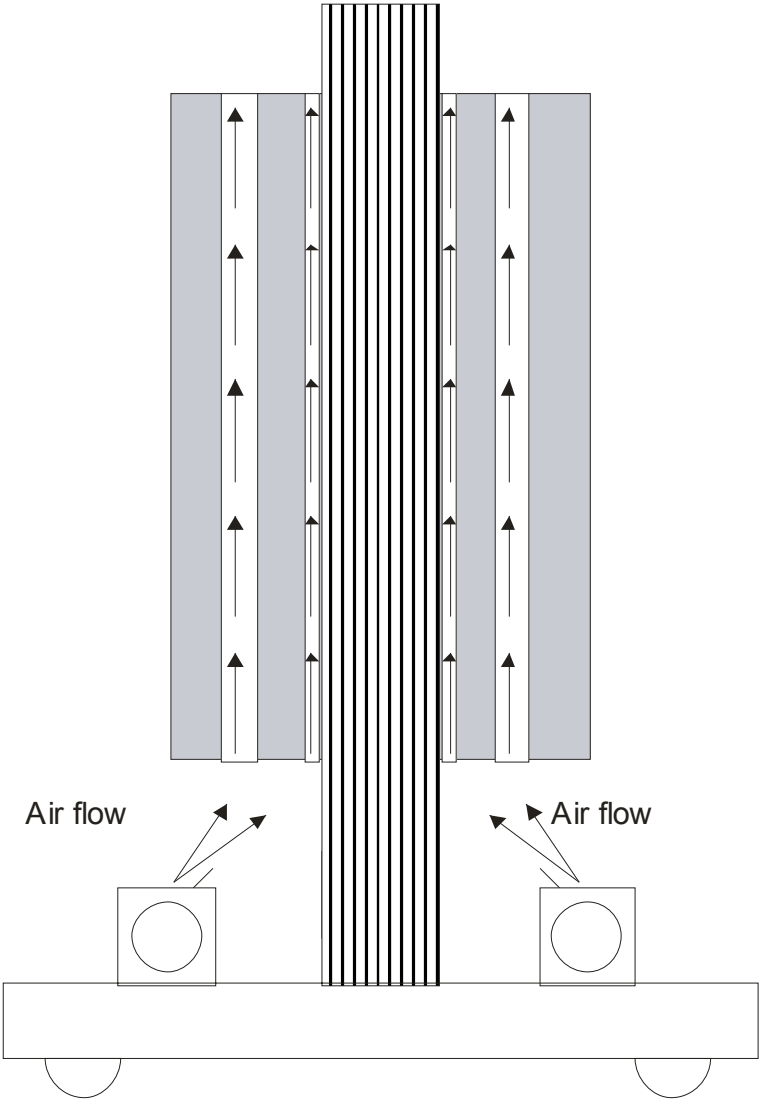
To optimize the flow direction, it is possible to adjust the flapper angle, paying attention to respect a minimum distance flapper-coil of 8 cm.
By tightening the flapper hinge screws, it is possible to clamp the position.

5) ELECTRICAL CONNECTIONS

Connect the input power supply of each fan with the relevant cable as shown in figures **8,9,10 and 11**.
Each cooling fan unit is equipped with a connector block containing a terminal for connection to the mains, as shown in **figure 7**.

N.B.: in order to assure a suitable fan protection, we suggest to feed them with TECSYSTEM monitoring unit model VRT200.

Figure 5: air flow direction



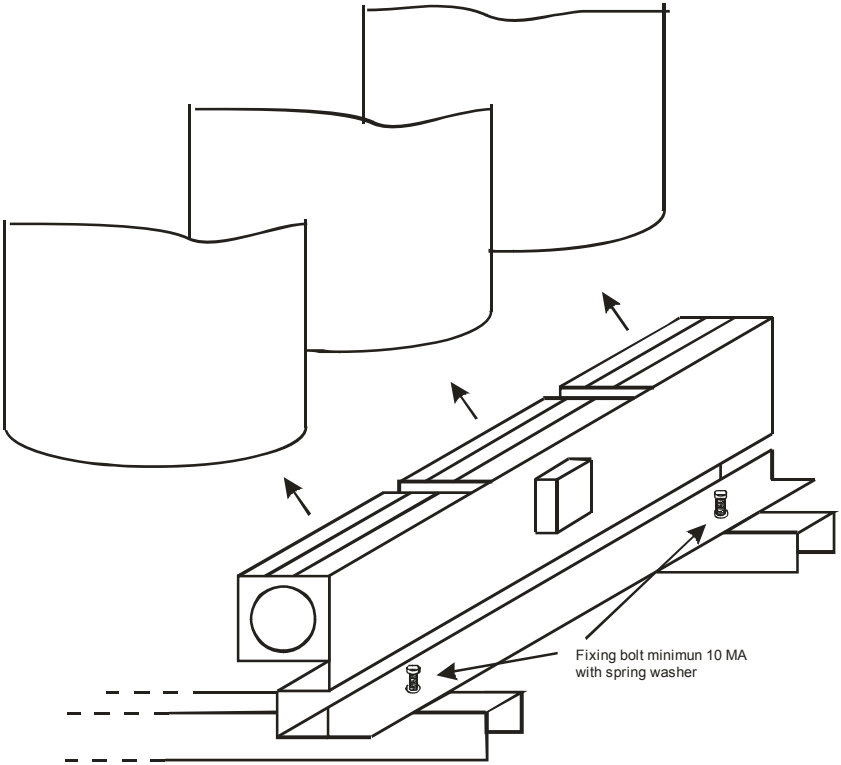


Figure 6: mounting on transformer

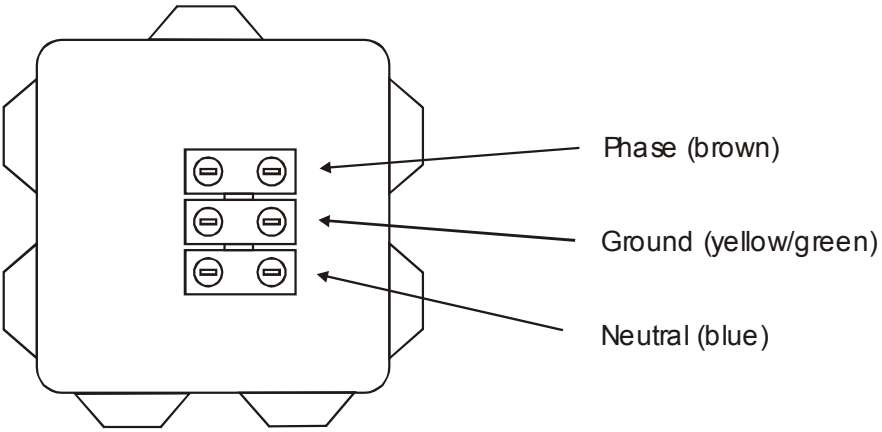
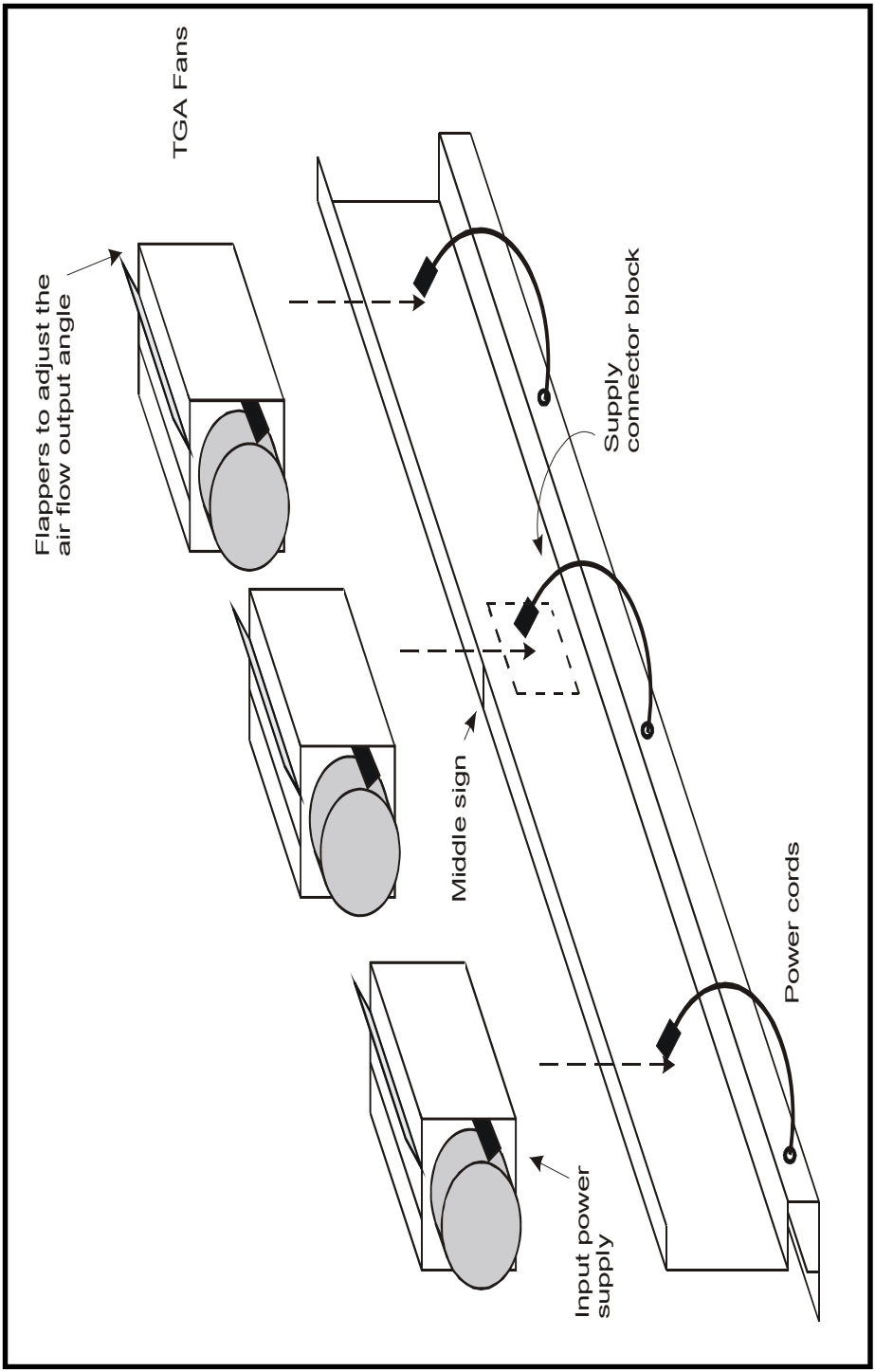
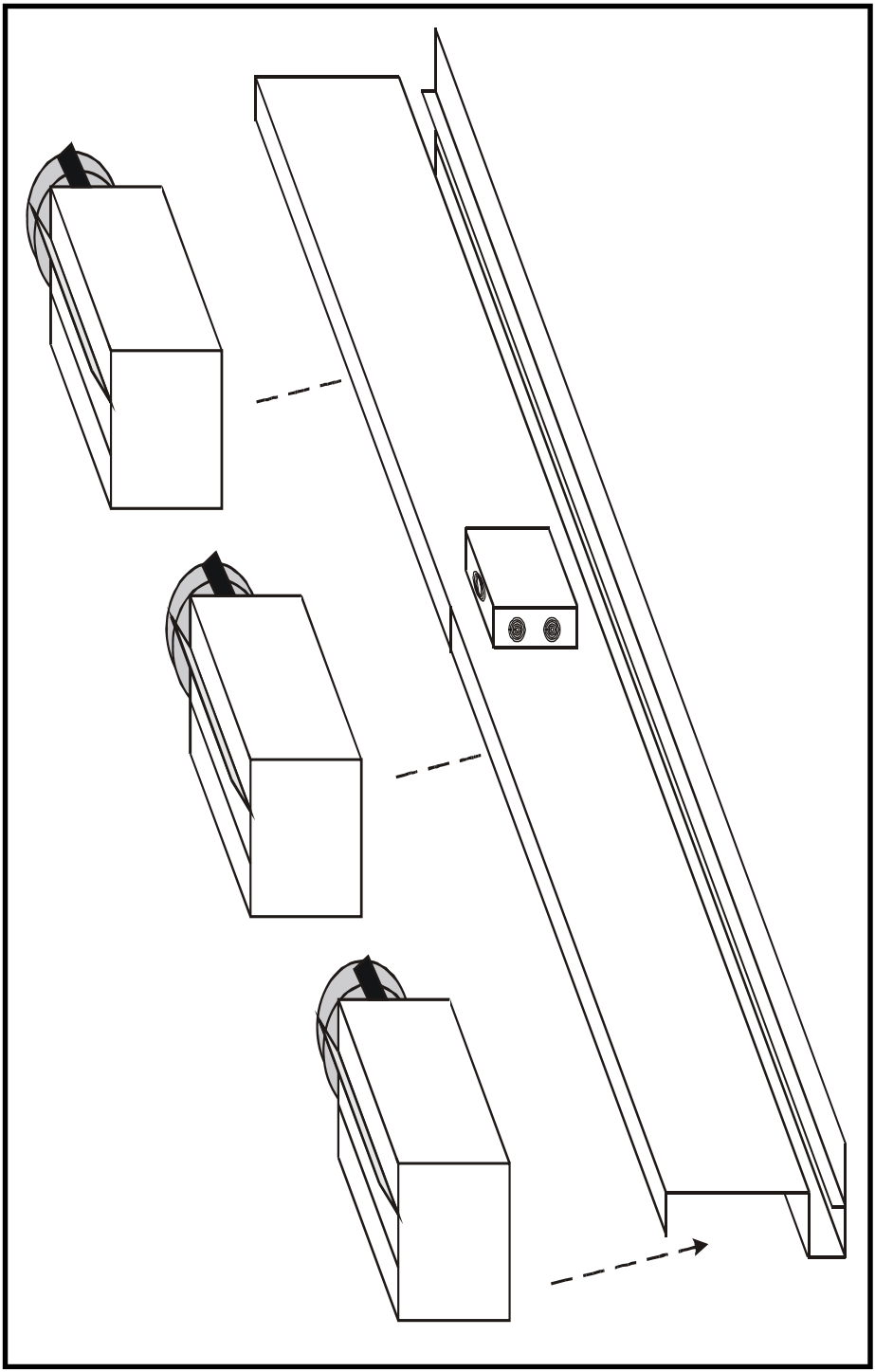


Figure 7: connector block


TGA Fans
Flappers to adjust the air flow output angle
Supply connector block
Middle sign
Power cords
Input power supply



TEST DECLARATION 1200-1800-3600 BAR

N°	Description	Test during production
1	Bar dimensional check	OK
2	Fan functional test	OK
3	Dielectric strength	OK
4	Functional idling test	OK

Date: 05/2011