

Mod: WR-K107-TV

Production code: HPLDIVERSO/1004



INSTRUCTIES

DIVERSO

INDEX

CHAPTER	DESCRIPTION	PAGE
	General rules	03
1.	Technical data	04
1.1	Hoods HPL 1004 - 1504 - 2004 - 2504	04
1.2	Characteristics	04
2.	Fans DDM 7/7 - DDM 8/9	05
2.1	General information	05
2.2	Description and technical features	05
2.2.1	Description	05
2.2.2	Technical features and intended use	05
2.3	Security measure	05
2.4	Installation manual	06
2.5	Use and operation	06
2.6	CE- declaration of incorporation mod. DDM 7/7	07
2.7	Data plate	09
2.8	Wiring diagram	09
3	Digital speed control	10
3.1	General information	10
3.2	Basic operation characteristics	11
3.3	Installation of the controller	12
4	Placement of filters and divider	13
4.1	Installation of the filters	13



GENERAL RULES

- Attentively read the following instructions , because they contain important information of security, use and maintenance of the appliance.
- Save these “instructions for use”, so several users of the appliance can consult them at any time.
- Make sure the appliance is complete after the unpacking.
- In case of doubt, don't use the appliance and consult qualified personnel
- The appliance can only be used by qualified personnel.
- Before cleaning or maintenance of the appliance, or in case of breakdown or bad functioning, always close the gas and water supply.
- In case of repair , always ask technical qualified assistance and ask to use original spare parts.
- The non-respect of this instructions can endanger the security of the appliance.
- The appliance has to be in accordance with the norms and realised according to the instructions of the constructor.
- Do not clean the appliance with high-pressure cleaning machines.
- Do not close openings for gas and air supply, or emitting of heat.
- To avoid risks of rust or chemical aggression, good cleaning of the surfaces in stainless steel is advised.
- To bring the appliance in state of security, when not used



IF THE INSTRUCTIONS IN THIS MANUAL ARE NOT RESPECTED, NEITHER BY THE USER, NEITHER BY THE INSTALLER, THE COMPANY WILL ABANDON EVERY RESPONSIBILITY AND ANY ACCIDENT OR DEFECT CAUSED BY IGNORANCE OF THE FOLLOWING CANNOT BE ATTRIBUTED TO THE CONSTRUCTOR.

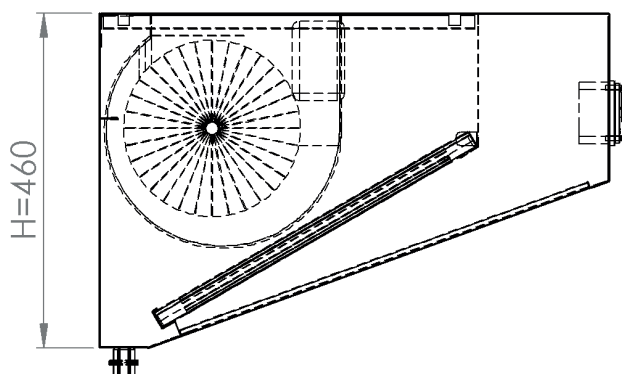
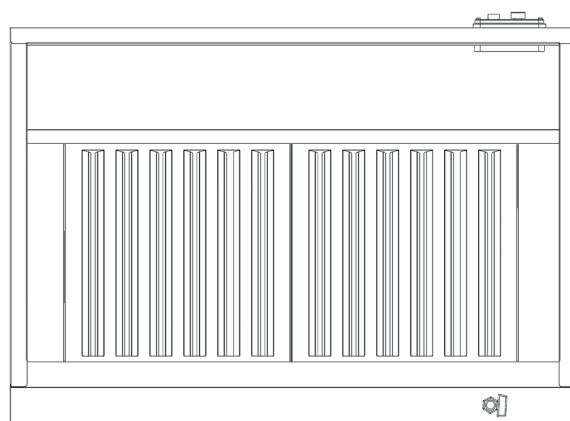
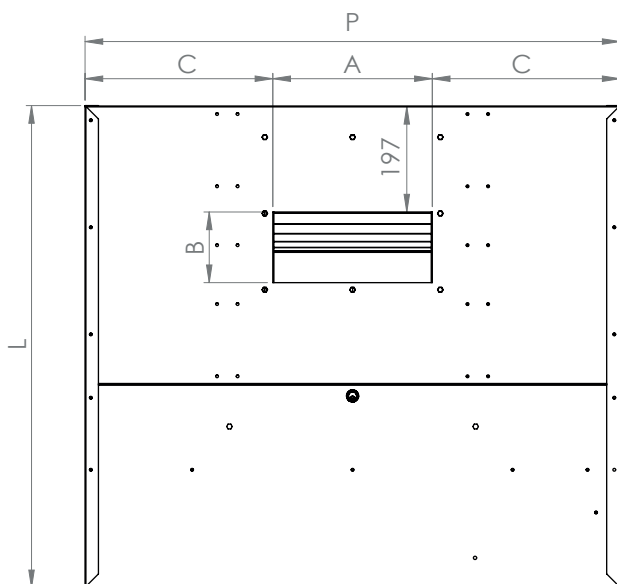
THE CONSTRUCTOR WILL ABANDON EVERY RESPONSIBILITY ACCORDING TO POSSIBLE INCORRECTNESS IN THIS MANUAL, DUE TO TRANSCRIPTION OR PRINTING.

THE MORE, HE MAINTAINS THE RIGHT TO MAKE NECESSARY AND USUAL MODIFICATIONS TO THE PRODUCT AND THIS WITHOUT DENIAL OF THE ESSENTIAL CHARACTERISTICS.

1. TECHNICAL DATA

1.1 Dampkappen HPL 1004 - 1504 - 2004 - 2504

	HAL/1004	HAL/1504
Dimensions in mm (P X L x H)	1000 X 700 X 460	1500 X 700 X 460
Air suction holes - n° - dimensions in mm A X B	n°1 - 232 X 132	n°1 - 232 X 132
Labyrinth filters 400 X 500	2	2
Labyrinth filters 500 X 500		1
Dividers	2	2
Vacuum DDM 7/7 (230/1/50 - 1,6A - 147W - 1400 Rpm)	1	1
Vacuum DDM 8/9 (230/1/50 - 3,15A - 420W - 1400 Rpm)		
Airflow in m³/h	1500	1500
Digital speed indicator with solenoid valve and light switch	4,5A - 230V	4,5A - 230V
Injection holes A1 x B1	NO	NO
Welded gutter to collect grease	NO	NO
Fully welded	NO	NO
Volume without packaging	1,03	1,03
Weight without packaging	40	45



1.2 Caractéristiques

- Monobloc hood made of stainless steel with brushed and polished finish.
- Hood assembled by electronic point welding.
- Labyrinth filters in stainless steel network.
- Special anti-drip chute for grease collection.
- Tap drainage for grease.

Planned :

- Built-in vacuum cleaner 230/1/50 IP55, ERP 2015.
- Speed regulator Ô4,5A IPSS.

2.1 General information

This manual is directed to manufacturers, installers and service agents of ventilation equipment specialized in the application, installation and adjustment of industrial fans.

2.1.1 Purpose and limits of the use of the manual :

This manual is intended for specialized and adequately trained personnel in the realization of machines or equipment using centrifugal electric fans, preventing preventive errors from the use and installation of such devices. However, the present recommendations are not the only methods, procedures or other devices for obtaining security in the represented situations. Always be rigorously careful when moving around moving parts or parts under tension. Safety depends only on skill, experience and reasonable attention in the actions performed on the machine.



**Displacement, installation and maintenance must always be carried out by trained and trained technicians.
Any installation by unskilled people is therefore prohibited**

In addition to these recommendations, before performing any activities related to the use of this machine, you must be informed of the required security applications based on the laws, rules and standards applicable to the installation site

2.2 Description and technical characteristics

2.2.1 Description :

For a description of the fans, refer to the manual.

2.2.2 Technical features and expected use :

The current electric fan is adapted to transfer non-toxic, non-flammable, non-corrosive air without liquid or solid or abrasive particles and the temperature does not exceed 40 ° C (UNI EN ISO 13349).

Different temperature and humidity limits are indicated on the fan label. The electric fan must only be operated with the electrical power supplied by the indication on the label.



Attention: The current electrical fan is built to be mounted in a machine and therefore cannot be used autonomously.

2.3 Security measure

To operate safely on the electronic fan during installation and maintenance, use individual protective equipment (eg. gloves) as provided for in Directive 89/686 / EEC (and its successive amendments).



Attention: the present electric fan must be protected against the risks of mechanical type, the risks due to the projection, the risks due to the electric energy and the risks due to the extreme temperatures (the engine can reach surface temperatures above 70 °C) in all cases the electric fan must be installed on the machine taking into account all necessary safety measures, in order to avoid any danger arising from its application, in accordance with the requirements of Machine Directive 2006/42 / EC (and its successive amendments). As an indication, we advise you to apply the content of technical standards UNI EN ISO 12100, UNI EN ISO 13857, CEI EN 60204, UNI EN ISO 12499.



Note: the sound power level emitted by the machine is indicated on the label when it exceeds $L_{eq} = 85\text{db}$ (A). The weight of the fan is indicated on the label when it exceeds 30kg. These indications must be taken into account to provide the appropriate protection for the machine.

2.4 Installation operations

The correct installation of the electric fan ensures the solution of many problems that could arise during its use.



Attention: the displacement of the electric fan could be difficult given its shape and the uneven distribution of the weights.

Installation phases:

- a) check if parts are damaged or missing;
- b) check that the wheel rotates freely and that there is no sign of excessive imbalance or play on the motor shaft
- c) Insert the fan into the machine by securing it with the anchor holes on the fan housing or through the holes on the flange, if fitted, or holes of the brackets that are part of the supply. The electro ventilator must have a space between the suction gates and the walls of the machine to not punish the aeroulic and sound characteristics, this distance must at least be the diameter of the wheel. The diameter of the wheel can be found in the description on the label, which is expressed in pulses (if it is three digits, it is expressed in millimetres);



Attention: Turn off the power of the machine before you start the installation process.

Attention: the electric fan must be installed with the motor shaft placed horizontally with respect to the ground

- d) connect the electric fan according to the attached connection diagram and also present on the electric fan, also verifies that the supply voltage for the test does not exceed the ones indicated on the label of the electric fan;
- e) during the test phases of the machine, check that the direction of rotation coincides with that indicated by the orientation arrow on the electric fan and that the current absorption does not exceed the one indicated on the label;
- f) Check the protections specified by the project so that the machine complies with the requirements of the 89/392 / EEC directive in the protection of the electric fan, and that these are adequately installed.

2.5 Use and operation

The fan must be used only for the purpose for which it was designed (par.2.2.2) and introduced into the machine with all the protections to prevent any risk to persons and things.



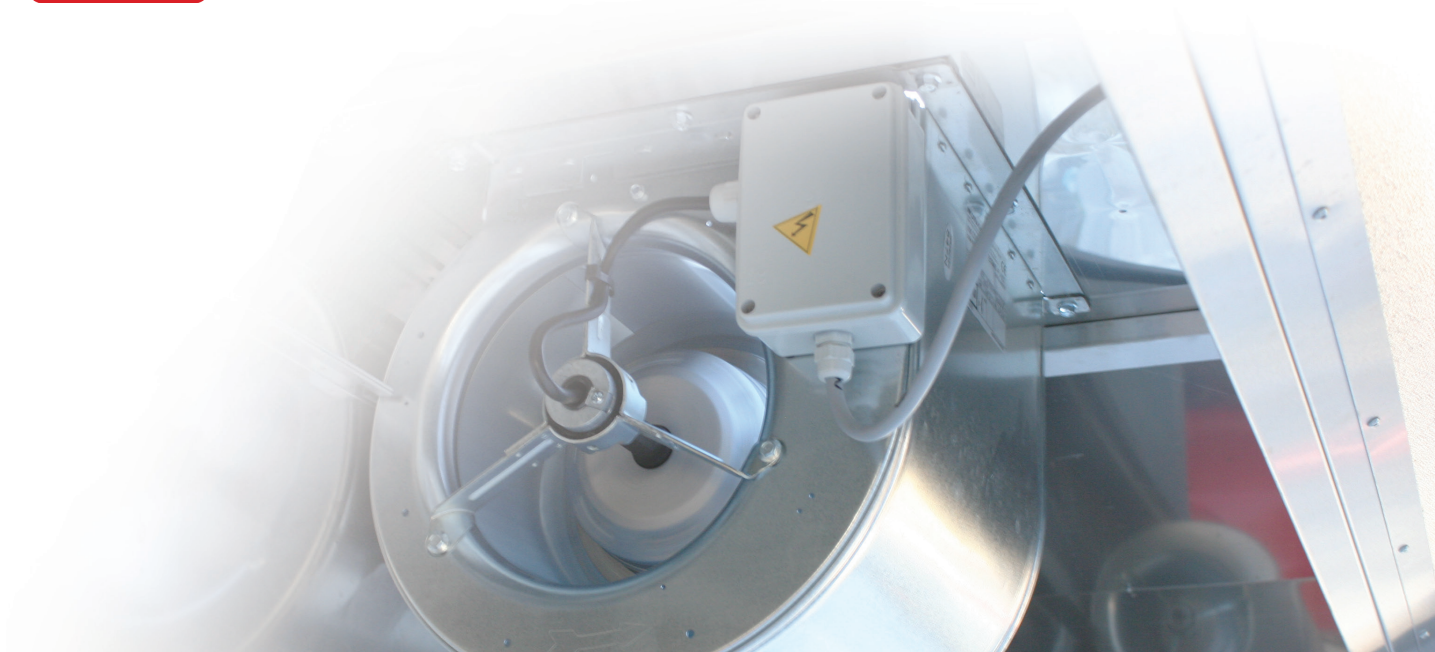
Caution: before operating the electric fan control that the voltage of the power supply corresponds to that shown on the label

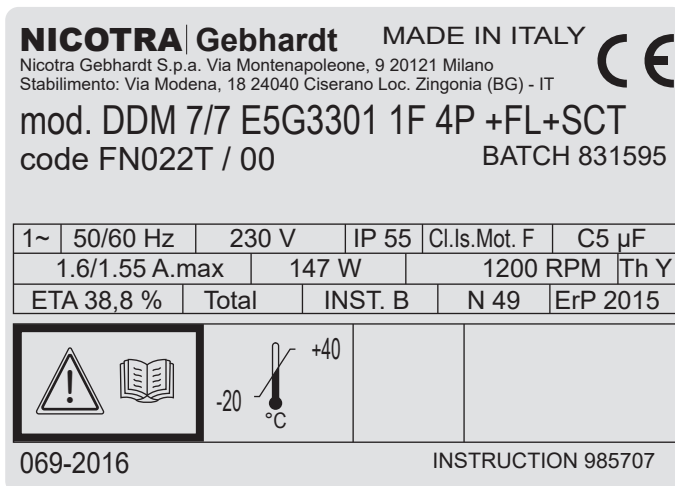
Attention: the electric fan must operate only within the limits of operation (power supply, temperature, etc.) indicated on the label.

Use out of predetermined limits can lead to dangerous situations not considered and independent of the responsibility of the manufacturer.



CAUTION: do not remove the safety protections provided; do not intervene on the electric fan without first turning off the voltage and wait until the wheel has stopped





The manufacturer :

Nicotra Gebhardt S.p.A.
 Via Modena 18,
 24040 Ciserano, Italy

Herewith declares, that the **direct-driven fan**, manufactured in the Nicotra Gebhardt plant in Ciserano (Zingonia), Italy, and individually identified, according to its name-plate, by **Product designation, Part number / Revision Batch n°**, qualifies as a partly-completed machine, according to Article 2 clause (g), and does comply to the following basic requirement of the Machine Directive (2006/42/EC): Annex I, Article 1.1.2, 1.3.7, 1.5.1.

The relevant technical documentation is compiled by Nicotra Gebhardt S.p.A., and stored at the same address above, and the manufacturer accepts to transmit such documentation, on the partly completed machinery, on paper or in electronic format, in response to a reasoned request by the national authorities.

This partly-completed machine must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Machine Directive (2006/42/EC).

The following harmonized standards have been applied (1):

- EN ISO 12100** Safety of machinery - General principles for design - Risk assessment and risk reduction
- EN ISO 13857** Safety of machinery - Safety distance to prevent hazard zones being reached by upper and lower limbs (this particular standard applies to any inlet or outlet guard which may be included in the design of each particular fan)
- EN 60204-1** Safety of machines - Electrical equipment of machines
Part 1: General requirements

Applied National Technical Standards and Specifications (2):

- VDMA 24167** Fans - Safety requirements

Place / Date
 Ciserano, 21.04.2015


 Andrea Cigada
 Senior Vice President Operations
 EMEA


 Fabio Breviaro
 Chief engineer and Design Authority
 R&D Manager

1) For a complete listing of applied standards and technical specifications see manufacturer's documentation
 2) as far as harmonized standards are not existing

2.7 Information data plate

NICOTRA Gebhardt
 Nicotra Gebhardt S.p.a. Via Montenapoleone, 9 20121 Milano - Italy
 Stabilimento: Via Modena, 18 24040 Ciserano Loc. Zingonia (BG) - IT

mod.

COD. / BATCH

5	6	Hz.	7	V.	IP	8	Cl. ls.	9	10	μF
11	A.max		12	W	13	RPM		Th	14	
ETA	19	%	20		21	N	22	23		




15

°C

16
 >
Kg

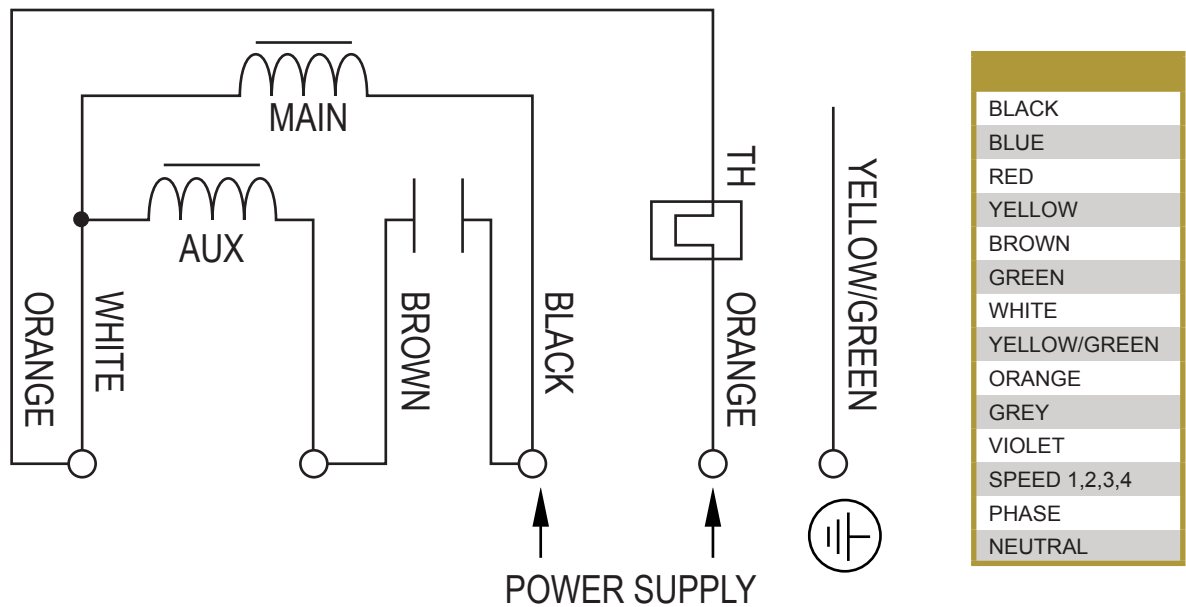
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SWL > dB (A)

INSTR. COD. 18

1. description model
2. Nicotra code
3. Level of modification
4. Production lot number
5. Number of phases and current voltage
6. power supply frequency
7. power supply voltage
8. Protection index engine housing
9. Class of motor insulation
10. Convector value (if any)
11. Maximum current absorption
12. Rated engine power
13. Nominal number of revolutions
14. Presence of thermal protector (Y = yes / N = no)
15. Reach operating temperature
16. Machines exceeding 30kg (if any)
17. Machines that exceed the sound power level of 85 dB (A) (if present)
18. User's Guide instruction code
19. Total revenue
20. Revenue category (static or total)
21. category of measure used to determine energy efficiency
22. level of performance at the optimum point of energy efficiency
23. Erp conformity

2.8 Connection diagram



3.1 Algemene informatie

The controller FE1031 adjusts the speed of a single phase induction motor (usually for air intake applications) in a simple and convenient way using the rotary knob on the front panel of the unit. The speed setting can be adjusted linearly by a minimum value to a maximum value (calibrated with the internal trimmers), when the motor has been activated with the switch. The motor activation switch also makes available the mains voltage (230 Vac) for the eventual control of an external solenoid valve (ON-OFF at the opening of the chimney or gas).



Fig.1

WARNINGS:

- Before installing and plugging the device into the mains, check that the specifications indicated on the data plate and the technical characteristics explained on this manual correspond to those of the electrical mains system, of motor, of lighting system and of eventual gas solenoid valve.
- Use always high quality and suitable section electric cables wire to connect the regulator to the mains and to loads.
- We recommend that you keep within the device the lengths cable short to avoid their contact with particular components that could reach high temperatures.
- Install the regulator in ventilated places and away from sources of heat, especially if the current load absorption are close to the maximum declared.
- Be sure to connect the ground wire of the motors (or the chassis of the motors) to the main board and the latter one to the grounding system of the network.
- To avoid danger of fire, electric shock or malfunctions, do not expose the device to rain, humidity, favouring the installation in a dry place. It is recommended to not install the regulator in areas with moisture, fumes or gas, avoid direct sunlight or heat sources that could damage the device dissipation capacity.
- The regulator must be installed and used only in compliance with the instructions provided: the manufacturer won't be responsible for the improper use of the device (if it is used for applications different than those for which it was designed) or for failure to

The manufacturer declares that this product is free from manufacturing defects. The guarantee lasts 12 months if the product is correctly used.

The manufacturer reserves the right to make changes, also without notice, on the device or on the documentation in order to improve its performances.

3.2 Technical characteristics

Power supply 230VAc-50Hz

General protection fuse: 10AT

Speed control by phase angle with TRIAC

Type of motor usable: single phase induction

Maximum absorption current output from the motor: 4,5A

ON/OFF motor switch: bipolar green light

Characteristics of the gas solenoid valve: 230 Vac-50Hz MAX.1A

Degree of protection: IP55

Dimensions: 128x88x73mm

Weight: 0.31kg

Reference standards: EN 55014-1, EN 55014-2, EN 60204-1, EN 60335-1, EN 61000-3-2, EN 61000-3-3, EN 61000-4-2, EN 61000-4-4, EN 61000-4-5.

3.3 installation of the regulator

After removing the cover, drill the necessary holes on the box for the passage of the cables.

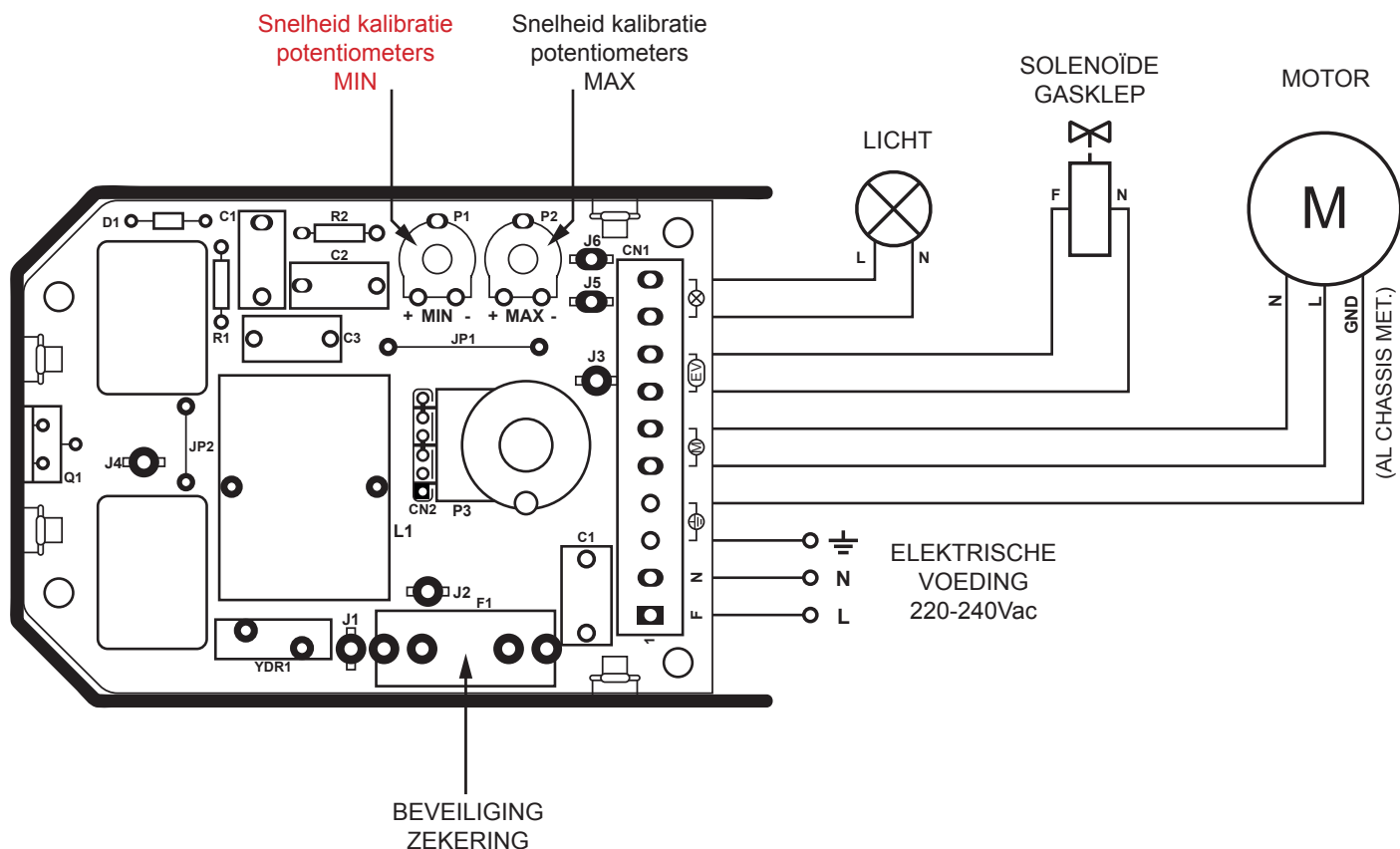
Then fix the box on the desired support and make the connections with the terminal board on the card according to the wiring diagram (If the motor used in the installation has a metal frame, it is recommended to connect it to one of the two ground terminals on the board.

The second terminal will then be connected to the ground of the electrical network)

After making the connections, provide power to the controller, activate the loads with the dedicated switch and check the correct operation of the motor.

To set the desired dynamics of the motor speed adjustment, turn the potentiometer P3 counter clockwise until the motor stops act on the MIN P1 trimmer to the desired minimum speed.

Then turn the potentiometer P3 clockwise until it reaches the end courses and turn the potentiometer MAX P2 to the desired maximum speed. Once you have made these adjustments, you can close the cover with the screws: the controller is ready for use.

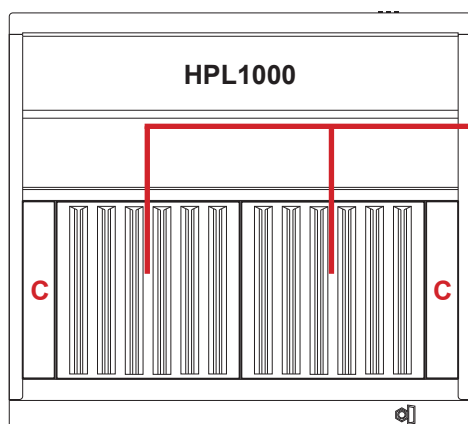


— 4. PLACEMENT OF FILTERS AND DIVIDERS —

The filters with our HPL, are stainless steel labyrinth grease filters AISI EN 1.4509 441.

For the HPL1000, only 400x500 filters are used, but for HPL 1500, 2000 and 2500 there are two dimensions provided, the 400x500 and the 500x500

4.1 Installatie filters



DESCRIPTION	
A	FILTRE 400X500
B	FILTRE 500X500
C	DIVIDER

