AERMEC
la prima per il clima

MANUALE D'USO E INSTALLAZIONE
USE AND INSTALLATION MANUAL
MANUEL D'UTILISATION ET D'INSTALLATION
BEDIENUNGS- UND INSTALLATIONSANLEITUNG
MANUAL DE INSTRUCCIONES E INSTALACIÓN

VENTILCONVETTORE PER INSTALLAZIONE UNIVERSALE
CON TERMOSTATO ELETTRONICO

FAN COIL FOR UNIVERSAL INSTALLATION
WITH ELECTRONIC THERMOSTAT

VENTILO-CONVECTEUR POUR INSTALLATION UNIVERSELLE
MUNI DE THERMOSTAT ÉLECTRONIQUE

GEBLÄSEKONVEKTOR FÜR UNIVERSELLEN EINBAU
MIT ELEKTRONISCHEM THERMOSTAT

FAN COIL PARA INSTALACIÓN UNIVERSAL
CON TERMOSTATO ELECTRÓNICO

Omnia HL N

Omnia HL 11 N
Omnia HL 16 N
Omnia HL 26 N
Omnia HL 36 N

Omnia HL 11 NM
Omnia HL 16 NM
Omnia HL 26 NM
Omnia HL 36 NM

CE

AERMEC
COMPANY QUALITY SYSTEM
ICIM
ISO 9001:2008 - Cert. n° 0128
CISQ IQNet
AERMEC S.P.A.

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OSSERVAZIONI

Conservare i manuali in luogo asciutto, per evitare il deterioramento, per almeno 10 anni per eventuali riferimenti futuri. **Leggere attentamente e completamente tutte le informazioni contenute in questo manuale. Prestare particolarmente attenzione alle norme d'uso accompagnate dalle scritte "PERICOLO" o "ATTENZIONE" in quanto, se non osservate, possono causare danno alla macchina e/o a persone e cose.**
Per anomalie non contemplate da questo manuale, interpellare tempestivamente il Servizio Assistenza di zona.

L'apparecchio deve essere installato in maniera tale da rendere possibili operazioni di manutenzione e/o riparazione.
La garanzia dell'apparecchio non copre in ogni caso i costi dovuti ad autoscale, ponteggi o altri sistemi di elevazione che si rendesero necessari per effettuare gli interventi in garanzia.
AERMEC S.p.A. declina ogni responsabilità per qualsiasi danno dovuto ad un uso improprio della macchina, ad una lettura parziale o superficiale delle informazioni contenute in questo manuale.
Il numero di pagine di questo manuale è: 92

REMARKS

Store the manuals in a dry location to avoid deterioration, as they must be kept for at least 10 years for any future reference. **All the information in this manual must be carefully read and understood. Pay particular attention to the operating standards with "DANGER" or "WARNING" signals as failure to comply with them can cause damage to the machine and/or persons or objects.**
If any malfunctions are not included in this manual, contact the local After-sales Service immediately.

The apparatus must be installed in such a way that maintenance and/or repair operations are possible.
The apparatus's warranty does not in any case cover costs due to automatic ladders, scaffolding or other lifting systems necessary for carrying out repairs under guarantee.
AERMEC S.p.A. declines all responsibility for any damage whatsoever caused by improper use of the machine, and a partial or superficial acquaintance with the information contained in this manual.
The number of pages in this manual is : 92

REMARQUES

Conserver les manuels dans un endroit sec, afin d'éviter leur détérioration, pendant au moins 10 ans, pour toutes éventuelles consultations futures.
Lire attentivement et entièrement toutes les informations contenues dans ce manuel. Prêter une attention particulière aux normes d'utilisation signalées par les inscriptions "DANGER" ou "ATTENTION", car leur non observance pourrait causer un dommage à l'appareil et/ou aux personnes et objets.
Pour toute anomalie non mentionnée dans ce manuel, contacter aussitôt le service après-vente de votre secteur.

Lors de l'installation de l'appareil, il faut prévoir l'espace nécessaire pour les opérations d'entretien et/ou de réparation.
La garantie de l'appareil ne couvre pas les coûts dérivant de l'utilisation de voitures avec échelle mécanique, d'échafaudages ou d'autres systèmes de levée employés pour effectuer des interventions en garantie.
AERMEC S.p.A. décline toute responsabilité pour tout dommage dû à une utilisation impropre de l'appareil et à une lecture partielle ou superficielle des informations contenues dans ce manuel.
Ce manuel se compose de pages: 92

HINWEISE

Bewahren Sie die Gebrauchsanleitungen mindestens 10 Jahre für eventuelles zukünftiges Nachschlagen an einem trockenen Ort auf. **Alle in diesem Handbuch enthaltenen Informationen aufmerksam und vollständig lesen. Insbesondere auf die Benutzungsanweisungen mit den Hinweisen "VORSICHT" oder "ACHTUNG" achten, da deren Nichtbeachtung Schäden am Gerät bzw. Sach- und Personenschäden zur Folge haben kann.**
Bei Betriebsstörungen, die in dieser Gebrauchsanweisung nicht aufgeführt sind, wenden Sie sich umgehend an die zuständige Kundendienststelle.

Das Gerät so aufstellen, dass Instandhaltungs- und/oder Reparaturarbeiten durchgeführt werden können.
Die Garantie des Gerätes deckt in keinem Fall Kosten für Feuerwehrleitern, Gerüste oder andere Hebesysteme ab, die sich für die Garantiearbeiten als erforderlich erweisen sollten.
Die AERMEC S.p.A. übernimmt keine Haftung für Schäden aus dem unsachgemäßen Gebrauch des Gerätes und der teilweisen oder oberflächlichen Lektüre der in diesem Handbuch enthaltenen Informationen.
Die Seitenanzahl diese Handbuches ist: Nr. 92 Seiten

OBSERVACIONES

Guarde los manuales en un lugar seco para evitar su deterioro, al menos durante 10 años, por si fuera posible consultarlos en el futuro.
Leer atenta y completamente todas las informaciones contenidas en este manual. Preste particular atención a las normas de uso acompañadas de las indicaciones "PELIGRO" o "ATENCIÓN" puesto que, si no se cumplen, pueden causar el deterioro de la máquina y/o daños personales y materiales.
En caso de anomalías no contempladas en este manual, contacte inmediatamente con el Servicio de Asistencia de su zona.
El aparato debe ser instalado de manera que haga posibles las operaciones de mantenimiento y/o reparación.
En cualquier caso, la garantía del aparato no cubre los costes derivados del uso de escaleras automáticas, andamios u otros sistemas de elevación necesarios para efectuar las intervenciones en garantía.
AERMEC S.p.A. declina cualquier responsabilidad por cualquier daño debido a un uso impropio de la máquina, o bien a una lectura parcial o superficial de las informaciones contenidas en este manual.
Número de páginas de este manual:92

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Omnia HL N
Omnia HL NM

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DICHIARAZIONE DI CONFORMITÀ CE

Noi, firmatari della presente, dichiariamo sotto la nostra esclusiva responsabilità, che il prodotto:
VENTILCONVETTORE
serie OMNIA HL_N / HL_NM
al quale questa dichiarazione si riferisce è conforme alle seguenti norme armonizzate:

- CEI EN 60335-2-40
- CEI EN 62233
- CEI EN 55014-1
- CEI EN 55014-2
- CEI EN 61000-6-1
- CEI EN 61000-6-3

soddisfando così i requisiti essenziali delle seguenti direttive:
- Direttiva Bassa Tensione: LVD 2006/95/CE
- Direttiva Compatibilità Elettromagnetica: EMC 2004/108/CE
- Direttiva Macchine: 2006/42/CE

OMNIA HL_N / HL_NM CON ACCESSORI
E' fatto divieto di mettere in servizio il prodotto dotato di accessori non di fornitura Aermec.

CE CONFORMITY DECLARATION

We the undersigned declare, under our own exclusive responsibility, that the product:
FAN COIL
OMNIA HL_N / HL_NM series
to which this declaration refers, complies with the following standardised regulations:

- EN 60335-2-40
- EN 62233
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

thus meeting the essential requisites of the following directives:
- Low Voltage Directive: LVD 2006/95/EC
- Electromagnetic Compatibility Directive: EMC 2004/108/EC
- Machinery Directive: 2006/42/EC

OMNIA HL_N / HL_NM WITH ACCESSORIES
It is not allowed to use the unit equipped with accessories not supplied by Aermec.

CERTIFICAT DE CONFORMITÉ CE

Nous soussignés déclarons sous notre exclusive responsabilité que le produit:
VENTILO-CONVECTEURS
série OMNIA HL_N / HL_NM
auquel cette déclaration fait référence, est conforme aux normes harmonisées suivantes:

- EN 60335-2-40
- EN 62233
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

satisfaisant ainsi aux conditions essentielles des directives suivantes:
- Directive Basse Tension: LVD 2006/95/CE
- Directive compatibilité électromagnétique: EMC 2004/108/CE
- Directive Machines: 2006/42/CE

OMNIA HL_N / HL_NM PLUS ACCESSOIRES
Il est interdit de faire fonctionner l'appareil avec des accessoires qui ne sont pas fournis de Aermec.

CE KONFORMITÄTSERKLÄRUNG

Wir, die hier Unterzeichnenden, erklären auf unsere ausschließlich Verantwortung, dass das Produkt:
GEBLÄSEKONVEKTOR
der Serie OMNIAHL_N / HL_NM
auf das sich diese Erklärung bezieht, den folgenden harmonisierten Normen entspricht:

- EN 60335-2-40
- EN 62233
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

womit die grundlegenden Anforderungen folgender Richtlinien erfüllt werden:
- Niederspannungsrichtlinie: LVD 2006/95/EG
- Richtlinie zur elektromagnetischen Verträglichkeit: EMC 2004/108/EG
- Maschinenrichtlinie: 2006/42/EG

OMNIA HL_N / HL_NM + ZUBEHÖR
Falls das Gerät mit Zubehörteilen ausgerüstet wird, die nicht von Aermec geliefert werden, ist dessen Inbetriebnahme solange untersagt.

DECLARACIÓN DE CONFORMIDAD CE

Los que suscriben la presente declaran bajo la propia y exclusiva responsabilidad que el conjunto en objeto, definido como sigue:
FAN COIL
serie OMNIA HL_N / HL_NM
al que esta declaración se refiere, está en conformidad a las siguientes normas armonizadas:

- EN 60335-2-40
- EN 62233
- EN 55014-1
- EN 55014-2
- EN 61000-6-1
- EN 61000-6-3

al que esta declaración se refiere, está en conformidad a las siguientes normas armonizadas:
- Directiva de Baja de Tensión: LVD 2006/95/CE
- Directiva Compatibilidad Clectromagnétic: EMC 2004/108/CE
- Directiva Máquinas: 2006/42/CE

OMNIA HL_N / HL_NM CON ACCESORIOS
Está prohibido poner en marcha el producto con accesorios no suministrados por Aermec.

La persona autorizzata a costituire il fascicolo tecnico è: / The person authorized to compile the technical file is: / La personne autorisée à constituer le dossier technique est: / Die Person berechtigt, die technischen Unterlagen zusammenzustellen: **Pierpaolo Cavallo**
I-37040 Bevilacqua (VR) Italia - Via Roma, 996

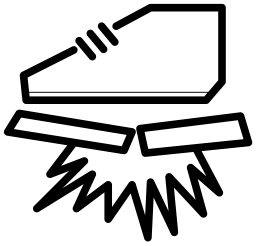
Bevilacqua, 16/12/2010

La Direzione Commerciale – Sales and Marketing Director
Luigi Zucchi

TRASPORTO • CARRIAGE • TRANSPORT • TRANSPORT • TRANSPORTE

NON bagnare • Do NOT wet
CRAINT l'humidité • Vor Nässe schützen
NO mojar

NON calpestare • Do NOT trample
NE PAS marcher sur cet emballage • Nicht betreten
NO pisar



Sovrapponibilità: controllare sull'imballo la sovrapponibilità per conoscere il numero di macchine impilabili.
Stacking: control the packing for the arrow position to know the number of machines that can be stacked.
Superposabilité: contrôler sur l'emballage la superposabilité pour connaître le nombre de machines empilables.
Stapelbarkeit: Auf der Verpackung kontrollieren, wie viele Maschinen gestapelt werden können.
Posibilidad de superposición: controlar en el embalaje la posibilidad de superposición para saber cuántas máquinas se pueden apilar.

NON lasciare gli imballi sciolti durante il trasporto.
Do NOT leave loose packages during transport.
ATTACHER les emballages pendant le transport.
Die Verpackungen nicht ungesichert transportieren.
NO lleve las cajas sueltas durante el transporte.

NON trasportare la macchina da soli se il suo peso supera i 25 Kg.
DO NOT handle the machine alone if its weight is over 25 Kg.
NE PAS transporter tout seul l'appareil si son poids dépasse 25 Kg.
Das Gerät NICHT alleine tragen, wenn sein Gewicht 35 Kg überschreitet.
NO maneje los equipos en solitario si pesan más de 25 kg.

SIMBOLI DI SICUREZZA • SAFETY SYMBOL • SIMBOLES DE SECURITE SICHERHEITSSYMBOLE • SÍMBOLOS DE SEGURIDAD

Pericolo: Tensione
Danger: Power supply
Danger: Tension
Gefahr ! Spannung
Peligro: Tensión

Pericolo: Organi in movimento
Danger: Movings parts
Danger: Organes en mouvement
Gefahr ! Rotierende Teile
Peligro: Elementos en movimiento

Obbligo
Compulsory
Obligatoire
Vorschrift.
overosa

Pericolo!!!
Danger!!!
Danger!!!
Gefahr!!!
Peligro!!!

Congratulations on your purchase of the Aermec OMNIA HL_N fan coil.
Made with materials of superior quality in strict compliance with safety regulations, "OMNIA HL_N" is easy to use and will have a long life.

The **OMNIA HL N** series is available in two chromatic versions, the letter "**M**" identifies only the chromatic finish with metallic gray casing, performance and functions are identical to the version with white casing.
In this manual, the "**M**" version will be indicated only in the cases in which the chromatic finish influences the subject being discussed. For simplicity's sake, reference will always be to the versions of **Omnia HL N** in white.

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IMPORTANT INFORMATION

IMPORTANT: OMNIA fan coils are designed for indoor use.

IMPORTANT: the fan coil is connected to power supply and water circuit. Operations performed by persons without the required technical skills can lead to personal injury to the operator or damage to the unit and surrounding objects.

IMPORTANT: components sensitive to static electricity may be destroyed by discharges notably lower than those at the human perception threshold. These discharges form when you touch a component or electric contact of a unit, without first discharging accumulated static electricity from your body. The damage caused to the unit by an overvoltage is not immediately evident, it only appears after a certain period of operation.

STATIC ELECTRICITY ACCUMULATION

Any person not connected in a conductive manner with the electronic potential of his surrounding environment can accumulate electrostatic charges.

STANDARD PROTECTION AGAINST ELECTROSTATIC CHARGES

Earthing quality

When working with units sensitive to electrostatic electricity, ensure that people, workplaces and unit casings are correctly earthed. This will prevent the formation of electrostatic charges.

Avoid direct contact

Only touch the element exposed to electrostatic risk when absolutely essential (e.g.: for maintenance).

Touch the element without coming into contact with either the contact pins or the wire guides. If you follow this rule, the energy of the electrostatic charges cannot reach or damage the sensitive parts.

Before taking measurements on the unit, it is necessary to discharge all electrostatic charges from your body. To do this, just touch an earthed metal object. Only use earthed measuring instruments.

POWER THE FAN COIL ONLY WITH 230V, SINGLE-PHASE VOLTAGE

Any other type of power supply could permanently damage the fan coil.

DO NOT USE THE FAN COIL IMPROPERLY

Do not use the fan coil for animal husbandry applications (e.g. incubation).

AIR THE ROOM

Periodically air the room in which the fan coil has been installed. This is particularly important if the room is occupied by many people, or if gas appliances or sources of odours are present.

ADJUST TEMPERATURE ADEQUATELY

The room temperature should be adjusted in order to provide maximum comfort to the people in the room, especially if they are elderly, children or sick people; avoid differences over 7°C between the outdoor temperature and the temperature inside the room in summer.

In summer, a temperature that is too low causes higher electrical consumption.

CORRECTLY ADJUST THE AIR JET

Air coming out from the fan coil must not reach people directly; in fact, even if the air is warmer than the room temperature, it could cause a cold sensation and result in discomfort.

DURING OPERATION

Always leave the filter fitted on the fan coil during operation (otherwise dust in the air could soil the coil surface area).

WHAT IS NORMAL

In the cooling operation, water vapour may be present in the air delivery of the fan coil.

In the heating operation, a slight hiss might be heard close to the fan coil. Sometimes the fan coil might give off unpleasant smells due to the accumulation of substances present in the air of the room (clean the filter more often, especially if the room is not ventilated regularly).

While the unit is functioning, there could be noises and creaks inside the device due to the various thermal expansions of the elements (plastic and metal), but this does not indicate any malfunction and does not damage the unit unless the maximum input water temperature is exceeded.

MALFUNCTIONING

In the event of a malfunction, cut off power supply to the unit, then restore the power and start the unit again. If the problem occurs again, call the local After-Sales Service immediately.

DO NOT TUG THE ELECTRIC CABLE

It is very dangerous to pull, tread on or crush the electric power cable, or fix it with nails or drawing pins.

A damaged power cable can cause short circuits and injure people.

DO NOT OBSTRUCT THE AIR OUTLETS BY PLACING OBJECTS INTO THEM

Do not put anything in the air outlet slots.

This could injure people and damage the fan.

PACKAGE

The fan coils are shipped in standard package which consists of expanded polystyrene foam and cardboard shells.

MAINTENANCE

ROUTINE MAINTENANCE

Routine maintenance can be carried out by the user: it involves a series of simple operations, thanks to which the fan coil can operate at its maximum efficiency level.

Interventions:

- External cleaning, weekly to be carried out with a moist cloth and neutral soap; do not use other detergents and solvents of any type.
- Cleaning the electrostatically precharged filter, every two weeks or weekly if the installation is in a very dusty environment, remove the dust that has accumulated with a vacuuming device, washing with running water and neutral soap is allowed but it speeds up the deterioration of the electrostatic precharge; do not use other detergents and solvents of any type.
- Replacement of the electrostatically precharged filter every two years. Failure to make this replacement in the time specified means the end of the filtering of the microdusts because the electrostatic precharge has run out; the filtering capacity will be compared with that of a normal filter.
- Visual inspection of the state of the fan coil for every maintenance operation; every fault must be communicated to the After Sales Service department.

EXTRAORDINARY MAINTENANCE

Extraordinary maintenance can only be performed by Aermec After-Sales Services or by people with the technical and professional requisites qualifying them to undertake installation, conversion, expansion and maintenance of the systems and are able to check them in terms of safety and functionality, in particular with regard to electrical connections the following tests are required relative to:

- Measurement of the electrical system insulation resistance;
- Continuity of the protection wires

Extraordinary maintenance consists of a set of complex operations that involve the dismantling of the fan coil or its components, resulting in the restoration of the fan coil's functioning at maximum efficiency.

Interventions:

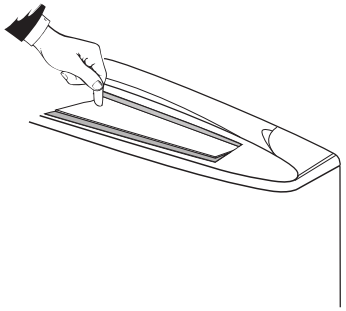
- Internal cleaning, annually or before shutting down for long periods; cleaning can be more frequent in environments where a high degree of air cleaning is required; it consists of cleaning the coil, the removable volute, the fan fins, the basin and all the parts in contact with the treated air.
- Repairs and fine tuning: if you notice anomalies, consult the "TROUBLESHOOTING" charter of this manual before contacting the After Sales Service.

TROUBLESHOOTING

PROBLEM	PROBABLE CAUSE	SOLUTION
Insufficient air flow at outlet	Incorrect speed setting on control panel	Select the correct speed on the control panel
	Blocked filter	Clean the filter
	Obstructed air flow (inlet and/or outlet)	Remove the obstacle
Unit does not heat	No hot water	Check the boiler
	Incorrect control panel setting	Set the control panel
Unit does not cool	No cold water	Check the chiller
	Incorrect control panel setting	Set the control panel
Fan not turning	No electrical power	Check that there is electrical power
	Water has not reached operating temperature.	Check heater or chiller. Check thermostat setting
Condensation forming on the external case of the unit	Temperature and humidity limits specified by "MINIMUM AVERAGE WATER TEMPERATURE" have been reached	Raise the water temperature above the limits specified by "MINIMUM AVERAGE WATER TEMPERATURE"

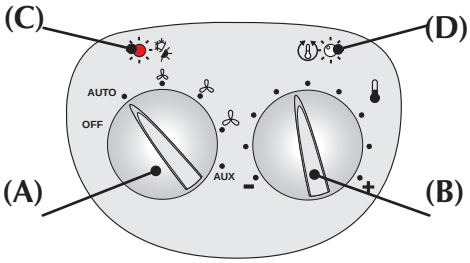
For any problems not listed, contact the After Sales Service immediately.

CONTROL PANEL FUNCTIONS



Ventilation is only allowed with the fin open; it must be manually opened.
The closure of the fin causes ventilation to switch off.
To access the control panel, lift the protection flap.
Closing the master fan coil fin, the electronic thermostat card and the other fan coils in the network will carry on working.

– **(C) Operating Mode Indicator Light**
RED – BLUE - FUCHSIA



– **(D) Ventilation request indicator light**
WHITE

– **(A) Ventilation speed selector:**

- **OFF** The anti-freeze function is active.
- **AUTO** Automatic ventilation mode.
- Manual ventilation speed selection

V1 = Minimum speed

V2 = Average speed

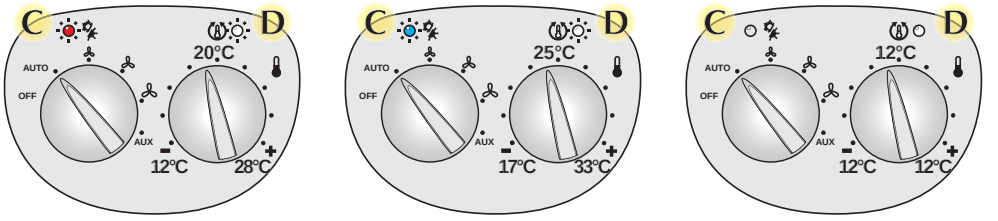
V3 = Maximum speed

- **AUX** Minimum speed
  Special accessories enabling, consult the relative manuals.

– **(B) Temperature selector**

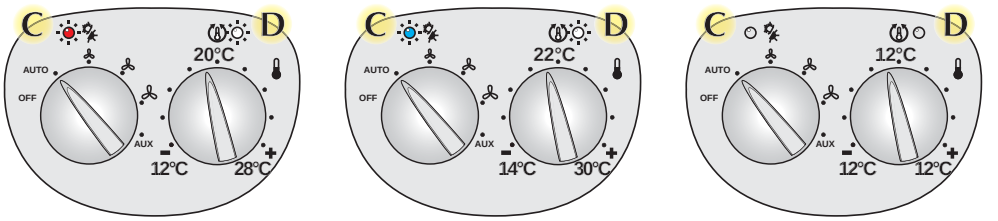
HEATING **COOLING** **FROST PROTECTION**

Temperature
configuration standard (dead band 5°C)



HEATING **COOLING** **FROST PROTECTION**

Temperature
configuration optional (dead band 2°C)



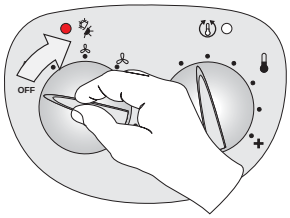
USE

Starting

- To start up the fan coil, turn the knob and choose a ventilation speed.

- To switch off the fan coil, turn the knob to the position **OFF** .

- **OFF** The fan coil is switched off.
  In the OFF condition, the thermostat carries on working.
  If the room temperature falls below 7°C, and the system conditions allow it, the thermostat will activate ventilation (anti-freeze function).



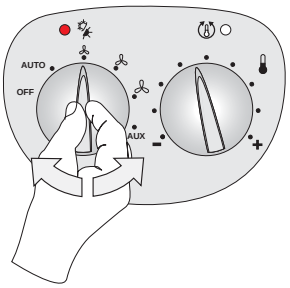
Selecting the ventilation speed

- **AUTO** The thermostat maintains the set temperature by automatically changing the ventilation speed on the basis of the room temperature and the set temperature.

- The thermostat maintains the set temperature by means of ON-OFF cycles, using the **minimum fan speed**.

- The thermostat maintains the set temperature by means of ON-OFF cycles, using the **average fan speed**.

- The thermostat maintains the set temperature by means of ON-OFF cycles, using the **maximum fan speed**.



Selecting the temperature

- To increase the room temperature, turn the knob to the right (+).

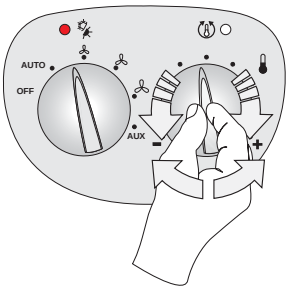
- To reduce the room temperature, turn the knob to the left (-).

The temperatures are not indicated on the panel because, on one single knob position, the value changes in line with the operating mode (Heating, Cooling or Anti-freeze).

The maximum and minimum temperature differences compared with the central position are +8°C and -8°C; only with the anti-freeze function is the set temperature fixed throughout the field.

The temperature with the selector set in the central position is:

- Heating 20°C
- Cooling 25°C (standard configuration with dead band 5°C)
- Anti-freeze: the minimum room temperature is 7°C in all selector positions (the 12°C set activates automatically)



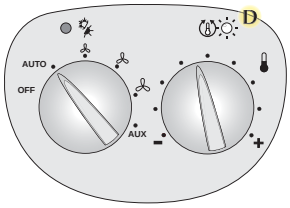
Season changeover

Water side changeover: the thermostat automatically sets Heating or Cooling operation according to the temperature of the water in the system.

Air side changeover: for special settings, the season change function can be set by operating the temperature selector.

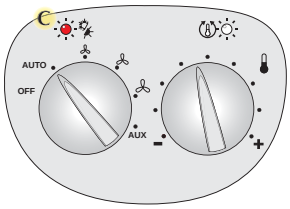
INDICATOR LIGHTS FOR THE USER (STANDARD CONFIGURATION)

LED **D** indicates a ventilation request:



WHITE
- (ON) The ambient conditions require the use of the fan (when the speed selector is on AUTO, V1, V2, V3).
- (OFF) The ambient conditions do not require the use of the fan, or the selector is in the OFF (standby) position, or the fin is closed
- (slow flashing) Operation mode managed by the centralised system. The fan selector on the panel is automatically blocked.
- (quick flashing) Indicates an ambient probe fault (contact the After Sales Service)

LED **C** indicates the active operating mode:



RED - Heating

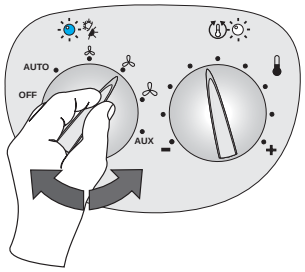
- Quick flashing indicates that the Anti-freeze (Frost Protection) function is active

RED + FUCHSIA - Heating. The alternate flashing colours indicate the absence of suitable conditions for enabling ventilation (unsuitable water temperature, or closed fin on versions with motorised fin).

BLUE - Cooling

BLUE + FUCHSIA - Cooling. The alternate flashing colours indicate the absence of suitable conditions for enabling ventilation (unsuitable water temperature, or closed fin on versions with motorised fin).

Special visualisations following particular operating conditions:
(these visualisations can be interpreted by the After Sales Service)



BLUE + WHITE - Slow flashing of the BLUE LED (C) and the WHITE LED (D).

Addressing procedure in progress. Turn the ventilation speed selector knob to activate the automatic procedure to assign the address to the unit.

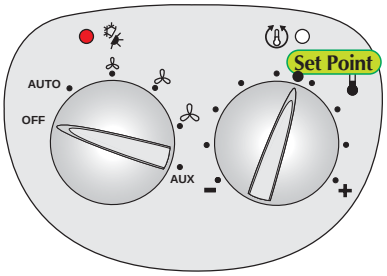
The thermostat functions are temporarily disabled.

FUCHSIA + BLUE + RED Visualisation of the unit's serial address

- The number of flashes of the FUCHSIA LED indicates the units.
- The number of flashes of the BLUE LED indicates the tens.
- The number of flashes of the RED LED indicates the hundreds.

FUCHSIA + WHITE - Slow contemporary flashing of the WHITE LED and the FUCHSIA LED indicates the absence of communication between the control panel and the thermostat.

SET POINT - AN EXAMPLE OF A SETTING



OPERATION

The OMNIA HL_N fan coil concentrates hi-tech and highly functional featuresthat make it the ideal means of climate control in every room.

OMNIA fan coils are designed for indoor use.

The supply of climate-controlled air is immediate and distributed throughout the room. OMNIA HL_N generates heat if inserted in a heating system withboiler or heat pump, but it can also be used in summer as an air conditioner if the heating system has a water chiller.

The quality of the treated air is guaranteed by a special, electrostatically pre-charged filter which absorbs and holds back the suspended dust particles. With the fan coil switched off, the closed fin prevents any dust or foreign bodies from entering.

The removable drip tray and fan volute ensure thorough cleaning of the unit (by specifically trained personnel), essential for installations in venues subject to crowding or in those with special hygiene requirements.

The quietness of the new centrifugal fan assembly is such that at normal speeds of use you cannot hear when the OMNIA HL_N cuts in. The use of the electronic control panel avoids the annoying noise typical of mechanical thermostats.

The control panel is protected by a flap on the head.

OMNIA HL_N is equipped with an electronic control panel with microprocessor.It's extremely intuitive and userfriendly, with just two knobs - one to increase or decrease the temperature, and the other to switch on/off and set the ventilation speed.

The settings made on the control panel can be transmitted (without additional interfaces) to a network with up to 5 fan coils, all equipped with their own electronic card. The fan coils in the network will each adapt their own operation to the environmental conditions detected in that specific room.

The OMNIA HL_N fan coil has been designed to meet all system requirements, thanks also to its wide range of accessories.

Easy installation with reversible hydraulic connections during installation.

Full compliance with accident prevention regulations.

Routine maintenance is reduced to periodic air filter cleaning with a vacuum cleaner.

Description of the HL_N fan coil functions

• Type of system

The OMNIA HL_N fan coils are designed for 2-pipe systems and are configured:

- without valve;
- with 2-way valve and water probe downstream from the valve;
- with 3-way valve and water probe downstream of the valve;

• Operation in TTL network

The Omnia “master” is fitted with an electronic card with microprocessor, able to manage a network of a further 5 fan coils over a maximum network length of 30 metres. The settings (or set points) of the panel on the main fan coil (master) are received by the other fan coils (slaves) which will operate autonomously.

The Omnia HL fan coil with slave function must be fitted with the electronic card with microprocessor VMF-E0 or VMF-E1 (an accessory).

All the fan coils of the TTL network must have the same type of configuration. Example: all standard, all with purifiers (Plasmacluster and/or germicidal lamps), or all with an additional coil (electric or with water).

The slave fan coils work with the settings dictated by the master fan coil. On the basis of the settings received from the network and the ambient conditions detected by the probes, the electronic card on each single slave fan coil acts (independently from the other fan coils) to switch the ventilation on and off in order to create the conditions requested by the user for that specific room.

• Cooling operation

Cooling operation requires a water circuit with chiller.

• Heating operation

Heating operation requires a water circuit with boiler, heat pump or solar system.

• Changeover (seasonal change)

The thermostat automatically selects the operating mode (Heating/Cooling), if that mode is permitted (water probe and settings).

- **Normal band**: heating at 39 °C; cooling at 17°C.
- **Reduced band**: heating at 35°C; cooling at 22°C.
- **Dead band**, can be selected at 5°C or 2°C.

Water side changeover

- Water temperature checks

Enabling of water side ventilation (only active with water temperature probe). The thermostat identifies the ventilation enabling threshold in Heating mode (minimum controlled) and Cooling mode (maximum controlled); with the dip-switches it is possible to choose between two temperature bands.

Air side changeover

If the actual room temperature is lower than the set point by a value equal to the dead band, there is an automatic swap to Heating operation.

If the actual room temperature is higher than the set point by a value equal to the dead band, there is an automatic swap to Cooling operation.

In the fan coil networks, the values of the dead band are only those configured on the master fan coil

• Pause due to power failure

After a power failure, the unit restarts with the settings that were active prior to the pause.

• Delayed start-up

The unit can begin ventilation some time after start-up - usually up to 2’40” (pre-heating function).

• Anti-freeze protection

Commands on OFF position. The fan coil can restart in heating mode (settino 12°C) if the room temperature falls below 7°C and the temperature of the water in the system is suitable.

In the fan coil networks, the slave fancoils can activate the anti-freeze protection regardless of the settings on the master fancoil.

If the anti-freeze protection is active on the master fan coil, all the other slave fan coils will also adopt a setting of 12°C, regardless of their ambient conditions.

• Room temperature probe

If the room temperature probe on the slave fan coils is faulty, the temperature will be measured by the probe of the master.

• Ventilation

3-speed ventilation can be commanded both manually and automatically.

- **Manual,** with the selector on V1, V2 and V3. The fan is used with ON-OFF cycles at the selected speed.
- **Automatic,** with the selector on AUTO. The fan speed is managed by the thermostat, on the basis of the

ambient conditions and the fan coil configuration.

Thermostat settings:

- **3-level thermostat.** With the selector on AUTO. The fan maintains the speed relating to one of the three predetermined steps, depending on the difference between room temperature and set point. Once it has reached the set point, the fan will switch off.
- **Modulated output thermostat.** With the selector on AUTO. The fan makes cycles, alternating the speeds accordino to the difference between room temperature and set point. Once it has reached the set point, the fan will switch off. This setting is not compatible with continuous ventilation management.

• Ventilation management

Ventilation settings:

- **Continuous ventilation.** Ventilation is always active. The temperature is controlled by intercepting the flow of water to the fan coil. This function requires the presence of a water valve (accessory), and cannot be activated simultaneously with the "modulated output thermostat" option.
- **Thermostat-controlled ventilation.** Ventilation switches off when the set temperature is reached (set point).

• Valve adjustment logics

With the **Thermostat-controlled ventilation** or **Modulated output thermostat setting** the valve is managed with the following logics:

- **Heating**, the valve is managed to exploit the stack effect of the fan coil, and to provide heat even with the fan switched off. These settings also reduce the number of valve openings and closings; with hot water circulating in the fan coil, a request from the thermostat will produce ventilation immediately.
- **Cooling**, to make the best use of the unit's cooling capacity and perform a more accurate check on the room temperature, the valve opening does not coincide with ventilation.

• Water probe

There is a water temperature probe in the heat exchanger of the unit.

The slave fan coil can work without the water probe: if it is absent or faulty, the temperature will be measured by the master probe along. In this case, ventilation is always enabled on the slave fan coil.

The water temperature probe can be positioned **downstream** or **upstream** from the shutoff valve, so also the dipswitches on the card must be set. The difference lies in the management of the ventilation of the fan coils with valve.

Setting the dip-switch as a **probe downstream** of the valve, ventilation startup (changeover) is dependent on the temperature of the air in the room.

Setting the dip-switch as a **probe upstream** of the valve, ventilation startup is dependent on the temperature of the water in the system. With this setting, the pre-heating function is activated, and there is a ventilation start-up delay of between 0" and 2'40".

To position the bulb on the delivery pipe upstream of the valve, the standard water probe must be replaced with the SW3N probe accessory.

• External contact

The card offers the possibility of a connection with an external contact. With a closed external contact, the unit is configured as in the thermostat OFF position (except when the thermostat is in the Anti-freeze Protection position or when the ambient probe is absent or faulty). This contact can be used to manage inputs such as a remote ON-OFF command, a presence sensor, a window contact, a faulty circulation pump signal, etc.

In fan coil networks, only the external contact of the master fan coil is enabled. If the master input is closed, all the slave fan coils of the network are switched off.

• Microswitch contact

The card offers the possibility of a connection with the Microswitch contact located on the delivery fins. With the fins closed, the fan coil is 100% OFF.

In fan coil networks, when the fin of the master fan coil is closed, ventilation stops but the electronic thermostat card and the other fan coils in the network carry on working.

• Emergency operation

In the event of a faulty probe, the electronic card can automatically detect the problem and enable an emergency program to avoid any inconvenience for the user, who is immediately informed of the fault (LED indicator lights).

• Ambient probe correction

To obtain a better room temperature adjustment, the thermostat applies special algorithms to correct the ambient probe installed on the fan coil; the probe is in contact with the housing, and is therefore influenced by it.

The dynamic correction is a correction algorithm of the ambient probe which takes into account the particular operation status of the fan coil in any one moment. More precisely, there are two possible cases of dynamic correction:

- **Dynamic correction A:** in the case of systems without a valve (or with a downstream probe), the correction depends on the water and ambient temperatures.
- **Dynamic correction B:** in the case of systems with a valve and an upstream probe, the correction depends on the valve and on the water and ambient temperatures. Unlike the previous correction, this one uses different time constants to calculate the appropriate correction (because the housing is influenced in a different way).

	Upstream Probe		Downstream Probe	
	Water Present Probe	**Water Absent Probe**	**Water Present Probe**	**Water Absent Probe**
With Valve	Water side changeover	Air side changeover	Air side changeover	Air side changeover
	Pre-heating delay	Pre-heating delay	No ventilation delay	Pre-heating delay
	Minimum and maximum controls active	No minimum and maximum control	Minimum and maximum controls active	No minimum and maximum control
	Dynamic correction A	Fixed correction	Dynamic correction B:	Fixed correction
Without Valve	Configuration not used		Water side changeover	Air side changeover
			No ventilation delay	No ventilation delay
			Minimum and maximum controls active	No minimum and maximum control
			Dynamic correction B:	Fixed correction

DESCRIPTION OF THE UNIT

AIM OF THE UNIT

The fan coil is a room air treatment terminal unit for both winter and summer operation.

Versions Omnia HL_N and OMNIA HL_NM

A fan coil with cabinet, for universal installation and fitted with a multifunction electronic thermostat. It can be installed as an autonomous unit or within a network: it can, in fact, manage a network of a further 5 fan coils*.

* The fan coils within a network must be pre-arranged models, or equipped with the special accessories.

The **OMNIA HL N** series is available in two chromatic versions, the letter "**M**" identifies only the chromatic finish with metallic gray casing, performance and functions are identical to the version with white casing.

In this manual, the "**M**" version will be indicated only in the cases in which the chromatic finish influences the subject being discussed. For simplicity's sake, reference will always be to the versions of **Omnia HL N** in white.

- **Omnia HL_N, RAL 9002 white casing; head and feet, RAL7044**
- **Omnia HL_NM, FIAT656 metallic gray casing; head and feet, RAL7031**

AVAILABLE SIZES

The Omnia HL_N and OMNIA HL_NM fan coils are available in 4 sizes and two colours.

TECHNICAL DATA AND OPERATING LIMITS

	HL	11 N / NM	16 N / NM	26 N / NM	36 N / NM
Thermal capacity (maximum) (input water 70°C)	[W]	2010	2910	4620	5940
Cooling output (maximum) (input water 7°C)	[W]	840	1200	2030	2830
Power consumed (maximum)	[W]	18	32	35	42
Current consumed (maximum)	[A]	0,09	0,15	0,18	0,22
Input water temperature (maximum)	[°C]	80			
Operating pressure (maximum)	[bar]	8			
Room temperature limits Ta		0°C < Ta < 40°C			
Relative humidity limits in the room R.H.		R.H. < 85%			
Protection rating	IP	20			
Power supply	[V~Hz]	230V (±10%) ~ 50Hz			

Performance values refer to the following conditions:
- at the maximum motor speed;
- the total input power is determined by adding the input power for the unit and the input power for the accessories connected and declared in the corresponding manuals.

Water temperature

In order to prevent air stratification in the room, and therefore to achieve improved mixing, it is advisable not to supply the fan coil with water at a temperature over 65°C.

The use of water at high temperatures could cause squeaking due to the different thermal expansions of the elements (plastic and metal), this does not however cause damage to the unit if the maximum operating temperature is not exceeded.

Minimum average water temperature

If the fan coil is working in continuous cooling mode in an environment where the relative humidity is high, condensate might form on the air delivery and on the outside of the device. This condensate might be deposited on any objects underneath and on the floor.

To avoid condensate on the external structure of the device while the fan is functioning, the average temperature of the water must not be lower than the limits shown in the table below, that depend on the thermo-hygrometric conditions of the air in the room.

These limits refer to unit operating with fan at minimum speed.

Minimum average water temperature [°C]		Temperature of the air in the room with dry bulb					
		21	23	25	27	29	31
Temperature with wet bulb of the air in the room	15	3	3	3	3	3	3
	17	3	3	3	3	3	3
	19	3	3	3	3	3	3
	21	6	5	4	3	3	3
	23	-	8	7	6	5	5

CORRECTION FACTORS WHEN OPERATING US IN GLYCOL WATER

Key:

—·— Pressure drops

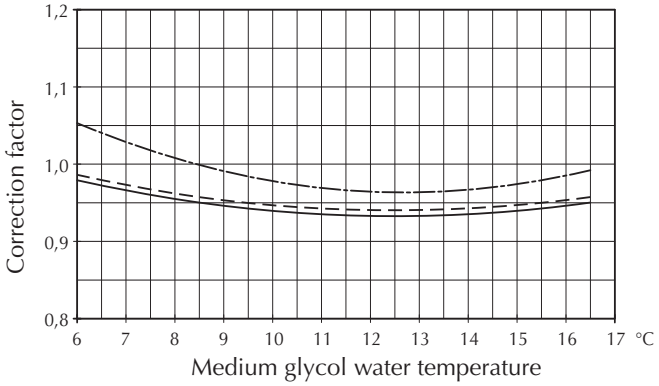
— — — Air flow rate

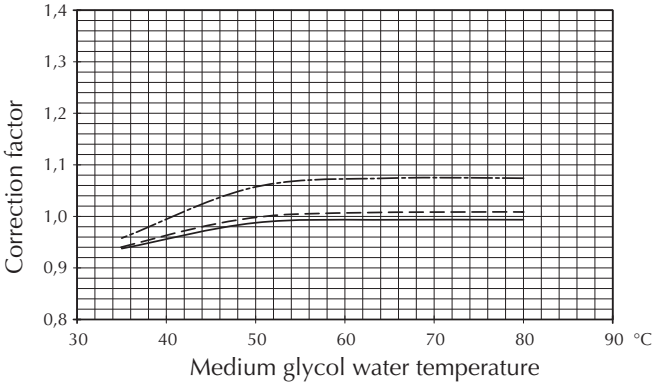
——— Output

IN THE COOLING OPERATION

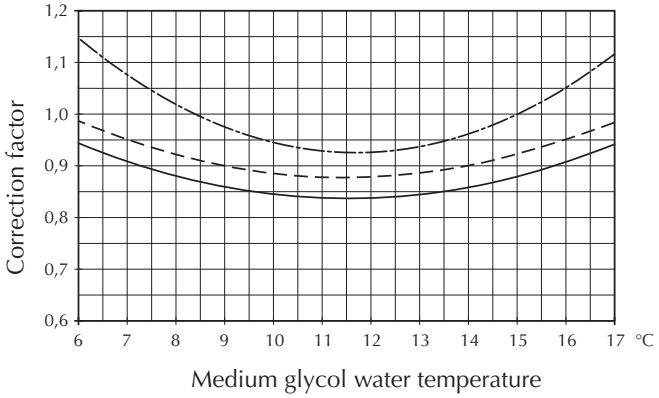
IN THE HEATING OPERATION

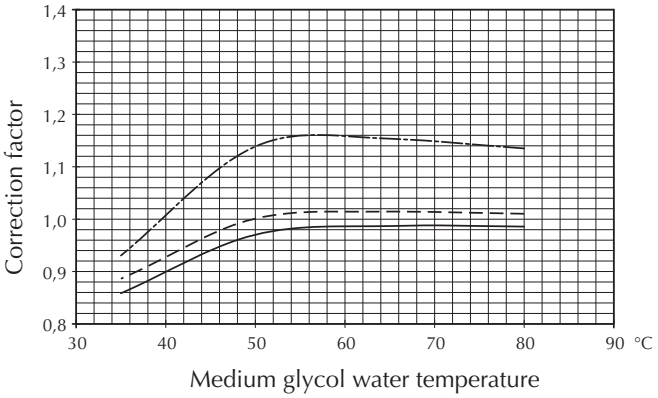
GLYCOL WATER AT 10%



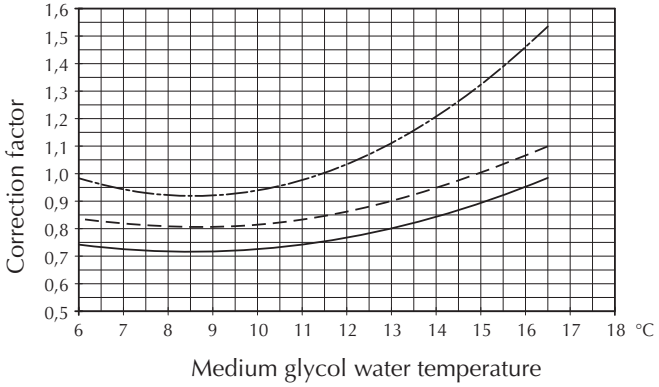


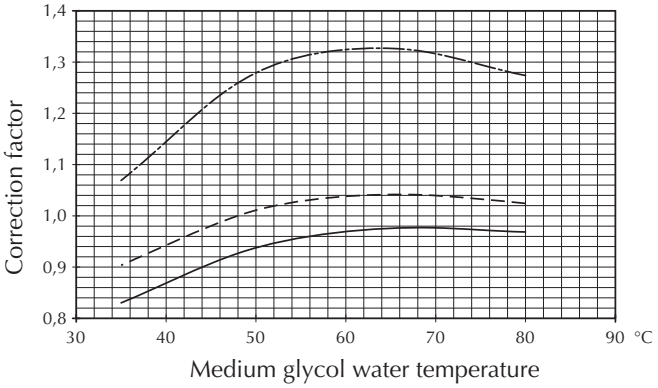
GLYCOL WATER AT 20%





GLYCOL WATER AT 35%

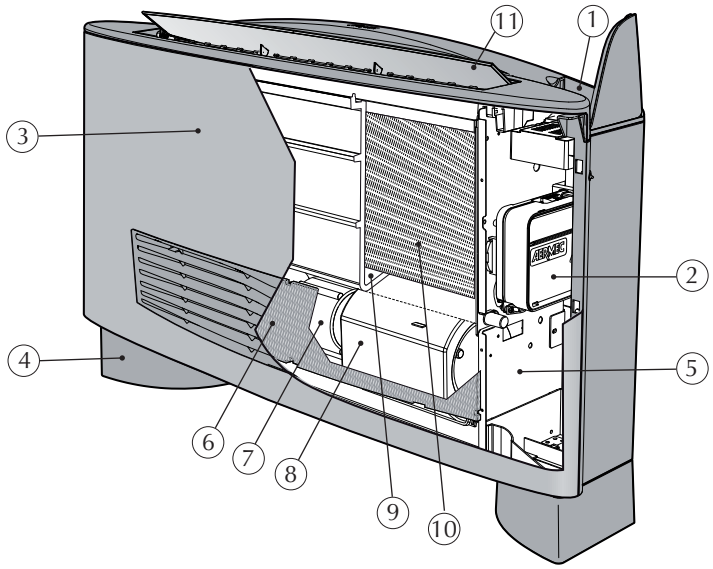




MAIN COMPONENTS

1 Control panel (HL N)
2 Electronic card
3 Cabinet
4 Feet (accessory ZH)
5 Load-bearing structure
6 Air filter
7 Fan motor
8 Fan
9 Basin
10 Heat exchange coil
11 Head with adjustable fins

OMNIA HL_N



DESCRIPTION OF COMPONENTS

CONTROL PANEL
The control panel is housed in the head of the fan coil, protected by an access flap.

ELECTRONIC THERMOSTAT
OMNIA HL_N is equipped with an electronic control panel with microprocessor.It's extremely intuitive and userfriendly, with just two knobs, one to increase or decrease the temperature, and the other to switch on/off and set the predefined (or automatic) ventilation speeds.
The response to commands may be delayed (heat exchanger pre-heating).

THERMOSTAT ELECTRONIC CARD
The box containing the thermostat electronic card is fixed to the side of the fan coil.
The electronic card has a dip-switch for configuration, and connectors for making the connection with:
- the power supply,
- the earthing,
- the control panel (user interface),
- the fan motor command,
- the valve command,
- the room temperature probe,
- the water temperature probe,
- the fan coil network,
- the external contact,
- the MS external contact.

HEAT EXCHANGE COIL
2-row coil with copper pipe and aluminium fans, held in place by means of the mechanical expansion of the pipes. The collectors are fitted with female connections and air vents in the upper part of the coil. The coil can be rotated on the worksite.

CABINET
HL_N : Casing in RAL9002
HL_NM : Casing in FIAT656
The casing is made of galvanised steel, varnished with polyester powders to guarantee high resistance to rust and corrosion.
The feet (ZH accessories series) are either in RAL7044 plastic material to be combined with the HL_N version (RAL9002) or in RAL7031 to be combined with the HL_NM version (FIAT656) To select the feet, please consult the documentation for the ZH accessories series.

ELECTROSTATICALLY PRECHARGED AIR FILTER
Fire resistance Class 2 (UL 900).
Easily extractible, it is supplied with the fan coil in a sealed box which should be opened only upon use. The electrostatically pre-charged filter combines the normal mechanical filtering of the air that passes through the filter, with an electrostatic attraction of powder that increases its filtering considerably.

ELECTRIC FAN ASSEMBLY
Applied directly to the frame, it consists of extremely quiet, compact, double suction centrifugal fans. The electrical motor, protected against overloading, has three speeds with the running capacitor always on, directly couplet with the fans and cushioned with flexible supports. The fan shrouds can be inspected (an operation that can only be carried out by personnel with the specific technical skills), which also means the inner parts can be accurately cleaned.

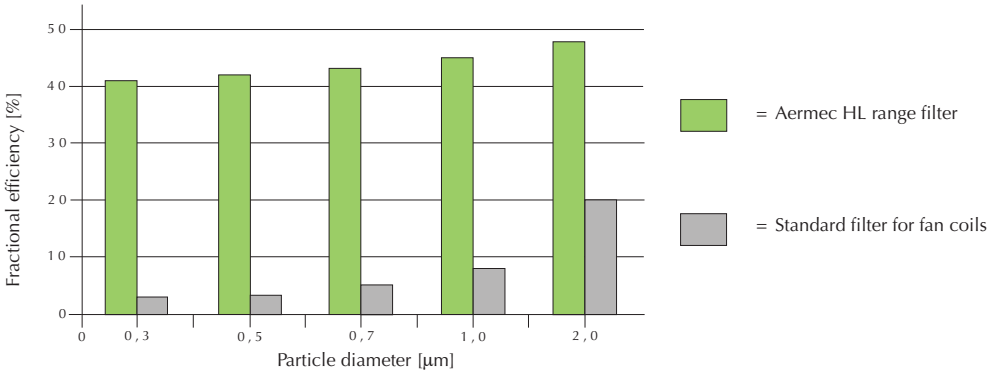
LOAD-BEARING STRUCTURE
Made of sheet metal of an adeguate thickness, and galvanised to protect against oxidation. Equipped with closed cell thermal insulation with Class 1 fire resistance.
Holes in the back for wall mounting.
Each device is equipped with a condensate collection tray that can be removed for cleaning (this operation can only be carried out by personnel with the specific technical skills).

CONDENSATE DISCHARGE
Every device is fitted with a tray for collecting condensation, with a connection for draining condensation produced by the unit in cooling mode.

WATER CONNECTIONS
The connections, located on the left hand side, are female. The possibilità exists for rotating the battery on the construction site.

HEAD WITH ADJUSTABLE FINS
HL_N : Colour RAL7044
HL_NM : Colour RAL7031
With the deflector fin fully closed, the tripping of the microswitch stops ventilation thereby interrupting any further heat exchange with the environment.
The control panel is also housed in the head, and is protected by a flap.

ELECTROSTATICALLY PRECHARGED AIR FILTER



INSTALLATION

⚠ IMPORTANT: OMNIA fan coils are designed for indoor use.

⚠ IMPORTANT: check that the power supply is disconnected before carrying out any procedures on the unit.

⚠ WARNING: before carrying out any work, put the proper individual protection equipment on.

⚠ IMPORTANT: the device must be installed in compliance with national plant engineering rules.

⚠ IMPORTANT: the electrical connections, plus the installation of fan coils and relevant accessories, should only be performed by a technician with the necessary technical and professional expertise to install, modify, extend and maintain systems, and who is able to check the systems for purposes of safety and correct operation (in this manual such technicians will be indicated with the general term "personnel with specific technical skills").

In the specific case of electrical wirings, the following must be checked:

- **Measurement of the electrical system insulation strength**
- **Continuity of the protection wires**

⚠ IMPORTANT: Install a device, main switch, or electric plug so you can fully disconnect the device from the power supply.

The essential indications to install the device correctly are given here.

The installer's experience will be necessary however, to perfect all the operations in accordance with the specific requirements.

The water, condensate discharge and electrical circuit ducts must be provided for.

The fan coil should be installed in such a way as to facilitate routine (filter cleaning) and special maintenance operations, as well as access to the air drain valve on the side of the unit frame (connections side).

Do not install the unit in rooms where there are inflammable gases or acid/alkaline substances which can provoke irreparable damage to the copper-aluminium heat exchangers or internal plastic components.

Do not install the unit in workshops or kitchens, where oil vapours mixed with the treated air can be deposited on the exchange coils (reducing their effectiveness) or on the internal parts of the unit (damaging the plastic components).

The fan coil must be installed in such a position that the air can be distributed throughout the room and so that there are no obstacles (curtains or objects) to the passage of the air from the suction louvers.

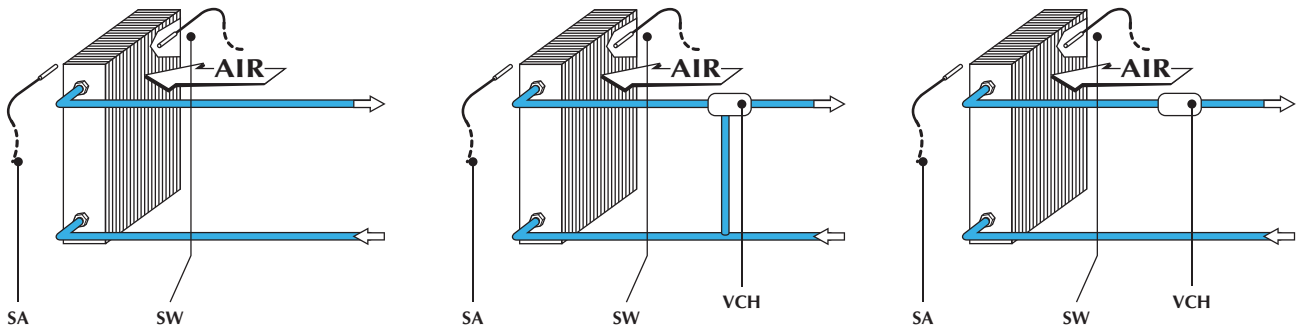
You are advised not to install the fan coil above objects that suffer from damp or wet because in some conditions condensation may form on the external frame of the equipment with the possibility of dripping or failures may occur in the hydraulic system and condensate drainage with the consequent spilling of liquid.

The assembly site must be chosen in such a way that the maximum and minimum ambient temperature limits are respected 0-45°C (<85% R.H.).

SYSTEM EXAMPLES

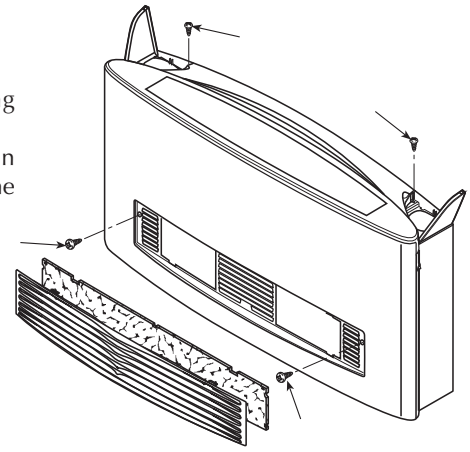
Key:

SW	Water temperature sensor
VCH	Solenoid valve (Heating / Cooling)
SA	Room temperature probe

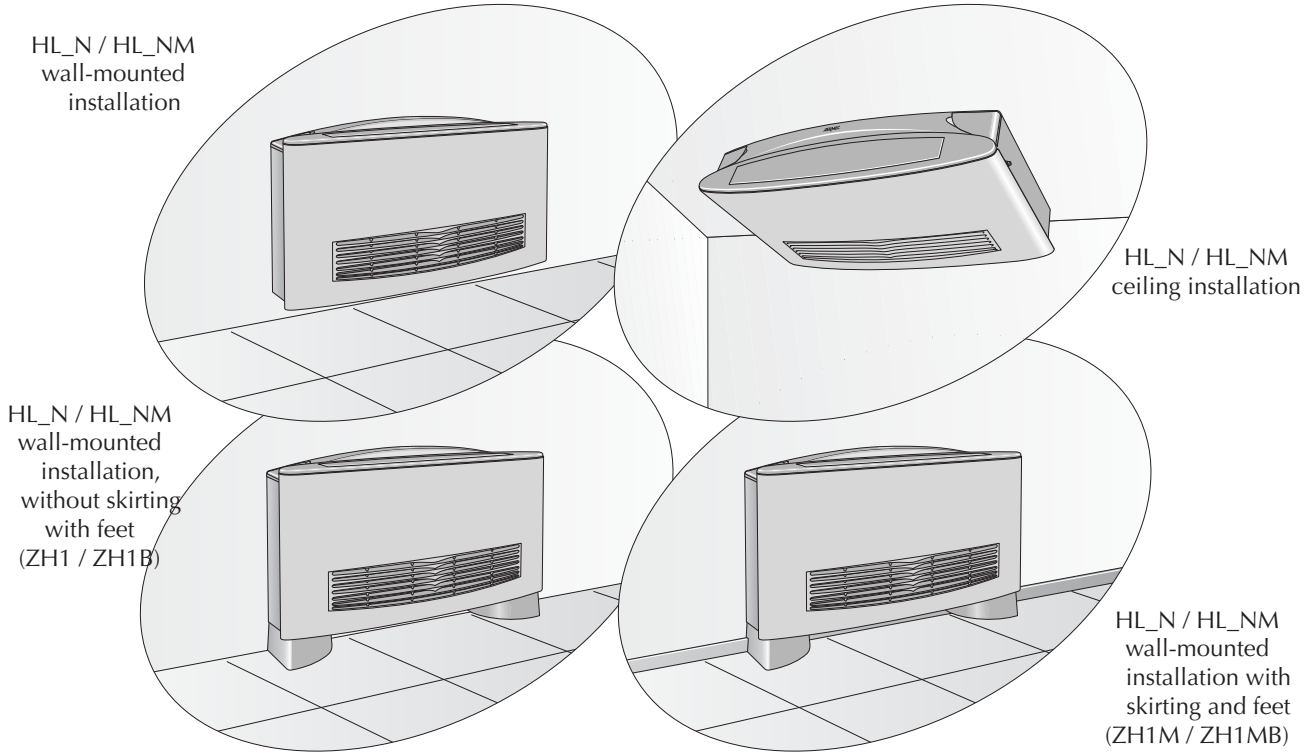


UNIT INSTALLATION

- Loosen the screws to remove the housing.
- With wall-mounted units, keep a minimum clearance of 80mm from the floor. With floor-standing units on feet, refer to the instructions supplied with the accessory.
- **The supporting wall must be perfectly flat. For fixing, use 4 wall plugs (not supplied) with suitable characteristics for the specific type of wall.**
- Apply any accessories.
- To modify the settings of the electronic thermostat, adjust the dipswitches from the special inspection window in the box on the side (see "DIP-SWITCH SETTINGS").
- Make all the connections.
- Reassemble the casing.
- Make sure the fan coil is working properly.
- Assemble the air filter. It is supplied in a sealed box, to be opened only at the time of use.



INSTALLATION EXAMPLES



COIL ROTATION

If the hydraulic connections require the rotation of the coil, remove the cabinet and ambient probe then proceed as follows:

– remove the electrical connections from the terminal strip;
– remove the probe from the coil;
– remove the screws fixing the basin and remove it;
– remove the screws securing the coil, then remove the coil;
– remove the push-outs on the righthand side;
– rotate the coil and secure it with the previously removed screws;
– reassemble the tray, fixing it with the screws. All the trays are suitable for condensate drainage on both sides;

N.B.: Before connecting the condensate discharge, use a tool to knock out the diaphragm of the tray on the water connections side.

– position the polyethylene cap of the condensate discharge onto the lefthand side;
– remove the electric motor cable from the right-hand side;
– remove the rectangular push-out from the left-hand side;
– recover the cable grommet and insert it in the left-hand side before closing the right-hand hole with adhesive tape;
– move the electric motor cable onto the left-hand side, passing it through the cable grommet and arranging it so it reaches the connector on the side;
– move the control panel from the right to the left of the head (the hole must be closed with the recovered plastic baffle);
– unravel the twists and turns of the microswitch cable for the length necessary to reach the control board on the left-hand side;
– fasten the microswitch cable to the cable clamps;
– restore the electrical connections between the control panel and the control board.

CONNECTIONS

The water, condensate discharge and electrical circuit ducts must be provided for.

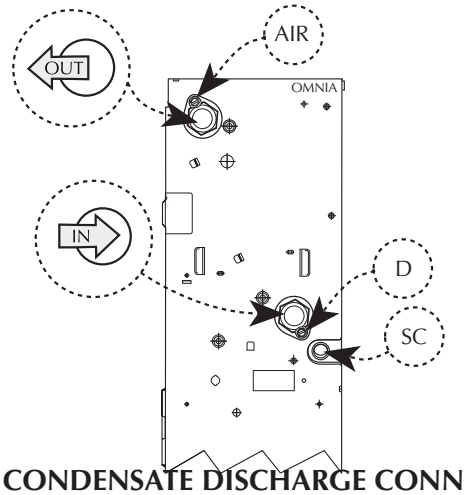
WATER CONNECTIONS

- **Make the water connections. To help the bleeding of air from the coil, you are advised to connect the water outlet pipe to the fitting at the top; any inversion will not jeopardise the proper functioning of the unit.**

The position and diameter of the water connections are shown in the dimensions.

You are advised to adequately insulate water lines, or fit the auxiliary condensate drain tray (available as an accessory), to prevent dripping during the cooling function.

⚠ Test the seal on the water connections.



Coil connections				
Omnia HL	**11 N**	**16 N**	**26 N**	**36 N**
Ø	1/2″	1/2″	1/2″	1/2″

CONNECTIONS

OUT = Water outlet coil connection

IN = Water inlet coil connection

AIR = Coil air drain valve

D = Coil drainage valve

SC = Condensate discharge (male Ø 16mm)

CONDENSATE DISCHARGE CONNECTION

During cooling operation the indoor unit removes humidity from the air. The condensate water must be eliminated by connecting the appropriate discharge coupling to the piping of the condensate discharge system.

N.B.: Before connecting the condensate discharge, use a tool to knock out the diaphragm of the tray on the water connections side.

Seal the unused drainage hole.

The condensate drain network must be properly scaled and the piping situated in such a way as to keep an adequate slope along the route (min. 1%). If condensate is discharged into the sewage system, install a siphon to prevent the return of unpleasant odours into the room.

⚠ Test the condensate discharge seal.

ELECTRICAL WIRINGS

⚠ WARNING: check that the power supply is disconnected before carrying out any procedures on the unit.

In the specific case of electrical wirings, the following must be checked:

- **Measurement of the electrical system insulation strength**
- **Continuity of the protection wires**
- **The electrical wirings must be made in compliance with the wiring diagrams**

The unit must be connected directly to an electrical outlet or to an independent circuit.

OMNIA fan coils are powered with a current of 230V ~ 50Hz with an earth connection, but the line voltage must remain within the tolerance value of ±10% compared with the nominal value.

The electrical power cable must be of the H07 V-K or N07 V-K type with 450/750V insulation if inside a tube or raceway. Use cables with double H5vv-F type insulation for visible cable installation. All the cables must be piped or ducted until they are inside the fan coil. The cables leaving the pipe or raceway must be positioned in such a way that there are not traction or twisting stresses and they are anyway protected from outside agents.

Stranded cables can only be used with crimping terminals. Check the wire strands are well inserted.

The wiring diagrams are subject to continuous updates, so it is essential to use those on the machine as your reference.

For all the connections, follow the wiring diagrams supplied with the device and shown in this documentation.

In installations with a 3-way valve, the minimum water temperature sensor must be relocated from its standard mounting in the coil assembly to the delivery hose upstream of the valve.

If you need to relocate the water temperature probe, the standard probe must be replaced with an SW3N, accessory probe, fitted with a cable of suitable length.

The connections must be made with the connectors on the electronic card on the side of the fan coil (protected by a plastic box).

⚠ WARNING: the diagram showing the connections of the electronic card to the control board is printed inside its box cover.

- Connect the power cables.
- Connect the earth cable.
- Connect the electric cables of the valve accessory (if installed).
- Connect the network cables (if connected to a network).
- Connect the cables for an external contact (if envisaged).
- Check all the connections and relative cables are well fixed.

CONNECTIONS TO THE ELECTRONIC CARD

Connections key:

L - N = Power supply
230 Vac - 50 Hz
Screw clamps
Minimum cable section = 0.5mm²
Maximum cable section = 2.0 mm²

= EARTH connection
Screw clamp
Minimum cable section = 0.5mm²
Maximum cable section = 2.0 mm²

Y1 = VC/VF command
Faston-type connector

Y2 = Accessory command
Faston-type connector

N = Neutral
Faston-type connector
Minimum cable section = 0.5mm²

V3 = Motor command
Maximum speed
Faston-type connector
Minimum cable section = 0.5mm²
Maximum cable section = 2.0mm²

V2 = Motor command
Average speed
Faston-type connector
Minimum cable section = 0.5mm²
Maximum cable section = 2.0mm²

V1 = Motor command
Minimum speed
Faston-type connector
Minimum cable section = 0.5mm²
Maximum cable section = 2.0mm²

FUSE = Protection fuse
Delayed 2A fuse

SA = SA Air probe
Analogue input
Removable-type connector
Maximum cable length = 3 m

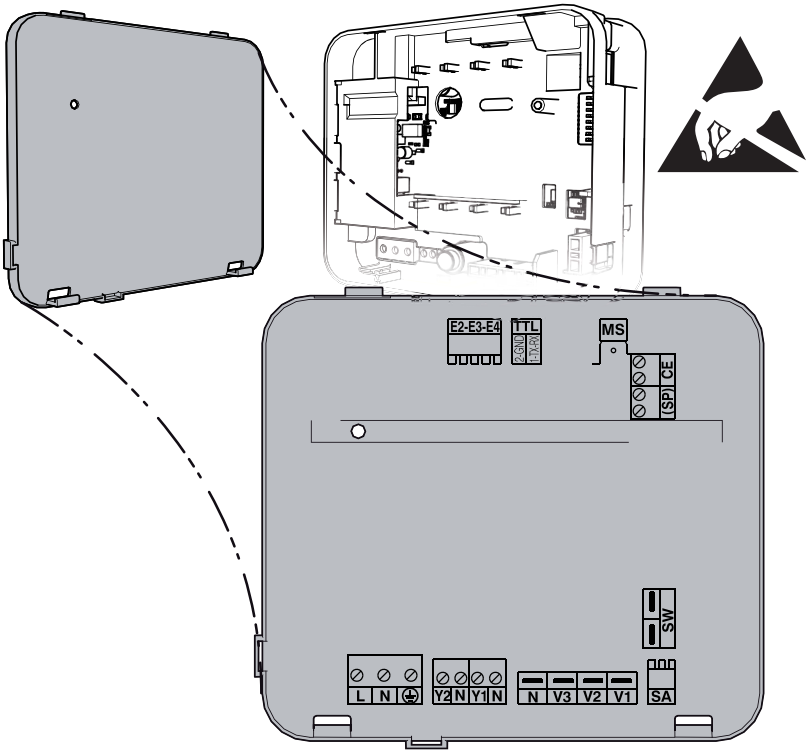
SP = Not present

SW = Water probe
Analogue input
Faston-type connector
Maximum cable length = 3 m

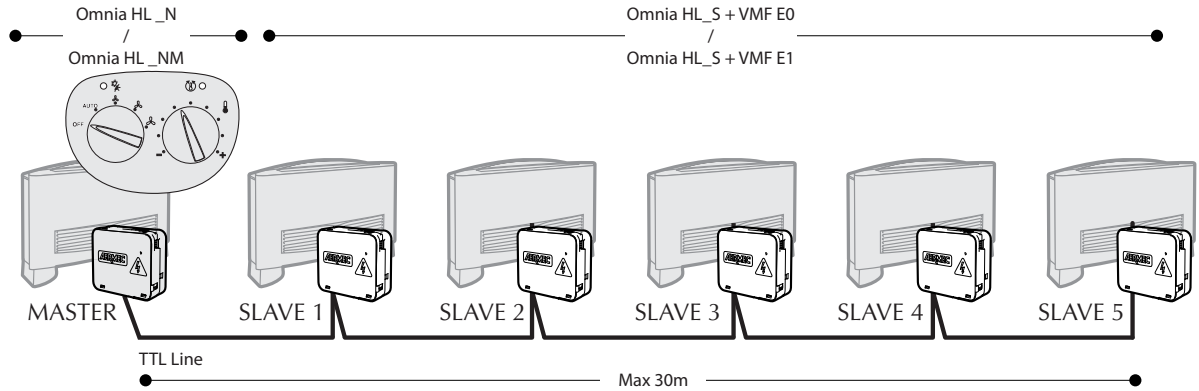
CE = External contact
Digital input
Screw clamps
Minimum cable section = 0.2 mm²
Maximum cable section = 1.0 mm²
Maximum cable length = 100m

MS = Microswitch
Edge-type connector

Control panel - TTL = Local serial TTL
Removable-type connector
Minimum cable section = 0.2 mm²
Maximum cable section = 1.0 mm²
Total maximum cable length = 30m
(see the diagram showing the connections between the units)



NETWORK SETTINGS



TTL NETWORK

- Consisting of up to 6 fan coils (one master and 5 slaves)
- Maximum line length 30m.

The HL_N master fan coils are equipped with a control panel and an electronic card with microprocessor which has outputs in order to be inserted in a TTL network.

The Omnia HL fan coil with slave function must be fitted with the electronic card with microprocessor VMF-E0 or VMF-E1 (an accessory).

All the fan coils of the TTL network must have the same type of accessory.

The settings (or set points) of the panel on the main fan coil (master) are received by the other fan coils (slaves).

The units connected to the TTL network are automatically recognised (they require no configuration procedure).

DIP-SWITCH SETTINGS

Turn off the power to the unit.
This operation should be carried out in the installation phase, by suitably trained and qualified personnel only.
The dip-switches are on the electronic card. They can be used to obtain the following functions:

Dip 1 (Default **OFF**)
Water valve check:
- Shutoff valve absent, OFF
- Shutoff valve present, ON

Dip 2 (Default **OFF**)
Position of the water temperature probe:
- Water temperature probe downstream of the shutoff valve, OFF
- Water temperature probe upstream of the shutoff valve, ON

Dip 3 (Default **OFF**)
Ventilation control:
- Thermostat-controlled ventilation, OFF
- Continuous ventilation, ON *

Dip 4 (Default **OFF**)
Ventilation enabling:
- Normal band enabling, OFF
- Reduced band enabling, ON

Dip 5 (Default **OFF**)
Factory setting
(reserved for accessory configuration)

Dip 6 (Default **OFF**)
Factory setting
(reserved for accessory configuration)

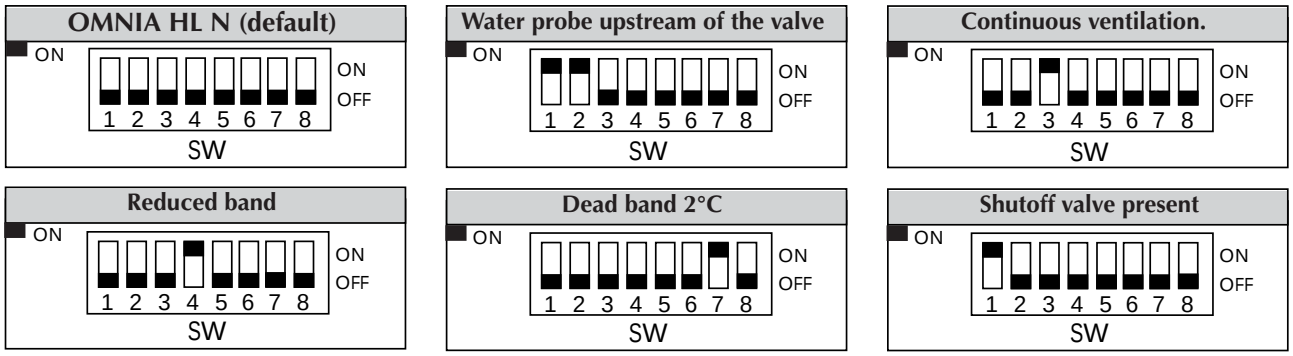
Dip 7 (Default **OFF**)
Dead band:
- Dead band 5°C, OFF
- Dead band 2°C, ON

Dip 8 (Default **OFF**)
Thermostat settings:
- 3-level thermostat, OFF
- Modulated output thermostat, ON *

* The Continuous Ventilation and Modulated Output Thermostat settings are not compatible.

☑ Adjust the chosen setting on the dip-switch

SOME EXAMPLES:



INSTALLING THE ELECTROSTATICALLY PRECHARGED AIR FILTER

• **Installation**
- Remove the ventilation grille from the unit. Use the point of a tool to place pressure on the upper hooks of the grille.
- Remove the filter from its sealed package.
- Insert the filter in the suction grille.
- Reattach the ventilation grille to the unit. First insert the lower hooks of the cover, and then insert the upper hooks.

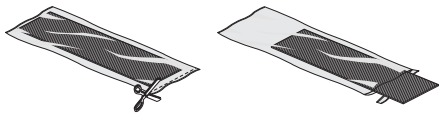
• **Characteristics**
Class 2 (UL 900).

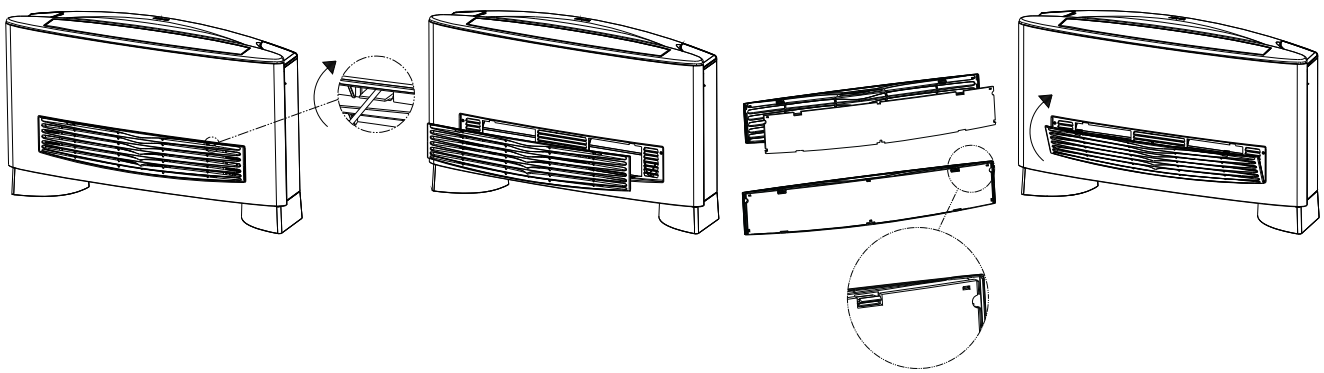
Easy to remove, it is supplied in a sealed box only to be opened when it is to be used.

The electrostatic precharge of the filter is spent after two years of the box being opened, after this period it behaves like a normal filter.
For this reason replacement over two years with a new one is recommended (available as a spare part from Aermec After Sales centres).

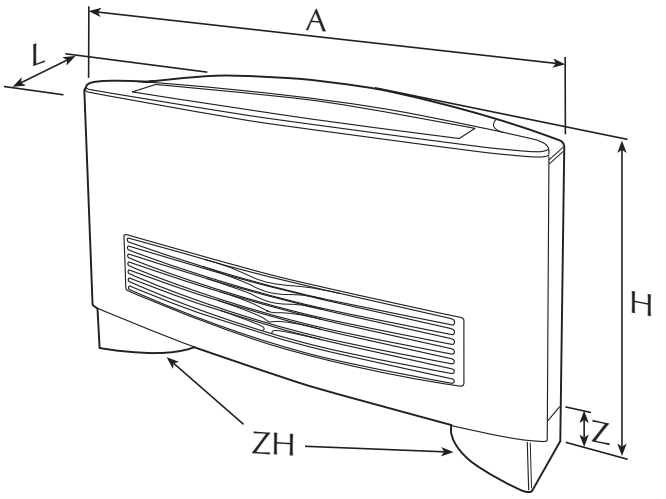
• **Maintenance**

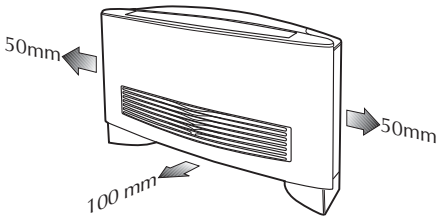
Cleaning frequently, removing the dust that has built up using a vacuum, the use of water and cleaning substances considerably speeds up the electrostatic precharge deterioration.





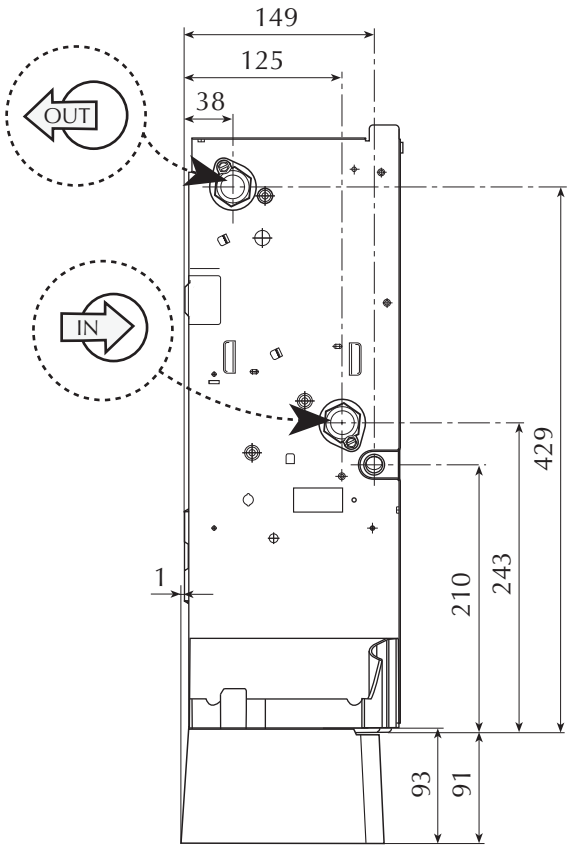
DIMENSIONI • DIMENSIONS • ABMESSUNGEN • DIMENSIONES [mm]





Mod Omnia		HL 11	HL 16	HL 26	HL 36
Larghezza • Width • Largeur • Breite • Longitud	A	640	750	980	1200
Altezza • Height • Hauteur • Höhe • Altura	H	600	605	615	623
Profondità • Depth • Profondeur • Tiefe • Profundidad	L	187	189	191	198
Altezza zoccoli • Height of feet • Hauteur des pieds • Höhe der Sockel • Altura zócalos	Z	93	93	93	93
Peso* • Weight* • Poids* • Gewicht* • Peso *	[kg]	13,6	14,6	17,6	20,6

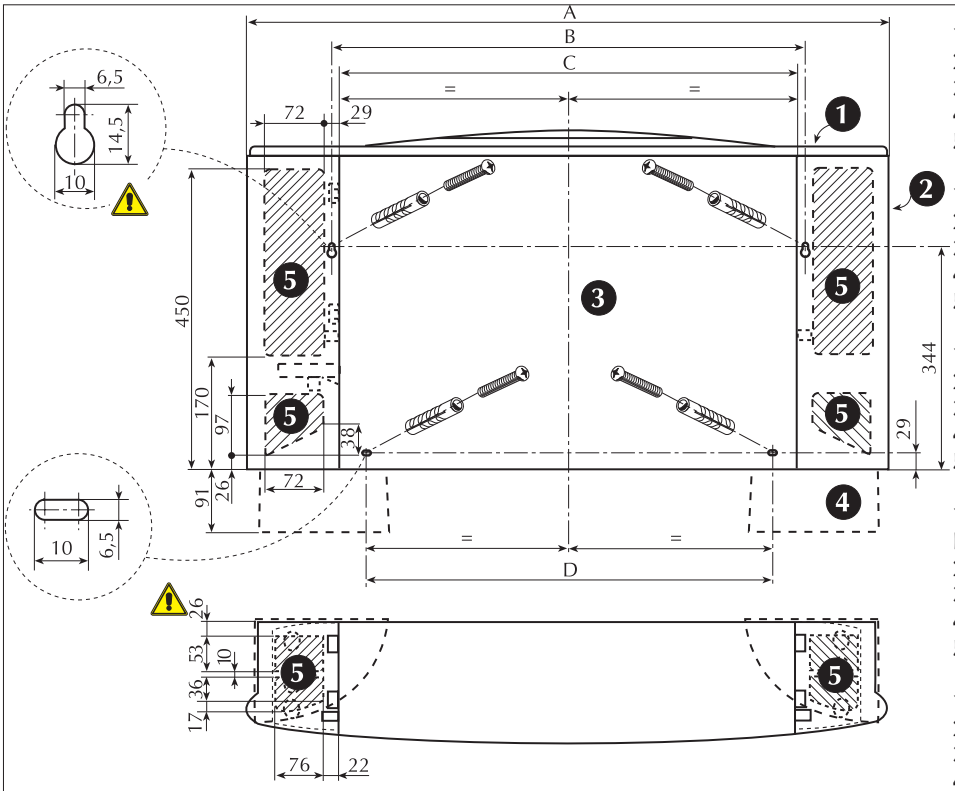
* (ventilconvettore senza zoccoli) • (fan coil without feet) • (ventilo-convecteur sans pieds) (Gebläsekonvektor ohne Sockel) • (fan coil sin zócalos)



Attacchi batteria (femmina) • Coil connections (female) • Raccords de batterie (femelle) • Anschlüsse Wärmetauscher (Innengewinde) • Conexiones batería (hembra)

Mod. HL	11N	16N	26N	36N
2 R	1/2"	1/2"	1/2"	1/2"

DIMENSIONI • DIMENSIONS • ABMESSUNGEN • DIMENSIONES [mm]



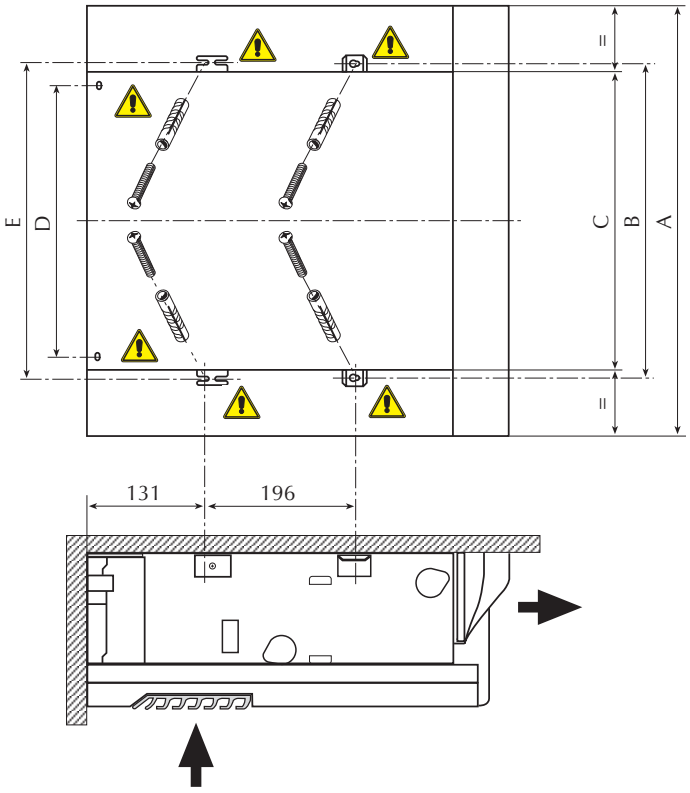
1 Testata con alette orientabili
2 Mobile di copertura
3 Struttura portante
4 Zoccolo ZH
5 Spazio per i collegamenti

1 Head with adjustable fins
2 Cabinet
3 Load-bearing structure
4 Foot ZH
5 Space for connections

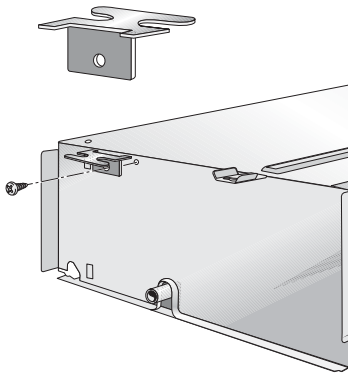
1 Tête avec ailettes orientables
2 Carosserie de protection
3 Structure porteuse
4 Pied ZH
5 Espace pour les connexions

1 Kopfteil mit schwenkbaren Lamellen
2 Abdeckung
3 Trägerstruktur
4 Sockel ZH
5 Platz für die Anschlüsse

1 Parte superior con aletas orientables
2 Mueble de cobertura
3 Estructura portante
4 Zócalo ZH
5 Espacio para las conexiones



Mod.	HL 11	HL 16	HL 26	HL 36
A	640	750	980	1200
B	384	494	725	945
C	360,5	470,5	701,5	921,5
D	288	398	629	849
E	394	504	735	955



La parete di supporto deve essere perfettamente piana, per il fissaggio usare 4 tasselli ad espansione con caratteristiche adeguate al tipo di parete (non forniti).

The supporting wall must be perfectly flat. For fixing, use 4 wall plugs (not supplied) with suitable characteristics for the specific type of wall.

Le mur de support doit être parfaitement plat ; pour la fixation, employer 4 chevilles à expansion (non fournies), ayant des caractéristiques aptes au type de mur.

Die Stützwand muss absolut eben sein, für die Befestigung 4 Stück Erweiterungsdübeln (nicht im Lieferumfang enthalten) mit zum Wandtyp passenden Eigenschaften verwenden.

La pared de sostén debe ser completamente plana, para fijar los 4 tacos de expansión (no suministrados), adecuados al tipo de pared.

LEGENDA • KEY • LEGENDE • LEGENDE • LEYENDA

IG = Interruttore generale • Master switch • Interrupteur général • Hauptschalter • Interruptor general

M = Morsettiera • Control board • Bornier • Klemmleiste • Caja de conexiones

MS = Microinterruttore • Dip-switch • Microrupteur • Mikroschalter • Microinterruptor

MV = Motore ventilatore • Fan motor • Moteur du ventilateur • Ventilatormotor • Motor ventilador

PE = Collegamento di terra • Earth connection • Mise à la terre • Erdung • Toma de tierra

SA = Sonda ambiente • Ambient probe • Sonde ambiante • Raumtemperaturfühler • Sonda ambiente

SC = Sonda ambiente • Control card • carte de contrôle • Steuerplatine • Tarjeta de control

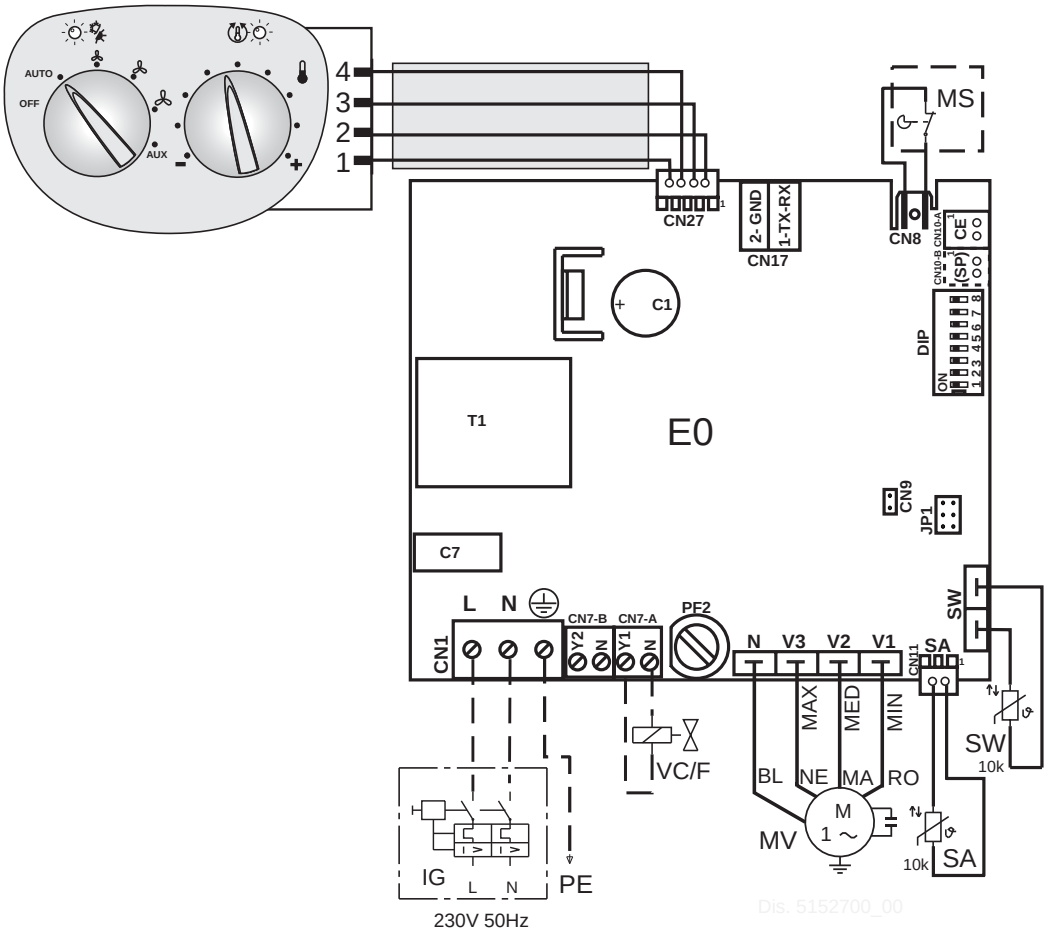
SW = Sonda minima temperatura acqua • Minimum water temperature probe • Sonde de température minimale de l'eau Sonde für Mindest-Wassertemperatur • Sonda mínima temperatura del agua

VCH = Valvola solenoide • Solenoid valve • Vanne solénoïde • Magnetventil • Válvula solenoide

⬚ = Componenti forniti optional • Components supplied as optional extras • Composants fournis en option Als Option lieferbare Teile • Componentes opcionales facilitados

– – – = Collegamenti da eseguire in loco • Connections to be made on site • Branchements à effectuer sur les lieux Vor Ort auszuführende Anschlüsse • Conexiones que realizar in situ

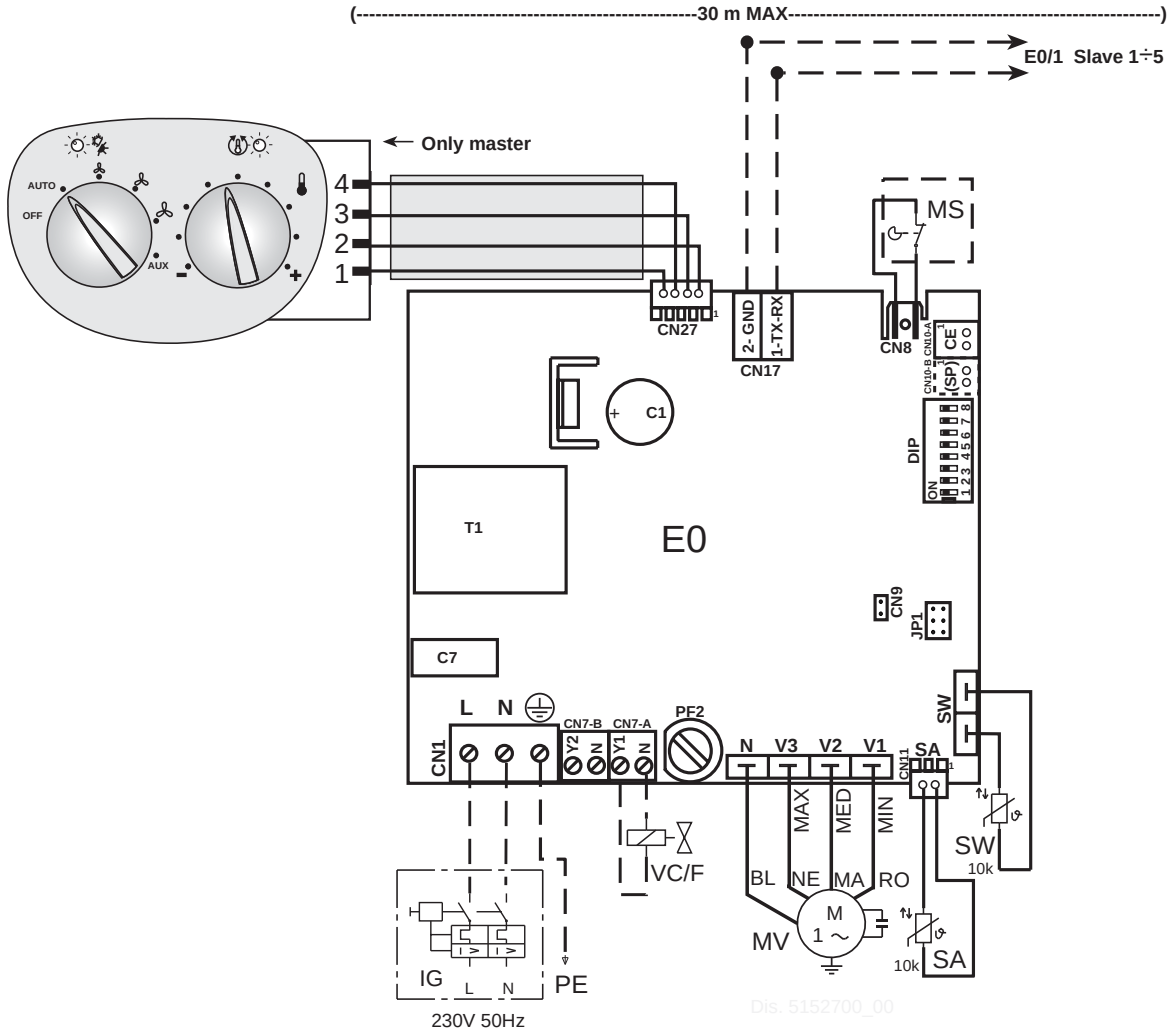
OMNIA HL N



Los esquemas eléctricos están sujetos a modificaciones continuas, por lo tanto es obligatorio tomar la referencia de los que se encuentran a bordo de la máquina. All wiring diagrams are constantly updated. Please refer to the ones supplied with the unit. Nos schémas électriques étant constamment mis à jour, il faut absolument se référer à ceux fournis à bord de nos appareils. Die Schaltpläne werden ständig aktualisiert, deswegen muss man sich stets auf das mit dem Gerät gelieferte Schaltschema beziehen. El cableado de las máquinas es sometido a actualizaciones constantes. Por favor, para cada unidad remitirse a los esquemas suministrados con la misma.

LEGENDA • KEY • LEGENDE • LEGENDE • LEYENDA

AR	= Arancio	**AR**	= Orange	**AR**	= orange	**AR**	= Orange	**AR**	= Naranja
BI	= Bianco	**BI**	= White	**BI**	= blanc	**BI**	= Weiß	**BI**	= Blanco
BL	= Blu	**BL**	= Blue	**BL**	= bleu	**BL**	= Blau	**BL**	= Azul
GR	= Grigio	**GR**	= Grey	**GR**	= gris	**GR**	= Grau	**GR**	= Gris
GV	= Giallo-Verde	**GV**	= Yellow-green	**GV**	= jaune-vert	**GV**	= Gelb/Grün	**GV**	= Amarillo-Verde
MA	= Marrone	**MA**	= Brown	**MA**	= marron	**MA**	= Braun	**MA**	= Marrón
NE	= Nero	**NE**	= Black	**NE**	= noir	**NE**	= Schwarz	**NE**	= Negro
RO	= Rosso	**RO**	= Red	**RO**	= rouge	**RO**	= Rot	**RO**	= Rojo



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