



USE AND INSTALLATION MANUAL

installation

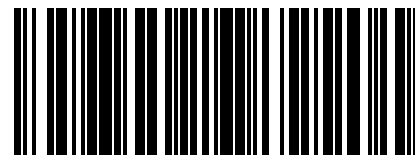
- Underfloor air Conditioning System

UFB

220-230V 50/60Hz



EN



IUFBTY 1503 - 5495900_00

DICHIARAZIONE DI CONFORMITÀ CE EC DECLARATION OF CONFORMITY DÉCLARATION DE CONFORMITÉ CE EG-KONFORMITÄTSERKLÄRUNG DECLARACIÓN DE CONFORMIDAD CE	La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante. This declaration of conformity is issued under the sole responsibility of the manufacturer. La présente déclaration de conformité est établie sous la seule responsabilité du fabricant. Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller. La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante:
Serie / Series / Série / Der Serie / Serie	UFB
Tipo / Type / Type / Typ / Tipo	VENTILATORE DA SOTTOPAVIMENTO / UNDERFLOOR FAN UNIT / VENTILATEUR EN FAUX PLANCHER / FAN UNTERFLUR / VENTILADOR BAJO PAVIMENTO
	Sigla / Code / Sigle / Abkürzung / Sigla
	Grandezza / Size / Taille / Größe / Tamaño
Modello / Model / Modèle / Model / Modelo	20
	Versione / Version / Version / Version / Versión

L'oggetto della dichiarazione di cui sopra è conforme alla pertinente normativa di armonizzazione dell'Unione: The object of the declaration described above is in conformity with the relevant Union harmonisation legislation: L'objet de la déclaration décrit ci-dessus est conforme à la législation d'harmonisation de l'Union applicable: Der oben beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union: El objeto de la declaración descrita anteriormente es conforme con la legislación de armonización pertinente de la Unión:
CEI EN 60335-2-80: 2005 + CEI EN 60335-2-80/A2: 2009
CEI EN 55014-1: 2008
CEI EN 55014-2: 1998
CEI EN 61000-6-1: 2007
CEI EN 61000-6-3: 2007

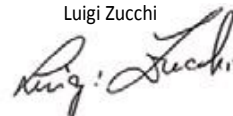
Soddisfacendo così i requisiti essenziali delle seguenti direttive: Thus meeting the essential requisites of the following directives: Satisfaisant ainsi aux conditions essentielles des directives suivantes: Womit die grundlegenden Anforderungen folgender Richtlinien erfüllt werden: Al que esta declaración se refiere, está en conformidad a las siguientes normas armonizadas:	
LVD 2006/95/CE EMC 2004/108/CE	Direttiva Bassa Tensione / Low Voltage Directive / Directive Basse Tension / Niederspannungsrichtlinie / Directiva de Baja de Tensión Direttiva Compatibilità Elettromagnetica / Electromagnetic Compatibility Directive / Directive compatibilité électromagnétique / Richtlinie zur elektromagnetischen Verträglichkeit / Directiva Compatibilidad Electromagnética

MODELLO CON ACCESSORI : E' fatto divieto di mettere in servizio il prodotto dotato di accessori non di fornitura Aermec.
MODEL WITH ACCESSORIES : It is not allowed to use the unit equipped with accessories not supplied by Aermec.
MODÈLE PLUS ACCESSOIRES : Il est interdit de faire fonctionner l'appareil avec des accessoires qui ne sont pas fournis de Aermec.
MODELL + ZUBEHÖR : Falls das Gerät mit Zubehöerteilen ausgerüstet wird, die nicht von Aermec geliefert werden, ist dessen Inbetriebnahme solange untersagt.
MODELO CON ACCESORIOS : Está prohibido poner en marcha el producto con accesorios no suministrados por Aermec.

Firmato a nome e per conto di Signed for and on behalf of: Signé par et au nom de: Unterzeichnet für und im Namen von: Firmado en nombre de:	AERMEC S.p.A. I-37040 Bevilacqua (VR) Italia - Via Roma, 996
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Bevilacqua (VR)	01/09/2014
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Direttore Commerciale – Sales Director
Luigi Zucchi



Manufactured with superior quality materials, in strict compliance with safety standards, the UFB20 is easy and durable in use.

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13. GENERAL WARNINGS

The UFB units are manufactured in accordance with recognised technical standards and safety regulations. They are designed for the renewal and treatment of ambient air, and they must be used for the purpose for which they are intended and their performance characteristics. All contractual and extra-contractual liabilities causing damage to persons, animals or objects or through errors of installation, control or maintenance or from improper use are excluded by the Company. Any uses not expressly indicated in this manual are not permitted.

Conservation of documentation

Consign the instructions with all the complementary documentation to the user of the accessory who will assume responsibility for the conservation of the instructions so that these are always available in case of need.

Carefully read this document. The execution of all the works must be carried out by qualified personnel, in accordance with the national regulations.

It must be installed in such a way to make

maintenance and/or repair functions possible.

Do not modify or tamper with the accessory as this may cause danger for which the manufacturer will not accept any responsibility for damages caused. The warranty is voided if the above instructions are not followed.

SAFETY WARNINGS AND INSTALLATION STANDARDS

- The unit must be installed by a competent and qualified technician, and in accordance with the legislation applicable in the country of installation. **Aermec assumes no responsibility for damage caused by failure to observe these instructions.**
- Instructions essential for the proper installation of the equipment are shown here. The final details to all the operations are left to the experience of the installer in accordance with the specific needs.
- Before commencing any works it is necessary to **CAREFULLY READ THE INSTRUCTIONS AND MINIMISE ANY RISKS BY TAKING APPROPRIATE SAFETY PRECAUTIONS.**
- All relevant personnel must be made


aware of the procedures and possible risks that may arise at the time of installation of the unit.

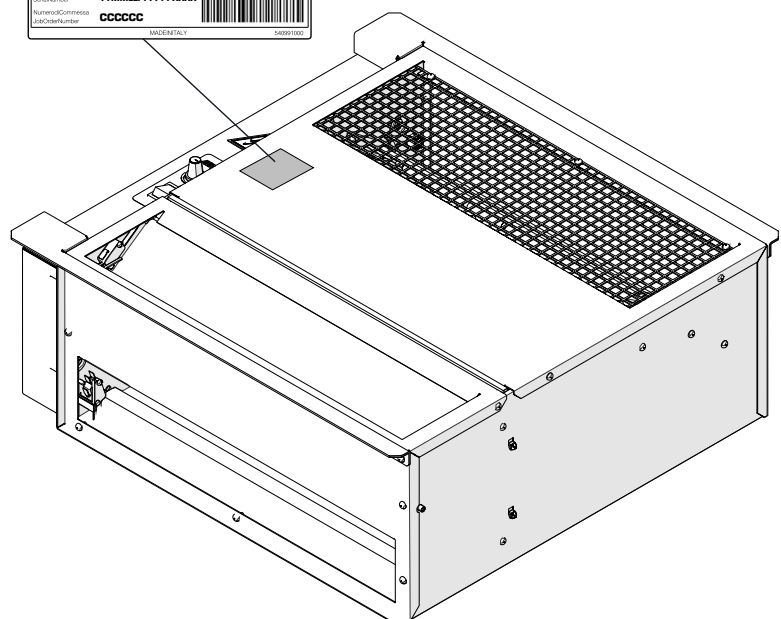
- The unit must be installed in such a way as to make easy ordinary maintenance (filter cleaning) and special maintenance as well as access to the grille
- **WARNING! : It is absolutely forbidden the operate the unit without connecting to the ducting system.**
- **DANGER : The fan is located immediately beneath the nozzles. It is absolutely forbidden to insert hands or objects. Power the unit only after connecting to the ducting system.**

14. PRODUCT IDENTIFICATION

The fan coil units are identified by:

- **PACKING LABEL** that records the product identification data.
- **NAMEPLATE**

AERMEC		AERMEC S.p.A. 03030MARE STRADA 6/A OGULIVITALE	CE
MODELLO MODEL	UFB20EH	VERSIONE VERSION	00
Tensione nominale Basic Voltage	230V	Frequenza nominale Basic Frequency	50Hz
Potenza assorbita nominale Basic Power Input	540W	Corrente assorbita nominale Basic Current Input	2.8A
Classe IP IP Grade	IP20	Temperatura massima Topical Climate	T40°C
Accessori elettrici Electrical accessories	<input type="checkbox"/> Filtro ad alta efficienza <input type="checkbox"/> Filtro ad alta efficienza <input type="checkbox"/> Filtro ad alta efficienza	<input checked="" type="checkbox"/> Isolamento termico <input type="checkbox"/> Isolamento termico	<input type="checkbox"/> Isolamento termico <input type="checkbox"/> Isolamento termico
Potenza assorbita Power Input	500W	Corrente assorbita Current Input	2.6A
Numero di serie Serial Number	YYMMLPPPPXXXX		
Numero di commessa Order Number	CCCCC	MADE IN ITALY 54991010	



WARNING: The tampering, removal or absence of the identification label renders difficult any operation of installation or maintenance.

15. IMPORTANT INFORMATION AND MAINTENANCE

WARNING: The unit is connected to the power supply network circuit. Any intervention by personnel not technically qualified can result in injury to the operator and damage to the unit and the surrounding environment.

ONLY PROVIDE A POWER SUPPLY OF 220-230V 50/60Hz TO THE UNIT

Using other power supply ratings can cause irreparable damage to the unit.

DO NOT USE THE UNIT IMPROPERLY

Do not use the unit in animal husbandry applications.

VENTILATING THE ROOM

Periodically air the room in which the unit 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.

CORRECTLY CONTROLLING THE TEMPERATURE

The room temperature should be controlled in order to provide maximum comfort to the people in the room, especially if they are elderly, children or ill, avoiding sudden changes in temperature between the outside and inside above 7 °C in summer.

A too low temperature will lead to increased electrical consumption in the summer.

CORRECTLY ADJUSTING THE AIR JET

The air coming out of the unit must not strike people directly; in fact, even if at a temperature that is higher than the room temperature, it could cause a cold sensation and resulting discomfort.

ORDINARY MAINTENANCE

The ordinary maintenance can be carried out by the user and consists of a series of simple operations, which will ensure that the unit operates at full efficiency.

Visual inspection of the state of the unit for every maintenance operation; any fault must be communicated to the After-Sales Service.

EXTERNAL CLEANING

- External weekly cleaning, to be done with a damp cloth (soaked in water no hotter than 40 °C) and a neutral detergent: avoid using any other type of detergent or solvent.

- Do not splash water on interior or exterior surfaces of the unit (it could cause short circuits).

PERIODIC FILTER CLEANING

Frequent filter cleaning ensures a better operating efficiency.

Check if the filter is very dirty: in this case increase the cleaning frequency.

Clean frequently by removing the accumulated dust with a vacuum cleaner.

When the filter is clean refit it to the unit reversing the removal procedure.

SPECIAL CLEANING

The possibility of removing the unit inspection panels (carried out only by personnel suitably qualified) allows detailed cleaning of the internal parts, particularly for installations with high occupancy or requiring elevated hygiene standards.

DURING OPERATION

Always leave the appropriate screw locking for the for filter in the unit during operation otherwise dust in the air will dirty the surfaces of the coil.

WHAT IS NORMAL

During cooling, water vapour may be present in the air discharge.

During heating it might be possible to hear a slight hiss around the unit. Sometimes the unit might give off unpleasant smells due to the accumulation of substances from the air of the room (especially if the

room is not ventilated regularly. Clean the filter more often).

During operation, there could be noises and creaks inside the unit, due to the thermal expansion of the various components (plastic and metallic), but this does not indicate a malfunction and does not cause damage to the unit.

OPERATING FAULTS

In the event of an operating fault disconnect and reconnect power to the unit and proceed with restarting the device.

WARNING! Do not attempt to repair the unit as this is very dangerous!

If the problems persists immediately call the local After-Sales Service.

DO NOT PULL THE ELECTRICAL CABLE

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

A damaged power cable can cause short circuits and personal injury.

DO NOT PUT ANYTHING IN THE AIR OUTLET

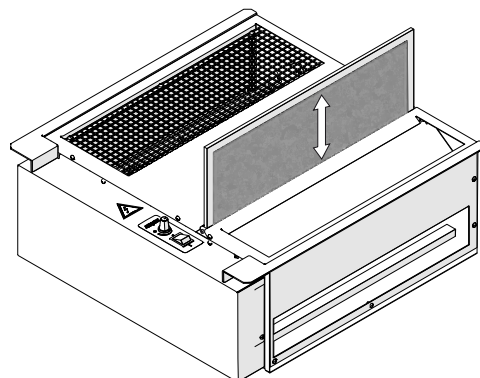
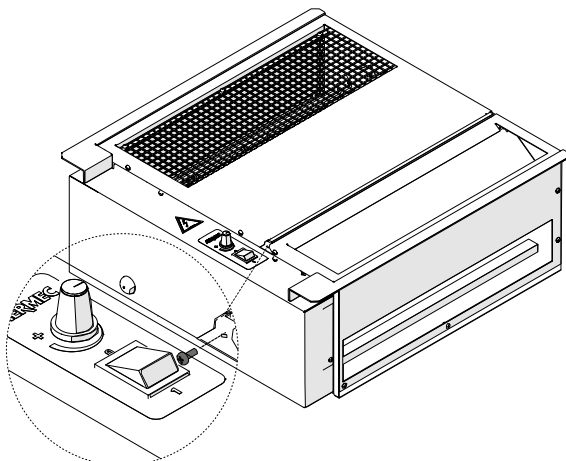
Do not put anything at all in the air outlet slots.

This could cause injury to people and damage to the fan.

WARNING

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision

16. FILTER MAINTENANCE AND CLEANING



17. FEATURES

The **UFB20** is an intelligent fan tile, easily positioned anywhere in the raised floor and provides the user with control over their "micro-climate".

Each UFB20 includes a fan, a modulating damper and intelligent controller and will maintain the locally desired set temperature by recirculating a varying mixture of air from the room and conditioned air from under the raised floor.

The flexible office

Quick and easy relocation of all electrical items is achieved with the use of a dedicated system of power and data tracks run in a raised modular floor void. Combining the use of HBF with the Aermec Air Conditioning System, obviates the need for a suspended ceiling.

All services are now conveniently accessible in the floor void allowing easy reconfiguration and maintenance.

Version

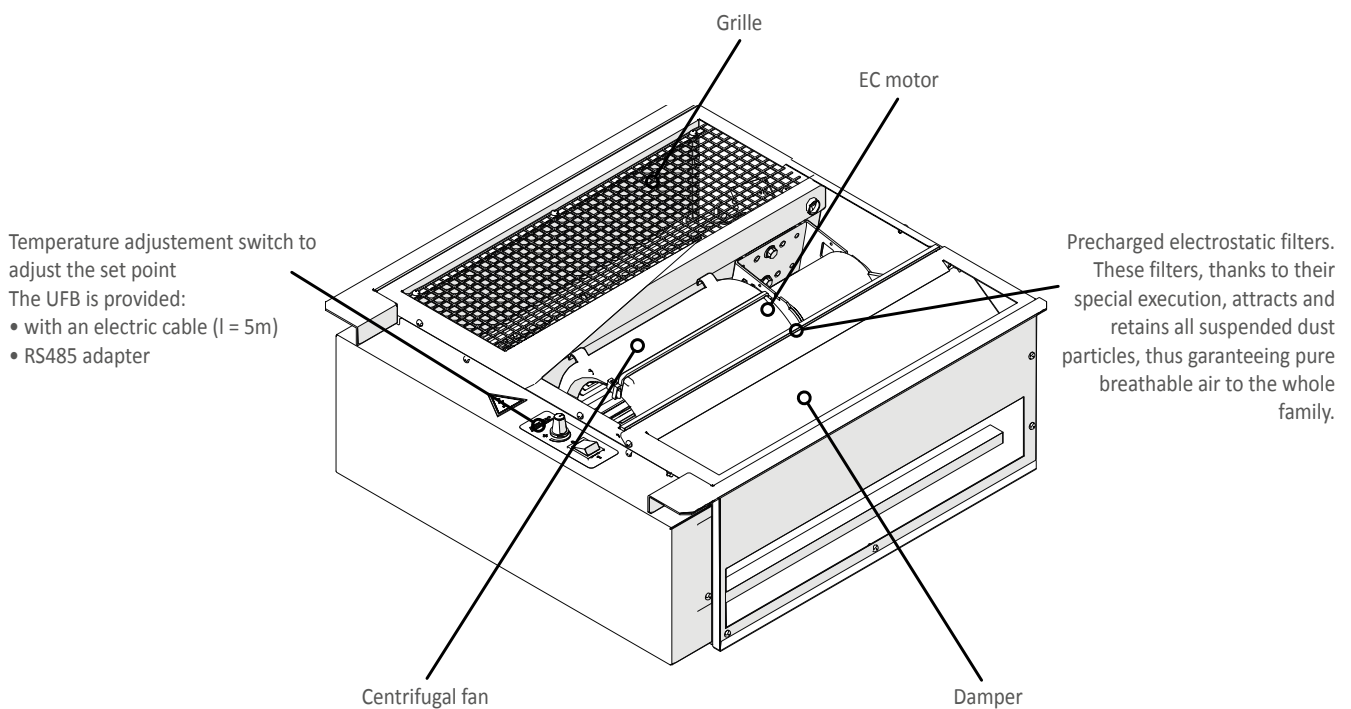
UFB standard

UFB_EH is equipped with electrical heater with a couple of safety thermostat, one with automatic restart and one with manual restart.

The UFB20 Cabinet is a self supporting structure manufactured in galvanized steel. The UFB20 Damper is manufactured in galvanized steel and connected to a synchronous motor controlled by the microprocessor control board. The UFB20 fan is a centrifugal fan with a continuously variable EC motor. The fan propeller and the fan shell are manufactured in antistatic plastic material. The UFB20 has, as standard, a pre-charged electrostatic filters. This filter attracts and retains all suspended dust particles. The UFB20 microprocessor control board functions are:

- automatic regulation feature based on return air temperature sensor and room set point.
- motorized air damper control thanks to 2 different temperature sensors:
 1. Return air temperature sensor
 2. Under floor air temperature sensor

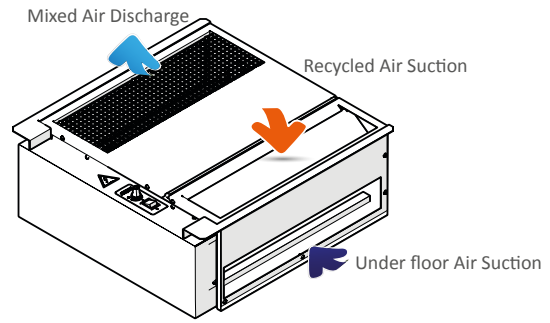
The UFB20 is controlled with a ON/OFF switch on the control box cover and situated under the grille. The UFB20 is equipped with a Temperature Adjustment Switch to adjust the setpoint.



19. OPERATION

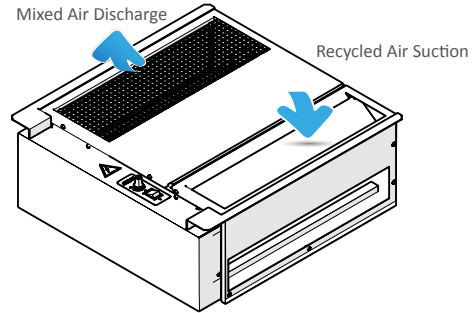
COOLING MODE

If the room sensor detects that the local temperature is too warm, it interrogates the underfloor sensor. If the underfloor temperature is below that of the room air, the damper is modulated open to allow cooling to the space. The damper is modulated sufficiently to offset the heat gain to the space.



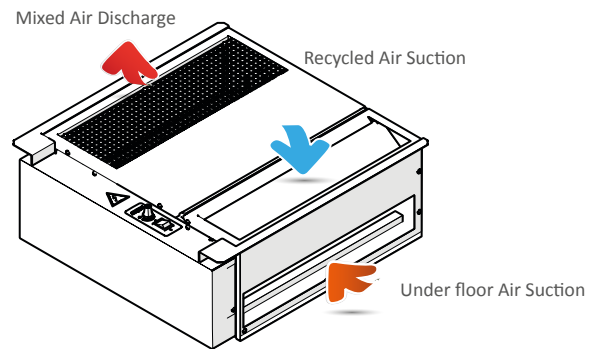
RECIRCULATION MODE

When the room sensor detects that the local temperature matches the set point, the damper will be closed and the unit will be in recirculation mode. An adjustable bleed damper allows sufficient air from the floor void to provide the fresh air requirements for the space.

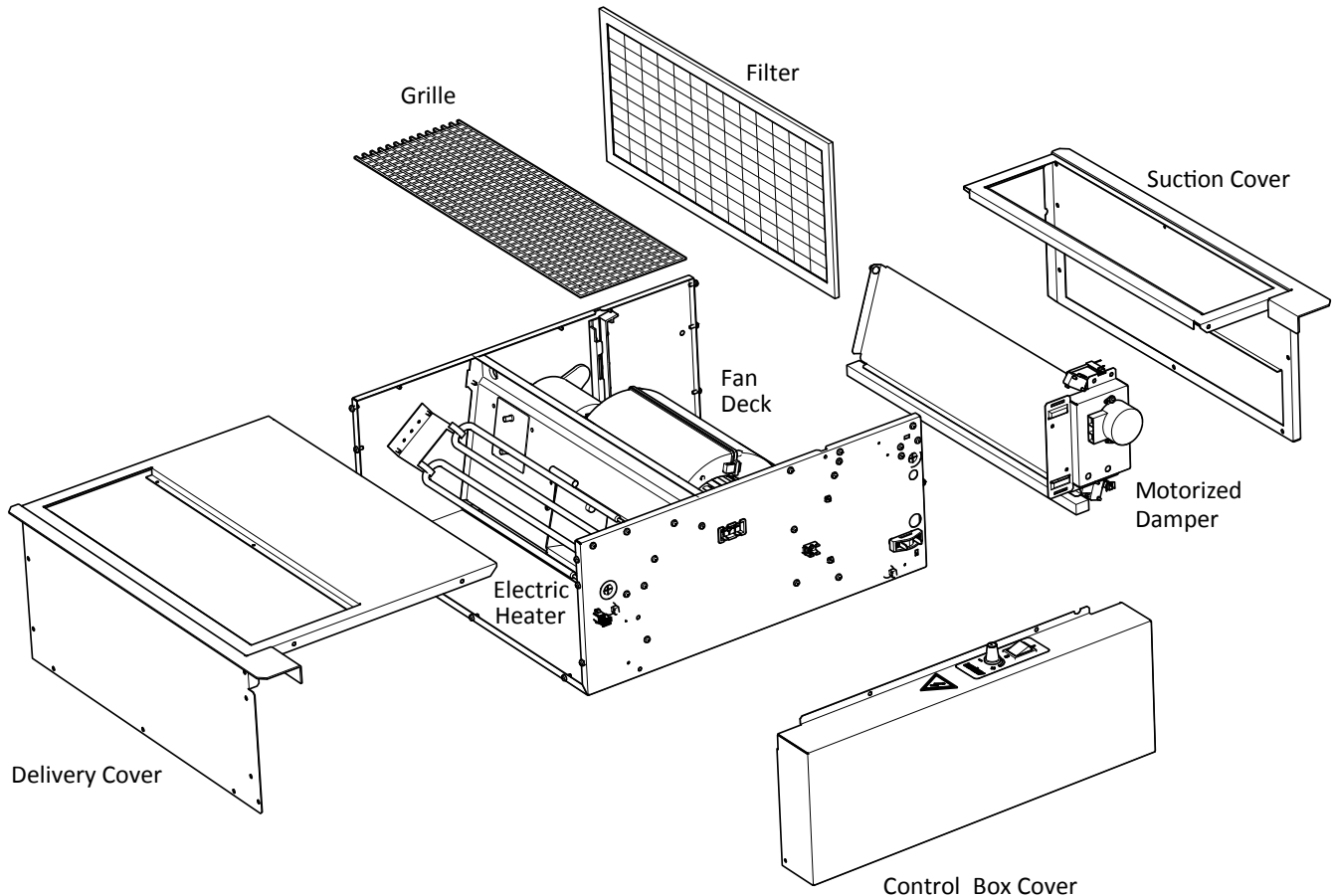


HEATING MODE

If the room sensor detects that the local temperature is too cold, it interrogates the underfloor sensor. If the underfloor temperature is above that of the room air, the damper is modulated open to allow heating to the space. The damper is modulated sufficiently to offset the heat loss to the space.



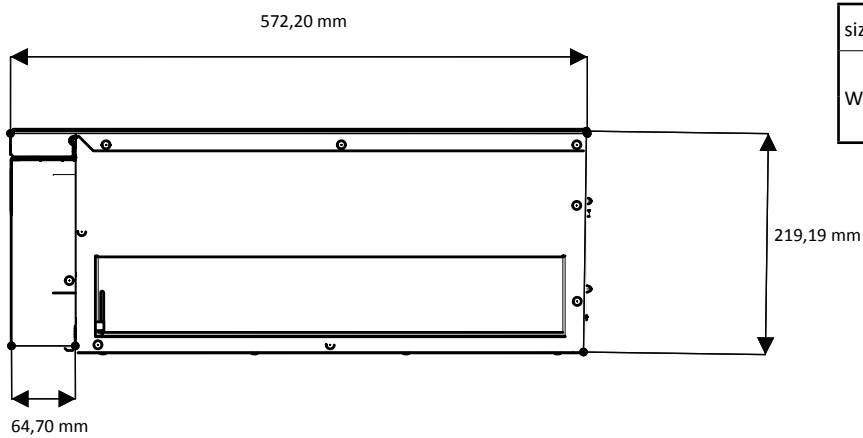
18. MAIN COMPONENTS "HE" VERSION



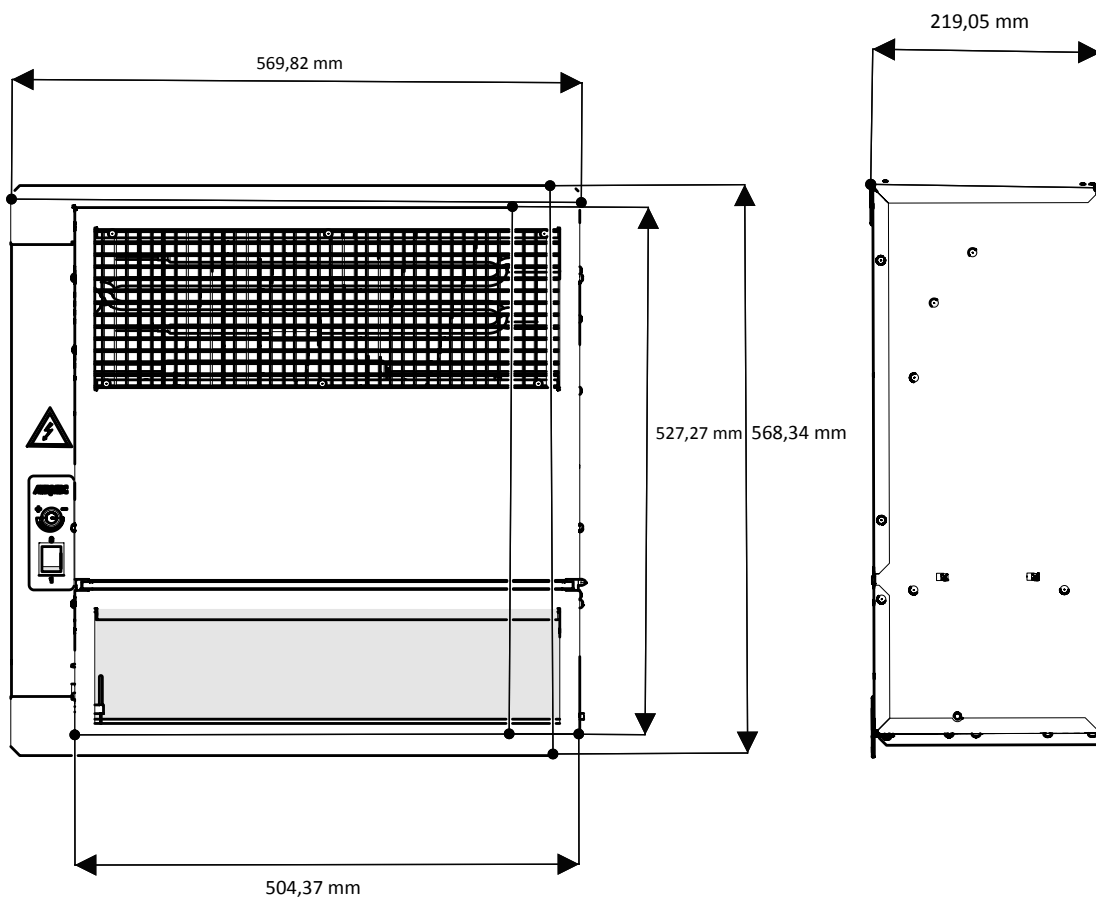
21. TECHNICAL DATA

Mod.	UFB	20
FEATURES		
Fan Motor	Type	Brushless Motor
Fan speed	Type	Continuous fan speed regulation
Casing thickness	mm	1
Max fan power input	W	58
Max fan power input (for UFB_EH)	W	540
Air flow rate	m ³ /h	100 - 650

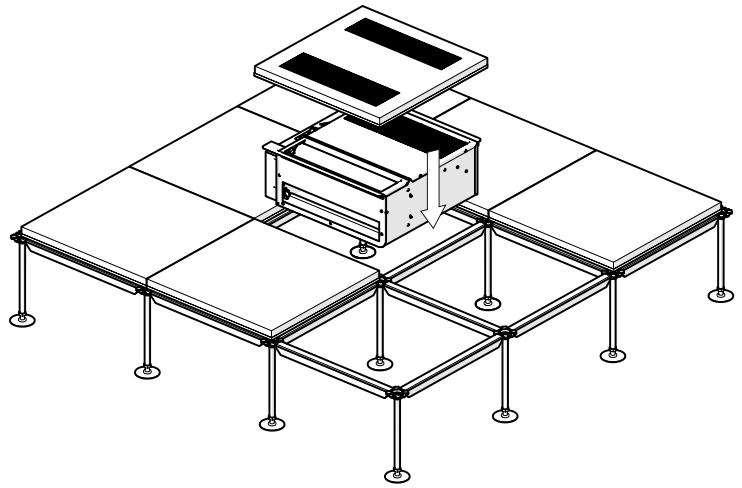
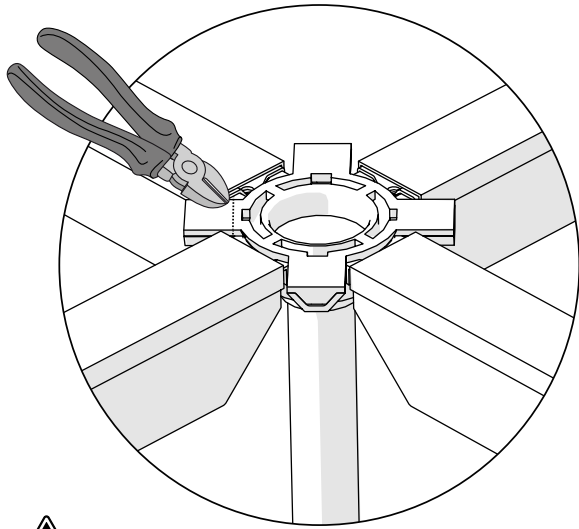
20. DIMENSIONS AND WEIGHT




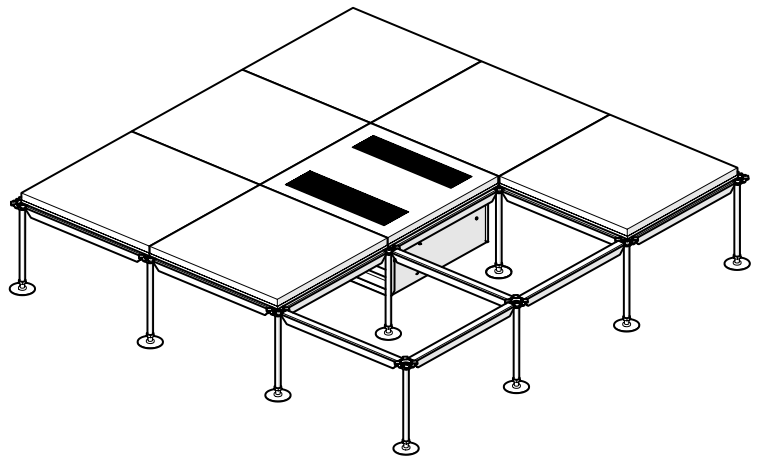
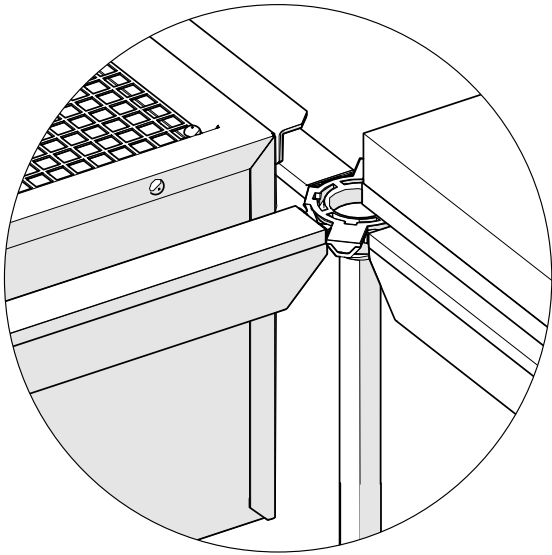
size		20
Weight	kg	UFB 15.5
		UFB_EW 17



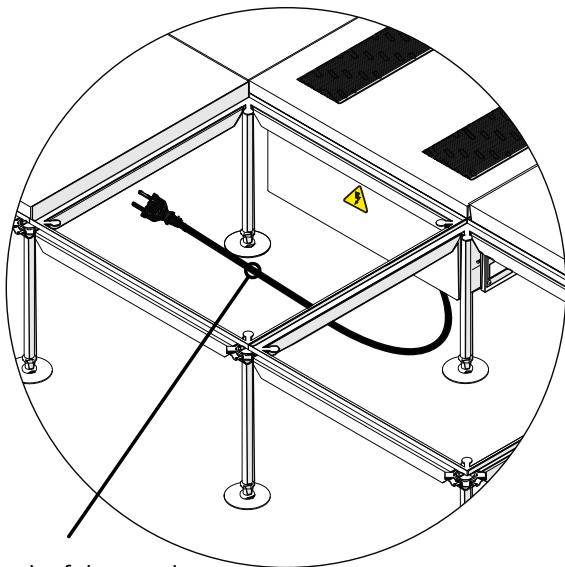
23. INSTALLATION OF THE UNIT



 Predisposition of the supporting structure

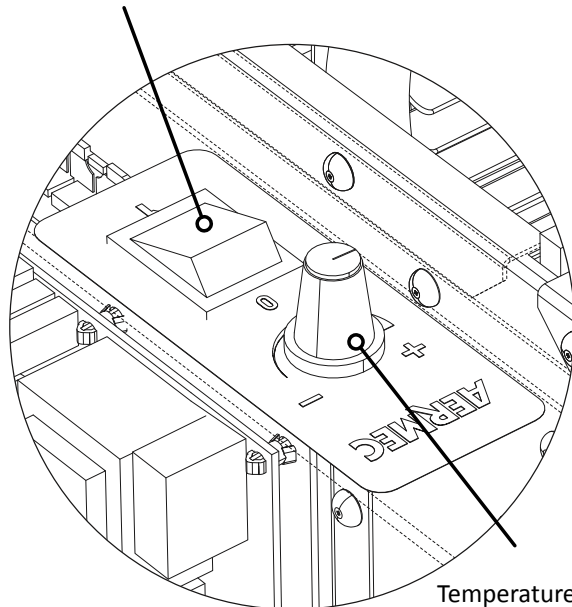


22. ELECTRICAL CONNECTIONS AND CONTROLS



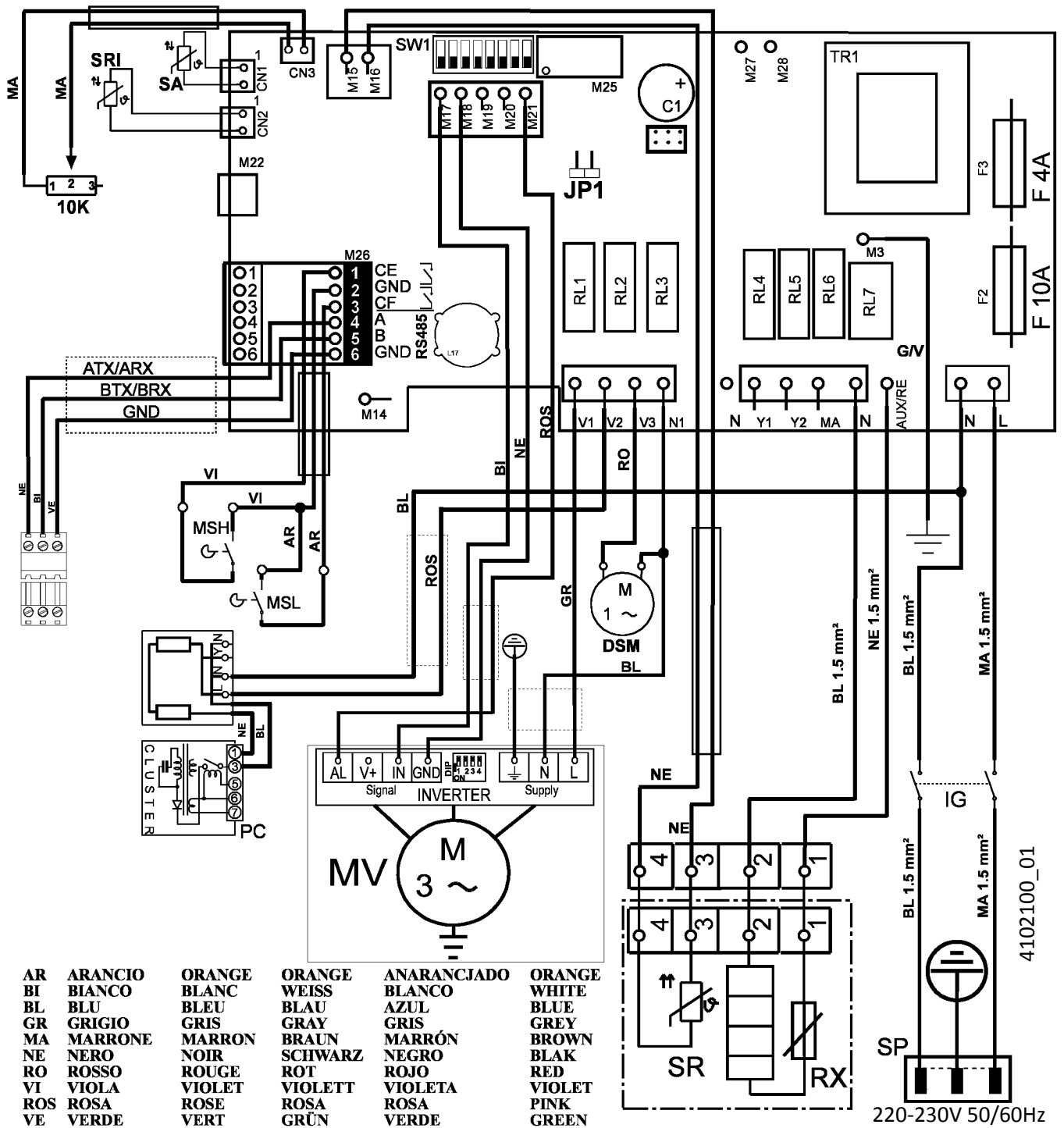
length of the supply cable 5m

ON/OFF Selector Switch



Temperature Adjustment Switch

24. WIRING DIAGRAM



Technical data shown in this booklet are not binding.
Aermec S.p.A. shall have the right to introduce at any time whatever modifications deemed necessary to the improvement of the product.



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