

# AIR CONDITIONERS

## THE RANGE



# Climate and design...

## Monosplit - wall

### A CLASS deluxe

UND A H

R 410 A

### PROFESSIONAL

UPN A H

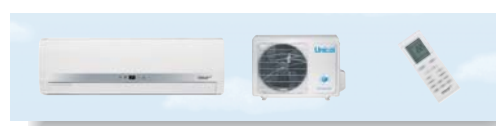
R 410 A



## Monosplit - wall - INVERTER

UNAD A H INV

R 410 A



## FREEMULTI - INVERTER

### FMUN HI

split - internal units

R 410 A

### FMPS HI

floor/ceiling - internal units

R 410 A

### FMCS HI

cassette type - internal units

R 410 A

### FMCN HI

duct type - internal units

R 410 A

### FMX HE

external units

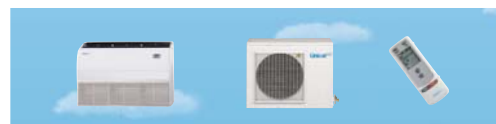
R 410 A



## Floor/ceiling

PS H

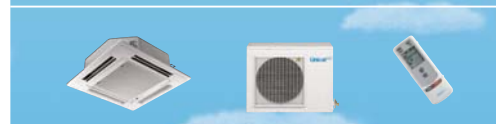
R 410 A



## Cassette type

CS H

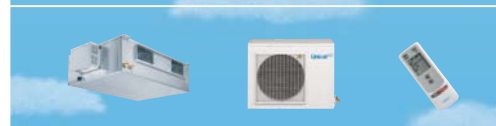
R 410 A



## Duct type

CN H

R 410 A



## Air curtains

BA TC



# ...for every room

## The right climate

Unical Air is the line of air conditioners Split System type, made of one or more “evaporating” sections, (units, installed inside the living space) and of a “condensating” section (unit, placed outside of the building).

The attention in the design phase has made possible the realization of models with a smart design, that conjugates operational and furnishing demands. The silent operation, peculiar characteristic of these appliances, allows the installation in any room, while the different available outputs make the range versatile. Residences, offices, restaurants, shops, are the places where Unical Air is able to create the correct climate in the day and night time.

## Open doors with the barriers of air

For the sectors of the tertiary commercial and of the industry, Unical Air proposes a specific range of air barriers. Such appliances, provoking a flow of vertical air to the entrance of the living space, allow to maintain open the doors of the commercial places, “blocking” the spillage of the micro-climate created in the living space.

## The importance of the energetic saving

The European directive 2002/31/CE fixes the requirements that must be complied with in terms of energetic labelling of the air conditioners for domestic use, with an output, in cooling mode, smaller or equal to 12 kW (see fig. 1)

For each unit, the energetic efficiency class is determined on the base of the value EER (Energy Efficiency Ratio, efficiency in cooling mode) and COP (Coefficient Of Performance, efficiency in heat pump mode) and it is identified by a letter that varies from “A” for low consumptions, to “G” for high consumptions (see fig. 2)

LABEL OF ENERGETIC EFFICIENCY

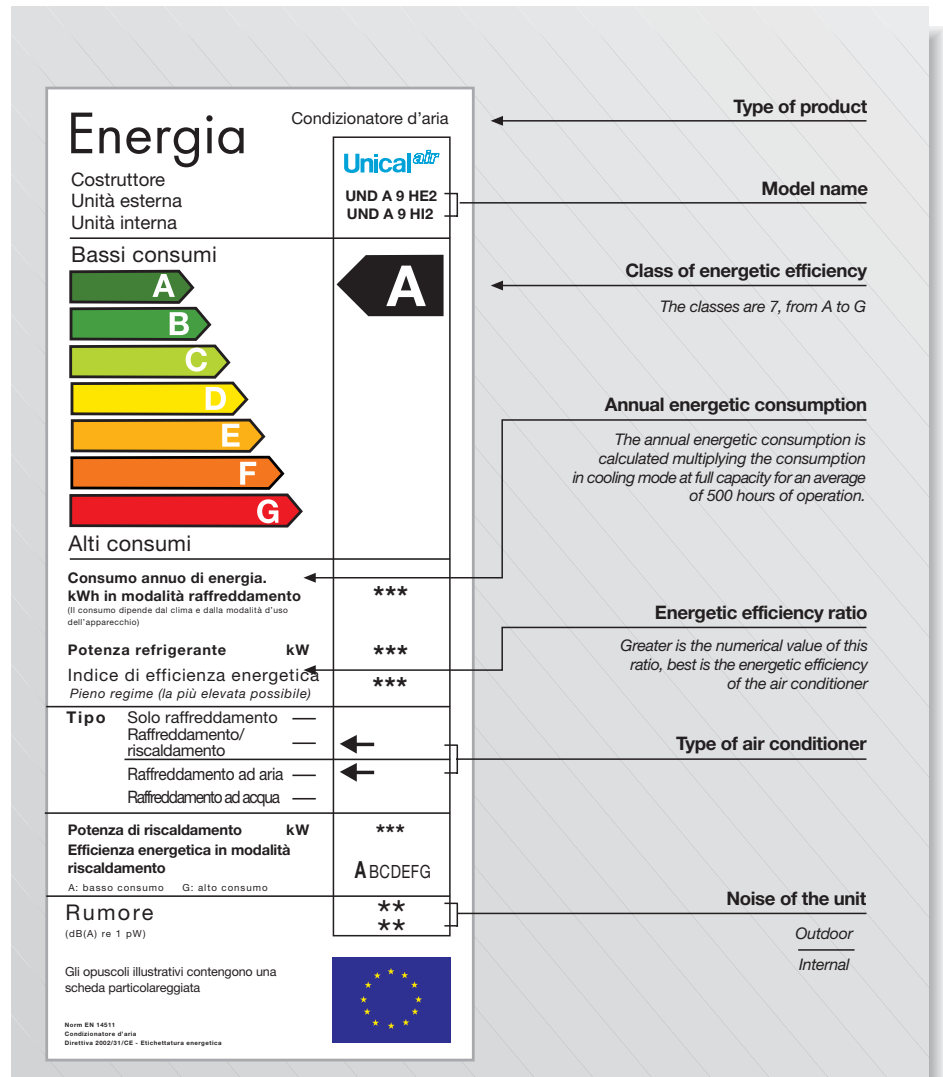


fig. 1

CLASSES OF ENERGETIC EFFICIENCY

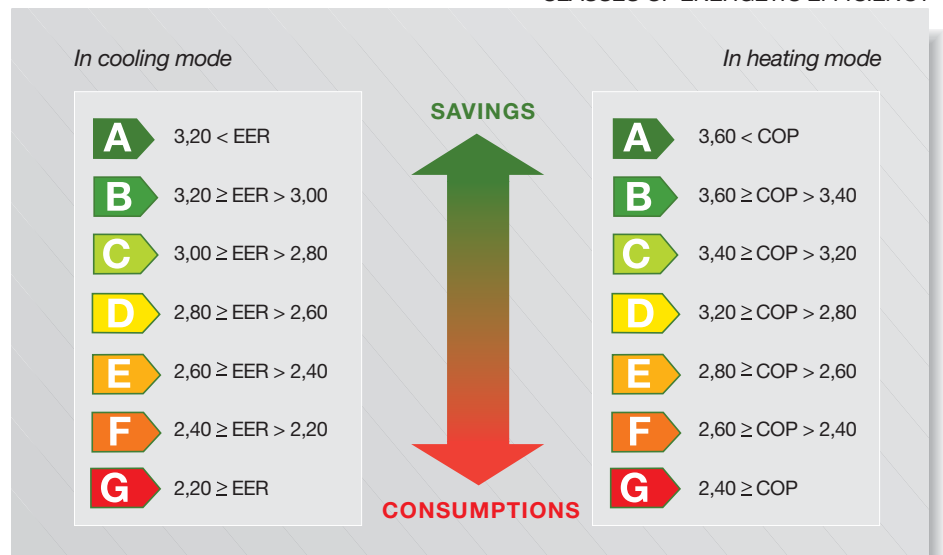


fig. 2



# A CLASS deluxe

*the reliability changes look*



Air conditioner model UNDA H

The extraordinary reliability, joined to an accurate and elegant design, is the winner binomial from which it is born "A CLASS deluxe", the range of air conditioners heat pump type, working with **R410A** as refrigerant.

The available models are four:

- UNDA 9H
- UNDA 12H
- UNDA 18H
- UNDA 24H

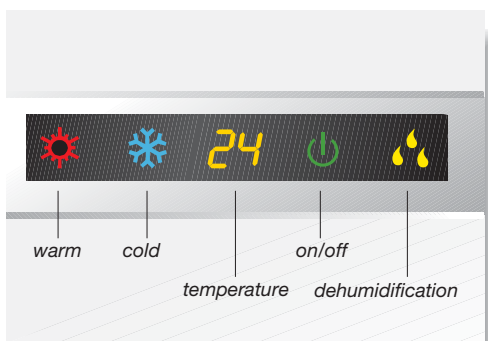
## Modern Design

The flat line of the façade, that maintains, however, small dimensions, characterizes the whole "A CLASS deluxe" series and places it among the most modern and elegant air conditioners currently on the market.

## Central Display

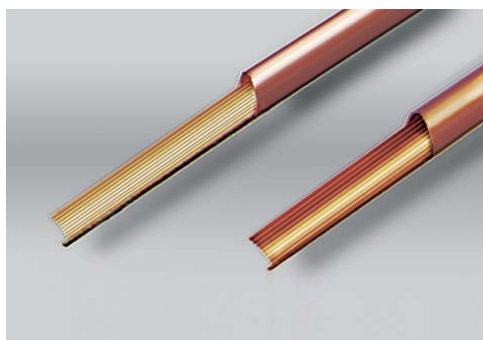
The air conditioners "A CLASS deluxe" have an elegant and functional display from which it is possible to get useful informations about the operation or the possible errors of the appliance.

The internal unit is provided of double frontal deflector with wide motorized finning, that allows to direct the air flow via the multifunction remote control.



Detail of the multifunctional display

# Advanced technology for a real saving



Pipes "Ultra Inner Groove"

The innovative structure of the piping of the "Ultra Inner Groove" heat exchanger, made with particular "U" grooves, has been designed to increase the thermal exchange surface and therefore the efficiency of the whole system.

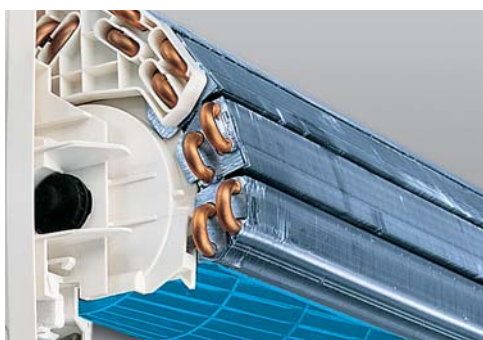
Besides, the care in the details, combined with the performance of operation, set the "A CLASS *deluxe*" series between the highest class and energetic saving air conditioners.



Detail of the "twisted" fan



Detail of the flap and internal deflectors



Heat exchange battery with winding segments

## The reasons for a choice

To choose the "A CLASS *deluxe*" range means also to have an innovative product also in the following functions:

- *pipng with a particular conformation*
- *stylish display*
- *anti-mould treatment*
- *automatic and guaranteed restart function also in emergency situations*

the whole with the maximum energetic saving and a least environmental impact. Without forgetting the notable aesthetical value of its design.



**Multifunctional display**



**Start Assist**

allows the starting of the compressor also with tensions lower than 230 Volts.



**Auto-restart**

automatic restart of the air conditioner in case of electrical black out



**Reduced consumptions**



**"Ultra Inner Groove"**

particular micro-grooves of the piping that increase the thermal exchange surface and the efficiency of the whole system.



**Anti-mould "Blow"**

drying of the inside battery to avoid formations of mould



**Turbo function**

allows to reach more quickly the comfort temperature



R 410 A ecologic

# Professional performances and style



Air conditioner model UPN A H

Mono-split, wall mounted, Uical air conditioners that so much success have found on the market for their reliability and performances.

The models:

- UPNA 9H
- UPNA 12H

use the refrigerant **R410A**, that guarantees a good efficiency and an elevated energetic saving.

The care in the details, combined with the quality of the components, characterizes also the versions of larger power:

- UPNA 18H
- UPNA 24H

that result extremely compact and silent and operate in the full respect of the environment, because they use an ecological refrigerant.



Detail of the battery with anti-mould treatment and reversible condensate evacuation.



**CLASSE A** high efficiency  
**R 410 A** ecologic



# A CLASS deluxe Inverter exaltation of the performances



Air conditioner model UNAD A H INV



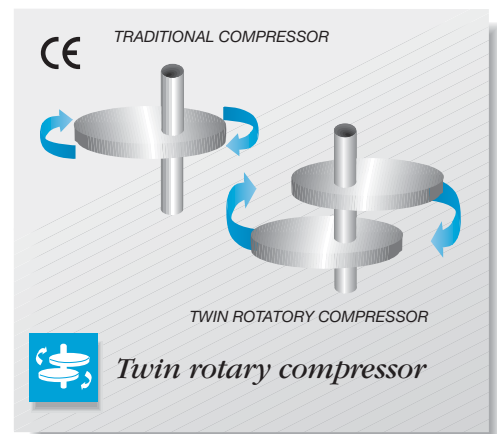
The direct current A CLASS deluxe INVERTER represents the maximum technological expression in the Unical air conditioning field. The use of rotary compressors (twin rotary for versions 18H & 24H) exalts their silent operation and efficiency, allowing, with the continuous modulation, to obtain:

- The maximum saving with the use of the minimum necessary output
- Better comfort in living spaces, by eliminating the classic temperature oscillation of the traditional systems
- Reduction of the switching on and off, cause of higher consumptions in the traditional systems

Besides, with catechin filters, substance obtained from the tea leaves, it is possible to purify the air from polluting agents, by neutralizing also bacteria and viruses.

The range is made of four, heat pump type, models:

- UNAD A 10H INV
- UNAD A 13H INV
- UNAD A 18H INV
- UNAD A 24H INV





CLASSE A high efficiency  
R 410 A ecologic



# *FREEMULTI*

## *multi-split inverter*



Wall mounted type, Inverter model FMUN HI

### *The optimal comfort in every room*

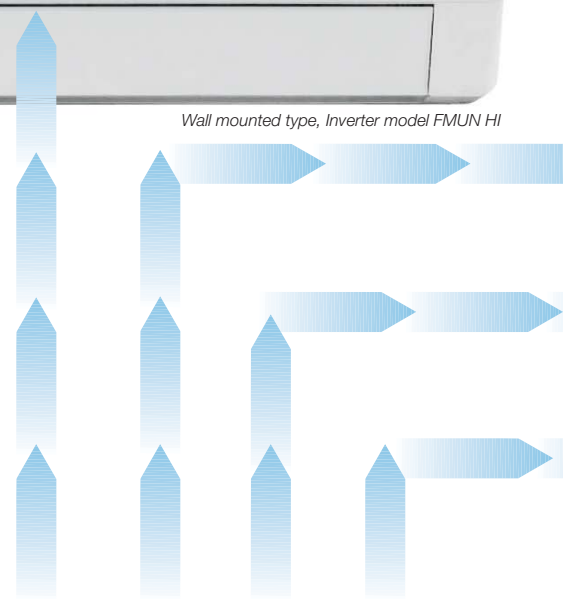
The FREEMULTI systems of Unical air allow to reduce the outdoor encumbrances of installation without having to renounce to the optimal comfort of the room to be conditioned. In fact just one outdoor unit can manage 2, 3 or 4 internal units (mod. 28H), and up to 2 internal units in the models 18H and 24H.

If the sum of the powers of the internal units overcomes the one of the outdoor unit, the system will automatically share the total power among the various internal units. Many are, therefore, the possible combinations with the FREEMULT range.

The outdoor units are available in three models with different powers:

- FMX2 18HE
- FMX2 24HE
- FMX4 28HE

This allows a great installation flexibility in order to satisfy every residential and commercial demand. It is possible to install the internal unit of the power that better suits for dimensions and conformation every room to be conditioned.



Outdoor unit Inverter model FMX HE





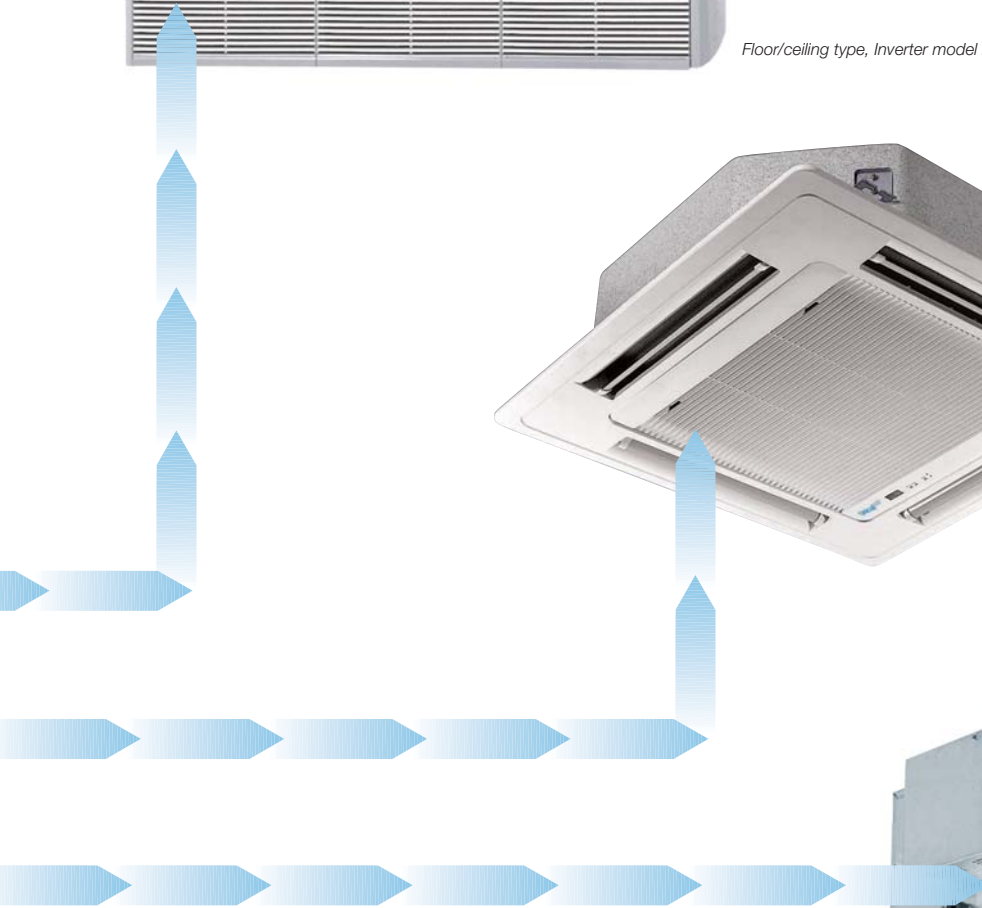
Floor/ceiling type, Inverter model FMPS HI



Cassette type, Inverter model FMCS HI



Ducted type, Inverter model FMCN HI



The comfort in the living spaces is guaranteed by:

- **DC Inverter Technology:** the continuous progressive modulation allows the rotary compressor to adjust the absorbed power depending on the number of the internal units and on the requested temperature, thus getting an electrical energy saving of about 20% in comparison to the traditional systems.
- **Heat pump also with low external temperatures:** thanks to the variable speed of the internal unit fan.

- **Constant temperature in living spaces,** thanks to the power modulation of the compressor, that avoids annoying temperature oscillations, classical of the on/off systems.
- **Thermo-assisted modulating expansion valves:** they adjust the refrigerant pressure in order to always have the maximum efficiency by the refrigerating circuit according to the working conditions of the whole system.
- **Catechin filters:** substance obtained from the tea leaves, with which it is possible to purify the air from the polluting agents, also neutralizing bacteria and viruses.



# Freemulti possible combinations

## Outdoor units

FMX2 18HE  
FMX2 24HE  
FMX4 28HE



## Internal units

### Wall

FMUN 9HI  
FMUN 12HI  
FMUN 18HI



### Floor/Ceiling

FMPS 9HI  
FMPS 12HI  
FMPS 18HI



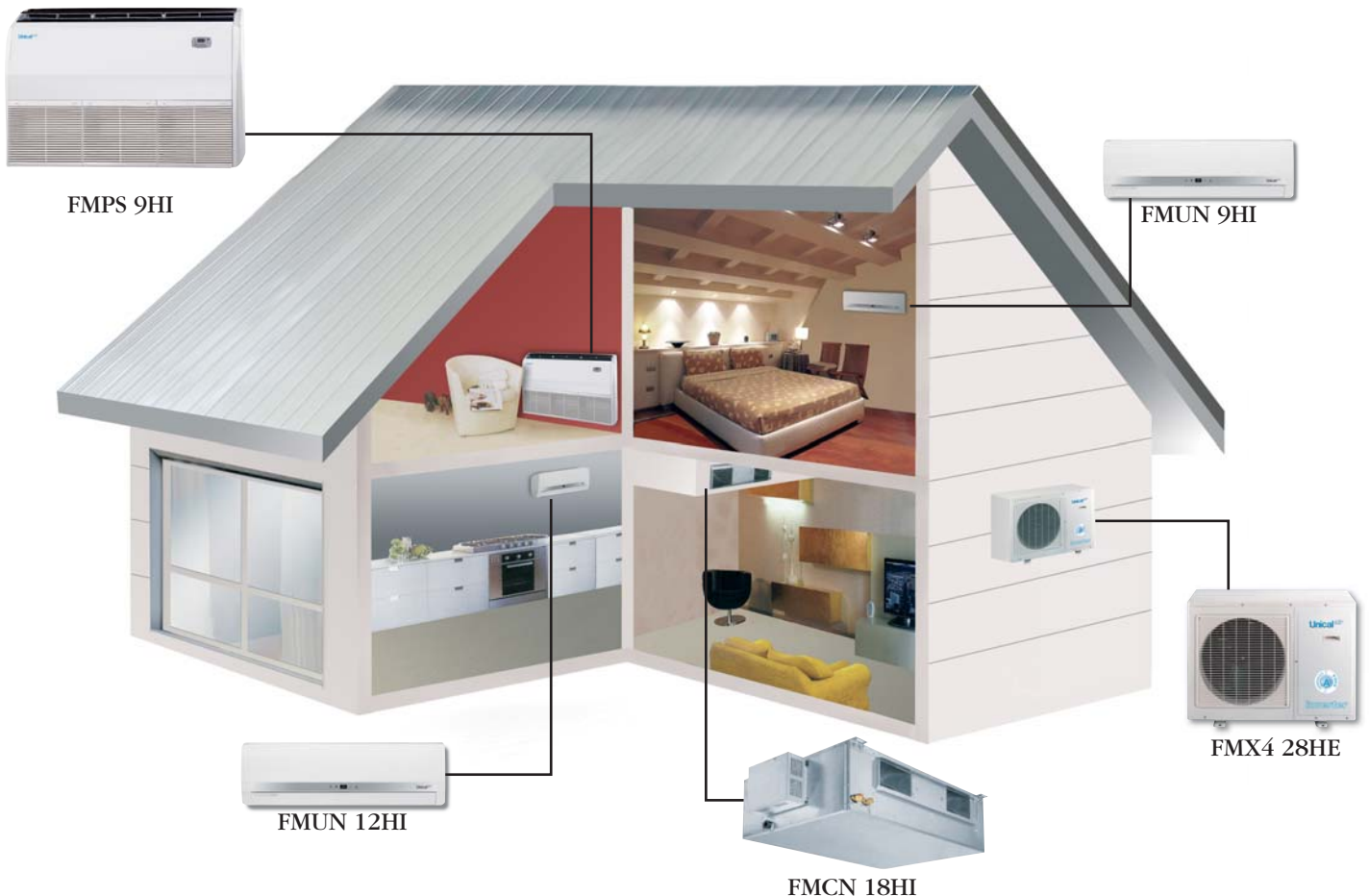
### Cassette

FMCS 12HI  
FMCS 18HI



### Ducted

FMCN 9HI  
FMCN 12HI  
FMCN 18HI





R 410 A ecologic

# Floor and Ceiling type

## The design first of all

The series FLOOR/CEILING is characterized by 5 split, heat pump models:

- PS05 12H
- PS04 18H
- PS05 24H
- PS05 36H
- PS05 48H

Particular care has been set in the design of such appliances, with rounded and modern lines that have been designed for the installation in elegant living spaces, indifferently of floor or ceiling type. They are suitable to residential or commercial middle/large dimensions living spaces.

The internal unit is endowed with a wide finning that allows the orientation of the principal throwing and with an oscillating motorized deflector that allows a secondary positioning of the air flow via the remote control.

The casing of the outdoor unit is in steel, painted with epoxy-polyester powders, while the grate of expulsion is in plastic material, of large dimensions, that doubles in the model 48H, in order to assure a more efficient exchange with greater silent level.

The compressors that equip such units are of "rotary type" for the models 12H, 18H and 24H and of "scroll type" for models 36H and 48H.

The operation and control electronic card, that is equipped with Intronic microprocessor, is completed with an important additional function named "**Watchdog**" that, in case of malfunctioning of the micro-processor due to voltage oscillations, restores automatically the regular operation, thus avoiding dangerous current overloads to the microprocessor.



Floor type installation



Ceiling type installation





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## Cassette type

### Smartly effective

The Unical air conditioners CASSETTE type are made of a 5 models

- CS05 18H
- CS05 24H
- CS05 36H
- CS05 48H

The model CS05 18H has a very interesting small volume that, thanks to the dimensions of its frame, practically allows the installation in all the false ceilings, occupying just one module (60 x 60 cm).

Even if of small dimensions, this model doesn't sacrifice the performances, thanks to the special centrifugal fan, particularly silent.

For higher capacities are available the models CS05 24H, 36H and 48H, suitable for middle/large size commercial living spaces, such as wine bars, restaurants, wide shops, meeting rooms, etc.

The internal unit is contained in a completely insulated wrapping, with centralized fan that foresees the throwing of the air through four openings, positioned on the external sides, provided of a special motorized deflector that distributes in homogeneous and uniform way the air in the room.

Are favoured the installations in living spaces that need to filter the air very often, such as: restaurants, meeting rooms and smoking zones. A dedicated electronic card makes "the condensation control" of the outdoor unit in order to optimize the efficiency of the unit also when the external environment conditions change.

All the outdoor units are equipped with "rotary" or "scroll" compressor. In the model 48H the outdoor unit



Air conditioner model Cassette CS

is equipped with two fans, to increase the efficiency and, at the same time, to reduce its noise. Remote control, washable mechanical filter and replaceable coal type filter, complete them.





R 410 A ecologic

# Air conditioners ducted type

## The climate that you cannot see

The Unical Air DUCTED TYPE air conditioners are made of a 5 models, heat pump, series:

- CN05 18H
- CN05 24H
- CN05 36H
- CN05 48H
- CN05 60H

All equipped with remote control and wire type control, they are suitable to false ceiling installations.

The internal unit is realized in steel, conveniently insulated to avoid energy losses and condensate formations, and to assure, at the same time, an acoustic insulation.

The fans of the internal units supply an elevated manometric head, that ranges from 65 to 120 Pa (6,5÷12,5 mm w.g.).

For the optimization and the diversification of the air flows to be distributed, special "plenums" can be fitted.

A dedicated electronic card makes "the condensation control" of the outdoor unit to optimize the efficiency of the appliance when the external environment conditions change.



CN ducted type air conditioner



Wire type control



### AVAILABLE STATIC PRESSURE

Mod.	CN05 18 H	CN05 24 H	CN05 36 H	CN05 48 H	CN05 60 H
Pascal	65	65	70	70	120

# *Air curtains*



## *The comfort is guaranteed also with the doors open*

Conceived to prevent the spillage of the warm or the cool air from commercial places (department stores, wine bars, shops, halls) constantly with doors open to the public, they are an answer to the demands of a specific segment of market, where the strong passage of people or the necessity to maintain the spaces on sight, don't allow the installation of doors.

Available in 3 models:

- BATC 60 (width 60 cm)
- BATC 90 (width 90 cm)
- BATC 120 (width 120 cm)

They can be connected in cascade in order to suit themselves to the dimensions of the opening that is wanted to be treated and they are effective if installed to a maximum height from the floor of 3 meters and they can be remote controlled via a comfortable infrared remote control. The air curtain is constituted by one or more powerful fans that suck the conditioned air from the living space and, through special openings, launch it downward with a laminar flow that, due to its high speed (9 m/s) stops the entry of external air not treated.

The blade of air that is created is also able to prevent the entry in the living space of bugs, such as flies and mosquitos.

# Outdoor units

The different outdoor units of the range Unical Air are equipped with a steel casing, painted with completely rustproof epoxy-polyester powders.

The particular grate of expulsion of the condensing battery cooling air, of wide section, has been designed in order to reduce the noise to the outside.

It is made in ABS, thermo-resistant crushproof polymer, with protective treatment against the UVA rays and with soundproofing material.

The impeller, of new design with cut-off blades, fitted on elastic suspensions, contributes to reduce the sonorous emissions in the most annoying frequencies.

The low-power range is, besides, equipped with an elegant coverage of the electric cables and the refrigerant pipes.

## The compressor

The compressors for the outdoor units are of "rotary" or "scroll" type. These last ones are screw type compressors that guarantee high power, are very silent and have a low starting current.

The compressors of the range Unical Air are covered with a soundproofing material and fitted on elastic anti-vibration supports.

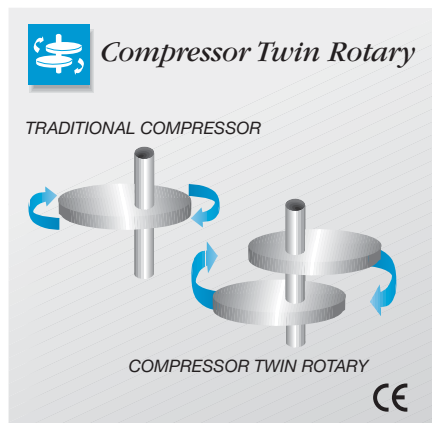
## Installation

A few screws, to get access from every side of the unit, make easy and less expensive both, the assemblage and the maintenance. The installation of the outdoor unit is facilitated by the light weight that the high quality plastic materials employed can guarantee.

Both units, the internal and the outdoor ones, are pre-loaded, allowing, at the installation stage, the verification of the perfect gas soundness of the evaporating battery circuit. The use of the special brackets (optional) equipped with anti-vibration supports, complete the insulation of the units from the outside.



External units



# Technical Data

For the installation

Model	code	NOMINAL OUTPUT*				ABSORBED OUTPUT		TENSION FREQUENCY PHASE	AIR FLOW RATE	INTERNAL UNIT DIMENSIONS			OUTDOOR UNIT DIMENSIONS			WEIGHT		CONNECTIONS		PRE-LOADED REFRIGERANT	MAX. DISTANCE BETWEEN O. & I. UNITS		ADDITIONAL REFRIGERANT	MAX. LEVEL DIFFERENCE BETWEEN O. & I. UNITS	INTERNAL UNIT NOISY
		COOLING	HEATING	COOL.	HEAT.	COOL.	HEAT.			W	H	D	W	H	D	I.U.	O.U.	GAS	LIQUID		W/PRE-LOADED REFRIG.	W/ADDITIONAL REFRIG.			

A Class deluxe

UND A 9H	76000005	9065	2.65	9750	2.85	0.82	0.78	230-50-1	510	740	250	180	848	540	320	8	35	3/8" 1/4"	0.8	5	15	25	5	38
UND A 12H	76000006	12025	3.51	13730	4.01	1.08	1.10	230-50-1	510	805	280	210	848	540	320	9	40	1/2" 1/4"	1.1	5	15	25	5	38
UND A 18H	76000007	18005	5.27	19495	5.70	1.64	1.67	230-50-1	830	1020	310	228	913	680	378	14	46	1/2" 1/4"	1.6	4	15	50	5	45
UND A 24H	76000008	22010	6.44	23260	6.80	2.12	2.10	230-50-1	830	1020	310	228	950	700	412	15	59	5/8" 3/8"	1.85	4	15	50	5	45

Professional

UPN A 9H	800000205	9030	2.64	9630	2.81	0.82	0.78	230-50-1	400	730	255	174	785	540	320	8	31	3/8" 1/4"	0.8	4	10	30	5	37
UPN A 12H	800000206	11015	3.22	12000	3.51	1.01	0.97	230-50-1	550	790	265	177	848	540	320	9	35	1/2" 1/4"	0.85	4	20	30	10	38
UPN A 18H	800000207	16040	4.69	16760	4.90	1.46	1.42	230-50-1	850	940	298	200	848	540	320	13	40	1/2" 1/4"	1.15	5	10	30	5	45
UPN A 24H	800000208	21050	6.15	22230	6.50	1.90	1.90	230-50-1	850	940	298	200	913	680	378	13	46	1/2" 1/4"	1.45	5	10	50	5	44

Inverter

UNAD A 10HINV	79000012	8550	2.50	9405	2.75	0.73	0.74	230-50-1	500	790	265	170	848	540	320	12	40	3/8" 1/4"	0.8	4	10	15	5	37
UNAD A 13HINV	79000013	11970	3.50	13680	4.00	1.06	1.10	230-50-1	560	845	275	180	848	540	320	13	41	1/2" 1/4"	1.15	4	10	15	5	38
UNAD A 18HINV	79000014	18040	5.28	20005	5.85	1.60	1.62	230-50-1	780	940	298	200	890	700	340	13	47	1/2" 1/4"	1.1	5	30	50	5	44
UNAD A 24HINV	79000015	22060	6.45	23940	7.00	1.98	1.93	230-50-1	800	1060	330	208	890	700	340	16	50	1/2" 1/4"	1.4	5	30	50	5	47

Freemulti Internal Units

FMUN 9HI	80000001	9520	2.80	10200	3.00	see outdoor units	230-50-1	500	790	265	170	see outdoor units	9	see outdoor units	3/8" 1/4"	15	22	37
FMUN 12HI	80000002	11900	3.50	13600	4.00		230-50-1	630	845	275	180		10		1/2" 1/4"	20	22	38
FMUN 18HI	80000003	18020	5.30	19720	5.80		230-50-1	850	940	298	200		13		1/2" 1/4"	20	22	46
FMPS 9HI	80000015	9520	2.80	10200	3.00		230-50-1	550	836	695	238		27		3/8" 1/4"	15	22	45
FMPS 12 HI	80000016	11900	3.50	13600	4.00		230-50-1	600	836	695	238		27		1/2" 1/4"	20	22	46
FMPS 18 HI	80000017	18020	5.30	19720	5.80		230-50-1	700	836	695	238		27		1/2" 1/4"	20	22	54
FMCS 12HI	80000004	11900	3.50	13600	4.00		230-50-1	680	600**	230**	600**		27		1/2" 1/4"	20	22	44
FMCS 18 HI	80000005	18020	5.30	19720	5.80		230-50-1	680	600**	230**	600**		36		1/2" 1/4"	20	22	47
FMCN 9HI	80000006	9520	2.80	10200	3.00		230-50-1	450	913	220	680		27		3/8" 1/4"	15	22	37
FMCN 12 HI	80000007	11900	3.50	13600	4.00		230-50-1	520	913	220	680		27		1/2" 1/4"	20	22	40
FMCN 18 HI	80000008	18020	5.30	19720	5.80	230-50-1	840	1012	266	736	36	1/2" 1/4"	20	22	42			

Freemulti Outdoor Units

FMX2 18HE	80000010	17000	5.00	20910	6.15	1.50	1.70	230-50-1	see internal units	848	685	300	see outdoor units	52	3/8" 1/2"	1/4"	1,60	10	20	22	5
FMX2 24HE	80000011	23800	7.00	29920	8.80	2.18	2.43	230-50-1		950	840	420		68	3/8" 1/2"	1/4"	2,50	10	20	22	5
FMX4 28HE	80000012	27200	8.00	32640	9.60	2.48	2.55	230-50-1		950	840	420		75	3/8" 1/2"	1/4"	3,30	40	70	22	10

\* The nominal output is referred to the following conditions:  
\*\* Dimensions not including the grate

Cooling I.U. 27°C BS / 19°C BU  
O.U. 35°C BS / 24°C BU

Heating I.U. 20°C BS / 15°C BU  
O.U. 7°C BS / 6°C BU



## Technical data table

Model	Internal Unit Model	Outdoor Unit Model	ENERGETIC CLASS IN COOLING MODE	ANNUAL CONSUMPTION (estimation over 500 hrs)	REFRIGERATING OUTPUT	EER	APPLIANCE TYPE (Cooling / heating)	COOLING TYPE	NOMINAL INPUT	ENERGETIC CLASS IN HEATING MODE	INTERNAL UNIT NOISE	OUTDOOR UNIT NOISE
				kW	kW				kW		dB(A)	

### A Class deluxe

UND A 9H	UNDA9HI2	UNDA9HE2	A	410	2.65	3.23	Cool./Heat.	air	2.85	A	38	52
UND A 12H	UNDA12HI2	UNDA12HE2	A	540	3.52	3.26	Cool./Heat.	air	4.01	A	38	52
UND A 18H	UNDA18HI2	UNDA18HE2	A	820	5.27	3.21	Cool./Heat.	air	5.70	B	45	56
UND A 24H	UNDA24HI2	UNDA24HE2	B	1060	6.44	3.03	Cool./Heat.	air	6.80	C	45	58



### Professional

UPN A 9H	UPNA9HI1	UPNA9HE1	A	410	2.64	3.21	Cool./Heat.	air	2.81	A	37	50
UPN A 12H	UPNA12HI1	UPNA12HE1	A	502	3.22	3.21	Cool./Heat.	air	3.51	A	38	52
UPN A 18H	UPNA18HI1	UPNA18HE1	A	810	4.69	3.21	Cool./Heat.	air	4.90	B	45	55
UPN A 24H	UPNA24HI1	UPNA24HE1	A	950	6.15	3.24	Cool./Heat.	air	6.50	C	44	56



### Inverter

UNAD A 10HINV	UNADA10HIINV	UNADA10HEINV	A	367	2.50	3.40	Cool./Heat.	air	2.75	A	37	53
UNAD A 13HINV	UNADA13HIINV	UNADA13HEINV	A	530	3.50	3.30	Cool./Heat.	air	4.00	A	38	53
UNAD A 18HINV	UNADA18HIINV	UNADA18HEINV	A	800	5.28	3.30	Cool./Heat.	air	5.85	A	44	54
UNAD A 24HINV	UNADA24HIINV	UNADA24HEINV	A	992	6.45	3.25	Cool./Heat.	air	7.00	A	47	54



### Freemulti Outdoor Units

FMX2 18HE	see internal units	FMX2 18HE	A	750	5.00	3.33	Cool./Heat.	air	6.15	A	see internal units	56
FMX2 24HE		FMX2 24HE	A	1090	7.00	3.21	Cool./Heat.	air	8.80	A		59
FMX4 28HE		FMX4 28HE	A	1240	8.00	3.23	Cool./Heat.	air	9.60	A		60



# Technical Data

For the installation

Model	code	NOMINAL OUTPUT*				ABSORBED OUTPUT		TENSION FREQUENCY PHASE	AIR FLOW RATE	INTERNAL UNIT DIMENSIONS			OUTDOOR UNIT DIMENSIONS			WEIGHT		CONNECTIONS		PRE-LOADED REFRIGERANT	MAX. DISTANCE BETWEEN O. & I. UNITS		ADDITIONAL REFRIGERANT	MAX. LEVEL DIFFERENCE BETWEEN O. & I. UNITS
		COOLING		HEATING		COOL.	HEAT.			V-Hz	m³/h	W	H	D	W	H	D	I.U.	O.U.		GAS	LIQUID		

Floor/Ceiling

PS05 12H	80000020	11900	3.50	12240	3.60	1.16	1.10	230-50-1	550	836	695	238	848	540	320	27	32	1/2"	1/4"	1	5	20	30	15
PS04 18H	77000018	17950	5.28	18900	5.56	1.8	1.7	230-50-1	1070	1250	660	255	869	601	315	39	43	5/8"	3/8"	1.8	7	30	60	15
PS05 24H	80000022	24820	7.30	27880	8.20	2.60	2.55	230-50-1	1170	1300	600	188	1018	700	412	32	59	5/8"	3/8"	2.2	5	30	30	15
PS05 36H	80000023	35300	10.38	38080	11.20	3.70	3.40	400-50-3	1800	1590	695	238	1018	840	412	48	90	3/4"	1/2"	3.2	5	50	120	30
PS05 48H	80000024	47600	14.00	52700	15.50	5.60	5.35	400-50-3	2100	1590	695	238	950	1250	412	48	112	3/4"	1/2"	3.8	5	50	120	30

Cassette Type

CS05 18H	80000040	18190	5.35	19720	5.80	1.90	1.70	230-50-1	550	600**	230**	600**	848	540	320	20	40	1/2"	1/4"	1.5	5	20	30	15
CS05 24H	80000041	24820	7.30	27880	8.20	2.60	2.55	230-50-1	1180	840**	240**	840**	1018	700	412	27	59	1/2"	1/4"	2.2	5	20	30	15
CS05 36H	80000042	35300	10.38	38080	11.20	3.70	3.40	400-50-3	1660	840**	320**	840**	1018	840	412	32	90	3/4"	1/2"	3.2	5	50	120	30
CS05 48H	80000043	47600	14.00	52700	15.50	5.60	5.35	400-50-3	1660	840**	320**	840**	950	1250	412	32	112	3/4"	1/2"	3.8	5	50	120	30

Duct Type

CN05 18H	80000025	18190	5.35	19720	5.80	1.90	1.70	230-50-1	840	1012	266	736	848	540	320	36	40	1/2"	1/4"	1.5	5	20	30	15
CN05 24H	80000026	24820	7.30	27880	8.20	2.60	2.55	230-50-1	1180	1270	268	504	1018	700	412	37	59	1/2"	1/4"	2.2	5	20	30	15
CN05 36H	80000027	35300	10.38	38080	11.20	3.70	3.40	400-50-3	2000	1251	290	744	1018	840	412	57	90	3/4"	1/2"	3.2	5	50	120	30
CN05 48H	80000028	48790	14.35	53720	15.80	5.50	5.30	400-50-3	2300	1251	290	744	950	1250	412	57	112	3/4"	1/2"	3.8	5	50	120	30
CN05 60H	80000029	57800	17.00	63920	18.80	6.40	5.40	400-50-3	2500	1251	330	788	950	1250	412	66	123	7/8"	1/2"	4.95	5	50	120	30

\* The nominal output is referred to the following conditions:  
\*\* Dimensions not including the grate

Cooling I.U. 27°C BS / 19°C BU  
O.U. 35°C BS / 24°C BU

Heating I.U. 20°C BS / 15°C BU  
O.U. 7°C BS / 6°C BU

Air Curtain

Model	code	FAN DIAMETER	MOTOR POWER	AIR SPEED	SONOROUS EMISSIONS	WIDTH	HEIGHT	DEPTH	WEIGHT
Model	code	mm	W	m/s	dB(A)	mm	mm	mm	kg
BA TC 60	75000037	125	70	9	48	600	210	200	11
BA TC 90	75000038	125	75	9	49	900	210	200	15
BA TC 120	75000039	125	100	9,5	50	1200	210	200	20



## Technical data table

Model	Internal Unit Model	Outdoor Unit Model	ENERGETIC CLASS IN COOLING MODE	ANNUAL CONSUMPTION (estimation over 500 hrs)	REFRIGERATING OUTPUT	EER	APPLIANCE TYPE (Cooling / heating)	COOLING TYPE	NOMINAL INPUT	ENERGETIC CLASS IN HEATING MODE	INTERNAL UNIT NOISE	OUTDOOR UNIT NOISE
				kW	kW				kW		dB(A)	

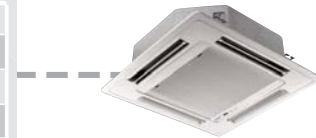
### Floor/Ceiling

<b>PS05 12H</b>	PS05 12HI	PS05 12HE	B	580	3.50	3.02	Cool./Heat.	air	3.60	C	46	56
<b>PS04 18H</b>	PS04 18HI	PS04 18HE	C	935	5.28	2.82	Cool./Heat.	air	5.56	C	46	58
<b>PS05 24H</b>	PS05 24HI	PS05 24HE	C	1300	7.30	2.81	Cool./Heat.	air	8.20	C	50	59
<b>PS05 36H</b>	PS05 36HI	PS05 36HE	C	1850	10.38	2.81	Cool./Heat.	air	11.20	C	54	60
<b>PS05 48H</b>	PS05 48HI	PS05 48HE									58	63



### Cassette Type

<b>CS05 18H</b>	CS05 18HI	CS05 18HE	C	950	5.35	2.82	Cool./Heat.	air	5.80	B	47	56
<b>CS05 24H</b>	CS05 24HI	CS05 24HE	C	1300	7.30	2.81	Cool./Heat.	air	8.20	C	47	59
<b>CS05 36H</b>	CS05 36HI	CS05 36HE	C	1850	10.38	2.81	Cool./Heat.	air	12.20	C	47	62
<b>CS05 48H</b>	CS05 48HI	CS05 48HE									49	65



### Duct Type

<b>CN05 18H</b>	CN05 18HI	CN05 18HE	C	950	5.35	2.82	Cool./Heat.	air	5.80	B	42	56
<b>CN05 24H</b>	CN05 24HI	CN05 24HE	C	1510	8.59	2.84	Cool./Heat.	air	8.90	D	48	59
<b>CN05 36H</b>	CN05 36HI	CN05 36HE	C	1300	7.30	2.81	Cool./Heat.	air	8.20	C	47	59
<b>CN05 48H</b>	CN05 48HI	CN05 48HE									50	63
<b>CN05 60H</b>	CN05 60HI	CN05 60HE									53	64



Unical<sup>air</sup>



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# The electronics at the service of the comfort



**Cooling**



**Dehumidification**



**Heating**



**Automatic operation:**

the air conditioner automatically chooses the type of operation to bring the environment to the climatic conditions selected by the user.



**Automatic movement of the deflectors:**

run of the air flow via the automatic oscillation of the deflectors.



**Fan auto:**

automatic choice of the fan speed to quickly reach and to maintain the desired temperature.



**Fan mode:**

selection of the different speeds of the fan.



**Operation just in ventilation:**

it allows to spread in the room not cooled filtered air.



**Sleep:**

Night time function, with reduction of the consumptions and increase of the silence.



**Air Swing:**

control of the air flow in the room with positioning or oscillation of a deflecting fin.



**Timer:**

Programming for lighting and turning off.



**Remote control:**

digital infrared with liquid crystal display, in shockproof material.



**Air cleaning filter:**

it removes the dust particles suspended in the air and prevents the propagation of bacteria and viruses, assuring a constant supply of clean air.



**Self-diagnosis:**

it facilitates and simplifies the maintenance operations by signalling possible operation errors.



**Function "TEST":**

it facilitates the search of the errors and the maintenance operations.



**Emergency Switch:**

starting of the air conditioner also if the remote control is not available.



**Multifunction Display**



**Start Assist:**

it allows the starting of the compressor also with tensions lower than 230 Volts.



**Autorestart:**

it restarts automatically the air conditioner in case of electrical black out



**Reduced consumptions**



**"Ultra Inner Groove"**

innovative structure of the pipelines with particular grooves, realized for increasing the thermal exchange surface and increase the efficiency of the whole system



**Anti-mould "Blow"**

drying of the inside battery to avoid formations of moulds



**Turbo function:**

it allows to reach more quickly the comfort temperature



**Scroll type compressor:**

it is of orbiting spiral type compressor, reliable and silent, studied for reducing the vibrations of the rotating masses.



**Twin Rotary compressor:**

two rotating cylinders that assure a better balancing, reducing the vibrations in comparison to the conventional rotary compressors.