Unical air

AIR CONDITIONERS

Range

Monosplit - wall - INVERTER	**airCRISTAL**		
	KMUN H R 32	page 3	
Multisplit - INVERTER	**MULTI**		
	KMUN HI wall - internal unit	page 6	up to 5 x 
	KMPS HI floor/wall - internal unit	page 6	up to 5 x 
	KMCS HI / CSKM HI cassette type - internal unit	page 6	up to 5 x 
	KMCN HI / CNKM HI duct type - internal unit	page 6	up to 5 x 
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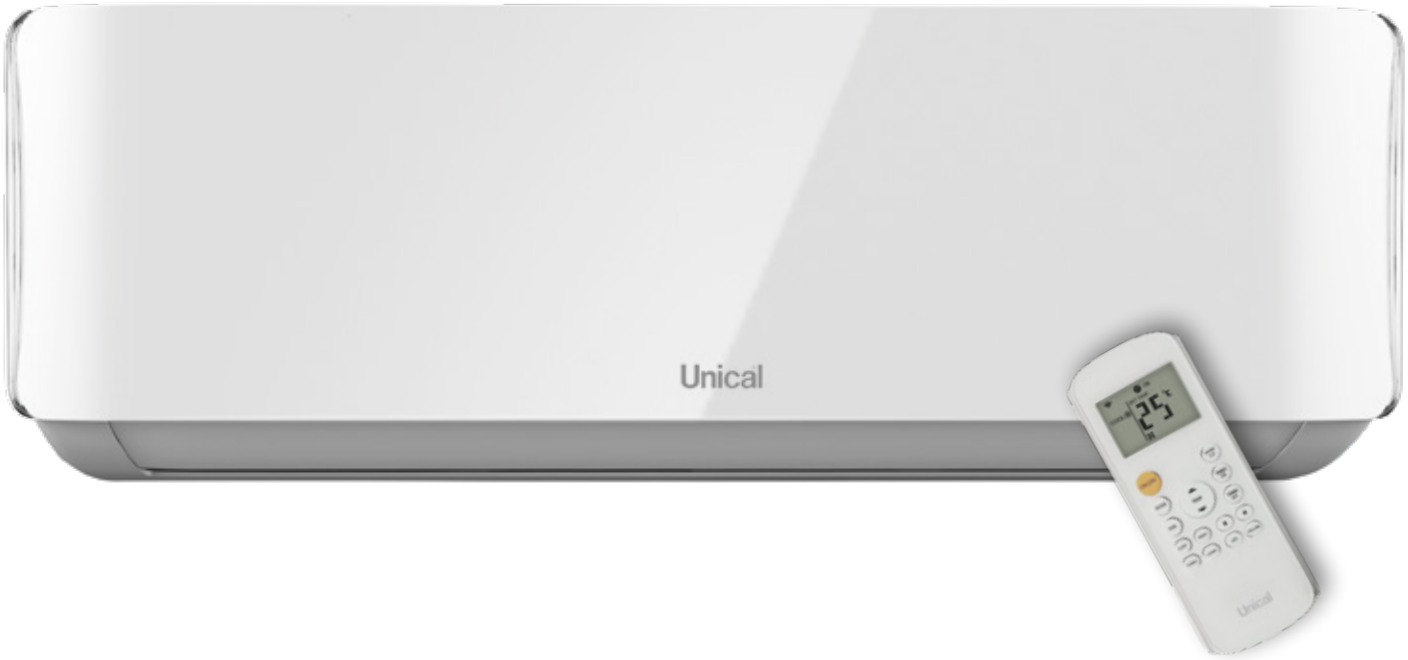
All products in the catalogue are marked CE

airCRISTAL



Technological charm

Design and technology: a winning combination in the Unical airCRISTAL range of air conditioners using the **new R32 ecological gas.**

The exclusive design of the indoor unit combines the **harmonious and rounded lines** of the front body with an elegant transparent **PMMA** profile and a concealed “soft display”. airCRISTAL can be installed in harmony with any environment and furnishing, from the most classic to the most modern.

The automatic oscillation of the horizontal and vertical deflectors creates a “**3D effect**” which guarantees the best air distribution and optimal comfort in the room.

With the “**Full Inverter**” technology, thanks to the controlled modulation of the compressor and fans, it is possible:

- Better seasonal efficiency and reduced electricity costs
- Constant desired room temperature
- Reduction in defrosting cycles, which usually leads to higher consumption.

Four models are available, all in inverter heat pump with cooling and heating function:

- **KMUN 10H**
- **KMUN 13H**
- **KMUN 18H**
- **KMUN 24H**

elegant PPMA profile

“soft display”

Creating comfort at a distance

Interacting with airCRISTAL, even remotely, is possible from your smartphone/tablet via your Wi-Fi home and a simple USB stick (optional).

Scarica su App Store

DISPONIBILE SU Google Play

With the **simple and intuitive App**, you can set the airCRISTAL operating modes, program its on/off, daily/weekly timer, check the operating consumption and the good condition of the air conditioner.

“Follow me”

It is an exclusive mode that enables the **remote** control to function as a **thermostat**: this ensures that the desired room temperature is actually reached precisely and quickly and that a **360° comfort** is guaranteed both in heating mode (winter) and cooling mode (summer).

“Follow me” function in heating mode

“Follow me” function in cooling mode

airCRISTAL Technical data

find out more

Fact Sheet (Art. 3. letter b Reg. Del. 626/2011)

Technical datai

MODEL		KMUN 10H	KMUN 13H	KMUN 18H	KMUN 24H
INTERNAL UNIT		KMUN 10HI	KMUN 13HI	KMUN 18HI	KMUN 24HI
OUTDOOR UNIT		KMUN 10HE	KMUN 13HE	KMUN 18HE	KMUN 24HE
ENERGETIC CLASS IN COOLING MODE		A++	A++	A++	A++
ENERGETIC CLASS IN HEATING MODE		A+	A+	A+	A+
INDEX OF SEASONAL ENERGETIC EFFICIENCY	SEER	7.1	7.0	6.4	6.4
SEASONAL COEFFICIENT OF PERFORMANCE	SCOP	4.0	4.1	4.0	4.0
THEORETICAL COOLING LOAD	kW	2.6	3.5	5.3	7.2
THEORETICAL HEATING LOAD	kW	2.5	2.7	3.9	5.1
ANNUAL CONSUMPTION IN COOLING	kWh/annum	128.00	175.00	290.00	394.00
ANNUAL CONSUMPTION IN HEATING	kWh/annum	875.00	922.00	1,365.00	1,785.00
COOLING SEASON		average	average	average	average
HEATING SEASON		average	average	average	average
REFRIGERANT		R 32	R 32	R 32	R 32
REFRIGERANT GWP		675	675	675	675
NOMINAL OUTPUT IN COOLING MODE (max.- min.)	Btu/h	9,000 (10900-3500)	12,000 (14200-4800)	18,000 (21200-5900)	25,000 (28800-8800)
NOMINAL OUTPUT IN COOLING MODE (max - min.)	kW	2.64 (3.20-1.03)	3.52 (4.16-1.40)	5.28 (6.22-1.73)	7.33 (8.46-2.58)
ABSORBED POWER IN COOLING MODE (max.- min.)	kW	0.75 (1.23-0.07)	1.08 (1.60-0.05)	1.54 (2.39-0.12)	2.40 (3.35-0.23)
NOMINAL OUTPUT IN HEATING MODE (max.- min.)	Btu/h	10,000 (12500-3000)	13,000 (16300-2900)	19,000 (23800-3600)	26,000 (32200-5200)
NOMINAL OUTPUT IN HEATING MODE (max.- min.)	kW	2.93 (3.66-0.88)	3.81 (4.78-0.85)	5.57 (6.98-1.06)	7.62 (9.44-1.52)
ABSORBED POWER IN HEATING MODE (max.- min.)	kW	0.71 (1.31-0.14)	1.03 (1.71-0.13)	1.46 (2.49-0.19)	2.18 (3.37-0.23)
COP / EER		4.1 / 3.52	3.71 / 3.23	3.81 / 3.43	3.50 / 3.05
MAXIMUM ABSORBED POWER	kW	2.07	2.20	2.55	3.60
TENSION-FREQUENCY-PHASE	V-hz	230-50-1	230-50-1	230-50-1	230-50-1
AIR FLOW RATE	m^3/h	521	540	750	1050
INTERNAL UNIT DIMENSIONS (WxHxD)	mm	722x290x187	802x297x189	965x319x215	1080x335x226
EXTERNAL UNIT DIMENSIONS (WxHxD)	mm	770x555x300	770x555x300	800x554x333	845x702x363
INTERNAL/ EXTERNAL UNIT WEIGHT	kg	7.4 / 26.6	8.2 / 26.5	10.8 / 37	13 / 48
FLOW/SUCTION PIPING	inch	1/4" / 3/8"	1/4" / 3/8"	1/4" / 1/2"	3/8" / 5/8"
REFRIGERANT QUANTITY	kg	0.7	0.8	1.25	1.6
MAXIMUM LENGTH OF FRIGORIFIC LINE WITH STANDARD Q.TY	m	5	5	5	5
MAXIMUM LENGTH OF FRIGORIFIC LINE WITH ADDITIONAL Q.TY	m	25	25	30	50
ADDITIONAL REFRIGERANT Q.TY	g/m	12	12	12	24
MAX. LEVEL DIFFERENCE	m	10	10	15	30
INTERNAL UNIT ACOUSTIC PRESSURE (max-med-min-sleep) (*)	dB(A)	37-33-22-20	38-32-22-21	42-33-27-21	46-40-30-26
OUTDOOR UNIT ACOUSTIC PRESSURE (*)	dB(A)	55	53	55	60
OUTSIDE TEMP. LIMIT FOR COOLING OPERATION	°C	-15 / +50	-15 / +50	-15 / +50	-15 / +50
OUTSIDE TEMP. LIMIT FOR HEATING OPERATION	°C	-15 / +30	-15 / +30	-15 / +30	-15 / +30

(*) values measured at a distance of one meter

MULTI multisplit inverter

Wall mounted type of Inverter KMUN HI

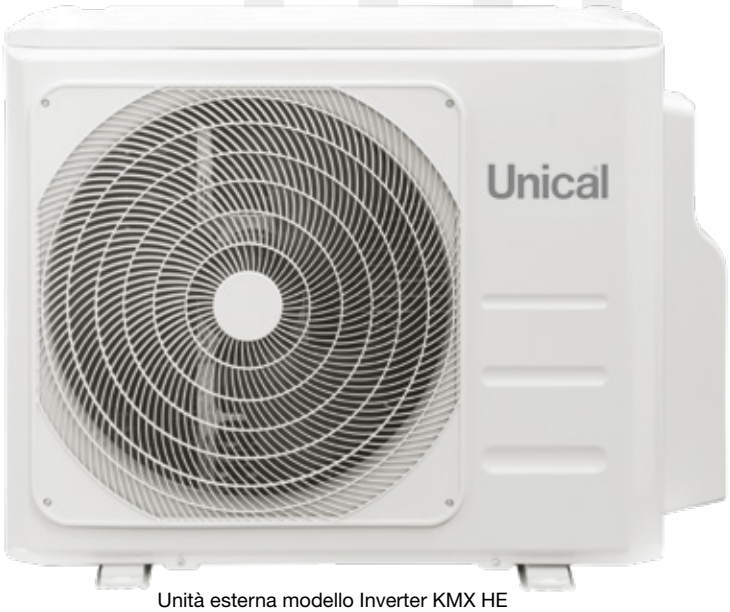
The optimal comfort in every room

The MULTI systems of Unical air allow to reduce the outdoor encumbrances of installation without having to renounce to the optimal comfort to the room to be conditioned. In particular, a wide range of outdoor units can manage from 2 up to 5 indoor units of different types and power.
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 MULTI range.

The external units are available in five models with different powers:

- **KMX2 18HE**
- **KMX3 21HE**
- **KMX4 28HE**
- **KMX4 36HE**
- **KMX5 42HE**

This allows a great installation fl exibility 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 comfortation every room to be conditioned.



Unità esterna modello Inverter KMX HE

Floor/wall type of Inverter
KMPS HI

Cassette type of Inverter
KMCS HI / CSKM HI

Ducted type of Inverter
KMCN HI / CNKM HI

The comfort in the living space 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 presuure in order to always have the maximum effi ciency by the refrigerating circuit according to the working conditions of the whole system.

MULTI Combinations

Outdoor Units

KMX2 18HE
KMX3 21HE
KMX4 28HE
KMX4 36HE
KMX5 42HE

Internal Units

Wall

KMUN 10HI
KMUN 13HI
KMUN 18HI

Floor/Ceiling

KMPS 12HI

Cassette type

KMCS 12HI
CSKM 18HI

Duct type

KMCN 12HI
CNKM 18HI

Example: 1 outdoor unit and 4 indoor units system

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.

MODEL	1 EXT. UNIT	2 INT. UNIT
KMX2 18HE	9	9+9
	12	9+12
		9+18
	18	12+12

MODEL	1 INT. UNIT	2 INT. UNIT	3 INT. UNIT
KMX3 21HE	9	9+9	9+9+9
	12	9+12	
		9+18	9+9+12
	18	12+12	

MODEL	1 INT. UNIT	2 INT. UNIT		3 INT. UNIT		4 INT. UNIT
KMX4 28HE	9	9+9	12+12	9+9+9	9+12+12	9+9+9+9
	12	9+12	12+18	9+9+12	9+12+18	9+9+9+12
	18	9+18	18+18	9+9+18	12+12+12	

MODEL	1 INT. UNIT	2 INT. UNIT		3 INT. UNIT		4 INT. UNIT	
KMX4 36HE	9	9+9	12+12	9+9+9	9+12+18	9+9+9+9	9+9+12+18
	12	9+12	12+18	9+9+12	12+12+12	9+9+9+12	9+12+12+12
				9+9+18	12+12+18	9+9+9+18	9+12+12+18
	18	9+18	18+18	9+12+12	12+18+18	9+9+12+12	12+12+12+12
				9+18+18	-		

MODEL	1 INT. UNIT	2 INT. UNIT	3 INT. UNIT		4 INT. UNIT		5 INT. UNIT	
KMX5 42HE	9	9+9	9+9+9	9+12+18	9+9+9+9	9+12+12+12	9+9+9+9+9	9+9+12+12+12
		9+12	9+9+12	12+12+12	9+9+9+12	9+12+12+18	9+9+9+9+12	9+12+12+12+12
	12	9+18	9+9+18	12+12+18	9+9+9+18	9+12+18+18	9+9+9+9+18	9+12+12+12+18
		12+12	9+12+12	12+18+18	9+9+12+12	12+12+12+12	9+9+9+12+12	12+12+12+12+12
	18	12+18	9+18+18	18+18+18	9+9+12+18	12+12+12+18	9+9+9+12+18	-
		18+18			9+9+18+18	-		

Technical Data MULTI (Internal Units)

find out more

WALL type		KMUN 10HI	KMUN 13HI	KMUN 18HI
OUTPUT IN COOLING	Btu/h	9000	12000	18000
	kW	2.64	3.52	5.28
OUTPUT IN HEATING	Btu/h	10000	13000	19000
	kW	2.93	3.81	5.57
AIR FLOW RATE	m^3/h	521	540	750
DIMENSIONS (LxHxD)	mm	722x290x187	802x297x189	965x319x215
WEIGHT	kg	7.4	8.2	10.7
FLOW PIPING	inch	1/4"	1/4"	1/4"
SUCTION PIPING	inch	3/8"	3/8"	1/2"
ACOUSTIC PRESSURE (max-med-min-sleep)	dB(A)	37-33-22-20	38-32-22-21	42-33-27-21

FLOOR/CEILING type		KMPS 12HI
OUTPUT IN COOLING	Btu/h	12000
	kW	3.52
OUTPUT IN HEATING	Btu/h	13000
	kW	3.81
AIR FLOW RATE	m^3/h	512
DIMENSIONS (LxHxD)	mm	700x600x210
WEIGHT	kg	15
TUBAZIONI MANDATA	inch	1/4"
SUCTION PIPING	inch	3/8"
ACOUSTIC PRESSURE (max-med-min)	dB(A)	43-42-35

CASSETTE type		KMCS 12HI	CSKM 18HI
OUTPUT IN COOLING	Btu/h	12000	18000
	kW	3.52	5.28
OUTPUT IN HEATING	Btu/h	13000	20000
	kW	3.81	5.57
AIR FLOW RATE	m^3/h	620	680
DIMENSIONS (LxHxD)	mm	570x570x260	570x570x260
WEIGHT	kg	16	16
FLOW PIPING	inch	1/4"	1/4"
SUCTION PIPING	inch	3/8"	1/2"
ACOUSTIC PRESSURE (max-med-min)	dB(A)	43-39-35	44-42-41

DUCT type		KMCN 12HI	CNKM 18HI
OUTPUT IN COOLING	Btu/h	12000	18000
	kW	3.52	5.28
OUTPUT IN HEATING	Btu/h	13000	20000
	kW	3.81	5.57
AIR FLOW RATE	m^3/h	600	880
DIMENSIONS (LxHxD)	mm	700x450x200	880x674x210
WEIGHT	kg	27	36
PIPINGS	inch	1/4"- 3/8"	1/4"- 1/2"
PREVALENCE	Pa	0-60	0-100
ACOUSTIC PRESSURE (max-med-min)	dB(A)	40-34-27	42-38-32

Technical Data MULTI (External Units)

find out more

Fact Sheet (Art. 3, lett. b Reg. 626/11)

Technical Data

MODEL		KMX2 18HE	KMX3 21HE	KMX4 28HE	KMX4 36HE	KMX5 42HE
ENERGETIC CLASS IN COOLING		A++	A++	A++	A++	A++
ENERGETIC CLASS IN HEATNG		A+	A+	A+	A+	A
INDEX OF SEASONAL ENERGETIC EFFICIENCY	SEER	6.1	6.1	7.0	6.5	6.10
SEASONAL COEFFICIENT OF PERFORMANCE	SCOP	4.0	4.0	4.0	4.0	3.5
THEORETICAL COOLING LOAD Pdesignc	kW	5.3	6.1	8.2	10.5	12.40
THEORETICAL HEATING LOAD Pdesignh	kW	4.3	5.4	6.5	9.2	9.2
ANNUAL CONSUMPTION IN COOLING MODE	kWh/annum	304	328	420	565	711
ANNUAL CONSUMPTION IN HEATING MODE	kWh/annum	1537	1890	2275	3226	3680
COOLING SEASON / HEATING		average	average	average	average	average
REFRIGERANT / GWP REFRIGERANT		R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675
NOMINAL OUTPUT IN COOLING MODE (max - min)	Btu/h	18100 (21880-7240)	21510 (25000-8330)	28030 (33900-9800)	36190 (47050-12670)	42000 (47800-14270)
	kW	5.30 (6.41-2.12)	6.30 (7.32-2.44)	8.21 (9.93-2.87)	10.60 (13.78-3.71)	12.30 (14.00-4.18)
ABSORBED POWER IN COOLING MODE	kW	1.63 (2.04-0.54)	1.94 (2.36-0.68)	2.54 (3.18-0.86)	3.28 (4.00-0.89)	3.80 (5.11-1.15)
NOMINAL OUTPUT IN HEATING MODE (max - min)	Btu/h	19000 (22800-7610)	22880 (27040-7890)	30390 (36400-10510)	37900 (45480-13280)	42000 (51000-14270)
	kW	5.57 (6.68-2.23)	6.70 (7.92-2.31)	8.90 (10.65-3.08)	11.10 (13.32-3.89)	12.30 (14.94-4.18)
ABSORBED POWER IN HEATING MODE	kW	1.39 (1.74-0.47)	1.80 (2.22-0.64)	2.22 (2.75-0.75)	2.82 (3.67-0.76)	3.10 (3.87-0.84)
MAX. ABSORBED POWER	kW	2.85	3.30	4.15	4.60	4.70
TENSION-FREQ.-PHASE	V-hz	230-50-1	230-50-1	230-50-1	230-50-1	230-50-1
WIDTH	mm	800	845	946	946	946
HEIGHT	mm	554	702	810	810	810
DEPTH	mm	333	363	410	410	410
WEIGHT	kg	36	47	62	69	74
FLOW PIPING	inch	1/4”	1/4”	1/4”	1/4”	1/4”
SUCTION PIPING	inch	3/8”	3/8”	3x3/8”+1x1/2”	3x3/8”+1x1/2”	4x3/8”+1x1/2”
REFRIGERANT QUANTITY	kg	1.25	1.4	2.1	2.1	2.4
MAX. LENGTH OF FRIGORIFIC LINE with standard q.ty	m	15	22.5	30	30	37.5
MAX. LENGTH OF FRIGORIFIC LINE with additional q.ty	m	40	60	80	80	80
MAX. LENGTH OF FRIGORIFIC LINE for each internal unit	m	25	30	35	35	35
ADDITIONAL REFRIG. Q.TY	g/m	12	12	12	12	12
MAX. LEVEL DIFFERENCE btw U.E and U.I / U.I and U.I.	m	15 / 10	15 / 10	15 / 10	15 / 10	15 / 10
ACOUSTIC PRESSURE (*)	dB(A)	56	57	60	63	62
COOLING OPERATING TEMPERATURE LIMIT	°C	-15 / +50	-15 / +50	-15 / +50	-15 / +50	-15 / +50
HEATING OPERATING TEMPERATURE LIMIT	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24

(*) values measured at maximum power at a distance of one meter

Floor/Wall Type

The FLOOR/WALL air conditioner, also called “Console”, is an excellent solution for rooms to be air-conditioned using the lower part of the walls or the niches under the windows. The inverter heat pump model:

- **KMPS 13H**

is characterized by a double frontal ventilation that guarantees a better performance in the environment in terms of speed in reaching the comfort temperature.

Floor/Ceiling Type

floor installation

ceiling installation

The FLOOR/CEILING series consists of 6 inverter heat pump split models:

- **PS10 18H**
- **PS10 24H**
- **PS10 30H**
- **PS10 36H**
- **PS10 48H**
- **PS10 60H**

Particular care has been taken in the design of these machines with rounded and modern lines that have been designed for installation in elegant environments, either on the floor or ceiling. They are suitable for medium/large size, residential or commercial environments. The indoor unit is equipped with a wide finning that allows the orientation of the main throw and a motorized oscillating deflector that allows a second positioning of the airflow by remote control. The electronic control and command board, which is equipped with an Intronics microprocessor, is integrated with an important additional function called “Watchdog” which, in case of malfunctioning of the micro-processor due to voltage fluctuations, automatically restores its regular operation, thus avoiding dangerous current overloads to the microprocessor.

Technical Data
FLOOR / CEILING / WALL

find out more

MODEL		KMPS 13H	PS10 18H	PS10 24H	PS10 30H	PS10 36H	PS10 48H	PS10 60H
INTERNAL UNIT		KMPS 12HI	PSKM 18HI	PS10 24HI	PS10 36HI	PS10 36HI	PS10 48HI	PS10 60HI
OUTDOOR UNIT		KMUN 13HE	UE10 18HE	UE10 24HE	UE10 30HE	UE10 36HE	UE10 48HE	UE10 60HE
ENERGETIC CLASS IN COOLING MODE		A++	A++	A++	A++	A++	A++	A++
ENERGETIC CLASS IN HEATING MODE		A+	A+	A+	A+	A+	A+	A+
INDEX OF SEASONAL ENERGETIC EFFICIENCY	SEER	7.00	6.10	6.10	6.10	6.10	6.10	6.10
SEASONAL COEFFICIENT OF PERFORMANCE	SCOP	4.10	4.00	4.00	3.80	4.00	4.00	4.00
THEORETICAL COOLING LOAD Pdesignc	kW	3.50	5.30	7.00	8.80	10.50	14.00	15.90
THEORETICAL HEATING LOAD Pdesignh	kW	2.70	4.10	5.40	7.30	8.40	11.50	11.90
ANNUAL CONSUMPTION IN COOLING	kWh/annum	175.00	304.00	402.00	440.00	564.00	803.00	916.00
ANNUAL CONSUMPTION IN HEATING	kWh/annum	922.00	1435.00	1890.00	2689.00	3675.00	4025.00	4165.00
COOLING SEASON / HEATING		average	average	average	average	average	average	average
REFRIGERANT / GWP REFRIGERANT		R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675
NOMINAL OUTPUT IN COOLING MODE (max - min)	Btu/h	12000 (14200-4800)	18000 (19400-8700)	24000 (27830-11180)	30000 (33500-7600)	36000 (41000-13800)	48000 (51560-16920)	54000 (61800-16900)
NOMINAL OUTPUT IN COOLING MODE (max - min)	kW	3.52 (4.16-1.40)	5.28 (5.69-2.55)	7.03 (8.16-3.28)	8.79 (9.82-2.23)	10.55 (12.02-4.04)	14.07 (15.11-4.96)	15.80 (18.10-4.90)
ABSORBED POWER IN COOLING MODE	kW	1.08	1.63	2.19	2.60	3.75	5.13	5.42
NOMINAL OUTPUT IN HEATING MODE (max - min)	Btu/h	13000 (16300-2900)	20000 (21000-7500)	26000 (29750-9280)	32000 (38000-9200)	38000 (47600-9580)	55000 (61640-12990)	61900 (70000-18000)
NOMINAL OUTPUT IN HEATING MODE (max - min)	kW	3.81 (4.78-0.85)	5.87 (6.15-2.20)	7.62 (8.72-2.72)	9.38 (11.14-2.69)	11.14 (13.95-2.81)	16.20 (18.07-3.81)	18.10 (20.05-5.20)
ABSORBED POWER IN HEATING MODE	kW	1.03	1.58	2.05	2.30	2.99	4.28	5.32
COP / EER		3.71 / 3.23	3.72 / 3.23	3.72 / 3.21	4.08/ 3.38	3.72 / 2.81	3.77 / 2.74	3.41 / 2.81
MAXIMUM ABSORBED POWER	kW	2.20	2.95	3.12	3.60	5.60	6.20	7.50
TENSION-FREQUENCY-PHASE	V-hz	230-50-1	230-50-1	230-50-1	230-50-1	400-50-3	400-50-3	400-50-3
AIR FLOW RATE	m^3/h	512	880	1208	2160	2160	2330	2454
INTERNAL UNIT DIMENSIONS (LxDxH)	mm	700x210x600	1068x675x235	1068x675x235	1650x675x235	1650x675x235	1650x675x235	1650x675x235
EXTERNAL UNIT DIMENSIONS (LxHxD)	mm	700x275x550	800x554x333	845x702x362	946x810x410	946x810x410	952x1333x410	952x1333x415
INTERNAL / EXTERNAL UNIT WEIGHT	kg	15 / 26.5	28 / 33.7	26.8 / 56.8	39 / 56.9	39 / 81.5	41.2 / 106.7	41.4 / 111.3
FLOW / SUCTUON PIPING	inch	3/8" / 1/4"	1/2" / 1/4"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"
REFRIGERANT QUANTITY	kg	0.80	1.15	1.50	2.00	2.40	2.80	2.95
MAX. LENGTH OF FRIGORIFIC LINE with standard q.ty	m	5	5	5	5	5	5	5
MAX. LENGTH OF FRIGORIFIC LINE with additional q.ty	m	25	30	50	50	65	65	65
ADDITIONAL REFRIG. Q.TY	g/m	12	12	24	24	24	24	24
MAX. LEVEL DIFFERENCE	m	10	20	25	25	30	30	30
INT. UNIT ACOUSTIC PRESSURE (max - med - min) (*)	dB(A)	43-42-35	41.5-38-34	50-46-41	51-47-42	51-47-42	54-47-42	54-47-42
OUTDOOR UNIT ACOUSTIC PRESSURE (*)	dB(A)	56	55	62	58.5	58.5	66	66
COOLING OPERATING TEMPERATURE LIMIT	°C	-15 / +50	-15 / +50	-15 / +50	-15 / +50	-15 / +50	-15 / +50	-15 / +50
HEATING OPERATING TEMPERATURE LIMIT	°C	-15 / +30	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24

(*) values measured at a distance of one meter

Cassette type

Elegantly effective

Unical Air CASSETTE type air conditioners are available in 5 models, all in inverter heat pump.

- **CS10 18H**
- **CS10 24H**
- **CS10 30H**
- **CS10 36H**
- **CS10 48H**

These devices, designed for built-in installation or false ceiling installation, are ideal for medium/large spaces, such as bars, restaurants, large stores, meeting rooms, etc.

The indoor unit is enclosed by a completely insulated casing with a centralized fan that provides the air throw through four vents placed on the external sides and equipped with a special motorized deflector that distributes the air in the room in a homogeneous and uniform way.

Installations in environments that often need to filter the air are preferred, for example: restaurants, meeting rooms and smoking areas.

Technical Data
CASSETTE type

find out more

Fact Sheet (Art. 3, letter b Reg. Del. 626/2011)

Technical Data

MODEL		CS10 18H	CS10 24H	CS10 30H	CS10 36H	CS10 48H
INTERNAL UNIT		CSKM 18HI	CS10 24HI	CS10 36HI	CS10 36HI	CS10 48HI
OUTDOOR UNIT		UE10 18HE	UE10 24HE	UE10 30HE	UE10 36HE	UE10 48HE
ENERGETIC CLASS IN COOLING MODE		A++	A++	A++	A++	A++
ENERGETIC CLASS IN HEATING MODE		A+	A+	A+	A+	A+
INDEX OF SEASONAL ENERGETIC EFFICIENCY	SEER	6.10	6.10	6.50	6.10	6.10
SEASONAL COEFFICIENT OF PERFORMANCE	SCOP	4.00	4.00	4.00	4.00	4.00
THEORETICAL COOLING LOAD Pdesignc	kW	5.30	7.00	8.90	10.50	14.00
THEORETICAL HEATING LOAD Pdesignh	kW	4.20	5.40	7.20	8.40	11.20
ANNUAL CONSUMPTION IN COOLING	kWh/annum	304.00	402.00	479.00	564.00	805.00
ANNUAL CONSUMPTION IN HEATING	kWh/annum	1470.00	1890.00	2653.00	3675.00	3920.00
COOLING / HEATING SEASON		average	average	average	average	average
REFRIGERANT / GWP REFRIGERANT		R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675
NOMINAL OUTPUT IN COOLING MODE	Btu/h	18000 (19400-8700)	24000 (27830-11180)	30000 (33500-7600)	36000 (41000-13800)	48000 (51560-16920)
NOMINAL OUTPUT IN COOLING MODE	kW	5,28 (5,69-2,55)	7,03 (8,16-3,28)	8,79 (9,82-2,23)	10,55 (12,02-4,04)	14,07 (15,11-4,96)
ABSORBED POWER IN COOLING MODE	kW	1,63	2,19	2,60	3,75	5,13
NOMINAL OUTPUT IN HEATING MODE	Btu/h	20000 (21000-7500)	26000 (29750-9280)	32000 (38000-9200)	38000 (47600-9580)	55000 (61640-12990)
NOMINAL OUTPUT IN HEATING MODE	kW	5,87 (6,15-2,20)	7,62 (8,72-2,72)	9,38 (11,14-2,69)	11,14 (13,95-2,81)	16,20 (18,07-3,81)
ABSORBED POWER IN HEATING MODE	kW	1,58	2,05	2,30	2,99	4,28
COP / EER		3,72 / 3,23	3,72 / 3,21	4,08 / 3,38	3,72 / 2,81	3,77 / 2,74
MAXIMUM ABSORBED POWER	kW	2,95	3,12	3,60	5,60	6,20
TENSION-FREQUENCY-PHASE	V-hz	230-50-1	230-50-1	230-50-1	400-50-3	400-50-3
AIR FLOW RATE	m^3/h	720	1378	1775	1775	1775
INTERNAL UNIT DIMENSIONS (LxDxH)	mm	570x570x260	840x840x245	840x840x245	840x840x245	840x840x287
EXTERNAL UNIT DIMENSIONS (LxDxH)	mm	800x554x333	845x702x362	946x810x410	946x810x410	952x1333x410
INTERNAL / EXTERNAL UNIT WEIGHT	kg	16,2 / 33,7	23 / 56,8	23 / 56,9	27,5 / 81,5	29 / 106,7
FLOW / SUCTION PIPING	inch	1/2" / 1/4"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"
REFRIGERANT QUANTITY	kg	1,15	1,50	2,00	2,40	2,80
MAXIMUM LENGTH OF FRIGORIFIC LINE WITH STANDARD Q.TY	m	5	5	5	5	5
MAXIMUM LENGTH OF FRIGORIFIC LINE WITH ADDITIONAL Q.TY	m	30	50	50	65	65
ADDITIONAL REFRIGERANT Q.TY	g/m	12	24	24	24	24
MAX. LEVEL DIFFERENCE	m	20	25	25	30	30
INT. UNIT ACOUSTIC PRESSURE (max - med - min) (*)	dBA)	42,5-39-35,5	47-43-40	51-47-41	51-47-41	52-50-49
OUTDOOR UNIT ACOUSTIC PRESSURE (*)		55	62	58,5	58,5	66
COOLING OPERATING TEMPERATURE LIMIT	°C	-15 / +50	-15 / +50	-15 / +50	-15 / +50	-15 / +50
HEATING OPERATING TEMPERATURE LIMIT	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24

(*) values measured at a distance of one meter

Ducted type

The climate that you cannot see

Unical Air DUCTED type air conditioners consist of a series of 6 models in inverter heat pump:

- **CN10 18H**
- **CN10 24H**
- **CN10 30H**
- **CN10 36H**
- **CN10 48H**
- **CN10 60H**

All mounted with wire type control, they are intended for built-in installation in false ceilings.

The indoor unit is made of steel adequately insulated to avoid heat loss, condensation and to ensure at the same time a suitable acoustic insulation.

The fans of the indoor units, adjustable at 4 speeds, provide a high prevalence. For the optimization and diversification of the air flows to be distributed, special “plenum” can be applied. In addition, the Indoor Unit is supplied as standard with a pump to ease the disposal of condensate by facilitating the installation in the false ceiling.

Wire type control

AVAILABLE STATIC PRESSURE

Mod.	CN10 18H	CN10 24H	CN10 30H	CN10 36H	CN10 48H	CN10 60H
Pascal	100	160	160	160	160	160

Technical Data
DUCTED type

find out more

Fact Sheet (Art. 3, letter b Reg. Del. 626/2011)

Technical Data

MODEL		CN10 18H	CN10 24H	CN10 30H	CN10 36H	CN10 48H	CN10 60H
INTERNAL UNIT		CNKM 18HI	CN10 24HI	CN10 36HI	CN10 36HI	CN10 48HI	CN10 60HI
OUTDOOR UNIT		UE10 18HE	UE10 24HE	UE10 30HE	UE10 36HE	UE10 48HE	UE10 60HE
ENERGETIC CLASS IN COOLING MODE		A++	A++	A++	A++	A++	A++
ENERGETIC CLASS IN HEATING MODE		A+	A+	A+	A+	A+	A+
INDEX OF SEASONAL ENERGETIC EFFICIENCY	SEER	6.10	6.10	6.10	6.10	6.10	6.10
SEASONAL COEFFICIENT OF PERFORMANCE	SCOP	4.00	4.00	4.00	4.00	4.00	4.00
THEORETICAL COOLING LOAD Pdesignc	kW	5.30	7.00	8.80	10.50	14.00	15.30
THEORETICAL HEATING LOAD Pdesignh	kW	4.30	5.40	8.00	8.40	12.10	12.50
ANNUAL CONSUMPTION IN COOLING	kWh/anno	304.00	402.00	505.00	564.00	808.00	878.00
ANNUAL CONSUMPTION IN HEATING	kWh/anno	1512.00	1911.00	2800.00	3675.00	4263.00	4375.00
COOLING / HEATING SEASON		average	average	average	average	average	average
REFRIGERANT / GWP REFRIGERANT		R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675	R32 / 675
NOMINAL OUTPUT IN COOLING MODE	Btu/h	18000 (19400-8700)	24000 (27830-11180)	30000 (33500-7600)	36000 (41000-13800)	48000 (51560-16920)	54000 (61800-16900)
NOMINAL OUTPUT IN COOLING MODE	kW	5.28 (5.69-2.55)	7.03 (8.16-3.28)	8.79 (9.82-2.23)	10.55 (12.02-4.04)	14.07 (15.11-4.96)	15.80 (18.10-4.90)
ABSORBED POWER IN COOLING MODE	kW	1.63	2.19	2.60	3.75	5.13	5.42
NOMINAL OUTPUT IN HEATING MODE	Btu/h	20000 (21000-7500)	26000 (29750-9280)	32000 (38000-9200)	38000 (47600-9580)	55000 (61640-12990)	61900 (70000-18000)
NOMINAL OUTPUT IN HEATING MODE	kW	5.87 (6.15-2.20)	7.62 (8.72-2.72)	9.38 (11.14-2.69)	11.14 (13.95-2.81)	16.20 (18.07-3.81)	18.10 (20.05-5.20)
ABSORBED POWER IN HEATING MODE	kW	1.58	2.05	2.30	2.99	4.28	5.32
COP / EER		3.72 / 3.23	3.72 / 3.21	4.08 / 3.38	3.72 / 2.81	3.77 / 2.74	3.41 / 2.81
MAXIMUM ABSORBED POWER	kW	2.95	3.12	3.60	5.60	6.20	7.50
TENSION-FREQUENCY-PHASE	V-hz	230-50-1	230-50-1	230-50-1	400-50-3	400-50-3	400-50-3
AIR FLOW RATE	m³/h	880	1248	1400	1400	2400	2600
INTERNAL UNIT DIMENSIONS (LxDxH)	mm	880x674x210	1100x774x249	1360x774x249	1360x774x249	1200x874x300	1200x874x300
EXTERNAL UNIT DIMENSIONS (LxDxH)	mm	800x554x333	845x702x362	946x810x410	946x810x410	952x1333x415	952x1333x415
INTERNAL / EXTERNAL UNIT WEIGHT	kg	24.3 / 33.7	31.5 / 56.8	40.5 / 56.9	40.5 / 81.5	47.6 / 106.7	47.6 / 111.3
FLOW / SUCTION PIPING	inch	1/2" / 1/4"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"	5/8" / 3/8"
REFRIGERANT QUANTITY	kg	1.15	1.50	2.00	2.40	2.80	2.95
MAXIMUM LENGTH OF FRIGORIFIC LINE WITH STANDARD Q.TY	m	5	5	5	5	5	5
MAXIMUM LENGTH OF FRIGORIFIC LINE WITH ADDITIONAL Q.TY	m	30	50	50	65	65	65
ADDITIONAL REFRIGERANT Q.TY	g/m	12	24	24	24	24	24
MAX. LEVEL DIFFERENCE	m	20	25	25	30	30	30
INT. UNIT ACOUSTIC PRESSURE (max - med - min) (*)	dB(A)	41.5-38-33	42-40-38	47-43-40	47-43-40	51-40-48	54-52-51
OUTDOOR UNIT ACOUSTIC PRESSURE (*)	dB(A)	55	62	58.5	58.5	66	66
COOLING OPERATING TEMPERATURE LIMIT	°C	-15 / +50	-15 / +50	-15 / +50	-15 / +50	-15 / +50	-15 / +50
HEATING OPERATING TEMPERATURE LIMIT	°C	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24	-15 / +24

(*) values measured at a distance of one meter

Accessories

find out more

airSOFT THE AIR... KIND

airSOFT is the accessory that deflects and diffuses the air conditioning avoiding the annoying “icy cold” effect of the jet coming out of the indoor unit, thanks to the microholes technology.

It is perfect in areas where you stay for a long time or in small spaces (bedrooms and other rooms of the house, as well as offices, stores, laboratories, etc.).

airSOFT, designed by ARTÙ DESIGN STUDIO, stands out for its essential and elegant line that is well suited to various environments or furnishing styles.

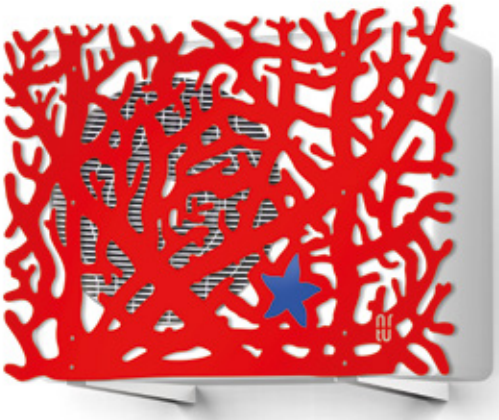
- Metal and stainless steel structure
- Microperforated technical fabric with removable cover and machine washable at 40° C
- Can also be used for existing indoor units
- Width 85 cm - simple assembly

find out more

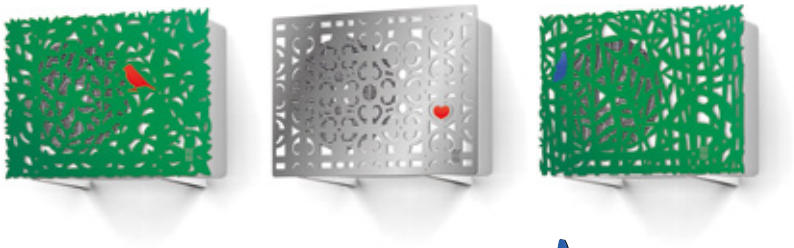
mimo YOU SEE IT IF YOU DON’T SEE IT

Exclusive design cover (optional) that makes the external units (pre-existing or new) of air conditioners and heat pumps less impactful, camouflaging them, without creating problems of accessibility for maintenance works and avoiding bulky wooden or metal handmade covers.

- Perforated aluminum sandwich panel Dimensions: 90x60 cm or 105x84 cm
- Galvanized and painted steel structure
- Stainless steel fixing cable with standard clamps
- Color variants: green (butterfly and bird), red (coral), metallic silver (heart) with PMMA miniatures
- Easy application to wall or floor mounted outdoor unit
- Adaptable to all Unical outdoor air conditioning units, Unical heat pumps mod. 70-90 and products of other brands with compatible sizes
- Awards: GOOD DESIGN AWARD 2018
- Exclusive design by ArtÙ Design Studio



mimo coral



mimo bird mimo heart mimo butterfly

Functions legend

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.

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

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.

Timer:
Programming for lighting and turning off.

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 simplifi es the maintenance operations by signalling possible operation errors.

Function “CHECK”:
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.

Wi-Fi:
allows remote control of the air conditioner via Wi-Fi.

Follow me:
automatic achievement of ideal comfort temperature.

Function “1 W” :
reduces stand-by air conditioning consumption by eliminating parasitic motor supply currents.

Self Clean:
drying of the inside battery to avoid formations of moulds.

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

Eco:
allows you to reduce consumption without reducing to optimal comfort.

“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

Function “Turbo”:
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.

Condensate control:
allows the operation in cooling mode for outdoor temperatures below 15°C.

Condensate evacuation pump:
allows the controlled avacuation of the condensate.

3D Effect:
automatic movement of the horizontal and vertical deflectors that ensures better air distribution and optimal comfort in the room.

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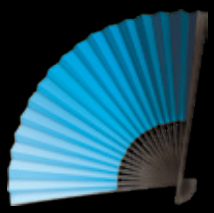

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