



PRODUCT RANGE

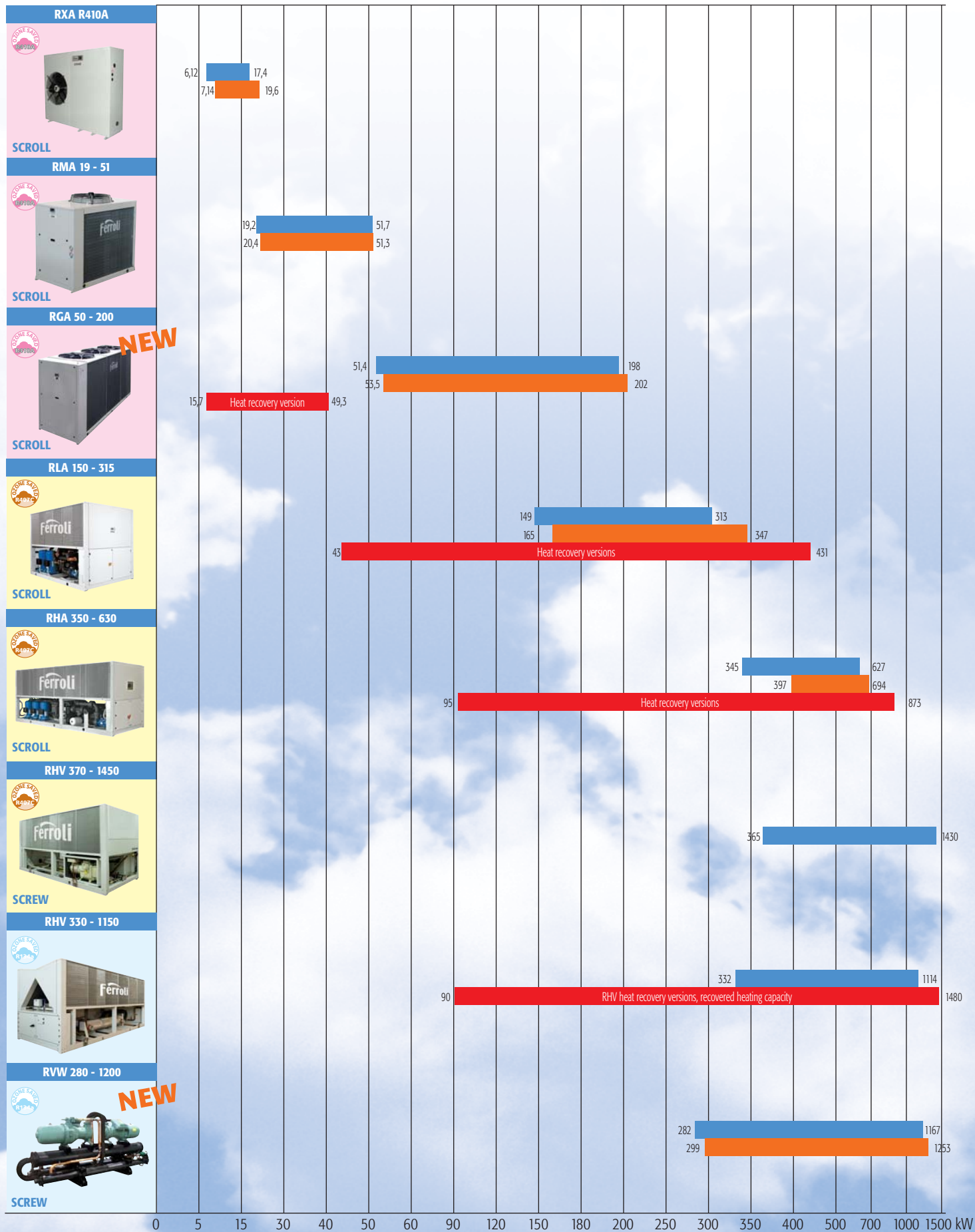
June 2009



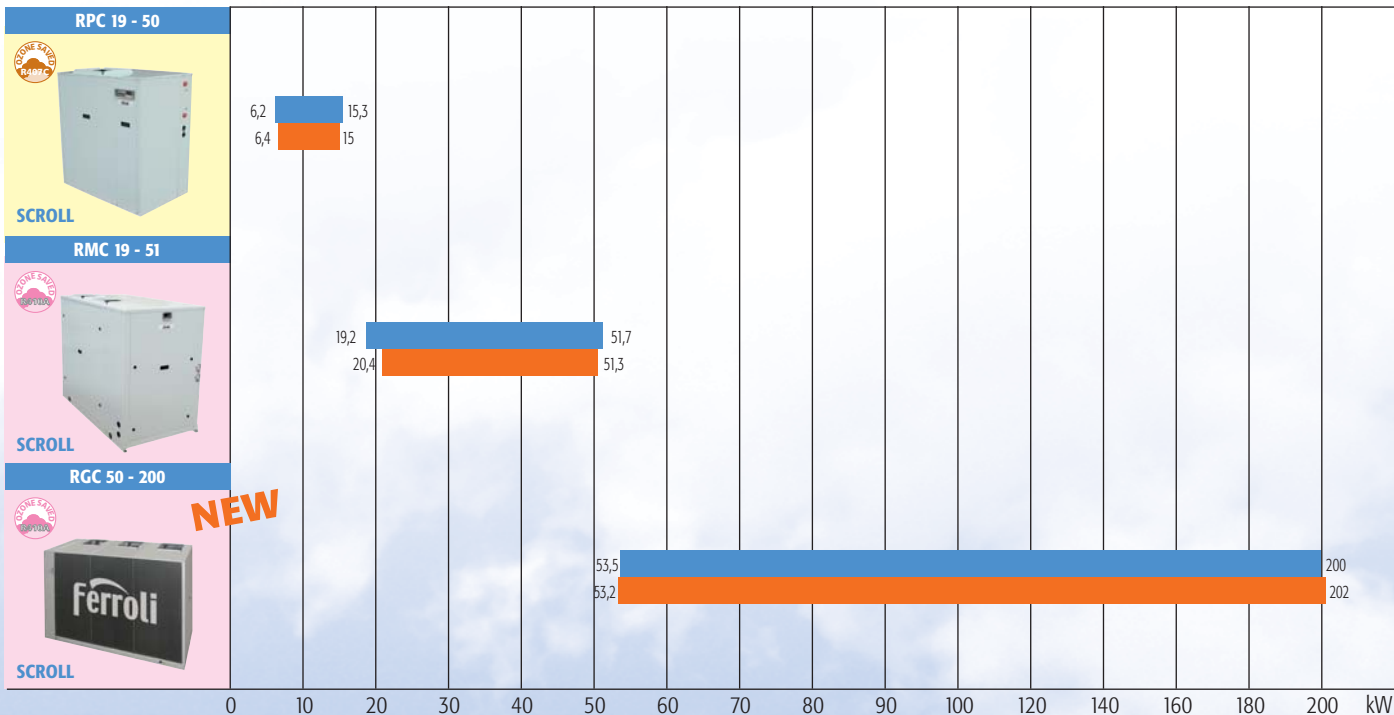
>>> INDUSTRIAL
AIR-CONDITIONING <<<

RANGE OF CAPACITIES

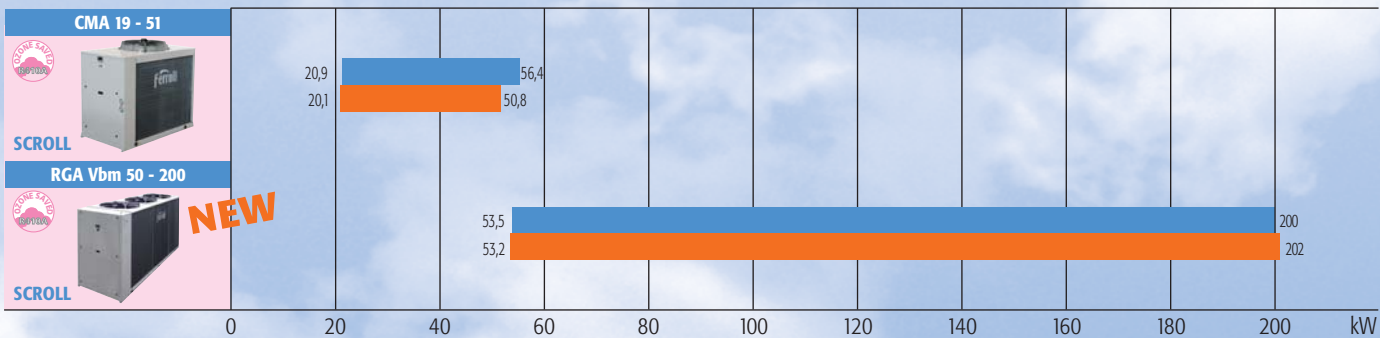
WATER CHILLERS AND HEAT PUMPS WITH AXIAL FANS



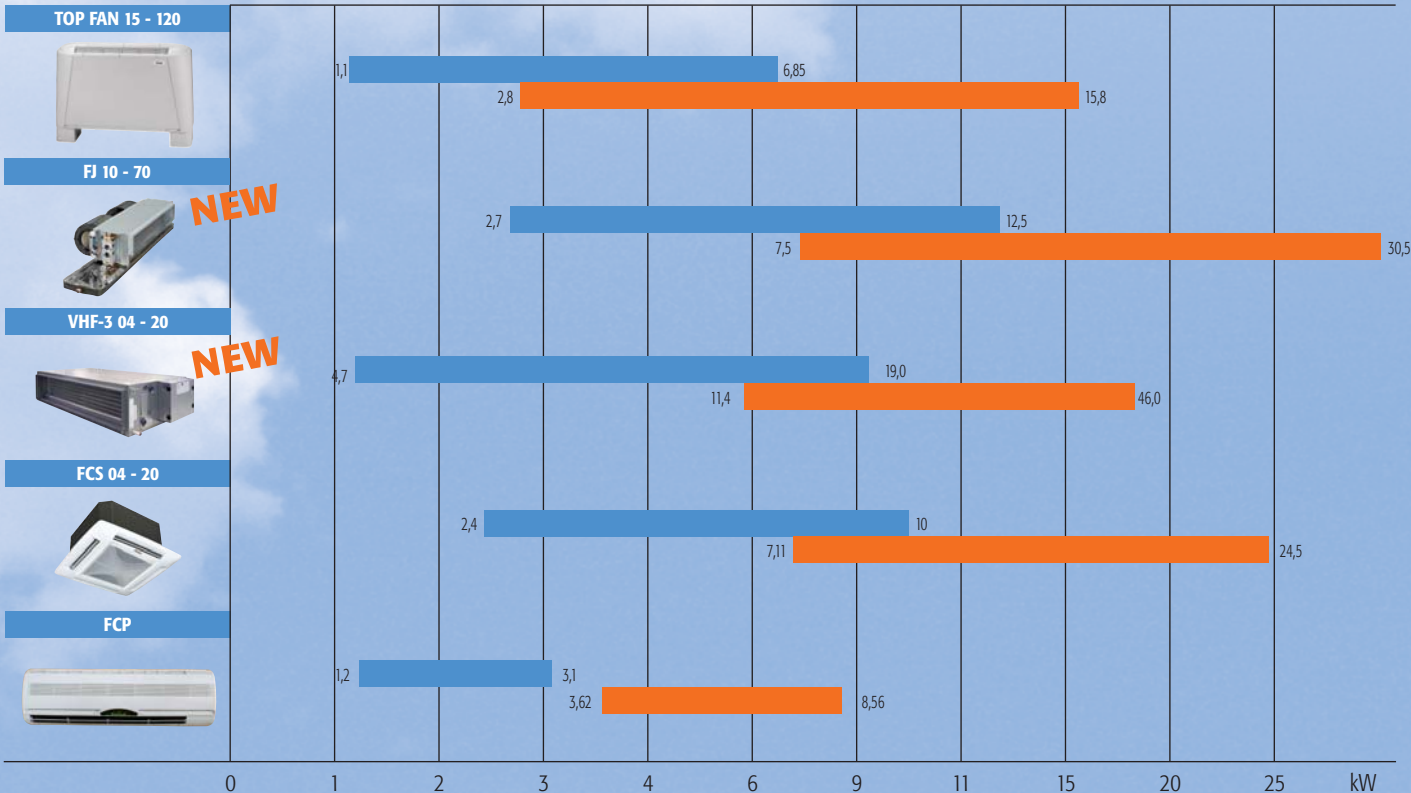
WATER CHILLER AND HEAT PUMPS WITH CENTRIFUGAL FANS



CONDENSING UNITS WITH AXIAL FANS

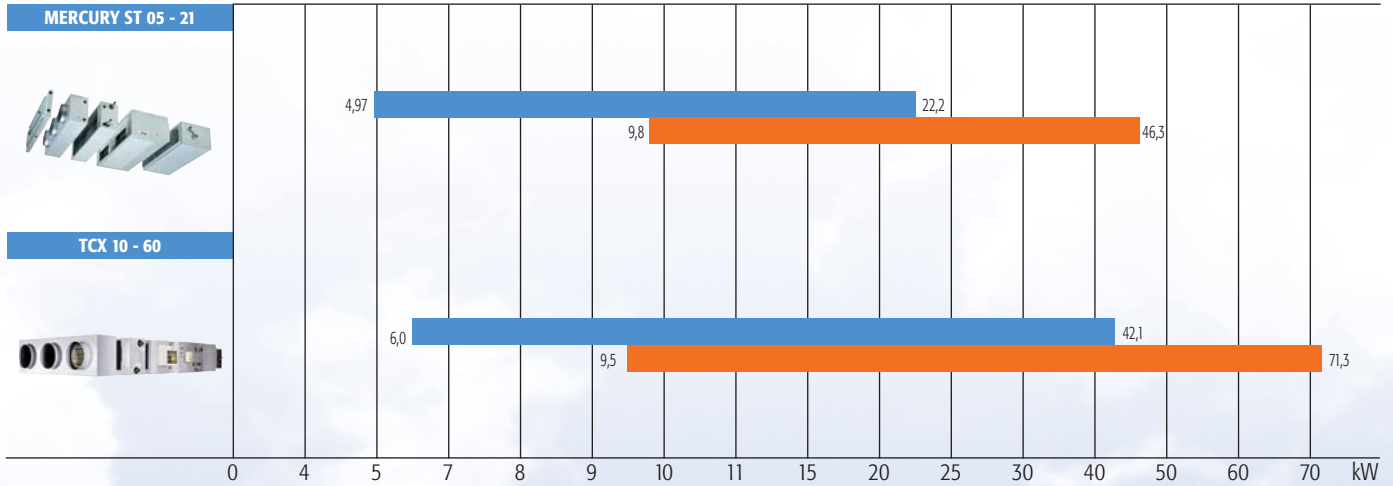


FAN COIL UNITS

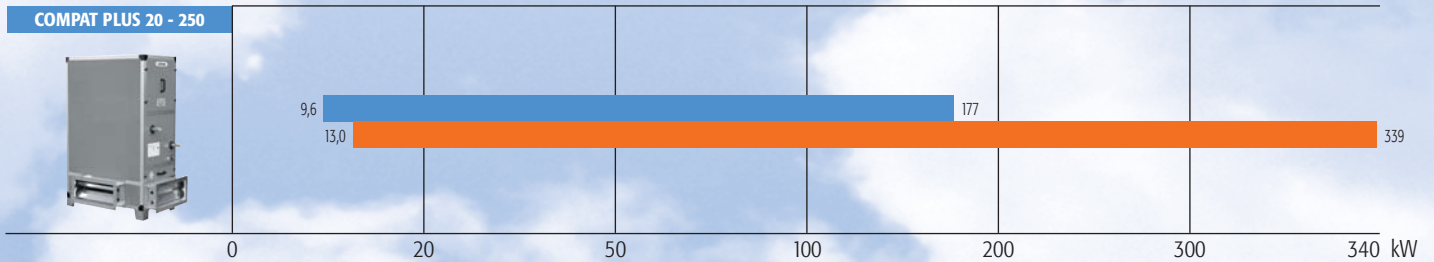
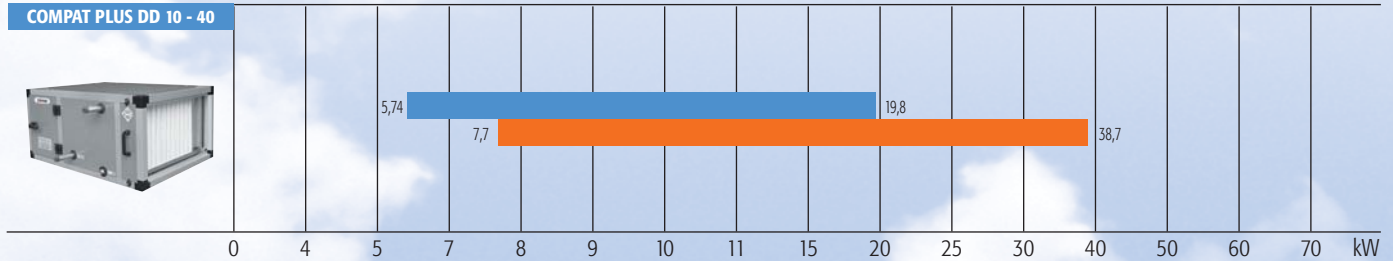


RANGE OF CAPACITIES

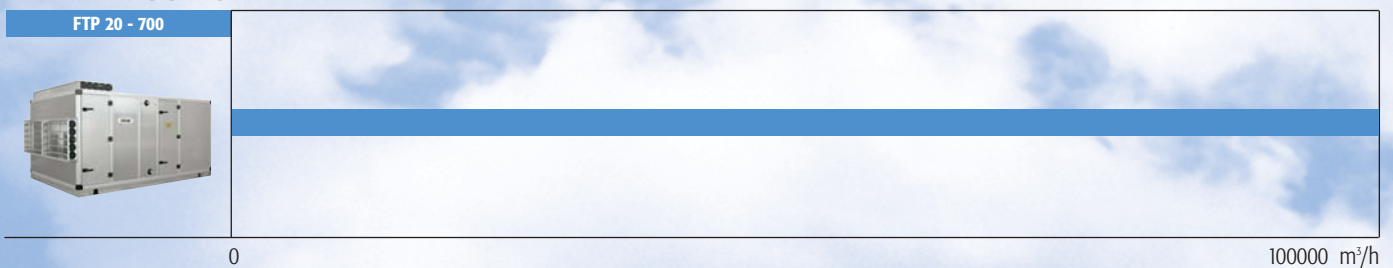
DUCTABLE FAN COILS



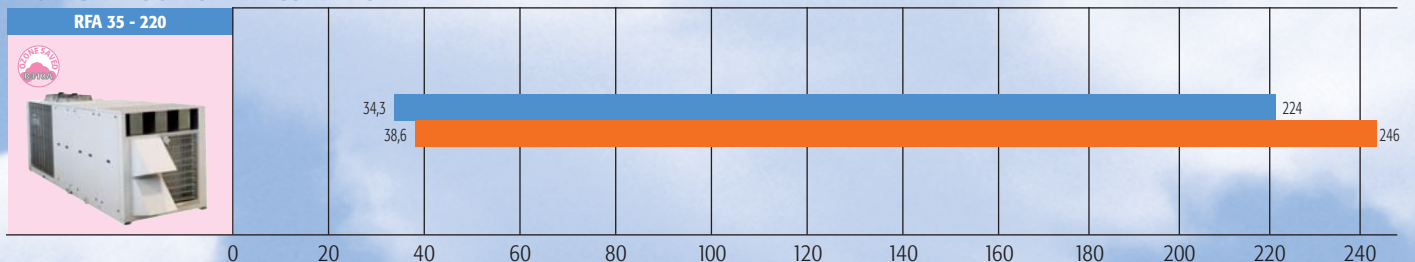
LARGE CAPACITY FAN COIL UNITS



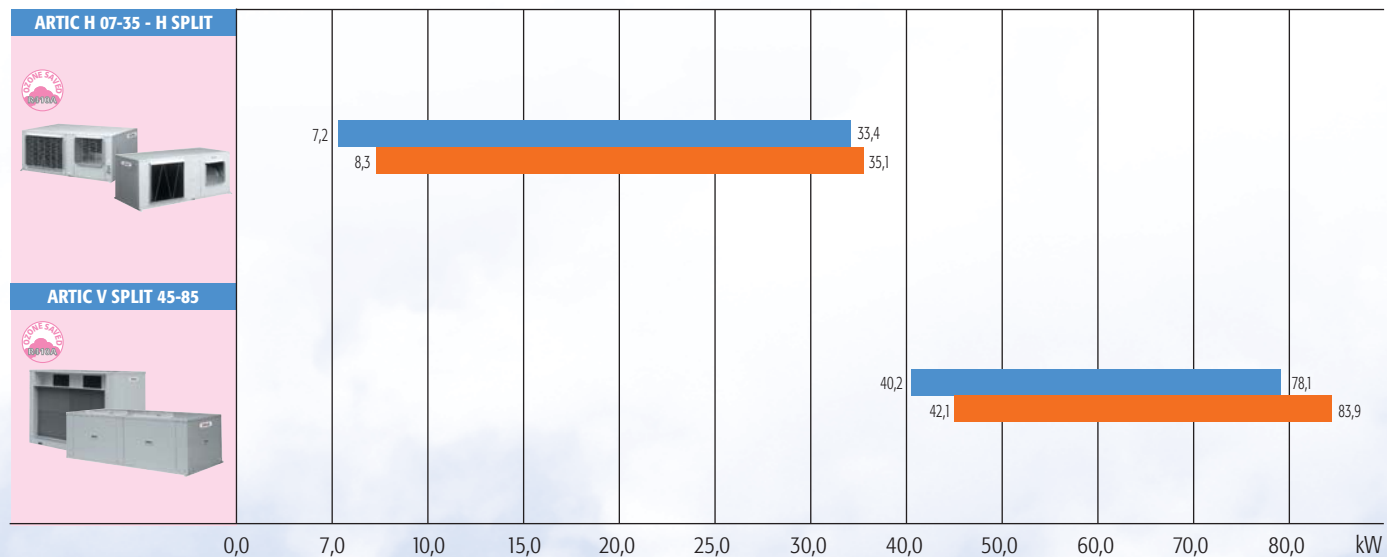
AIR HANDLING UNITS



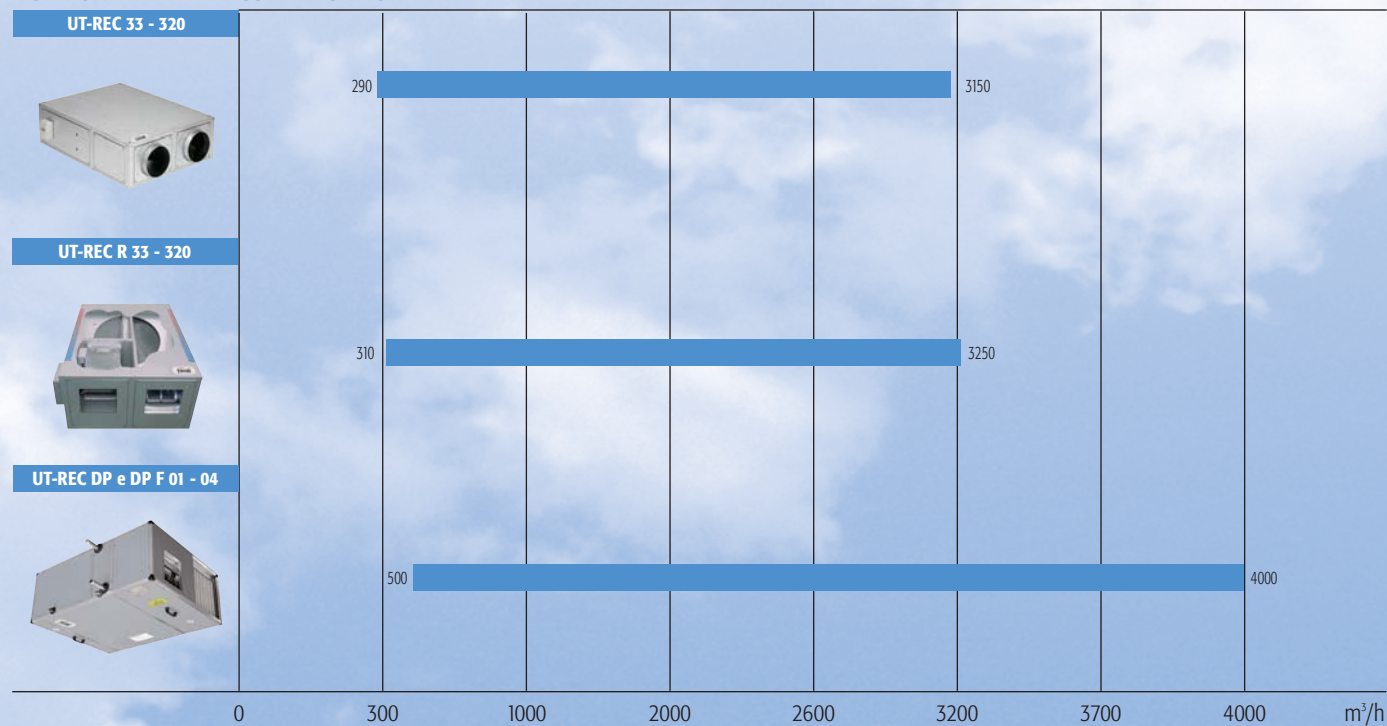
PACKAGED ROOFTOP AIR-CONDITIONER



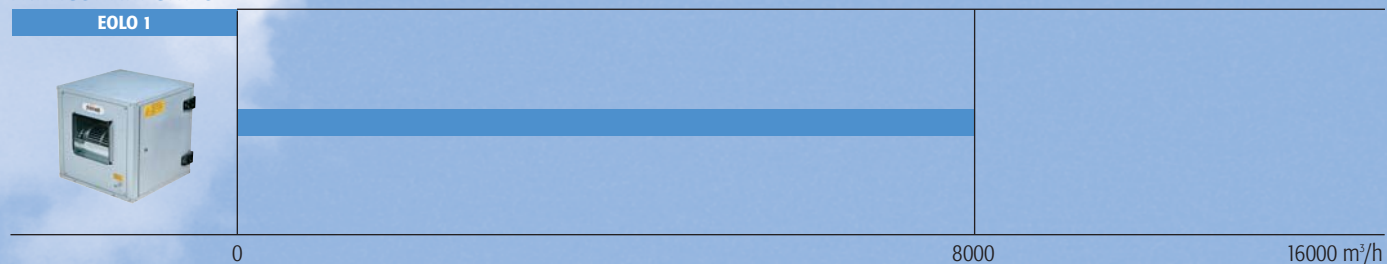
DUCTABLE AIR-CONDITIONERS



HORIZONTAL HEAT RECOVERY UNITS



EXHAUST AIR UNITS



RXA R410A WATER CHILLERS WITH AXIAL FANS

Reversible heat pump (IP)
or only cooling unit (IR)
operating on R 410A ecological gas



High efficiency

The unit is available in the following version:

- Basic version (VB)
- Pump version (VP)
- Storage tank and pump version (VA)
- Storage tank and additional electrical heater (VA+REL)

IR cooling only units	MU	6.1	7.1	9.1	9.1/3	11.1	11.1/3	14.1	17.1
Cooling capacity (*) (E)	kW	6,2	7,4	9,4	9,4	10,8	10,8	13,8	17,3
Power input in cooling mode (*) (E)	kW	2,15	2,85	3,7	3,7	4,15	4,15	5,15	6,65
IP heat pump units	MU	6.1	7.1	9.1	9.1/3	11.1	11.1/3	14.1	17.1
Cooling capacity (*) (E)	kW	6,0	7,1	9,2	9,2	10,6	10,6	13,6	17,1
Power input in cooling mode (*) (E)	kW	2,15	2,85	3,7	3,7	4,15	4,15	5,15	6,65
Heating capacity (**) (E)	kW	7,0	8,2	10,4	10,4	11,5	11,5	15,3	18,6
Power input in heating mode (**) (E)	kW	2,25	2,75	3,65	3,65	4,05	4,05	4,95	6,4

NOTE:

(*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB

(**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%

(E) EUROVENT certified data

RMA WATER CHILLERS WITH AXIAL FANS

Cooling only chiller (IR) or heat pump (IP)
operating on R410A ecological gas.



The unit is available in the following versions:

- Basic configuration (AB)
- Low-noise kit

On request:

- Copper condenser fins
- Coated aluminium fins
- Tinned copper fins
- Cataphoresis painting

IR cooling only units, basic configuration AB - 0M5	MU	19	22	26	30	40	51
Cooling capacity (*) (E)	kW	19,2	22,3	26,0	29,1	40,8	51,7
Total power input in cooling mode (*) (E)	kW	7,05	7,75	8,90	10,3	13,1	17,9
IP heat pump units, basic configuration AB - 0M5	MU	19	22	26	30	40	51
Cooling capacity (*)	kW	18,7	21,9	25,6	28,2	39,1	49,7
Total power input in cooling mode (*) (E)	kW	6,9	7,75	8,8	10,1	12,7	17,7
Heating capacity (**) (E)	kW	20,4	23,5	27,6	29,4	41,0	51,3
Total power input in heating mode (**) (E)	kW	6,95	7,75	9,05	9,8	13,1	16,8

NOTE:

(*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB

(**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%

(E) EUROVENT certified data

RGa WATER CHILLERS WITH AXIAL FANS

Cooling only chiller (IR) or heat pump (IP), operating on R410A ecological gas, VB version. Built-in storage tank (optional) 200 or 400 litres.



NEW

The unit is available in the following versions:

- Basic configuration (AB)
- Low-noise kit (AS)
- Extra low-noise unit (ASS)
- Special version with desuperheater (VD)
- Special version for the production of low temperature brine (VI)

On request:

- Copper condenser fins
- Coated aluminium fins
- Tinned copper fins
- Cataphoresis painting

IR cooling only units, basic config. AB - 0M5	MU	50	60	70	80	90	100	115	130	145	160	180	200
Cooling capacity (*) (E)	kW	53,5	58,6	68,8	78,7	91,0	102,0	112,0	126,0	143,0	158,0	180,0	200,0
Total power input in cooling mode (*) (E)	kW	18,1	20,3	22,7	27,4	31,8	35,2	39,1	44,1	51,4	56,4	63,2	70,0
IP heat pump units, basic config. AB - 0M5	MU	50	60	70	80	90	100	115	130	145	160	180	200
Cooling capacity (*)	kW	52,9	57,5	67,2	74,1	89,2	99,0	110,0	122,0	138,0	154,0	178,0	198,0
Total power input in cooling mode (*) (E)	kW	18,0	20,2	22,5	26,5	31,6	35,0	39,0	43,6	51,2	55,9	62,2	69,7
Heating capacity (**)	kW	53,2	58,0	67,7	76,2	91,4	103,0	113,0	125,0	143,0	156,0	184,0	202,0
Total power input in heating mode (**) (E)	kW	18,0	19,8	22,1	24,9	31,8	35,0	38,4	42,6	50,5	55,2	61,2	68,2

NOTE:

(*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB

(**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%

(E) EUROVENT certified data

RLA WATER CHILLERS WITH AXIAL FANS

Cooling only chiller or heat pump, operating on R407C ecological gas, VB version. Built-in storage tank (optional).



The unit is available in the following versions:

- Basic configuration (AB)
- Low-noise configuration (AS)
- Special version with desuperheater (VD)
- Special version with partial heat recovery (VP)
- Special version with total heat recovery (VR)
- Special version for the production of low temperature brine (VI)

On request:

- Copper condenser fins
- Coated aluminium fins
- Tinned copper fins
- Cataphoresis painting

IR cooling only units, basic config. AB - 7M5	MU	150	165	180	205	230	260	285	315
Cooling capacity (*) (E)	kW	149,0	163,0	178,0	205,0	229,0	255,0	284,0	313,0
Total power input in cooling mode (*) (E)	kW	62,9	67,9	72,1	81,0	90,2	102,0	115,0	126,0
IP heat pump units, basic config. AB - 7M5	MU	150	165	180	205	230	260	285	315
Cooling capacity (*)	kW	136,0	150,0	165,0	193,0	215,0	238,0	275,0	301,0
Total power input in cooling mode (*) (E)	kW	60,4	66,5	71,7	81,1	92,3	102,0	114,0	124,0
Heating capacity (**)	kW	165,0	181,0	195,0	228,0	255,0	282,0	314,0	347,0
Total power input in heating mode (**) (E)	kW	62,8	67,5	70,9	80,0	87,9	99,7	109,0	120,0

NOTE:

(*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB

(**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%

(E) EUROVENT certified data

RHA WATER CHILLERS WITH AXIAL FANS

Cooling only chiller or heat pump, operating with R407C ecological gas, VB version.
Built-in storage tank (optional), capacity 700 litres (models 350-385), capacity 720 litres (models 430-470) and 850 litres (models 515-570-630).



The unit is available in the following versions:
 - Basic configuration (AB)
 - Low-noise configuration (AS)
 - Special version with desuperheater (VD)
 - Special version with partial heat recovery (VP)
 - Special version with total heat recovery (VR)
 - Special version for the production of low temperature brine (VI)

On request:
 - Copper condenser fins
 - Coated aluminium fins
 - Tinned copper fins
 - Cataphoresis painting



IR cooling only units, basic configuration AB - 7M5	MU	350	385	430	470	515	570	630
Cooling capacity (*) (E)	kW	343	383	430	464	507	567	627
Total power input in cooling mode (*) (E)	kW	143	155	169	190	206	232	253
IP heat pump units, basic configuration AB - 7M5	MU	350	385	430	470	515	570	630
Cooling capacity (*) (E)	kW	339	373	411	454	489	549	602
Total power input in cooling mode (*) (E)	kW	140	153	170	183	205	228	248
Heating capacity (**) (E)	kW	397	421	481	539	563	628	694
Total power input in heating mode (**) (E)	kW	135	146	167	184	198	217	240

NOTE:
 (*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB
 (**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%
 (E) EUROVENT certified data

RHV WATER CHILLERS WITH SCREW COMPRESSORS

Cooling only chiller with screw compressors, with ecological R407C gas, basic configuration (VB), desuperheater configuration (VD), total heat recovery configuration (VR).



The unit is available in the following versions:
 - Basic configuration (AB)
 - Low-noise configuration (AS)
 - Extra low-noise configuration (AM)
 - Special version with desuperheater (VD)
 - Special version with partial heat recovery (VP)
 - Special version with total heat recovery (VR)
 - Special version for the production of low temperature brine (VI)

On request:
 - Copper condenser fins
 - Coated aluminium fins
 - Tinned copper fins
 - Cataphoresis painting



IR cooling only units, basic config. AB	MU	370	420	470	550.2	620.2	680.2	720.2	770.2	850.2	900.2	1000.2	1150.2	1300.2	1450.2
Cooling capacity (*)	kW	365	415	470	549	614	678	718	763	848	882	995	1.149	1.308	1.430
Total power input (*)	kW	148	165	196	222	244	268	287	307	330	340	391	446	509	494

NOTE:
 (*) Data refer to: Water temperature: inlet: 12°C - outlet: 7°C, Outdoor air temperature 35°C DB



The units from 370 to 850 kW are equipped with new generation Screw Compressors (2 compressors), semi-hermetic, single-screw, each performing infinitely variable capacity control as standard. This enable the unit to modulate the cooling capacity from 13% to 100%.



The units from 900 to 1.450 kW are equipped with compact twin-screw, semi-hermetic compressors. Optimized for R134a with capacity control from 25 to 100%.



The units are equipped with high-efficiency Shell & Tube evaporator, 2 refrigerant circuits, 1 water circuit, protected by differential water pressure switch and electrical antifreeze heater.

RHV R134a WATER CHILLERS WITH AXIAL FANS

Cooling only chiller with screw compressors, with ecological R134a gas, basic configuration (VB), desuperheater configuration (VD), total heat recovery configuration (VR).



High efficiency



The unit is available in the following versions:

- Basic configuration (AB)
- Low-noise configuration (AS)
- Extra low-noise configuration (ASS)
- Special version with desuperheater (VD)
- Special version with partial heat recovery (VP)
- Special version with total heat recovery (VR)
- Special version for the production of low temperature brine (VI)

On request:

- Copper condenser fins
- Coated aluminium fins
- Tinned copper fins
- Cathaphoresis painting

IR cooling only units, basic config. AB	MU	330.2	370.2	420.2	470.2	510.2	590.2	670.2	740.2	800.2	900.2	1000.2	1100.2
Cooling capacity (*)	kW	332	366	415	468	511	594	665	743	802	892	987	1.114
Total power input (*)	kW	119	136	151	165	188	210	225	260	281	323	352	379

NOTE:

(*) Data refer to: Water temperature: inlet: 12°C - outlet: 7°C, Outdoor air temperature 35°C DB



These units are equipped with compact twin-screw, semi-hermetic compressors. Optimized for R134a with capacity control from 25 to 100%.

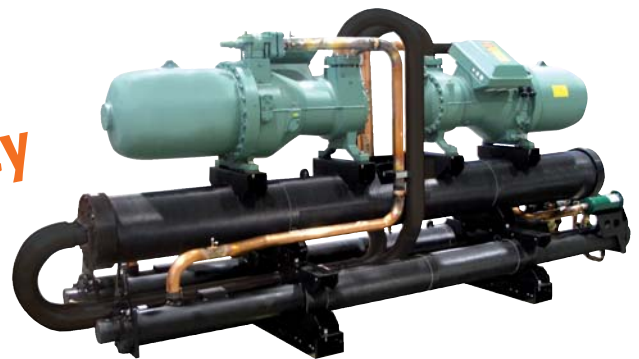


The units are equipped with high-efficiency Shell & Tube evaporator, 2 refrigerant circuits, 1 water circuit, protected by differential water pressure switch and electrical antifreeze heater.

RVW WATER-COOLED WATER CHILLERS WITH SCREW COMPRESSORS

Cooling only chiller or heat pump, operating with R134A ecological gas, basic version (VB), desuperheater configuration (VD), total heat recovery configuration (VR).

NEW
High efficiency



The unit is available in the following versions:

- Basic configuration (VB)
- Special version with desuperheater (VD)
- Special version with total heat recovery (VR)
- Special version for the production of low temperature brine (VI)
- Special version for the water production for heating/cooling floor (VF)
- Low noise kit (CC)
- Versions condenserless (EVM)

On request:

- Storage and pumping module
- Antifreeze heating element
- Compressor suction shut-off valve
- High thickness evaporator insulation

IR cooling only units, basic conf. AB	MU	280	320	360.1	420.1	480.1	540.1	600.1	710.2	820.2	950.2	1100.2	1200.2
Cooling capacity (*) (E)	kW	282	317	356	412	478	536	592	704	818	935	1.066	1.167
Compressor power input (*) (E)	kW	59	67	75	86	100	114	125	150	172	200	228	249
IP heat pump units, basic conf. AB	MU	280	320	360.1	420.1	480.1	540.1	600.1	710.2	820.2	950.2	1100.2	1200.2
Heating capacity (**) (E)	kW	299	338	381	435	512	569	634	754	870	1.010	1.133	1.253
Compressor power input (**) (E)	kW	69	79	90	101	121	133	149	179	204	243	265	298

NOTE:

(*) Evaporator water temperature: inlet 12°C - outlet 7°C - Condenser water temperature: inlet 30°C - outlet 35°C
 (**) Evaporator water temperature: inlet 10°C - outlet 5°C - Condenser water temperature: inlet 40°C - outlet 45°C
 (E) EUROVENT certified data

RPC WATER CHILLERS WITH CENTRIFUGAL FANS

Cooling only chiller or heat pump operating on R407C ecological gas.



IR cooling only units - 7M5	MU	19	30	38	42	50
Cooling capacity (*) (E)	kW	6,23	8,45	10,7	13,1	15,3
Power input in cooling mode (*) (E)	kW	2,74	3,64	4,82	5,80	6,65
IP heat pump units - 7M5	MU	19	30	38	42	50
Cooling capacity (*) (E)	kW	5,93	8,15	10,4	12,7	15,0
Power input in cooling mode (*) (E)	kW	2,75	3,54	4,64	5,59	6,55
Heating capacity (**) (E)	kW	6,46	8,84	10,6	13,3	15,0
Power input in heating mode (**) (E)	kW	2,98	3,73	4,82	5,76	6,52

NOTE:
 (*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB
 (**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%
 (E) EUROVENT certified data

RMC WATER CHILLERS WITH CENTRIFUGAL FANS

Cooling only chiller or heat pump operating on R410A ecological gas.



IR cooling only units - basic configuration AB - 0M5	MU	19	22	26	30	40	51
Cooling capacity (*) (E)	kW	19,2	22,3	26,0	29,1	40,8	51,7
Power input in cooling mode (*) (E)	kW	8,30	9,00	10,1	11,5	14,7	19,5
IP heat pump units - basic configuration AB - 0M5	MU	19	22	26	30	40	51
Cooling capacity (*)	kW	18,7	21,9	25,6	28,2	39,1	49,7
Power input in cooling mode (*) (E)	kW	8,15	8,90	10,0	11,3	14,3	19,3
Heating capacity (**) (E)	kW	20,4	23,5	27,6	29,4	41,0	51,3
Power input in heating mode (**) (E)	kW	8,20	9,00	10,3	11,0	14,7	18,4

NOTE:
 (*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB
 (**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%
 (E) EUROVENT certified data

Cooling only chiller or heat pump operating on R410A ecological gas.



NEW

IR cooling only units, basic config. AB - 0M5	MU	50	60	70	80	90	100	115	130	145	160	180	200
Cooling capacity (*) (E)	kW	53,5	58,6	68,8	78,7	91,0	102,0	112,0	126,0	143,0	158,0	180,0	200,0
Total power input in cooling mode (*) (E)	kW	18,1	20,3	22,7	27,4	31,8	35,2	39,1	44,1	51,4	56,4	63,2	70,0
IP heat pump units, basic config. AB - 0M5	MU	50	60	70	80	90	100	115	130	145	160	180	200
Cooling capacity (*)	kW	52,9	57,5	67,2	74,1	89,2	99,0	110,0	122,0	138,0	154,0	178,0	198,0
Total power input in cooling mode (*) (E)	kW	18,0	20,2	22,5	26,5	31,6	35,0	39,0	43,6	51,2	55,9	62,2	69,7
Heating capacity (**)	kW	53,2	58,0	67,7	76,2	91,4	103,0	113,0	125,0	143,0	156,0	184,0	202,0
Total power input in heating mode (**)(E)	kW	18,0	19,8	22,1	24,9	31,8	35,0	38,4	42,6	50,5	55,2	61,2	68,2

NOTE:
 (*) Data refers to: Water temperature: inlet: 12°C - outlet: 7°C, Outside air temperature 35°C DB
 (**) Data refers to: Water temperature: inlet: 40°C - outlet: 45°C, Outside air temperature 7°C DB, humidity 87%
 (E) EUROVENT certified data

8SF ELECTRONIC THERMOSTAT MASTER-SLAVE

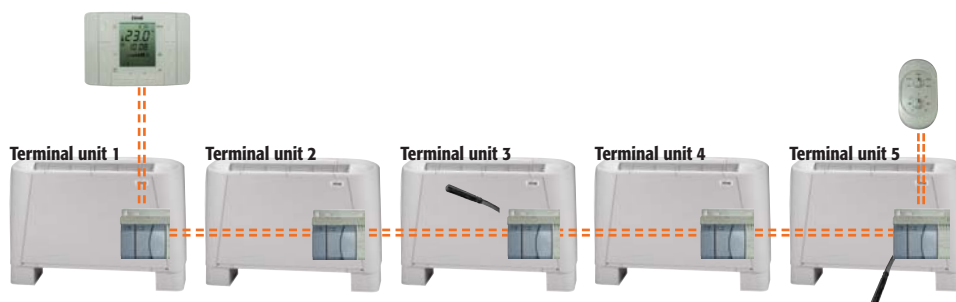
Centralized system to control up to 8 hydronic terminal units.



The wall type master control permits the management of one or more terminal units in the room.



The local control is used to set locally the parameter of the unit which is connected to.



Easy installation. The assembling is very simple, the 2-wire connection between every components grants an easy configuration of the system.

CMA CONDENSING UNITS WITH AXIAL FANS

Cooling only (**SR**) or heat pump (**SP**) condensing units, operating on R410A ecological gas.



For all models, the units are available in the following versions:

- With finned coils and hydrophilic treatment
- With copper-copper, tinned copper-copper finned coils

SR cooling only unit, basic configuration AB - 0M5	MU	19	22	26	30	40	51
Cooling capacity (*)	kW	20,9	24,2	28,3	31,6	44,5	56,4
Total power input in cooling mode (*)	kW	7,25	8,0	9,15	10,6	13,5	18,5
SP heat pump unit, basic configuration AB - 0M5	MU	18	21	25	32	37	50
Cooling capacity (*)	kW	20,7	24,0	28,1	30,8	42,7	54,9
Total power input in cooling mode (*)	kW	7,05	7,8	8,95	10,3	13,0	18,1
Heating capacity (**)	kW	20,1	23,2	27,2	29,1	40,5	50,8
Total power input in heating mode (**)	kW	7,3	8,1	9,5	10,1	13,6	17,4

NOTE:

(*) Cooling capacity - Compressor: Evaporation temperature (dew point) 6°C - Superheating 5 K - Subcooling 5 K - Outside air temperature 35°C DB

(**) Heating capacity - Compressor: Condensing temperature (dew point) 50°C - Superheating 5 K - Subcooling 5 K - Outside air temperature 7°C DB, 6°C WB

RGA VBM CONDENSING UNITS WITH AXIAL FANS

Cooling only (**IR**) or heat pump (**IP**) condensing units, operating on R410A ecological gas.



NEW

For all models, the units are available in the following versions:

- With finned coils and hydrophilic treatment
- With copper-copper, tinned copper-copper finned coils
- Available also with centrifugal fans

IR cooling only units - basic config. AB - 0M5	MU	50	60	70	80	90	100	115	130	145	160	180	200
Cooling capacity (*) (E)	kW	53,5	58,6	68,8	78,7	91,0	102,0	112,0	126,0	143,0	158,0	180,0	200,0
Total power input in cooling mode (*) (E)	kW	18,1	20,3	22,7	27,4	31,8	35,2	39,1	44,1	51,4	56,4	63,2	70,0
IP heat pump units, basic config. AB - 0M5	MU	50	60	70	80	90	100	115	130	145	160	180	200
Cooling capacity (*) (E)	kW	52,9	57,5	67,2	74,1	89,2	99,0	110,0	122,0	138,0	154,0	178,0	198,0
Total power input in cooling mode (*) (E)	kW	18,0	20,2	22,5	26,5	31,6	35,0	39,0	43,6	51,2	55,9	62,2	69,7
Heating capacity (**)(E)	kW	53,2	58,0	67,7	76,2	91,4	103,0	113,0	125,0	143,0	156,0	184,0	202,0
Total power input in heating mode (**)(E)	kW	18,0	19,8	22,1	24,9	31,8	35,0	38,4	42,6	50,5	55,2	61,2	68,2

NOTE:

(*) Cooling capacity - Compressor: evaporation temperature (dew point) 3°C - Superheating 5 K - Subcooling 5 K - Outside air temperature 35°C DB

(**) Heating capacity - Compressor: condensing temperature (dew point) 50°C - Superheating 5 K - Subcooling 5 K - Outside air temperature 7°C DB, 6°C WB

TOP FAN FAN COIL UNITS WITH CENTRIFUGAL FAN



VM-B with air intake from below



VN-3V ductable, without casing



VM-F with air intake from the front

Model	MU	15	20	30	40	50	60	80	100	120
Heating capacity (*)	Max. W	2.800	3.650	5.500	6.500	7.800	9.400	12.500	14.900	15.800
	Med. W	2.400	3.150	4.550	5.450	6.600	7.900	10.800	12.500	13.270
	Min. W	1.800	2.250	3.400	4.000	4.930	5.800	8.300	9.600	10.000
Cooling capacity (**)(E)	Max. W	1.100	1.400	2.100	2.800	3.400	4.000	4.900	6.100	6.850
	Med. W	980	1.200	1.850	2.450	3.010	3.550	4.350	5.500	6.100
	Min. W	770	950	1.450	1.900	2.390	2.800	3.600	4.400	5.000
Air flow rate	Max. m ³ /h	215	280	410	515	615	750	1.050	1.200	1.350
	Med. m ³ /h	170	210	310	400	510	600	850	970	1.070
	Min. m ³ /h	110	140	220	290	350	410	570	670	720

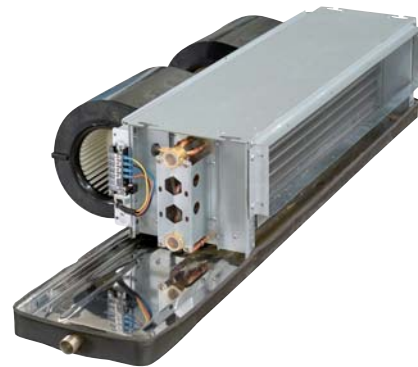
NOTE: Power supply: 230-1-50 [V-Ph-Hz]

(E) EUROVENT certified data

(*) Heating capacity measured with air intake T=20°C DB • Water inlet/outlet temperature 70°/60°C • Values refer to nominal air flow • For medium and minimum fan speed, water flow-rate as per the maximum speed.

(**) Cooling capacity measured with air intake T=27°C DB / 19°C WB • Water inlet/outlet temp. 7°/12°C • Values refer to nominal air flow • For medium and minimum fan speed, water flow-rate as per the maximum speed.

FJ CEILING CONCEALED FAN COIL UNITS



NEW

- With filter
- With mixing box

Model	MU	10	20	30	40	50	60	70
Heating capacity (*)	Max. W	7.500	8.900	14.300	17.500	22.400	28.000	30.500
	Med. W	6.450	7.650	12.300	15.050	19.300	24.100	26.200
	Min. W	5.100	6.060	9.750	11.900	15.200	19.050	21.000
Heating capacity (**)	Max. W	4.160	5.080	8.300	10.100	12.800	16.000	17.500
Total cooling capacity (***)	Max. W	2.700	3.900	5.800	7.400	9.000	10.700	12.500
	Med. W	2.430	3.500	5.200	6.650	8.100	9.600	11.300
	Min. W	1.950	2.800	4.150	5.300	6.450	7.700	9.000
Air flow rate	Max. m ³ /h	550	680	980	1.200	1.600	2.000	2.300
	Med. m ³ /h	430	550	780	850	1.200	1.500	1.750
	Min. m ³ /h	280	340	550	650	900	1.100	1.250

NOTE:

(*) Heating capacity measured with air intake T=20°C DB • Water inlet/outlet temperature 70°/60°C

(**) Heating capacity measured with air intake T=20°C DB • Water inlet/outlet temperature 50°/45°C

(***) Cooling capacity measured with air intake T=27°C DB / 19°C WB • Water inlet/outlet temp. 7°/12°C

FCS WATER CASSETTE

The cassette-type fan coil is a terminal unit for ceiling installation, fitted with an aesthetically pleasant grille.



The unit is available in the following versions:
 - mod. 04-08-10 2 pipes
 - mod. 12-16-20 2 pipes
 - mod. 04-10 4 pipes
 - mod. 20 4 pipes

Model	MU	2 PIPES						4 PIPES		
		04	08	10	12	16	20	04-4T	10-4T	20-4T
Heating capacity (*)	Max. W	7.110	9.770	11.760	14.600	18.000	24.500	1.900	4.610	9.000
	Med. W	5.600	8.000	8.500	10.800	13.200	17.500	1.440	3.500	7.900
	Min. W	4.850	4.700	7.200	8.200	8.400	9.850	1.240	2.730	5.100
Heating capacity (**)	Max. W	3.800	5.000	6.600	8.700	10.800	13.900	—	—	—
Cooling capacity (***)	Max. W	2.400	4.000	4.700	6.300	7.600	10.000	1.900	4.000	9.800
	Med. W	1.800	2.850	3.500	4.500	5.100	7.100	1.430	3.050	7.300
	Min. W	1.550	1.900	2.850	3.400	3.170	3.900	1.230	2.500	4.100
Air flow rate	Max. m ³ /h	660	700	850	1.100	1.300	1.750	660	850	1.750
	Med. m ³ /h	450	490	600	770	910	1.220	450	600	1.220
	Min. m ³ /h	360	300	470	550	550	700	360	470	700

NOTE:
 (*) Heating capacity measured with air intake T=20°C DB • Water inlet/outlet temperature 70°/60°C
 (**) Heating capacity measured with air intake T=20°C DB • Water inlet/outlet temperature 50°/45°C
 (***) Cooling capacity measured with air intake T=27°C DB / 19°C WB • Water inlet/outlet temp. 7°/12°C

FCP HI-WALL TYPE FAN COIL UNITS

Wall type fan coil unit, with built-in 3-way valve, **IR** remote control.



Model	MU	20-V	30-V	40-V
Heating capacity (*)	Max. W	3.400	4.500	6.600
	Med. W	2.900	3.800	5.500
	Min. W	2.550	3.300	4.800
Heating capacity (**)	Max. W	2.500	3.400	5.000
Cooling capacity (***)	Max. W	1.800	2.700	3.700
	Med. W	1.400	2.250	3.100
	Min. W	1.200	2.000	2.700
Air flow rate	Max. m ³ /h	380	500	730
	Med. m ³ /h	260	410	600
	Min. m ³ /h	200	350	520

NOTE:
 (*) Heating capacity measured with air intake T=20°C DB • Water inlet/outlet temperature 70°/60°C
 (**) Heating capacity measured with air intake T=20°C DB • Water inlet/outlet temperature 50°/45°C
 (***) Cooling capacity measured with air intake T=27°C DB / 19°C WB • Water inlet/outlet temp. 7°/12°C

MERCURY ST DUCTABLE FAN COILS

Ductable fan coils with horizontal or vertical configuration, designed for residential and commercial applications, featuring compact dimensions for false-ceiling installation.

The units are available in the following versions:

- horizontal configuration MERCURY ST
- vertical configuration MERCURY ST/V



Model	MU	05	07	11	13	17	19	21	
Cooling capacity (*)	W	4.970	7.940	9.710	11.310	14.050	16.880	22.260	
Heating capacity (**)	W	9.800	15.500	19.700	21.600	25.900	35.500	46.300	
Air flow-rate	max	m ³ /h	930	1.500	1.600	2.050	2.400	3.600	4.200
	med	m ³ /h	850	1.300	1.450	1.550	1.750	2.550	3.900
	min	m ³ /h	750	1.150	1.250	1.050	1.150	1.750	3.200
Working static pressure (***)	Pa	90	100	85	115	105	120	115	

NOTE:

(*) Cooling capacity measured with air intake = 26°C DB RH 50% - Water inlet/outlet temperature = 7/12°C - Values refer to nominal air flow

(**) Heating capacity measured with air intake = 20°C DB - Water inlet/outlet temperature = 70/60°C - Values refer to nominal air flow

(***) Working static pressure measured at maximum speed

VHF-3 DUCTABLE FAN COILS

Ductable fan coils with horizontal configuration, designed for residential and commercial applications, featuring compact dimensions for false-ceiling installation.

NEW



Model	MU	04	06	09	12	16	20	
Heating capacity (*)	W	11.400	14.600	22.000	29.000	39.000	46.000	
Cooling capacity (**)	W	4.700	6.000	9.000	12.000	16.000	19.000	
Air flow-rate	max	m ³ /h	750	1.050	1.450	2.100	2.800	3.300
	med	m ³ /h	600	860	1.200	1.700	2.300	2.700
	min	m ³ /h	480	680	950	1.350	1.800	2.150
Working static pressure (***)	Pa	50	50	50	50	50	50	

NOTE:

(*) Heating capacity measured with air intake = 20°C DB - Water inlet/outlet temperature = 70/60°C - Values refer to nominal air flow

(**) Cooling capacity measured with air intake = 26°C DB RH 50% - Water inlet/outlet temperature = 7/12°C - Values refer to nominal air flow

(***) Working static pressure measured at maximum speed

TCX DUCTABLE FAN COILS

Ductable fan coils with horizontal configuration, designed for residential and commercial applications, featuring compact dimensions for false-ceiling installation.



The units are available in the following versions:

- TCX high pressure
- With single exchanger or double exchanger
- With mist separator or built-in electric post-heating section
- With direct expansion exchanger

Model	MU	10AP	20AP	25AP	30AP	40AP	50AP	60AP
Air flow rate	m ³ /h	1.040	2.150	2.740	3.360	3.950	5.070	6.450
Working static pressure (***)	Pa	150	150	150	150	150	150	150
2R COIL								
Heating capacity (**)	kW	9,50	18,5	24,2	27,7	33,3	34,9	41,2
4R COIL								
Total cooling capacity (*)	kW	6,04	12,1	15,7	18,2	21,6	24,1	32,5
Heating capacity (**)	kW	13,8	27,7	35,8	42,5	50,3	58,1	71,3
6R COIL								
Total cooling capacity (*)	kW	7,08	14,3	18,5	21,9	26,2	34,3	42,1

NOTE:

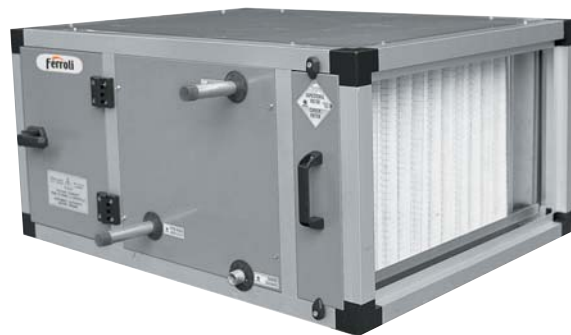
(*) Cooling capacity measured with air intake = 27°C DB RH 48% - Water inlet/outlet temperature = 7/12°C - Values refer to nominal air flow

(**) Heating capacity measured with air intake = 20°C DB - Water inlet/outlet temperature = 70/60°C - Values refer to nominal air flow

(***) Measured at the nominal air flow with a 4 row coil

COMPAT PLUS DD LARGE CAPACITY FAN COIL UNITS

Fan coils with horizontal or vertical configuration, designed for residential and commercial applications, featuring compact dimensions for false-ceiling installation.



The units are available in the following versions:

- horizontal configuration (H)
- vertical configuration (V)
- with 2, 4, 6 row exchanger

Model	MU	10			15			20			30			40		
Rows	n	2	4	6	2	4	6	2	4	6	2	4	6	2	4	6
Air flow-rate	m ³ /h	1.000			1.500			2.000			3.000			4.000		
Heating capacity (*)	kW	7,77	12,6	-	9,87	17,0	-	11,7	20,9	-	16,6	30,0	-	22,0	38,7	-
Cooling capacity (**)	kW	-	5,74	6,90	-	6,86	9,20	-	8,20	10,5	-	11,7	15,0	-	15,0	19,8
Working static press. (***)	Pa	130			130			130			130			130		

NOTE:

(*) Heating capacity measured with air intake = 12°C DB • Water inlet/outlet temperature 80°/70°C • Values refer to nominal air flow

(**) Cooling capacity measured with air intake = 30°C DB RH 50% - Water inlet/outlet temperature = 7/12°C - Values refer to nominal air flow

(***) Working static pressure measured at maximum speed

COMPAT PLUS LARGE CAPACITY FAN COIL UNITS

Fan coils with horizontal or vertical configuration, featuring a double panel structure for installations in commercial applications.

The units are available in the following versions:

- Horizontal configuration
- Vertical configuration
- With single exchanger 2, 3, 4, 6 rows
- With double exchanger for four pipe systems
- With copper-copper, tinned copper-copper, iron-aluminium exchanger and with fins featuring hydrophilic treatment
- With direct expansion exchanger



Model	MU	20	30	40	60	80	100	120	170	250
Air flow-rate	m ³ /h	2.200	2.900	3.600	5.400	7.600	9.500	11.300	14.500	20.800

FTP AIR HANDLING UNITS

The FTP air handling units represent an important contribution to the improvement of our living environment. The result of FERROLI's professionalism and years of experience, they are an important point of reference. The quality of construction and the components used are guarantees of reliability, functionality and efficiency. Designed to operate at low, medium and high pressure, the FERROLI FTP units are made using a modular system that includes 18 sizes and can thus satisfy a vast range of flow-rates. The FERROLI handling units, in normal configuration, are not suitable for operation in explosive atmospheres.



Model	MU	20	30	50	60	80	100	120	170	200
Air flow rate with air speed 2,25 m/s	m ³ /h	1.970	2.690	3.880	4.860	6.800	8.500	10.200	13.120	15.310
Air flow rate with air speed 3,5 m/s	m ³ /h	3.070	4.180	6.048	7.560	10.580	13.230	15.870	20.410	23.810

Model	MU	250	270	350	360	480	510	570	600	700
Air flow rate with air speed 2,25 m/s	m ³ /h	18.710	21.380	25.270	27.800	32.070	35.720	40.490	44.610	49.860
Air flow rate with air speed 3,5 m/s	m ³ /h	29.100	33.260	39.310	43.240	49.890	55.570	62.980	69.400	77.570

RFA PACKAGED ROOFTOP AIR-CONDITIONER

Air-air unit designed to satisfy the air-conditioning requirements in medium-large spaces: shopping centres, hypermarkets, cinemas, offices, canteens and restaurants. All the units feature operation in heating mode by reversing the refrigerant circuit.



Heat pump units available in the following versions:

- Basic version (VB)
- Version with 1 damper (V1)
- Version with 2 dampers (V2)
- Version with 3 dampers (V3)

Hentalpic free cooling option available on V2 version

Heating options:

- Water coil (2 or 3 rows)
- Electrical coil (standard or high capacity)
- Gas heating unit (standard or high capacity)

Model	MU	35.1	45.1	55.1	70.2	90.2	110.2	140.2	180.2	220.2
Cooling capacity (**)	kW	34,4	45,1	55,8	69,0	90,4	110,0	138,0	179,0	224,0
Heating capacity (*)	kW	38,6	49,8	59,4	77,2	99,4	118,0	152,0	197,0	246,0
Air flow rate	m ³ /h	6.200	8.100	10.000	11.000	14.500	17.000	22.000	29.000	36.000

NOTE: Units operating with 100% return air. (*) Measured with air intake T=27°C DB / 19°C WB • External air temp. 35°C DB (**) Measured with air intake T=20°C DB • External air temp. 7°C DB - 6°C WB

PERFORMANCE OF GAS THERMAL MODULE

Model	MU	35.1 - 45.1 - 55.1		70.2 - 90.2 - 110.2		140.2 - 180.2 - 220.2		
		Standard	High capacity	Standard	High capacity	Standard	High capacity	
Nominal heating capacity	max	kW	44,8	54,0	93,4	145,0	186,8	290,0
	min	kW	15,5	16,3	31,5	46,3	63,0	92,6
Yield	max	%	94,3	93,1	95,3	93,5	190,6	187,0
	min	%	105,0	105,0	105,0	105,2	210,0	210,5

NOTE: The listed data refer to the use of the module with G20 natural gas and a supply pressure of 20 mbar.

EOLO 1 EXHAUST AIR UNITS

The units are available in the following versions:
- EOLO FK Series 1 models



Air flow rate

Model	0	2000	4000	6000	8000	m ³ /h
FK 5	[Progressive bar chart]					2.900
FK 6	[Progressive bar chart]					4.500
FK 7	[Progressive bar chart]					8.000

ARTIC DUCTABLE AIR-CONDITIONERS

Ductable air/air air-conditioners, in the packaged version or in the split version with two sections, with centrifugal fans for residential and commercial applications, featuring compact dimensions for installation in the room and in false-ceilings.



Cooling only unit	MU	07	09	09-3	11	14	18	20	24	27	35
Cooling capacity (*)	kW	7,5	9,0	9,0	11,6	13,5	17,7	20,2	24,1	28,1	35,2
Total power input (*)	kW	3,0	3,7	3,7	5,1	5,6	7,5	8,9	10,0	11,9	14,9
Heat pump unit	MU	07R	09R	09-3R	11R	14R	18R	20R	24R	27R	35R
Cooling capacity (*)	kW	7,5	8,9	8,9	11,7	13,7	17,5	20,2	24	27,8	35
Total power input in cooling mode (*)	kW	3,0	3,6	3,6	5,1	5,6	7,6	8,7	10,8	11,8	14,9
Heating capacity (**)	kW	7,6	9,3	9,3	12,8	13,4	19,1	22,1	25,2	28,8	36,3
Total power input in heating mode (**)	kW	2,8	3,3	3,3	4,8	4,7	7,6	8,0	8,8	10,4	13,0
Air flow rate	m ³ /h	1.755	1.755	1.755	2.900	3.100	3.366	3.740	4.600	5.685	6.160

NOTE:

(*) Cooling capacity measured with outside air temperature: 35°C DB - Ambient temperature: 27/19°C DB/WB
 (**) Heating capacity measured with outside air temperature: 7/6°C DB/WB - Ambient temperature: 20°C DB

ARTIC V DUCTABLE AIR-CONDITIONERS

Ductable air/air air-conditioners, in the split version with two sections, featuring centrifugal fans for commercial applications.



Cooling only unit	MU	45	58	70	85
Cooling capacity (*)	kW	44,9	58,7	70,8	84,7
Total power input (*)	kW	16,7	22,1	26,5	31,0
Heat pump unit R7	MU	45R	58R	70R	85R
Cooling capacity (*)	kW	44,8	58,7	70,8	84,7
Total power input in cooling mode (*)	kW	16,7	22,1	26,5	31,0
Heating capacity (**)	kW	49,9	63,5	77,9	86,9
Total power input in heating mode (**)	kW	16,6	20,3	25,9	29,2

NOTE:

(*) Cooling capacity measured with outside air temperature = 35°C DB, 27/19°C DB/WB

(**) Heating capacity measured with outside air temperature = 7/6°C DB/WB - Ambient temperature: 20°C DB

Ductable heat recovery units with horizontal configuration, featuring compact dimensions and easy assembly for false-ceiling installation in residential and commercial applications.

Different configurations available.
Also available with paper recovery element.



Model	MU	33	55	110	175	220	255	320
Air flow	m ³ /h	290	570	1.050	1.650	2.120	2.450	3.150
Available static pressure (*)	Pa	50	65	80	100	100	110	120
Heat recovery efficiency (**)	%	53	54	53	52	53	53	51
Heat recovery capacity (**)	kW	1,40	2,80	5,00	7,60	9,80	11,4	14,1
"BW" WATER COIL								
Rows	n	-	-	2	2	2	2	2
Heating capacity (***)	kW	-	-	9,00	12,0	13,9	21,0	24,6
"BE" ELECTRIC COIL								
Heating capacity	kW	1,5	3,0	3,0	6,0	6,0	12,0	12,0

NOTE:
(*) Values refer to the nominal air flow rate after the recovery unit and filters
(**) Values measured with: Tdb outside air = - 5 °C; Tdb room = 20°C; nominal air flow
(***) Values measured with: water 70/60°C

UT-REC R WHEEL HEAT RECOVERY UNITS

Ductable heat recovery units with horizontal configuration featuring a high efficiency wheel heat recovery, compact dimension for false-ceiling installation in commercial applications.



Model	MU	33	55	110	175	220	255	320
Air flow	m ³ /h	310	650	1.050	1.800	2.220	2.600	3.250
Available static pressure (*)	Pa	50	65	80	130	100	110	125
Efficiency (sensible/latent)	%	85/75	72/63	71/63	72/63	72/63	73/63	69/63
Heat recovery capacity (**)	kW	3,50	6,30	10,0	17,4	21,3	25,2	30,5

NOTE:
(*) Values refer to the nominal air flow after the filters
(**) Values measured with: outside air temperature -5°C, DB 80%, RH ambient air 20°C, DB 50% RH

UT-REC DP HORIZONTAL AND VERTICAL HEAT RECOVERY UNITS

Ductable heat recovery units with horizontal or vertical configuration, featuring a double panel structure and built-in heating heat exchanger for installations in residential and commercial applications.

Different configurations available.



Model	MU	005	01	02	03	04
Air flow	m ³ /h	500	1.000	2.000	3.000	4.000
Available static pressure (*)	Pa	144	172	168	225	140
Recovery efficiency	%	55	58,3	54	58,9	59,7
"BW" WATER COIL						
Rows	n	2	2	2	2	2
Heating capacity (**)	kW	5,90	9,50	13,5	18,8	22,0
"BE" ELECTRIC COIL						
Heating capacity	kW	2,5	5,0	10,0	15,0	20,0

NOTE:
 (*) Values refer to the nominal air flow rate after the recovery unit and filters
 (**) Values measured with water at 80°/70°C

UT-REC DP F HORIZONTAL HEAT RECOVERY UNITS

Ductable heat recovery units with horizontal configuration, featuring a double panel structure and built-in heating/cooling heat exchanger for installations in residential and commercial applications.

Different configurations available.



Model	MU	005	01	02	03	04
Air flow	m ³ /h	500	1.000	2.000	3.000	4.000
Available static pressure (*)	Pa	125	167	148	220	127
Recovery efficiency	%	43,3	48,5	45,2	48,9	49,5
4 R WATER COIL						
Rows	n	4	4	4	4	4
Cooling capacity with water 7°/12°C (**)	kW	3,5	6,7	14,4	20,4	27,5
Heating capacity with water 40°/45°C (***)	kW	4,7	7,8	16,7	23,0	25,9
Heating capacity with water 50°/30°C (***)	kW	3,6	6,0	13,7	18,5	24,4
Air outlet temperature (****)	°C	17,0	18,6	18,0	18,6	18,5
Water side pressure drop	Pa	3,0	11,4	22,2	23,4	8,2

NOTE:
 (*) Refer to the nominal air flow rate after the recovery unit and filters
 (**) Values measured with: outside air T=35°C, 40% RH, ambient air T=27°C, 48% RH; nominal air flow
 (***) Values measured with: outside air T=5°C, inside air T=20°C; nominal air flow
 (****) Values referred to: outside air T= 30°C RH 55%, water 7/12°C; nominal air flow

THE NEW R&D LABORATORY

The new research and development laboratory covers an area of 1,400 m², located inside the industrial air-conditioning production facilities.

The main tasks are the construction of the prototypes designed by the technical department, and the functional tests in the DB and WB temperature conditions specified by Eurovent.

The structure features a supervisors plus 4 technicians working on the construction of the prototypes and another 4 laboratory technicians who perform the tests.

The new laboratory is equipped with

- A compensated calorimeter (featuring a gap and two separate chambers) to test units with a capacity up to $P=16.5$ kW and the possibility of test the units down to a temperature of -10°C ;
- A compensated calorimeter (with double chamber and no gap, in which the heat loss is considered) to test units with a capacity up to $P=16.5$ kW and down to a temperature of -10°C , fitted inside an enthalpy tunnel for calculating the performance of the split indoor units or fan coils up to $Q=1,500$ m³/h, built according to the AMCA 210 specifications
- A fan testing tunnel, built according to ISO 5801 and UNI 10531, to test the air flow-rate of axial-flow and tangential fans and study the flow-rate/pressure curves of centrifugal fans for values up to $Q=5000$ m³/h.
- A semi-anechoic chamber for testing sound power and pressure and reconditioned to perform the temperature tests specified by the Eurovent conditions.
- The chamber is used for units with a capacity up to $P=50$ kW and for the entire series of terminal units and chillers up to this capacity rating. A climate chamber for testing units with a capacity up to $P=185$ kW, with the possibility of conducting tests down to a temperature of -10°C . This chamber has been especially designed for testing units with centrifugal fans and roof-top units.

All the chambers described allow the technicians to test cooling only or heat pump units, with heat recovery in the desuperheating phase or total heat recovery, as well as units for the production of chilled water down to $T=-6^{\circ}\text{C}$ and process chillers. The investments made over recent years into research and development have allowed the development of units that respond to the needs of the market both in terms of performance (efficiency, low noise, reliability) and in terms of operating versatility in all climate conditions and with various systems solutions.

The most significant and prestigious investment is surely the new climate chamber, one of the biggest in Italy, currently being set up and able to test units with capacities up to **P=900kW**.

The total inside volume, around 1200 m³, is managed by a system of air and water reconditioning circuits, with inverter control and an intelligent software system that allows the various tests to be performed without the operator present, for temperatures down to $T=-10^{\circ}\text{C}$.

The chamber can be divided into two completely independent zones to test two units simultaneously.

The steam is generated by a low pressure boiler especially designed in the Industrial Heating Division technical department.

The Ferroli S.p.A. technicians, whose work has always taken significant account of energy savings and consequently heat recovery, have also designed a system whereby the thermal energy produced by the R&D laboratory is maintained at constant values, using a loop circuit with evaporative towers, and then reused for conditioning the testing environments at the end of the line.



CALIBRATED/COMPENSATED CALORIMETER

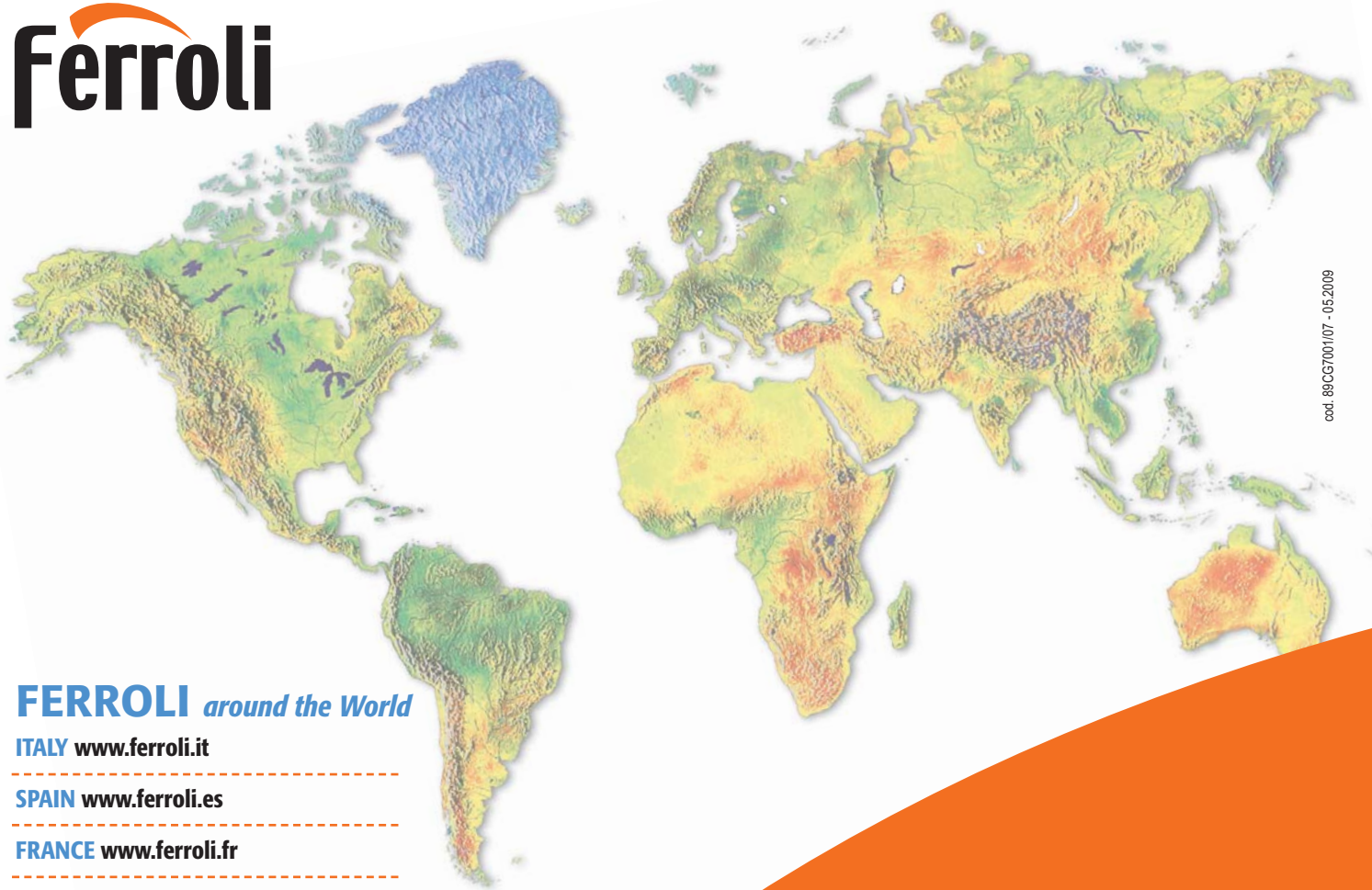


CLIMATE CHAMBER



CLIMATE CHAMBER

Ferrolì



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