HUB RADIATOR MINI XL

Patented high efficiency direct exchange thermodynamic boiler
refrigerant / water to produce domestic hot water and heating for small and medium-sized users

PATENTED SYSTEM · RENEWABLE ENERGY · ENERGY SAVING · INVERTER CIRCULATOR · COMPACT DIMENSIONS

ECOLOGICAL GAS · PHOTOVOLTAIC COMBI · DHW WITHOUT LEGIONELLA · HEATING UP TO 58 ° C · PLUG & PLAY INSTALLATION

Technical and construction features

HUB RADIATOR MINI XL is a patented high efficiency direct coolant / water exchange for the production of domestic hot water and heating for small and medium-sized homes. The system consists of:

- Indoor unit with 2 technical water accumulators of 75 liters each, in which the patented immersion coolant / water condensers and the rapid DHW exchanger are inserted;
- From one to three external moto-evaporating boosters that close the refrigeration circuit and directly transfer the heat taken from the external air to the technical water of the accumulators which then feed the heating and hot water production system sanitary.
During the coldest periods of the year, I could use the heat contained in the technical water accumulator to produce very rapid and very economical defrosts.
- High efficiency inverter electronic circulation pump
- Microprocessor command and control panels for the management of the whole system
- 1.5 kW back-up electric heater
- DHW circuit priority diverter valve
- Double system expansion tank
- Manual filling group
- Safety valve
- Jolly air vent valve

The indoor unit is in perfect balance between compact size, energy efficiency and innovative design.
This system is very ductile and flexible as it offers the possibility of having an edge of 1 to 3 condensers connected, separately and independently, and up to 3 external moto-evaporating units in cascade, in the Booster HR 7.8 heat pump.
The MINI XL HUB RADIATOR uses an inverter circulator that circulates the heat transfer fluid, both for the production of domestic hot water and for space heating. At the same time, the diverter valve is operated electronically by a special thermostat, which always gives priority to the use of the domestic hot water, over heating.
The system is supplied as standard complete with electronic system circulator, double filling group, safety valve, automatic air vent jolly valve, DHW priority diverter valve, power supply voltage control device and base plate anchoring template. galvanized.

Modello	Code	€
HUB RADIATOR MINI XL 6.0 Booster doppio 3.0+3.0	**76801085**	**7.900,00**
HUB RADIATOR MINI XL 8.0 Booster singolo 7.8	**76801086**	**8.000,00**
HUB RADIATOR MINI XL 11.0 Booster doppio 7.8+3.0	**76801087**	**9.740,00**
HUB RADIATOR MINI XL 16.0 Booster doppio 7.8+7.8	**76801088**	**11.250,00**
HUB RADIATOR MINI XL 24.0 Booster triplo 7.8+7.8+7.8	**76801083**	**13.300,00**

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Accessories HUB RADIATOR MINI XL			Code	€
	Command and remote control panel	**mod. built-in** **mod. on the wall**	**75100005** **75100028**	**90,00** **110,00**
	Load control relay for managing the absorbed power	**mod. BUS connection** **mod. Radio frequency**	**37081062** **37081063**	**148,00** **336,00**
	Web server home automation control unit		**75101005**	**580,00**
	Mixing valve for radiant systems	**mod. fixed mechanical adjustment** **mod. motorized adjustment**	**75101032** **75101033**	**90,00** **530,00**
	Additional condenser for heat only HR Booster		**26505565**	**300,00**
	Anchoring shelf for external Booster including rubber anti-vibration mounts	**mod. Booster HR 3.0** **mod. Booster HR 7.8**	**37081060** **37081061**	**50,00** **90,00**
	Anchoring bracket for inclined roof for external Booster mod. HR 3.0 - 7.8 including rubber anti-vibration mounts		**37081064**	**130,00**
	Antivibration floor base in vulcanized rubber (height from the ground mm 95) with level and screws for Booster HR 3.0 - 7.8 (pack of 2 pieces)		**75100018**	**94,00**
	Anti-vibration kit for installation on shelves		**75100022**	**18,00**
	Spring anti-vibration kit in stainless steel complete with bolts, washers and nuts (pack of 2 pieces)	**mod. HR 3.0** **mod. HR 7.8**	**37081065** **37081066**	**52,00** **56,00**
	Condensate anti-freeze heating cable with thermal sensor, factory fitted	**mod. 3 metri 90 W** **mod. 6 metri 120 W**	**37081067** **37081068**	**56,00** **66,00**
	Auxiliary basin for installation under shelf equipped with 90 W heating cable	**mod. HR 3.0** **mod. HR 7.8**	**37081069** **37081070**	**252,00** **272,00**
	Floor support complete with auxiliary basin equipped with 90 W heating cable	**mod. HR 3.0 H fixed** **mod. HR 7.8 H fixed** **mod. HR 7.8 H variable**	**37081071** **37081073** **37081074**	**308,00** **330,00** **354,00**
	1/2 "DHW mixing valve kit		**75100023**	**146,00**
	Electronic management kit and additional heat generator connection sleeves		**75100024**	**194,00**
	Anti-vibration flexible joint kit with connection plate and straight union	**mod. HR 7.8 (5/8")** **mod. HR 3.0 (3/8")**	**75100014** **75100015**	**120,00** **60,00**
	Flexible anti-vibration joint kit with connection plate and 90 ° curved union	**mod. HR 7.8 (5/8")** **mod. HR 3.0 (3/8")**	**75100016** **75100017**	**120,00** **60,00**

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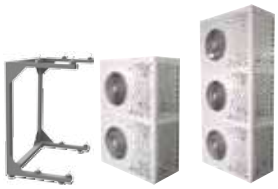
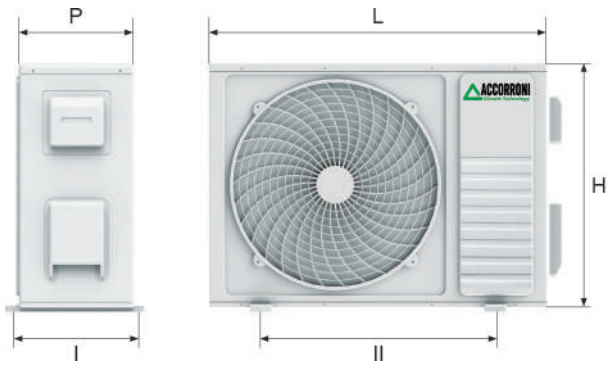
Accessories HUB RADIATOR MINI XL

			Codice	€
	Upper casing closing plinth		**75101020**	**78,00**
	Lower casing closing plinth		**75101021**	**64,00**
	Installation template kit complete with pre-flanged and insulated refrigeration pipes and pipes for connecting the sanitary water circuit	**mod. 6.0**	**75101010**	**360,00**
		mod. 8.0	**75101011**	**370,00**
		mod. 11.0	**75101012**	**380,00**
		mod. 16.0	**75101013**	**400,00**
		mod. 24.0	**75101014**	**420,00**
 (fig.1) (fig.2) (fig.3)	*Open shelf for n. 2 Booster outdoor units mod. HR 7.8 complete with anti-vibration mounts (fig. 1)*		**75060406**	**240,00**
	RACK 2 wardrobe for n. 2 Booster outdoor units mod. HR 3.0 - HR 7.8 (fig. 2)		**75060306**	**890,00**
	RACK 3 wardrobe for n. 3 external units Booster mod. HR 3.0 - HR 7.8 Height 210 cm Width 96 cm Depth 54 cm (fig.3)		**75060206**	**980,00**

Outdoor unit dimensions HUB RADIATOR MINI XL



Booster	L	H	P	I	II
	mm	mm	mm	mm	mm
HR 3.0	700	552	256	275	435
HR 7.8	830	585	300	330	515

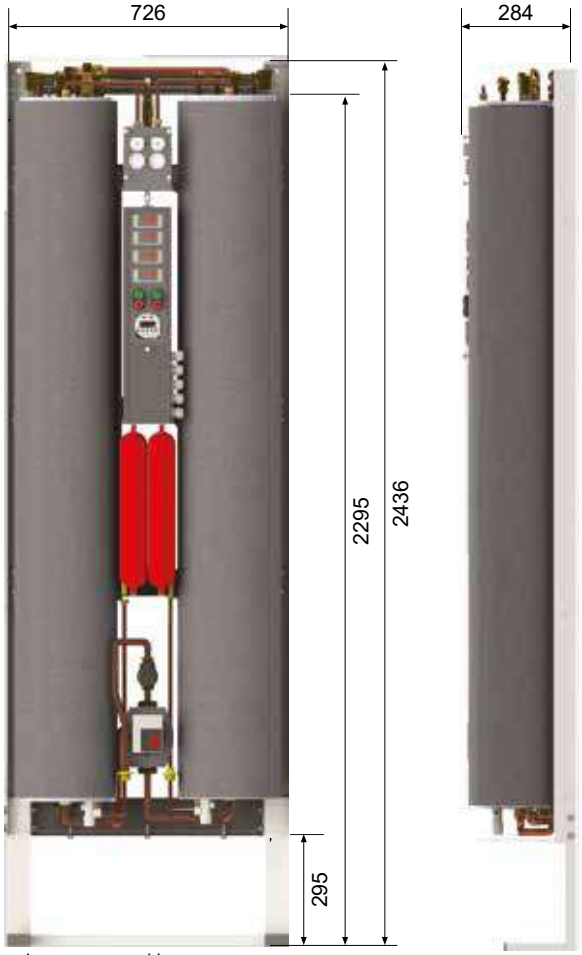
Dati tecnici Booster

	U.M.	HR 3.0	HR 7.8
Refrigerant quantity	Kg	1,1	2,0
Refrigerant gas connections		3/8”	5/8”
Refrigerant fluid connections		1/4”	1/4”
Power supply		230V/1/50Hz	
Sound power(1)	dB(A)	65,1	68,4
Sound pressure at one meter (2)	dB(A)	51,2	54,7
Weight	Kg	33	43

(1) Measurements carried out according to UNI EN 14511 i - heating 30/35 ° C - Ext. 7 ° C b.s./6 ° C b.u.

(2) Value calculated according to ISO 3744: 2010

Indoor unit HUB RADIATOR MINI XL



values expressed in mm

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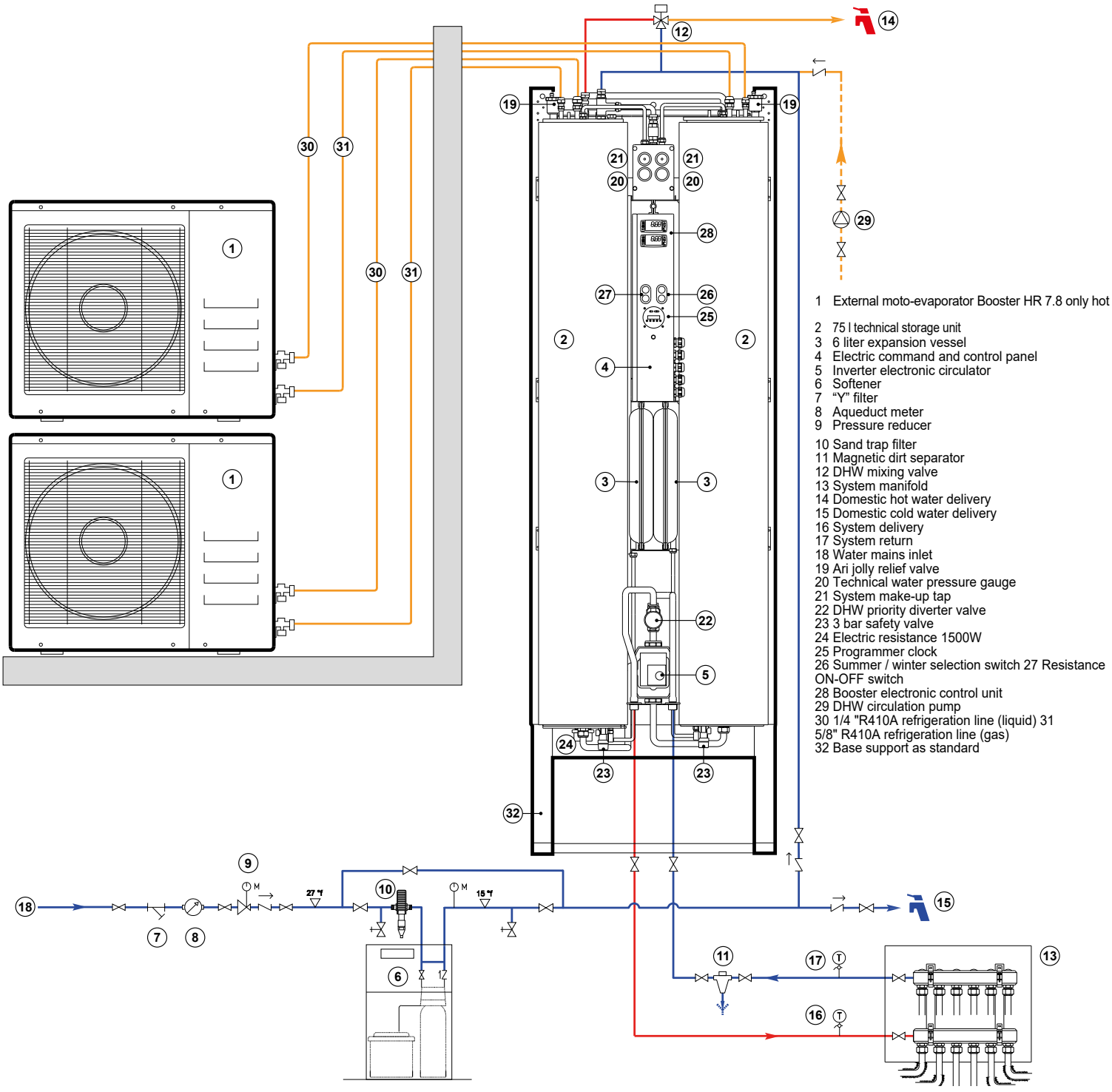
Application example HUB RADIATOR MINI XL 16.0



1 External moto-evaporator Booster HR 7.8 only hot

2 75 l technical storage unit
3 6 liter expansion vessel
4 Electric command and control panel
5 Inverter electronic circulator
6 Softener
7 "Y" filter
8 Aqueduct meter
9 Pressure reducer

10 Sand trap filter
11 Magnetic dirt separator
12 DHW mixing valve
13 System manifold
14 Domestic hot water delivery
15 Domestic cold water delivery
16 System delivery
17 System return
18 Water mains inlet
19 Ari jolly relief valve
20 Technical water pressure gauge
21 System make-up tap
22 DHW priority diverter valve
23 3 bar safety valve
24 Electric resistance 1500W
25 Programmer clock
26 Summer / winter selection switch 27 Resistance ON-OFF switch
28 Booster electronic control unit
29 DHW circulation pump
30 1/4 "R410A refrigeration line (liquid) 31 5/8" R410A refrigeration line (gas)
32 Base support as standard

DHW HUB RADIATOR MINI XL withdrawal table

DESCRIPTION	U.M.	XL 6.0	XL 8.0	XL 11.0	XL 16.0	XL 24.0
Quantity of water available in a single withdrawal (1)	l	92	98	102	(2)	(3)
Recovery time (1)	min	42	36	28	14	10
Seasonal DHW production efficiency (ηs)	%	124,2				
DHW production energy class		A+				

(1) Storage temp. 55 ° C, DHW temp. 40 ° C, Inlet temp. From the water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.
(2) Erogazione ACS in continuo con portata max 7 l / min Inlet temp. From water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.
(3) Continuous DHW supply with max flow rate 12 l / min, Inlet temp. From water mains 10 ° C, External temperature 7 ° C d.b. - 6 ° C b.u.

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Tabella dati tecnici HUB RADIATOR MINI XL

DESCRIPTION	U.M.	MINI XL 6.0	MINI XL 8.0	MINI XL 11.0	MINI XL 16.0	MINI XL 24.0
Thermal power (1)	kW	6,22	8,12	11,23	16,24	24,36
Absorbed power(1)	kW	1,48	1,96	2,70	3,92	5,88
C.O.P. (1)	W/W	4,20	4,14	4,16	4,14	4,14
Thermal power (2)	kW	5,94	7,75	10,72	15,50	23,25
Absorbed power(2)	kW	1,88	2,52	3,46	5,04	7,56
C.O.P. (2)	W/W	3,16	3,07	3,10	3,07	3,07
Thermal power(3)	kW	5,16	6,73	9,31	13,46	20,20
Absorbed power(3)	kW	1,48	2,00	2,74	4,00	6,00
C.O.P. (3)	W/W	3,49	3,37	3,40	3,37	3,37
Thermal power (4)	kW	4,94	6,44	8,91	12,88	19,32
Absorbed power (4)	kW	1,88	2,54	3,48	5,08	7,62
C.O.P. (4)	W/W	2,67	2,53	2,56	2,53	2,53
Thermal power (5)	kW	4,22	5,52	7,63	11,04	16,56
Absorbed power (5)	kW	1,50	2,00	2,75	4,00	6,00
C.O.P. (5)	W/W	2,81	2,76	2,77	2,76	2,76
Thermal power (6)	kW	3,98	5,20	7,19	10,40	15,60
Absorbed power (6)	kW	1,88	2,53	3,47	5,06	7,59
C.O.P. (6)	W/W	2,11	2,05	2,07	2,06	2,05
S.C.O.P. (7)	W/W	3,78	3,71	3,72	3,71	3,71
Seasonal heating efficiency (ηs)	%	153,1	150,3	150,6	150,3	150,3
Energy efficiency (8)		A / A++				
Defrosting method		Inversione di ciclo con condensatore ad immersione				
Type of refrigerant		R410A				
Technical water temperature min / max	°C	+ 30 / + 58				
Refrigerant quantity (pre-inserted)	kg	1,1 x 2	1,5	1,5 + 1,1	1,5x 2	1,5 x 3
Min distance between outdoor and indoor unit	m	3				
Max distance between outdoor and indoor unit without charging	m	5				
Max distance between outdoor and indoor unit with recharge	m	15				
Max difference in height between outdoor and indoor unit	m	5				
Refrigerant gas line connection		3/8" x 2	5/8"	5/8" - 3/8"	5/8" x 2	5/8" x 3
Coolant fluid line connection		1/4" x 2	1/4"	1/4" - 1/4"	1/4" x 2	1/4" x 3
External temperature operating limits	°C	-15 / +45				
Indoor unit technical water content	l	75 + 75				
Max flow rate electronic inverter circulator	m^3/h	3,3				
Max head of electronic inverter circulator	m	6,2				
Electric absorption of electronic inverter circulator	W	3 - 45				
Expansion vessel volume	l	6 + 6				
Expansion vessel preload	bar	1				
Safety valve calibration	bar	3				
Back up electric heater	W	1500				
Power supply		230V/1/50Hz				400V/3+N/50Hz
Cold water inlet and DHW outlet hydraulic connections		1/2" M				
System delivery and return hydraulic connections		3/4" M				
Internal unit accumulation heat loss	kWh/24h	1,82				
Transport / operating indoor unit weight	kg	79 / 134	70 / 125	79 / 134	79 / 134	70 / 125
Outdoor unit weight	kg	33 x 2	55	55 + 33	55 x 2	55 x 3

(1) Heating: external air temperature 7 ° C d.b. - 6 ° C b.u.; inlet / outlet water temperature 30/35 ° C
(2) Heating: external air temperature 7 ° C d.b. - 6 ° C b.u.; inlet / outlet water temperature 40/45 ° C
(3) Heating: outside air temperature 0 ° C db; inlet / outlet water temperature 30/35 ° C
(4) Heating: external air temperature 0 ° C db; inlet / outlet water temperature 40/45 ° C
(5) Heating: outside air temperature -7 ° C d.b .; inlet / outlet water temperature 30/35 ° C
(6) Heating: external air temperature -7 ° C d.b .; inlet / outlet water temperature 40/45 ° C
(7) Heating: average climatic conditions; inlet / outlet water temperature 30/35 ° C
(8) Water 35 ° C / 55 ° C

ACCORRONI E.h. Climate Technology