HUB RADIATOR HYBRID is a multi-energy hybrid system that offers the consumer the ability to heat the house, and if necessary produce DHW also affect the environments.

The platform HUB RADIATOR HYBRID, designed to offer innovative solutions for each context of the GREEN ECONOMY, consists of the following basic elements :

- ① Moto-evaporating heat pump (Booster)
- Aqueduct

Multi-energy hybrid system to produce heating and DHW

System components:

- ① Unit Moto- evaporating external heat pump (Booster)
- (2) Accumulator A_RM2 Radiator (heating only) closed cup combined the solar thermal system
- ③ Gas boiler condensing SR 35 And without DHW or alternatively the stoves and boilers or models WOOD PELLET
- (4) Solar Thermal System (see page 27 and 35)



Multi-energy hybrid system to produce heating, cooling and DHW

System components:

- ① Unit Moto- evaporating built- in heat pump (Booster)
- 2 Radiator accumulator plate HR SLIM open tank of 125 liters
- ③ BIO FIREPLACE wood , thermo hydro KING WOOD
- or DOMUS WOOD

- ② Radiator accumulator A_RM1/A_RM2 closed cup-shaped cylindrical or SLIM 125/300 to form flat
- 3 Condensing boiler or heater as an alternative to pellets or wood boiler to support
- (4) Solar thermal system (see p. 27 and 35)

Gas boiler condensing or thermo- hydro pellet boiler or wood Jessen Booster heat pump 1 Condensing or thermo- hydro pellet boiler or wood

System components:

- ① Unit Moto- evaporating external heat pump (Booster)
- (2) Radiator accumulator VT (hot cold) closed cup
- ③ Gas boiler condensing CS 35 P with instantaneous production hot water or alternatively thermo-stoves and Wood and pellet boilers models
- Terminals facility FIJI fan available in 3 sizes

Multi-energy hybrid system to produce heating and DHW



System components:

- Unit Moto- evaporating external heat pump (Booster) with two compressors
 - (2) Radiator accumulator plate HR SLIM open tank of 300 liters
 - ③ Thermo hydro KING PELLETS
- ④ Solar Thermal System (see page 27 and 35)

Multi-energy hybrid system to produce heating, cooling and DHW

HR HYBRID is a system that can be adapted to all types of plant. This system offers the real possibility of having an ideal match with the heat pump HUB RADIATOR and the pellet boiler, gas or biomass to support solar thermal collector. HR HYBRID is developed in the following models:

HUB RADIATOR HYBRID



Hybrid systems designed for small users powered by air source heat pump and gas condensing boiler combined a cylindrical buffer tank.

HUB RADIATOR HYBRID UP



Hybrid systems designed for medium and big plants powered by heat pump aero-thermal and gas condensing boiler combined with cylindrical buffer tank.

HUB RADIATOR HYBRID SLIM



Hybrid systems designed for small users powered by air source heat pump and gas condensing boiler combined with radiator tank flat open vessel.

HUB RADIATOR HYBRID



Hybrid systems designed for small users Hybrid systems designed for small users powered by air source heat pump and hydro pellet stove heater combined with a cylindrical buffer tank.



Hybrid systems designed for medium and big plants powered by heat pump aero-thermal and pellet boiler with or without box pellets combined with additional cylindrical buffer tank.

HUB RADIATOR HYBRID SLIM



Hybrid systems designed for small trivalent alimentati da pompa di calore aerotermica, termostufe idro a legna o pellet o termocamini a biomassa abbinati con radiatore accumulatore piatto a vaso aperto.

HUB RADIATOR HYBRID



Hybrid systems designed for small trivalent utilities supplied by the heat pump aero thermal, solar thermal collectors, gas boiler support, all combined a cylindrical buffer tank.

HUB RADIATOR HYBRID UP



Hybrid systems designed for medium trivalent and large rooms fed by pump air source heat, solar thermal collectors, gas boiler support, all combined a cylindrical buffer tank.

HUB RADIATOR HYBRID SLIM



Hybrid systems designed for small trivalent utilities supplied by the heat pump aero thermal, solar thermal collectors, fireplaces biomass of support, with buffer tank flat open vessel.

HUB RADIATOR HYBRID

Patented high-efficiency heat pump in direct exchange for heating and DHW boiler with gas or biomass in support of small and medium user



HUB RADIATOR HYBRID was created to offer to the users comfortable hot water and heating with outside temperatures down to - 15 $^{\circ}$ C. HR HYBRID is able to provide both heating / cooling and DHW is for fan coil systems for radiant systems .

In the case of floor conditioning comfort can be improved by combining with high efficiency heat recovery MIRAP 80.

HUB RADIATOR HYBRID consists of 4 main components:

1) Unit Moto- evaporating in heat pump electronically controlled (Booster)

Built to produce heating, cooling and water heaters which provide compact size, efficiency energy, low noise, ease of installation and maintenance .

These units are specifically designed to work with exchangers dedicated direct symbiosis with the sealed technical inertial typically installed within the premises.

With such innovation during the winter, yields improve and substantially all of the defrosting operations are more effective and much shorter than traditional systems, greatly reducing energy consumption.

The Booster heat pump to be applied to the platform

HUB RADIATOR HYBRID are represented by the following models:

Built-in	Booster 3.0 kW
Outdoor	Booster 3.0 kW
Outdoor	Booster 5.2 kW
Outdoor	Booster 7.8 kW
Outdoor	Booster 8.3 kW

2) Battery Technical inertial 300-liter carrying special exchangers that have been designed for Booster to work with our Boiler and HP to support.

As the thermal generators heat pump have the need to maintain high coefficient of performance (SCOP) , to limit the temperature maximum operating water accumulated technique .

Therefore accumulators working with temperatures relatively low primary will be helped when serves, the condensing boiler or stove of SR 35 hydro mod. DOMUS or PELLET KING .

3) Boilers, gas or hydro pellet stoves available to support:

Modulating condensing boiler mod. CS 35 P / E

This condensing boiler can be supplied in the version Indoor or outdoor use.

The heat output of the boiler can be set in accordance with the real need and in a different way between heating and DHW production.

In this way the boiler is always ready to provide the highest power for DHW and to modulate gently for support required by the heating system.

All this solutions are a great reliability and great yield energy.

Thermo-stove hydro DOMUS KING PELLET 18 or 24

Brazier with patented TWIN FLAME that are provided as heater boilers coupled with the sealed technical inertial in place of the gas boiler.

This combination of all renewable energy (heat pump biomass) offers the ability to heat a entire the house with the system terminals at both high and low temperature without requiring the connection to the network of natural gas.

4) Climate control ducted heat recovery unit to high efficiency MIRAP 80

In the HUB platform RADIATOR HYBRID conditioning radiant floor, you may want to match the recovery Dynamic high efficiency heat MIRAP 80 (see p. 93).

Thanks to its special characteristics, makes possible a air conditioning in summer comfortable using radiant system floor. In addition then to control and manage the change of air necessary at home, it also regulates the humidity inside the living spaces in cases of installation of radiant floor plastic or copper EASY COMFORT (see p. 144).



HUB FOR HYBRID HEATING RADIATOR LOW HEAT and DHW



Storage tank water technique A_RM1 300 closed vessel

- 2 Booster heat pump outdoor mod. HR 3.0 5.2 7.8 8.3
- 3 Condensing boiler support CS 35 P 8 to 30 kW Ondensing boiler support CS 35 E 8 to 30 kW
- Example of fan coil FIJI
- 6 Example of a radiant floor system (EASY COMFORT)
- C Example of classic radiators cast iron or aluminum

HUB FOR HYBRID HEATING RADIATOR HIGH TEMPERATURE and DHW



- 8 Booster heat pump built- in mod. 3.0
- 9 Exchanger quick DHW
- DHW quick to support boiler
- DHW rapid accumulation of
- Deat exchanger coolant/water outdoor unit (Booster) heat pump

O

B Example of a circulating pump

MODEL	€
HR HYBRID 3.0 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77301030	5.780,00
HR HYBRID 3.0 BUILT-IN boiler with cond. CS 35 P for low temperature heating and DHW cod. 77301028	8.480,00
HR HYBRID 5.2 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77301045	6.690,00
HR HYBRID 7.8 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77301078	6.920,00
HR HYBRID 8.3 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77301083	8.780,00
HR HYBRID 3.0 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77311030	5.540,00
HR HYBRID 3.0 BUILT-IN boiler with cond. CS 35 P for low temperature heating and DHW cod. 77311028	8.240,00
HR HYBRID 5.2 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77311045	6.540,00
HR HYBRID 7.8 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77311078	6.750,00
HR HYBRID 8.3 OUTDOOR boiler with cond. CS 35 P for low temperature heating and DHW cod. 77311083	8.540,00

HUB FOR HYBRID HEATING RADIATOR AND FLOOR CONDITIONING AND DHW



HUB RADIATOR HYBRID FOR FLOOR HEATING AND CONDITIONING AND DHW







1 Storage tank water technique VT 300 closed vessel

- 2 Booster heat pump outdoor mod. HR 3.0 5.2 7.8 8.3
- Ocndensing boiler support CS 35 P 8 to 30 kW
- 4 Booster built-in mod. 3.05 Example of fan coil FIJI
- 6 Example of a radiant floor system (EASY COMFORT)
- Air ducted heat recovery unit with high efficiency
- MIRAP 80 (listed separately)
- 8 DHW quick to support boiler
- 9 Exchanger refrigerant / water outdoor unit (Booster) heat pump
- Example of a circulating pump

MODEL	€
HR HYBRID 3.0 OUTDOOR boiler with cond. CS 35 P for heating, cooling and DHW cod. 77321030	6.080,00
HR HYBRID 3.0 BUILT-IN boiler with cond. CS 35 P for heating, cooling and DHW cod. 77321028	8.780,00
HR HYBRID 5.2 OUTDOOR boiler with cond. CS 35 P for heating, cooling and DHW cod. 77321045	6.990,00
HR HYBRID 7.8 OUTDOOR boiler with cond. CS 35 P for heating, cooling and DHW cod. 77321078	7.290,00
HR HYBRID 8.3 OUTDOOR boiler with cond. CS 35 P for heating, cooling and DHWcod. 77321083	9.080,00

HUB RADIATOR HYBRID

HUB RADIATOR HYBRID combined heat generators with biomass is a totally assimilated to renewable energy and comes with thermo hydro DOMUS KING PELLET T 18 or 24, in support of air source heat pump.

HUB RADIATOR HYBRID HIGH TEMPERATURE HEATING AND DHW



Storage tank water technique A_RM1 300 closed vessel 2 Booster heat pump outdoor mod. HR 3.0 - 5.2 - 7.8 - 8.3

- 8 Exchanger quick DHW
- 4 Heat exchanger refrigerant / water (Booster)
- 5 Thermo hydro DOMUS PELLET 18/ 24 KING PELLETS

6 DHW Quick inertial storage

Hydro pellet stoves



DOMUS PELLET 18



KING PELLET 24

All models HYBRID can also be integrated with solar thermal (see p. 27 and 35). Examples of schemes below: 1) System HYBRID for high temperature heating and DHW 2) System HYBRID for low temperature heating and DHW

HUB RADIATOR HYBRID LOW TEMPERATURE HEATING AND DHW



- 7 Example of classic radiators cast iron or aluminum
- 8 Example of system circulating pump
- 9 Example of mixing valve DHW anti- burnt
- Example of mixing valve implantation at low temperature
- **(1)** Example of a radiant floor system copper (EASY COMFORT)

The heating DOMUS PELLET 18 is equipped on the inside of a secondary heat exchanger flue gas heat water so as to collect and transfer the heat to water accumulation cylindrical inertial HUB RADIATOR closed vessel, which then will the heating of the house and to the production hot water.

The control of thermal power to be paid in the accumulation is managed automatically by the integrated electronic control, simple and intuitive.

Alternatively, the heater KING PELLET 24 is distinguished by high yields due to the brazier patented TWIN FLAME and the resulting low combustion particulates.

An electronic control and automatic monitoring calibrate the combustion of the pellets providing greater efficiency and less waste.

MODEL	€
HR HYBRID 3.0 OUTDOOR complete with heater DOMUS PELLET 18 for heating and DHW cod. 7733103	0 8.820,00
HR HYBRID 3.0 BUILT-IN complete with heater DOMUS PELLET 18 for heating and DHW cod. 7733102	8 11.520,00
HR HYBRID 5.2 OUTDOOR complete with heater DOMUS PELLET 18 for heating and DHW cod. 7733104	5 9.820,00
HR HYBRID 7.8 OUTDOOR complete with heater DOMUS PELLET 18 for heating and DHW cod. 7733107	8 10,120,00
HR HYBRID 8.3 OUTDOOR complete with heater DOMUS PELLET 18 for heating and DHW cod. 7733108	3 11.820,00
HR HYBRID 3.0 OUTDOOR complete with heater KING PELLET 18 for heating and DHW cod. 7734103	0 10.960,00
HR HYBRID 3.0 BUILT-IN complete with heater KING PELLET 18 for heating and DHW cod. 7734102	8 13.660,00
HR HYBRID 5.2 OUTDOOR complete with heater KING PELLET 18 for heating and DHW cod. 7734104	5 11.900,00
HR HYBRID 7.8 OUTDOOR complete with heater KING PELLET 18 for heating and DHW cod. 7734107	8 12.210,00
HR HYBRID 8.3 OUTDOOR complete with heater KING PELLET 18 for heating and DHW cod. 7734108	3 13.960,00