

AERMEC

air conditioning



ANK



Aermec
adheres to the EUROVENT Certification Programme:
LCP/A/P/R
The products concerned appear in the EUROVENT web site
www.eurovent-certification.com

ANK heat pump
All the heat you want
more efficiency
more savings
more well-being

ANK reversible heat PUMP

all the heat you want, with extremely high efficiency levels

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- optimized for heat pump operation
- production of hot water up to 140°F
- production of hot water with outdoor temperatures between -4°F and 107.6°F
- reduces heating costs by up to 30% compared with the best conventional systems (condensing boilers)
- can be combined with all terminals (radiant panels, fancoils and radiators) and is able to produce domestic hot water.

- reduced weight and dimensions, thanks to the use of R410A refrigerant
- offers greater temperature and acoustic comfort
- high efficiency compressors
- also available with circulation pump only, or with storage tank and circulation pump

-30%

ANNUAL ELECTRICITY SAVINGS
COMPARED WITH THE BEST
CONDENSING BOILERS

CONDENSING
BOILER



NEW ANK
HEAT PUMP



-30%

REDUCTION IN EMISSIONS OF CO₂,
THE CARBON DIOXIDE RESPONSIBLE
FOR THE GREENHOUSE EFFECT



ANK is subjected to the strict energy efficiency tests needed in order to obtain NF certification on the French market, and EHPA on the German, Austrian and Swiss markets.

140°F

MAXIMUM TEMPERATURE OF THE WATER PRODUCED

SAVINGS ON BILLS



Thanks to the painstaking design of the heat exchange circuit, and the use of the new R410A fluid, the ANK high efficiency heat pump ensures notable savings on your heating bill, all year round. These savings can be up to 30% per year when compared with condensation boilers. This means that for every 100 USD spent on electricity, the new ANK range will save you about \$30 USD.

-4°F

THE MINIMUM WINTER TEMPERATURE FOR OPERATION OF THE ANK HIGH EFFICIENCY HEAT PUMP

NIGHT-TIME SILENCE



The ANK high efficiency heat pump was designed with particular emphasis on silent running, thanks to the choice of components with the highest acoustic quality and the continuous monitoring of the machines being developed at Aermec R&D. The accuracy of acoustic data reported by Aermec is guaranteed by the European Certification Body Eurovent.

30%

ENERGY SAVINGS COMPARED WITH THE BEST CONDENSING BOILERS

RESPECT FOR THE ENVIRONMENT



The ANK high efficiency heat pump is also environmentally friendly, thanks to the increased energy efficiency and the use of R410A refrigerant - harmless to the ozone layer: R410A is a highly efficient thermo-dynamic fluid and this guarantees a reduction in CO2 emissions. Adding up the savings made on summer air conditioning, winter heating, and the production of domestic hot water, CO2 emissions are reduced by 30% compared with a condensation boiler.

-30%

IS THE REDUCTION OF CARBON DIOXIDE EMISSIONS RESPONSIBLE FOR THE GREENHOUSE EFFECT.

-50%

REDUCED MAINTENANCE COSTS COMPARED WITH A TRADITIONAL BURNER BOILER

-30%

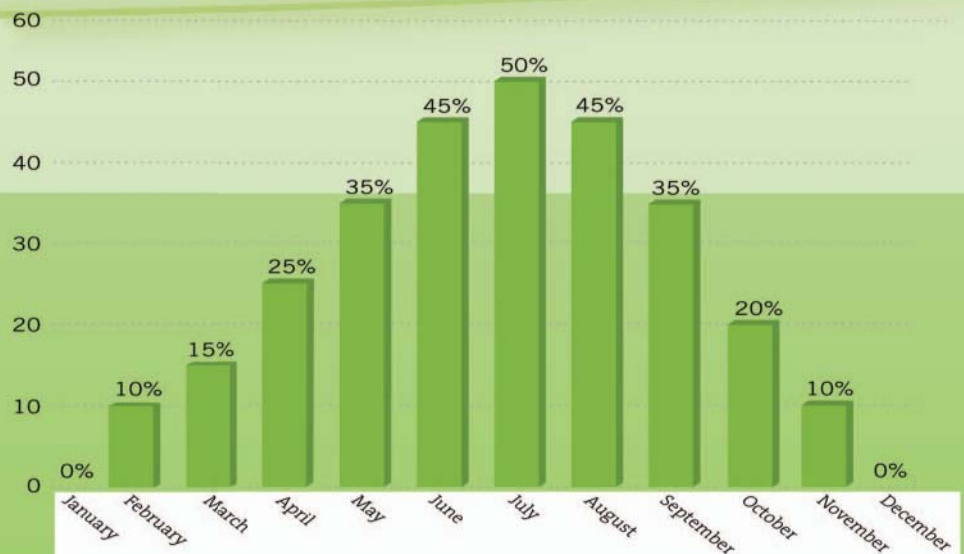
REDUCED STARTING CURRENT THANKS TO THE SOFT START DEVICE

HIGH TEMPERATURE DOMESTIC WATER



The ANK high efficiency heat pump can produce hot water with ambient temperatures down to -4°F. The temperature of the water produced can reach 140°F in the summer (up to 108°F outside), and this means the ANK heat pump can be used to produce domestic hot water and heat a swimming pool all year round.

% savings in the production of domestic hot water compared with condensing boiler (USD)



VMF SYSTEM

Variable Multi Flow

From the machine to the system.

The ANK High Efficiency heat pump can be managed and controlled together with the various system elements, thanks to the VMF system.

“VMF: Variable Multi Flow system

Management and control system for hydronic systems for **air conditioning, heating and the production of domestic hot water.**

The VMF system allows the complete control of every single component of a hydronic system - both locally and centralised - and, taking full advantage of the communication between the various components of the system itself, it manages the performance levels, never at any time neglecting to satisfy the comfort requests of the end user, but doing it in **the most efficient way possible, and therefore with excellent energy savings too.** Combining the control (local and centralised) with the flexibility of installation and operation typical of a hydronic system, the result is a valid alternative to systems with a variable refrigerant flow (VRF).

The VMF system is extremely flexible, even allowing various degrees of control and management (extendable at different times too):

- 1) Control of a single fancoil
- 2) Control of a microzone (one MASTER fancoil and a maximum of 5 SLAVE fancoils)
- 3) Control of a network of several independent zones (one MASTER fancoil and a maximum of 5 SLAVE fancoils for each zone)
- 4) Control of a network of fancoils, plus the management of the heat pump
- 5) Control of a network of fancoils and the heat pump, plus the management of the domestic hot water system (DHW)

- 6) Control of a network of fancoils and the heat pump, production of domestic water, and additional circulators (a maximum of 12, using 3 additional VMF-CRP modules)
 - 7) Control of a network of fancoils and the heat pump, production of domestic water, additional circulators, plus the management of up to 3 heat recovery units (with the possibility to manage up to 3 VOC probes) or a boiler (VOC = air quality probe)
- The VMF system can pilot and manage - via a VMF-E5 panel - up to 64 zones, consisting of a MASTER fancoil and up to 5 SLAVE fancoils connected to each MASTER, giving a total of 384 fancoils
 - Besides the central control supplied by the VMF-E5 panel, the MASTER fancoils must be provided with a local control interface; this interface can be assembled on the fancoil (VMF-E2/E2H) or on a wall panel (VMF-E4)
 - Various functions can be controlled via the VMF-E5 panel, including:
 - the identification of the different zones, setting a distinguishing name for each one
 - the control and setting of the ON/OFF function, and the temperature setting for each zone
 - the setting and management of the temperature of the heat pump
 - the scheduling of time slots
 - Simple installation of the fancoil network, thanks to the SELF-MONITORING function of the MASTER fancoils”

VMF systems central interface



Zone interface



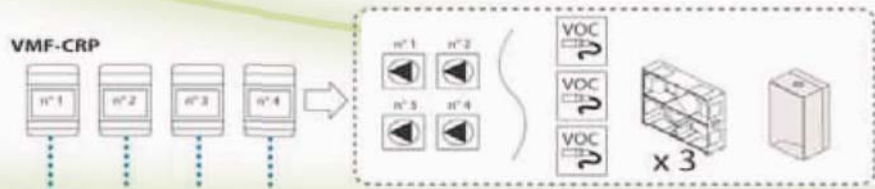
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The Chicago Athenaeum:
Museum of
Architecture and Design.

* Winner for the International design Award
«Good Design 2010»
for the «Electronics»

Example of system components

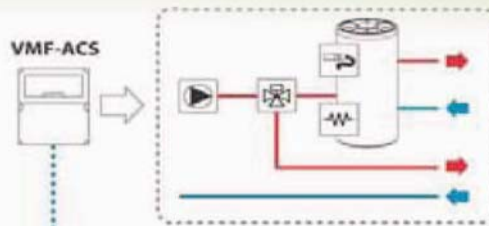
- A maximum number of 4 VMF-CRP modules can be installed and each one can perform several tasks based on the type of setting:
 - Control 4 pumps
 - Control 3 heat recovery units and 3 VOC sensors (in this case the correct number of VMF-VOC accessories must be purchased)
 - Control a boiler
- The only requirement to install VMF-CRP modules is the presence of a VMF-E5 centralised control

Selection 4:

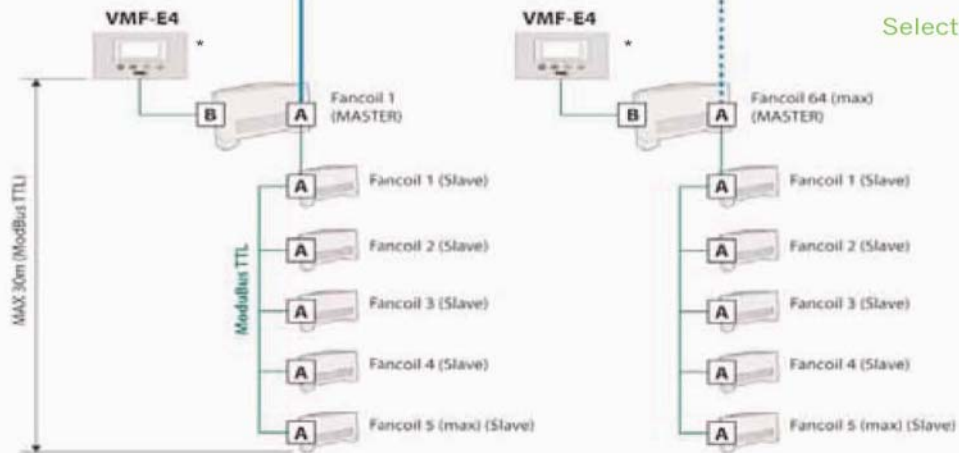


- The VMF-ACS accessory allows to control the different components needed to produce domestic hot water; for detailed information on the types of systems manageable by VMF-ACS, refer to technical documentation of the accessory

Selection 3:



Selection 2:



Selection 1:

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A Thermostat for serial connection VMF-E0/E1/E18

B Commands interface for MASTER unit VMF-E2/E2H/E4



Research and innovation are essential prerequisite in order to maintain the leadership in the global market and Aermec, which holds this position, has always distinguished itself for the cutting-edge solutions of its products. The innovative capacity and constant attention to research in order to meet market needs and trends, as well as anticipating the demands, are developed through highly skilled staff but also through the co-operation with prestigious universities and teachers of subjects related to air-conditioning. The devices of the future are developed and designed within the modern Aermec laboratories, equipped with sophisticated and constantly updated equipment, such as the new semi-anechoic chamber of the Research and Development Department.