



Space-saving and elegant housings:

You can put KaMo's apartment units in your flat because it is unobtrusive and saves space – either in a recess-mounted housing or as a surface-mounted model, each with an elegant cover.

Advantages for Condominium owners/tenants:

- Your incidental heating costs are as much as 20% lower in comparison to providing DHW centrally (for instance, you do not need expensive electrical reheating anymore).
- A high level of DHW convenience: you can use two tapping points at once with as much as 15 litres of DHW every minute.
- A high level of water hygiene while being safe from dangerous legionella bacteria thanks to decentralised DHW production.

Advantages for Operators/investors:

- Legal security by operating systems pursuant to the German Drinking Water Ordinance and worksheet 551 of the German Association of the Gas and Water Trade.
- Planning reliability with tried-and-true hydraulic designs such as integrating regenerative energies (including thermal solar units or biomass).
- Discrete and low-cost integration of the apartment unit by using recess-mounted or surface-mounted housings, each with elegant covers.
- High level of yield from your net rent: lower incidental heating costs at the same gross rent.
- Municipal and government programmes offer funding.

Planning – Products – Start-Up – Service

You only need one contact for successful projects:

KaMo Frischwarmwassersysteme GmbH is a service provider with years of planning experience for successful projects on into the future. KaMo Systemtechnik manufactures and markets all of the important products, meaning the engineering components are perfectly matched to one another. In other words, you only need one contact from planning right down to start-up. Give us a call or send us your project requirements at no obligation to fachberatung@kamo.de and we will get in contact with you without delay.



From the solar separating unit and apartment units ...



through the storage vessel and storage vessel controls ...

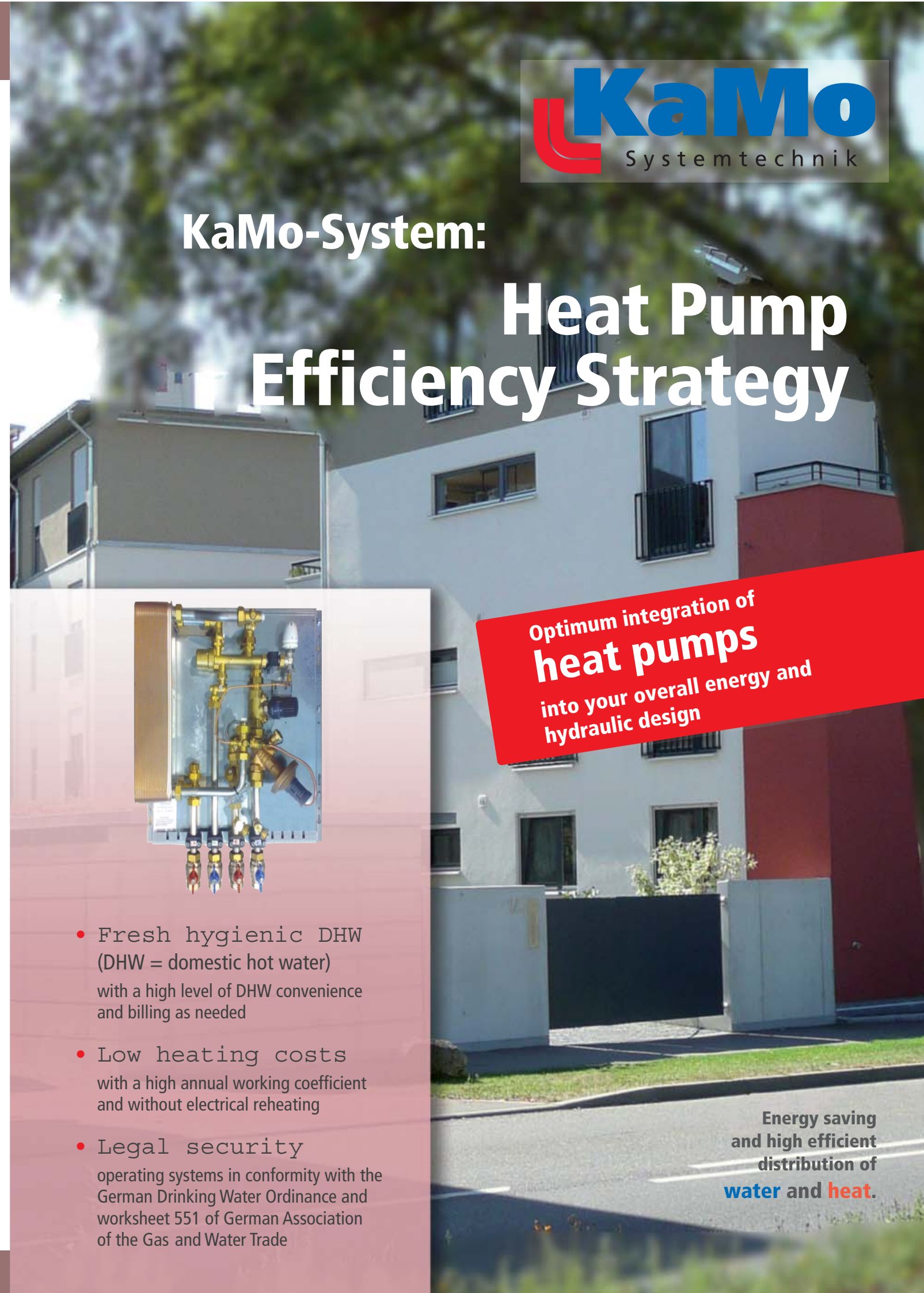


right down to manifolds and the accessories needed - all of KaMo products are perfectly matched to one another.

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KaMo-System: Heat Pump Efficiency Strategy



Optimum integration of heat pumps into your overall energy and hydraulic design

- Fresh hygienic DHW (DHW = domestic hot water) with a high level of DHW convenience and billing as needed
- Low heating costs with a high annual working coefficient and without electrical reheating
- Legal security operating systems in conformity with the German Drinking Water Ordinance and worksheet 551 of German Association of the Gas and Water Trade

Energy saving and high efficient distribution of water and heat.

KaMo Frischwarmwassersysteme GmbH

Max-Planck-Straße 11
89584 Ehingen

phone: +49 (0) 73 91 / 70 07-0
fax: +49 (0) 73 91 / 5 43 15

E-Mail: export@kamo.de
Internet: www.kamo.de

Heat Pump Efficiency Strategy

Hygienic DHW at low flow temperatures:

Warm water providing DHW on a decentralised basis with a high-temperature storage vessel (max. 55° C)

Warm homes with a low-temperature storage vessel (approximately 35° C) for radiant panel heating

Controlled with efficient and ecological heat pump technology and KaMo's apartment units

Legal security in conformity with the German Association of the Gas and Water Trade

The regulations of the German Association of the Gas and Water Trade state that a minimum temperature of 60° C has to be maintained in drinking water tanks (i.e., boilers). This is the reason why even efficient and environmentally friendly heat pumps have not been able to provide DHW centrally in multi-family dwellings

Legionnaire's Disease and Microbic Contamination

The continuous flow principle is used to heat drinking water in KaMo's apartment units with stainless steel plate heat exchangers. This satisfies all of the recognised rules of drinking water hygiene (in the worksheets of the German Association of the Gas and Water Trade) without taking any other measures (small system < 3 litres of pipe content to the filling station).

You save as much as 35% energy

That is how much you can save at the low flow temperatures in comparison to conventional systems – in particular for providing DHW. Calculation show you can save 20%-35% because:

You do not have to electrically reheat to a higher temperature and the heat pump is so efficient that it reaches a high annual working coefficient.

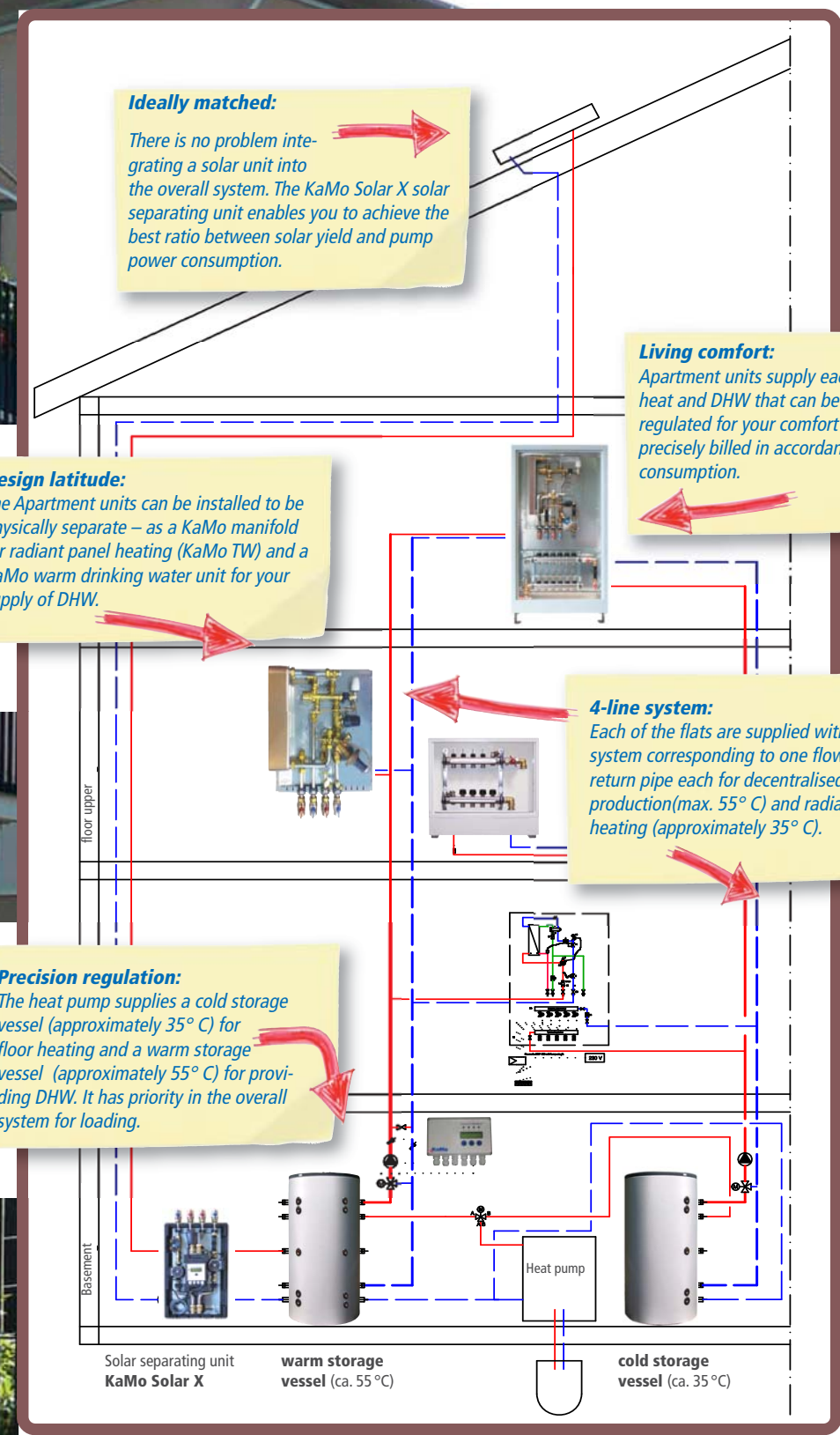
The low temperatures make it possible to easily integrate regenerative energies into your overall energystrategy - not only heat pump equipment, but especially systems operating on solar thermics.



Central heating unit and apartment unit rolled into one:

Heat Pump Efficiency Station

A four-line system from the boiler room supplies each individual apartment unit with heating water at two different temperatures. For example, the efficient countercurrent principle transforms the cold drinking water into fresh warm water in a matter of seconds in the stainless steel plate heat exchanger. Beyond this, the lower temperature is used to operate the radiant panel heating.



KaMo's Heat Pump Efficiency Strategy The clever way to do things: lower costs and legal security

Our Heat Pump Efficiency Strategy combines the convenience of decentralised systems with the unmistakably low prices of a central warm water system.

Our system generates the temperatures for providing warm water centrally in the warm storage vessel. The moment you open the water tap, KaMo's apartment unit decentrally heats up drinking water with the warm heating water from the storage vessel.

KaMo's Heat Pump Efficiency Strategy has two factors for permanently driving down energy costs:

- Optimum transfer of heat in the apartment unit produces a cold return

flow and excellent layering in the storage vessel. The heat pump or also calorific thermal unit only has to turn on a couple of times a day. These low cycle times spell out longer running times, meaning a high degree of efficiency for the entire system – especially because the cold storage vessel for radiant panel heating is heated through the same system.

→ KaMo's Heat Pump Efficiency Strategy needs maximum temperatures of 55° C to provide warm water. In contrast, conventional warm drinking water tanks (i.e., boilers) are required to operate at a minimum of 60°C the entire year to prevent microbic contamination and the growth of legionella. These lower temperatures save you a lot of money while still satisfying all legal requirements set forth in worksheet 551 of the German Association of the Gas and Water Trade for KaMo's Heat Pump Efficiency Stations.