



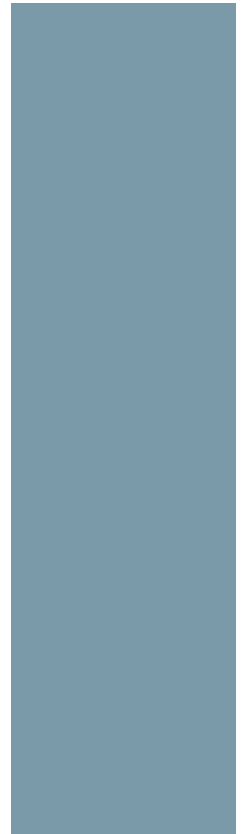
OEM Heat Control Systems

Innovative control
technology for alternative
heating systems



Answers for infrastructure.

SIEMENS



Perfectly matched components for alternative heat generation

Using decades of experience in the field of boiler components and in close cooperation with our customers, Siemens has become a leading supplier of heating control systems. Based on this we developed solutions and systems for alternative heat generation. From basic solar control integrated in heating controllers through to sophisticated multifunctional controllers for heat pumps and micro combined heat and power, you will find proven systems of modular design that meet almost any requirement. When creating a system solution tailored to your specific needs, Siemens as your partner will be pleased to assist at any time.



Innovative solutions for all market segments

Always the right solution at hand – products and systems for the heating market

We specialize in the development, production and global marketing of innovative and reliable products and systems for use on forced draft burners, heating boilers and alternative heating systems. Our comprehensive product portfolio includes complete system solutions, burner controls, actuators, sensors, control systems, valves and related test equipment. Thanks to specialization and decades of experience in these fields, our products and systems offer optimum solutions for all market segments ranging from single- and multi-family houses (residential buildings) to commercial buildings and a host of industrial applications.

All from a single source – teamwork, optimized processes and quality

Efficient teamwork has a major impact on our way of thinking, in our actions and innovation processes. In the OEM team of Siemens, the joint efforts of qualified and motivated staff and the exchange of experience have been decisive for success. We continually rely on teamwork, both within the company and in close cooperation with our customers and suppliers. In the fields of heating, combustion and

alternative heating systems, Siemens is therefore a valued partner and preferred supplier to leading OEMs throughout the world – thanks to the quality and reliability of the products, our customer approach and business processes which have been matched to the specific needs of the OEM market. Employing advanced production processes, such as Kanban or just-in-time, we are able to respond quickly to the latest customer needs.

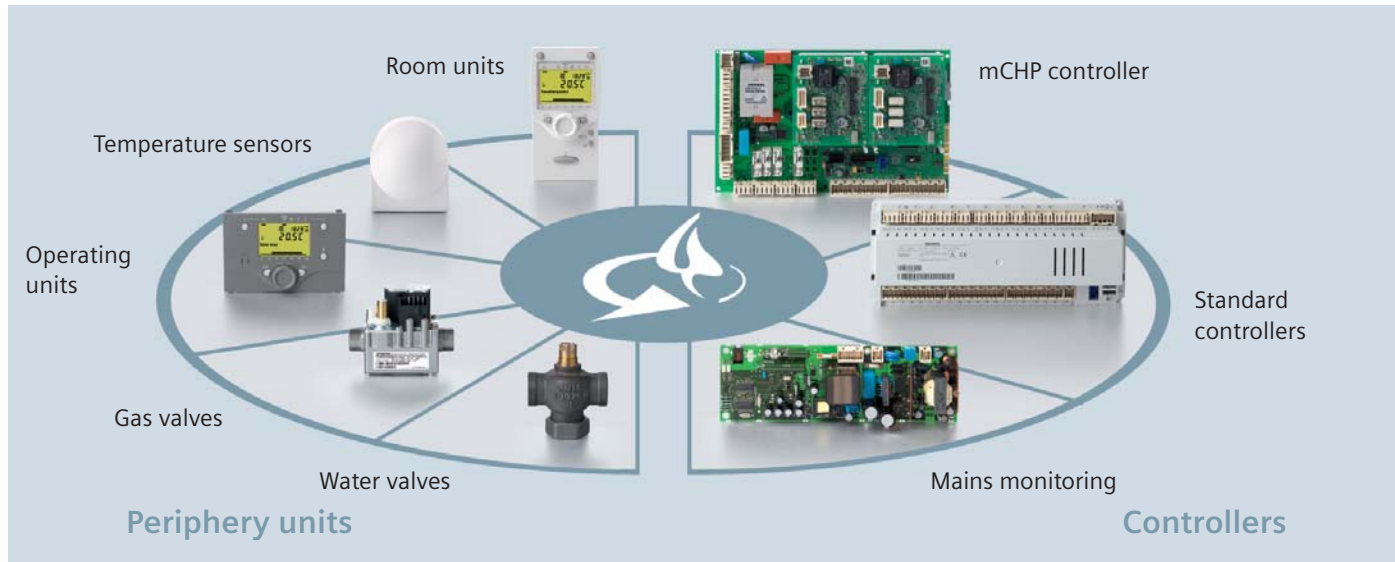
Siemens: As a global market leader, we are also part of your market. This means that we not only work for you but also think like you. For certain!

Highlights

- Heating based on resources-preserving technologies
- One system for different innovative solutions
- Experience and know-how
- Innovation thanks to extensive research and development work
- Consistent consultancy and reliable cooperation



	Residential Buildings	Commercial Buildings	Industry
Wall-hung boilers	■		
Floor-standing boilers	■		
Alternative heating systems	■		
Forced draft burners (small)		■	
Forced draft burners (medium / large)			■
Industry			■



Complete system solutions from Siemens

Alternative heating systems.

The customized products and systems made by Siemens can help reach compliance with the Kyoto protocol. Our declared objective: Increased usage of environment-friendly and inexhaustible energy by deploying optimized controls and efficient solutions in the field of renewable energy. Siemens markets a universal range of products for use with heat pumps, micro combined heat and power, solar, etc.





Micro combined heat and power

■ Combined heat and power generation

Micro CHP – the next generation of heating appliances. We focus on a micro plant for combined heat and power generation, driven by an innovative Stirling engine and working efficiently, flexibly and reliably. Generation of heat, DHW and electrical power – this is the concept behind mCHP solutions. Electrical energy not needed by the plant is fed back into the mains network.

■ RVC controllers

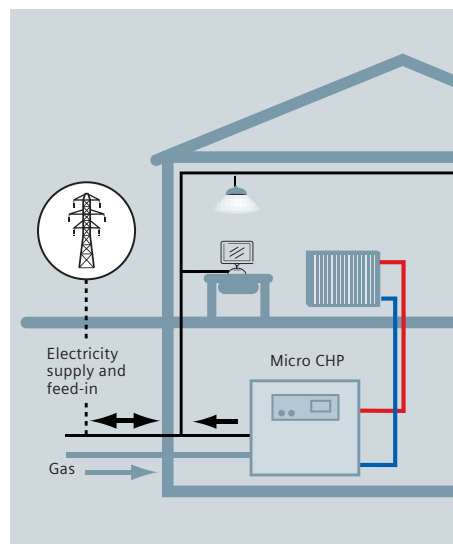
For this heating appliance, Siemens delivers the complete control system, including sensors, gas valve and operating units.

■ Electrical power and heat

The electronic system supplied by Siemens controls the output of heat to the Stirling engine, while ensuring the required temperatures for space heating and DHW are available at the right moment in time. In addition, the electronic system monitors the electrical energy fed back into the mains network. For the consumers, this means: They have their own micro combined heat and power plant which supplies not only heat, but also covers two thirds of the electrical power required by an average household with 4 persons.

Highlights

- Space heating, DHW heating and power generation
- Buffer storage tank for extensive operating times
- Solar integration
- Mains monitoring and autonomous operation
- Broad modulation range
- High efficiency





Heat pumps

■ Heat pump operation

With the help of heat pumps, the natural heat freely available in the air or the ground is exploited and used for space heating or DHW. High levels of efficiency, low maintenance costs and inexhaustible resources are the advantages offered by this type of heat generation.

■ RVS controllers

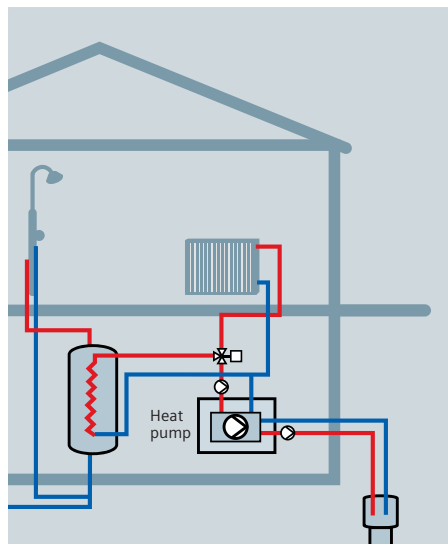
Siemens markets controllers for an array of electrical heat pump applications, such as air-to-water, water-to-water, brine-to-water, or heat pumps operating on gas. In addition to heating/cooling and 2-stage applications, a host of other functions are integrated.

■ Universal

The controllers supplied by Siemens are suited for universal use. Multifunctional inputs and outputs are provided to satisfy plant-specific requirements. Extension modules, zone controllers or other boiler controllers, such as oil/gas controllers, are available to meet the more demanding requirements of larger systems. Naturally, PC tools are available for programming and recording of data. Local or remote connection via modem is also possible.

Highlights

- Universal controllers, suited for all types of heat pump
- Straightforward commissioning thanks to preprogrammed applications
- Cascading and bivalent applications with other heat sources
- Efficient cooling (passive and active)





Solar applications

Efficient use of solar energy

The generation of heat by making use of solar energy has proven its worth for decades. Solar plants have technically matured, are environment-friendly and protect our climate. Solar collectors are reliable products for DHW heating and for the support of space heating.

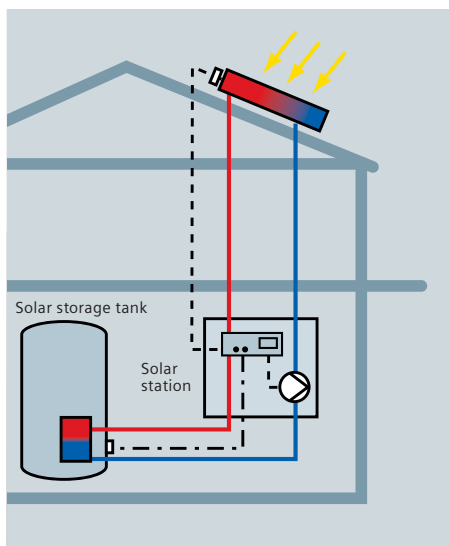
Controllers from Siemens

Siemens offers complete integration of different types of solar application in its Albatros2 boiler, heat pump and heating controllers. In addition to the integrated solutions, we deliver a compact controller with delta-T application plus a multifunctional system-compatible controller for

applications with 1 or 2 collector fields and priority circuits for DHW, buffer storage tank and swimming pool. A pulse input for solar yield measurements and a bivalent changeover facility with a networked heat source controller round off this range of products. Operation is very user-friendly – a typical feature of the entire Albatros2 range. All important information, such as temperatures, plant status and service messages, appears on the clear-text display. When using the system-compatible controller, PC service tools can be connected and, in addition, access from a remote location is made possible via a remote system.

Highlights

- Basic delta-T application for DHW
- Systems with 1 or 2 collector fields
- Solar backup heating via buffer storage tank
- Optimum solar storage tank management including priority circuit for DHW, buffer storage tank and swimming pool



Comprehensive product range for solutions

		Field of use														Extension modules				
		Water-to-water	Brine-to-water	Air-to-water (incl. defrost function)	Electric	Gas (gas absorption)	Stirling engine	System compatibility	Cascade	Heating circuits	DHW heating	Solar, integrated	Bivalent	Cooling function	Buffer storage tank management	Swimming pool function	Multifunctional inputs and outputs	Extension modules AVS75		
Heat pumps	 RVS41.813												A/P 							
	 RVS61.843												A/P 							
	 RVC.. Customized Solution												A/P 							
mCHP	 RVC.. Customized Solution																			
Zone controllers	 RVS46.530																			
	 RVS46.543																			
Solar, from end of 2009	 RVA78.690																			
	 RVS48.693																			

Legend:

- | | | | |
|----------------------|-------------|------------------------|----------------------|
| A/P Active/Passive | Heat pump | Mixing heating circuit | Cooling function |
| Pump heating circuit | DHW heating | Solar | Input, programmable |
| | | | Output, programmable |

designed to reduce CO₂ emissions

										
Mains monitoring ENS / G83	Operating units AV537	Room units, wired QAA55	Room units wireless or wired QAA75/QAA78	Room units REA02 / REA22	Strap-on sensors QAR / QAD	Screwed immersion sensors, cable sensors QAK / QAL / QAZ	Outside sensors wireless or wired QAC	Remote management, service tool ACS700 / OCI	VGU	VXG48 / SSY319
Room and operating units					Temperature sensors			Communi- cation	Gas valves	Water valves
	■	■	■	■	■	■	■	■		■
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The information in this document contains general descriptions of technical options available, which do not always have to be present in individual cases. The required features should therefore be specified in each individual case at the time of closing the contract.

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