Improved comfort and a green energy balance for your building

Coordinated HVAC and electrical installation products for active energy savings and comfortable building technology
Siemens provides innovative products and systems to automate buildings and infrastructure – for maximized comfort and energy efficiency.
Saving energy while ensuring optimal building comfort

Energy efficiency that pays off
Building technology from Siemens helps reduce your building’s energy consumption and improve its eco-balance. This is achieved through highly accurate measurement and control components and, in particular, intelligent energy efficiency functions. Up to 30 percent of energy can be saved by using intelligent building technology, which significantly reduces operating costs.

Room comfort that satisfies
To improve the room climate in your building over the long term, Siemens offers you high-quality products and systems for controlling heating, ventilation and air conditioning plants as well as lighting and shading. They can be used, for example, to provide daylight without glare and adjust the room climate to individual preferences.
Flexibility to meet all requirements
When it comes to functionality, design, mounting and integration options, the product range offered by Siemens is exceptionally flexible. Its width and depth ensures that you will find exactly what you need to meet your requirements.

Long-term investment protection
Durable products with decades of backward compatibility are only one reason why your investment is protected over the long run. Another reason is that Siemens plays a leading role in developing and promoting international standards, ensuring that you are well-prepared for future requirements. In addition, the value of your property increases because it is equipped with energy-efficient and comfortable building technology.

Impressively simple
Our products are extremely easy to work with in all project phases. They can be installed without errors in the shortest time possible and are quickly ready for operation. Intuitive operation eliminates user errors in everyday situations and maintenance is fast and effective.

Setting new standards in reliability
With Siemens you can count on a reliable international partner with decades of experience in building automation and HVAC control technology. You receive reliable, tested products from a single source and benefit from our customer focus and proximity, backed by the comprehensive network and the local presence of certified Siemens Solution Partners.

Did you know that...
... the intelligent building technology from Siemens is based on more than 60 years of research and development in HVAC control technology and more than 30 years of experience in building automation?

You can find more information on the Internet:
- Siemens Solution Partner
- HVAC products and systems
Reduce energy consumption and protect the environment
Energy-efficient buildings require fewer energy resources and produce lower CO₂ emissions – important contributions to protecting the environment. Intelligent building automation from Siemens can reduce the energy consumption of a building by up to 30 percent. Integrated energy saving functions and outstanding control accuracy are important factors. In addition, products are manufactured according to strict environmental policy requirements, and compliance with environmental declarations is documented.

Spotlight on energy efficiency

Intelligent building technology from Siemens maximizes the energy efficiency of your building. For you, this means low operating costs, minimal CO₂ emissions, a good ecological balance as well as optimized comfort for building users. All this increases the value of your property and its attractiveness.
Building technology with superior efficiency

Products and systems from Siemens provide ideal climate conditions in virtually any work or home setting, using only little energy – and precisely tailored to usage requirements in individual rooms. Our comprehensive portfolio of products and systems allows you to master any building technology application in an energy-efficient and flexible manner.

Energy efficiency through building automation

Intelligent building automation provides the best conditions for achieving efficiency class A according to European Standard EN 15232 and thus high saving potentials.

### BACS efficiency classes – EN 15232

<table>
<thead>
<tr>
<th>Efficiency Class</th>
<th>BACS</th>
<th>TBM</th>
<th>Thermal energy</th>
<th>Electrical energy</th>
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<td>BACS</td>
<td></td>
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</tbody>
</table>

**Efficiency factors**

- BACS: Building Automation and Control System
- TBM: Technical Building Management System

Everything you need to achieve the highest efficiency classes

To ensure the highest levels of quality and control accuracy, all applications are carefully tested and calibrated in the HVAC lab from Siemens. The eu.bac-certified products combine proven quality in accordance with international standards with maximum control accuracy. In addition, the overall functionality of the systems meets the requirements for eu.bac system certification. With products and systems from Siemens, you can achieve efficiency class A as per EN 15232 for building automation systems.
Practical tools for a solid basis
Siemens provides many helpful tools that allow you to calculate in advance the energy savings you can achieve through building automation. You can use the Energy Performance Classification Tool* to analyze an existing HVAC plant and estimate its energy saving potential, including amortization time. The Energy Efficiency Calculation Tool* allows to calculate the energy saving potential and reduction in CO₂ emissions. In addition, the Specification Text Selection Tool* supports energy-efficient planning.

Did you know that...

...using intelligent building automation reduces energy consumption by up to 30 percent?

Highlights
- High cost savings by reducing energy consumption up to 30 percent
- Contribution to environmental protection based on reduced CO₂ emissions
- Efficient comfort through precise control and targeted use of energy
- Certifiable energy efficiency, for example in efficiency class A as per European Standard EN 15232
- Quantifiable energy savings using helpful planning and calculation tools

* http://www.siemens.com/bt/energy-efficiency-tools

You can find more information on the Internet:
The basis for energy efficiency

Additional documents:
Flyer Energy Performance Classification
Flyer Specification Text Selection Tool
Desigo, the energy-efficient and flexible building automation system, ensures a healthy room climate, higher user satisfaction and reduces the energy operating costs and CO₂ emissions of the building.

**Integrated system with maximum energy efficiency**
The Desigo™ building automation system connects, controls and monitors building systems and their functions. The Desigo CC management station can connect disciplines for building automation, fire safety and security (network cameras). Intelligent energy management as well as innovative energy saving and monitoring functions result in significant energy savings, highest efficiency classes and lower operating costs.
One example is the Green Leaf symbol that shows whether everything in the room is in the green range. If not, a single tap is all it takes to reset the room automation to energy-efficient operation.

**Maximum flexibility for long-term investment protection**

Each building is different, and requirements change over time. Desigo provides you with lasting investment protection based on a modular product range and an adaptable, highly scalable system structure. The operating concept and menu navigation of Desigo CC offer a great deal of flexibility in adapting to changes in the building.

The open communication standards support the cost-effective integration of existing systems. In addition, you benefit from maximum IT compatibility and the worldwide BACnet standards.

Desigo also complies with the AMEV* guidelines and is the first building automation system to support the future Internet Protocol version 6 (IPv6) for data transmission.

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* AMEV: Arbeitskreis Maschinen- und Elektrotechnik staatlicher und kommunaler Verwaltungen (Mechanical and Electrical Engineering Working Party of National, Regional and Local Authorities – Germany)

[http://www.amev-online.de](http://www.amev-online.de)
Superior comfort for maximum performance
A healthy room climate promotes motivation and concentration among room users. Desigo makes it easy to achieve this – using intelligent control strategies as well as the universal operating concept of the Green Leaf symbol, which extends from plant automation to the management station. In addition, intuitive room operator units ensure a comfortable climate, glare-free daylight and good air quality.

Active energy management using the Green Leaf symbol
Lighting and shading as well as heating, ventilation and air conditioning can be conveniently operated in each room using a single self-explanatory room operator unit. Operating errors and the resulting energy losses are practically impossible. In addition, the unique Green Leaf symbol notifies the user in the event of unnecessary energy consumption: The leaf symbol lights up in red. By simply tapping on the Green Leaf symbol, you can switch the room automation to energy-optimal operation – and the leaf symbol turns green again.
Significant productivity and efficiency gains
Straightforward operation and uniform engineering facilitate installation and commissioning and significantly reduce maintenance efforts. At the same time, you can be confident that your plant is highly reliable, thanks to components thoroughly examined and tested by independent certifying bodies as well as the use of intelligent applications tested under real conditions. Furthermore, the system delivers everything you need to meet the highest building certification levels in accordance with LEED®, DGNB or BREEAM®.

Did you know that...
...up to 25 percent less energy is required if room users are actively involved in the energy saving process?

Energy-efficient room automation
With cross-discipline networking and control, innovative room automation with Desigo ensures pleasant room conditions and saves energy costs at the same time. All rooms are supplied with the required amount of energy depending on demand, for example, via time-based programs. You can also actively participate in the energy management using the energy efficiency function RoomOptiControl and the Green Leaf symbol – and save up to 25 percent more energy.
Highlights

- Universal operation for all building systems
- Lower energy costs resulting from intelligent energy management and energy saving functions
- Outstanding flexibility thanks to products and systems that are easy to expand and adapt
- Comfortable room climate based on intelligent control strategies and intuitive operation
- High plant efficiency through certified components and tested applications
GAMMA building control offers intelligent solutions and products that help you achieve higher energy efficiency, improved comfort and a healthy environment for the well-being of all building users.

**Flexible and energy-efficient building control**

GAMMA building control enables cross-discipline building and room automation based on KNX. This makes it possible to create coordinated applications for lighting, shading, heating, ventilation and air conditioning that ensure energy-efficient, comfortable and safe operation.
By connecting all components via the open communication standard KNX, the installation can be adapted quickly and cost-effectively to individual needs as well as new requirements. In addition, the functions can be integrated in building automation systems.

More information at www.knx.org

Test various combinations
Simply click on a different DELTA frame or a different device – and the design or the device function will change. Of course, the selection shown only gives a brief glimpse on the extensive product and frame range from Siemens.

Products like pushbuttons, room thermostats and room operator units, etc., are available to meet all international standards, for example, CEE/VDE, British Standard, Modular 503, UL and Chinese Standard.

Universal operating concept for all building functions
The offering ranges from simple switches to multifunctional room operator units with control functions to web-based systems for remote access via web-enabled devices such as tablets, smart phones, PCs and notebooks.

And which design do you prefer? A wide selection of operator and display units can be combined with the different DELTA frame programs from Siemens. And as the products support different country standards, this means you can match your electrical installation perfectly to your interior design wherever you are.

The world-wide standard for home and building control

The KNX logo

Test various combinations
Simply click on a different DELTA frame or a different device – and the design or the device function will change. Of course, the selection shown only gives a brief glimpse on the extensive product and frame range from Siemens.

Products like pushbuttons, room thermostats and room operator units, etc., are available to meet all international standards, for example, CEE/VDE, British Standard, Modular 503, UL and Chinese Standard.
Comfortable lighting without wasted energy
Daylight improves the well-being. Therefore, lighting and shading are controlled in such a way that as much glare-free daylight as possible is used for lighting. The blinds are automatically adjusted according to the sun’s position. Constant light level control adds the proper amount of artificial light to ensure the desired brightness is maintained at all times. When rooms are not used, the system switches off the lighting based either on presence or time.

Did you know that...
... in office buildings up to 13 percent of electrical energy can be saved through optimized presence-, brightness- and time-dependent lighting?

Room automation based on KNX
Throughout the day, you benefit at countless points from intelligent building control. This enables you to enjoy the best lighting at any time of day as well as a healthy, productivity-boosting room climate, depend on reliable safety functions and focus on your core activities.
The system automatically detects what is required Our portfolio offers a broad range of sensors that make energy-saving and comfort functions possible. Motion and presence detectors as well as brightness sensors help ensure optimal lighting conditions. Temperature sensors provide the basis for demand-based heating control. In addition, water detectors identify burst pipes and flooding at an early stage. And this is only a small sampling of the range of sensors.

Highlights

- Considerable saving potentials through cross-discipline room automation
- Broad range of operator and display units as well as design variants
- Flexible building and room automation based on KNX
- Comfortable lighting conditions through intelligent lighting and shading control
Save energy and reduce costs with communicating standard controllers
How do Synco™ HVAC controllers prevent heating boilers, refrigeration machines or pumps from starting up unless necessary? By exchanging information on energy usage via KNX communication. In addition, all Synco controllers utilize tested energy saving functions.

Buildings have different HVAC control requirements depending on size, life cycle, business hours and expectations of comfort. With its highly energy-efficient and reliable standard controllers as well as a scalable, modular product range, Synco can be tailored to any needs.
For room automation, Synco offers you a range of room controllers that are eu.bac-certified based on their quality, control accuracy and energy efficiency. Their control accuracy optimizes the room climate and prevents the temperature setpoint from being changed unnecessarily. Synco also provides intelligent functions such as the energy indicator. This feature notifies you via e-mail or HomeControl app if the current settings are energetically unfavorable.

More information at
› www.eubac.org

Did you know that...

...eu.bac-certified Synco controllers are so accurate that they save up to 14 percent more energy than non-certified controllers?

Monitored energy efficiency
If you decide on a Synco or Synco living HVAC plant with Web server, you can check the status of your HVAC plant from anywhere using the HomeControl app or Web access – and, for example, activate the energy saving mode.

Using a colored leaf symbol, the energy indicator shows if defined user settings are exceeded (orange) or if conditions are energetically optimal (green). The energy indicator notifies you via e-mail or the HomeControl App.
Investment-safe standard controllers for reliable HVAC plants
It pays to invest in Synco standard controllers, as demonstrated by the energy savings that can be achieved and the more than 200,000 installations currently in operation. Durable, tested controllers provide for a high level of satisfaction among users. Synco controllers can also be upgraded and adapted at any time thanks to their modular design concept and backward-compatible communication. For you this means you keep all options open for potentially upgrading your HVAC system in the future. In addition, you can expand your system gradually, with staggered investments.

Advanced automation for a modern, comfortable home
The Synco living home automation and control system offers you energy-saving comfort specially designed for residential living. It provides demand-based control of your heating, ventilation and air conditioning plant as well as lighting and shading. Operation is easy using the central control unit, which also displays consumption data. In addition, Synco living supports remote reading of consumption data without entering the home. With battery-operated and wireless units, the system can be used anywhere and expanded as necessary without major structural measures.
Efficient heating for residential and commercial buildings

The range of standard controllers also includes heating and district heating controllers. These provide ease of use and integrated energy saving functions for energy- and cost-effective heat control in residential and commercial buildings. For example, they support the use of renewable energy resources for solar domestic hot water heating and they take into account the outside and room temperature. They have demonstrated their reliability many times over: More than two million of these controllers have been installed worldwide.

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**Highlights**

- Energy savings of up to 30 percent through energy saving functions and high-precision control
- Flexible scalability based on a modular product range
- Outstanding reliability as proven by more than 200,000 installations
- Optimal plant control via remote access using the HomeControl app
- Comfortable automation for residential living

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You can find more information on the Internet:

- Synco HVAC control system
- Integrated applications

Additional documents:

- Brochure Synco/controller portfolio
- Brochure Synco living/home automation system
- Brochure Synco living/consumption data acquisition
Integrated applications – for energy-efficient buildings

Integrated energy saving applications without loss of comfort
Thanks to intelligent energy saving functions, GAMMA building control and Synco heating, ventilation and air conditioning controllers lower the energy consumption of buildings, thus reducing operating costs. The system components offer ease of use, ensure secure operation and optimize the room’s climate.

Intelligent functions and applications are made possible by standardized KNX communication which is used throughout the world. To operate the system, a wide choice of display and operating elements are at your disposal: simple pushbuttons, multifunctional room operator units and web-based operation.

You can find more information on the Internet:
- Integrated applications for office buildings
- Integrated applications for schools
- Integrated applications for hotels
- Integrated applications for retirement and nursing homes

Additional documents:
- Brochure KNX for building and room automation
Efficient temperature control for individual rooms
Room thermostats from Siemens reduce your energy consumption through time-based programs that produce the desired temperature at the desired time. In addition, absence and vacation functions ensure the temperature is lowered to efficiency mode. To further reduce energy waste by careless users, you can connect external contact switches. For instance, window contacts can help minimize thermal energy losses from thoughtless airing a room.

Room thermostats – for the perfect feel-good climate

To save energy, rooms should be heated or cooled only when they are being used. Room thermostats from Siemens make this easy – for example, based on presence or time.
If the window is opened, the setpoint is lowered automatically. If a keycard contact is connected, the setpoint is reduced automatically once the user leaves the room.

**The ideal room thermostat for any requirement**

The broad product range ensures that the right option is available for your plant. It includes devices for any application – from fan coils, variable air volume systems and chilled ceilings to radiators and heat pumps. Depending on the model, the individual room thermostats are suitable for different heating, ventilation and air conditioning applications. This ensures that the requirements of multi- and single-family homes can be met just as efficiently as those of commercial properties, hotels and office buildings. Using KNX, communicating devices can be integrated seamlessly in building automation systems.

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**Did you know that...**

...by reducing the heating temperature by 1°C, you can lower your energy costs by up to six percent?
Easy setting and reading of temperature values
There are as many different designs as there are different requirements, including models with innovative touch technology. Whether you prefer large buttons or setting knobs, you will find an operating concept that is intuitive to use. The menu is also self-explanatory. The background lighting of the display makes it easy to read the temperature or time in the dark. Temperatures can be displayed in °C and °F. A button lock prevents unintentional changes.

It always pays to invest in quality
When it comes to room thermostats, you can count on quality workmanship, solid materials and extensive quality management. Long service life and reliability ensure efficient operation for years to come. In addition, the room thermostats comply with all applicable standards. They not only provide short-term investment protection, but also pay off in the long term.

Highlights
- Broad range of room thermostats for any application
- Energy savings with time-based programs, absence function and external contact switches
- Maximum room comfort through individual settings
- Superior ease of use thanks to straightforward, self-explanatory operation
- Seamless integration in existing systems via KNX
Energy efficiency for the optimal room climate

For energy-efficient control of an HVAC plant, it is essential to have fast and accurate measurements, for example for room temperature and air quality in the room and in the plant. Symaro™ sensors make it possible to achieve significant energy savings. Their special measuring technology enables precise measurements of temperature, air quality and relative humidity, even when flat sensors for flush mounting are used.

Symaro – for fast, high-precision measurements

An HVAC control system is only as good as the sensors that record the current temperature, humidity, pressure, etc. and transmit this data to the controllers. So to ensure an energy-efficient and comfortable room climate, you need sensors that function with absolute reliability throughout their entire service life.
Demand-controlled ventilation, for example, adjusts the amount of air supplied to the building based on the volume actually required. For instance, up to 70 percent of energy can be saved in buildings whose occupancy varies over a 24-hour period, such as movie theaters or restaurants.

Did you know that...

...demand-controlled ventilation can save up to 70 percent in energy costs?

Symaro offers a comprehensive range for all typical HVAC applications: from temperature to humidity, pressure, flow rate and air quality as well as special applications such as capturing sunlight and certified sensors for the food and pharmaceutical industries. Multi-sensors for the simultaneous recording of multiple measurement parameters reduce the number of devices needed and also minimize the cabling and installation effort prior to commissioning. Room sensors based on the open KNX communication standard can be integrated seamlessly in higher-level building systems, such as Desigo, Synco or GAMMA from Siemens.

Symaro air quality sensors for demand-controlled ventilation

One of the most energy-efficient control strategies that delivers optimal air quality at all times is demand-controlled ventilation based on room air quality. Real-time measurement of the status of a room’s air ensures a fresh-air supply when it’s actually needed. Symaro air quality sensors are one of the key components that enable this control strategy.
Easy to install, affordable to maintain
The housing design of all Symaro sensors for room or duct installation is optimized for fast and efficient mounting. After plastering and painting, sensors for wall mounting can be conveniently snapped onto the mounting plate supplied with the product while clamp-on sensors can be attached to pipes, regardless of the pipe’s diameter. Digital correction algorithms ensure that a clean and clear measurement signal is available at all times, and thanks to automatic calibration the sensors are virtually maintenance-free. The integrated self-monitoring feature and long service life protect your investment and ensure that it begins to pay for itself right from the start.

Flexible, modern design that suits any ambience
With frames from the DELTA program from Siemens or from a third-party manufacturer, the design of the sensors can be customized to match the room environment. Whether classically simple, made of plastic or glass – the wide selection of frames leaves nothing to wish for.

Efficient and stylish measurement
Symaro sensors for flush mounting are distinguished by a low energy demand as well as highly precise and fast-reacting measurements. The communicating sensors for flush mounting indicate whether the room’s air quality is good, average or bad via an LED that lights up in green, orange or red. The sensors for flush mounting are compatible with all frames from the DELTA program or from third-party manufacturers.
Highlights

- Wide portfolio of sensors for all standard measurement ranges and values as well as installation options
- Energy savings through fast, highly accurate measurements
- Cost efficiency based on long-term stability and outstanding measuring accuracy
- High level of room comfort through sensors for demand-controlled ventilation
- Straightforward integration in the building automation system via KNX

You can find more information on the Internet:

Symaro HVAC sensors

Additional documents:

- Brochure Symaro sensors
- Brochure Symaro sensors for flush mounting
- Flyer Energy-efficient control strategy
What can meters from Siemens do? They can provide precise, stable and reliable consumption measurement of water, heating and cooling – as well as convenient and flexible reading of the measured data. This applies for broadly dispersed building complexes as well as for office or residential buildings. The extensive range includes heat cost allocators, heating/cooling energy meters and water meters as well as system components.

Meters – for accurate recording of consumption data

How much hot and cold water, how much heating and cooling energy were used? Meters from Siemens give you a detailed view of consumption data.
All of them are maintenance-free and have a service life of more than 15 years. Meters featuring ultrasonic technology read consumption data without requiring any mechanical parts, which helps ensure accurate measurements over the long term.

Convenient reading and protecting privacy
Reading usage data is typically an inconvenient task for all involved. However, meters from Siemens are designed for convenience: They can read consumption data via wireless or wired connection in a publicly accessible area of the building as well as from outside the building or remotely. Entering a home is no longer necessary, which preserves the privacy of the residents. This makes appointments unnecessary and makes it possible to perform the reading at the precise time preferred by the biller – using Internet technologies even from the office via Ethernet or cellular network.

Easy integration in higher-level systems
Due to the different reading options, the meters are easy to integrate in systems from Siemens – in the Synco living home automation system for residential buildings, and in the Desigo building automation system for office and administrative buildings.
Reliable meters with straightforward operation
Using standard interfaces, the meters can easily be integrated in building automation systems such as Desigo or Synco living from Siemens and in billing systems. Because every meter is equipped with a display or a mechanical counter, residents always have an overview of their consumption data. In addition, the devices are highly secure: Attempts to manipulate readings on heat cost allocators are detected immediately and registered. All other meters are protected by a calibration seal.

A good investment with lasting value
The use of meters pays for itself. You benefit from accurate and reliable metering devices that have a long service life. The meters comply with the requirements of EN 1434 and comply with the requirements of the European measuring instruments directive (MID class 2 or 3). Administrative work is reduced due to fast, convenient and flexible readings. Reading meter data without entering the home or apartment and billing based on actual consumption improve the satisfaction of residents. This, in turn, increases the value and attractiveness of your property.

Did you know that…
...heating and domestic hot water production account for almost 80 percent of the energy consumption in private households?

You can find more information on the Internet:
- Consumption meters from Siemens
- Ultrasonic heating energy meters (animation)

Additional documents:
- Brochure Consumption data acquisition for every application
- Fyler Whe5.. heat cost allocators – innovative and versatile
Valves and actuators for any HVAC application

The extensive Acvatix™ product range offers you valves and actuators with a long service life that meet virtually any control or hydraulic requirements when it comes to the generation, distribution and usage of heating and cooling energy. This ensures you are ideally equipped for every application – from very small to very high volumetric flows or differential pressures in open and closed circuits. Whether globe and pressure independent combi valves, ball valves, slipper valves and butterfly valves, refrigerant valves or suitable actuators – with Acvatix you will find it all in a single product range.
Improving the energy efficiency of plants
The fine-tuned product range allows optimal plant design in terms of hydraulics, control technology and energy efficiency, for example using valves with a broad spectrum of $k_v$ values. In addition, valves with electrohydraulic or magnetic actuators as well as pressure independent combi valves help lower energy consumption. Pressure independent combi valves, for example, prevent an energy oversupply to consumers as well as mutual hydraulic interaction. Modulating magnetic valves enable energy savings of up to 15 percent due to their precision and ability to adjust quickly to controller setpoints.

Durable products for long-term investment protection
Acvatix gives you peace of mind because the valves and actuators are developed and manufactured by Siemens. This ensures the design is robust and features outstanding reliability as well as minimal need for maintenance. Additionally, products are tested extensively in our internal HVAC laboratory. The result: Acvatix products have been used for decades in millions of successful installations worldwide. To protect existing plants and ongoing projects, Acvatix also provides unique backward compatibility of more than 30 years.

Easy product selection using the Combi Valve Sizer app
The Combi Valve Sizer app makes it easy to select the right Acvatix combi valve and the suitable actuator. Designing energy-efficient HVAC plants is now easier than ever.

› More on the Combi Valve Sizer app
› Combi valves in action (animation)
Reliable and efficient plant operation
Acvatix valves and actuators are designed for quick deployment, reliable operation and easy troubleshooting if needed. This is demonstrated in their ease of use when it comes to installation, commissioning and maintenance. For example, the new generation of actuators features a manual adjuster with various grip options to improve manual operation. An easy-to-see operating status and position indicator helps you quickly check the plant and troubleshoot it in case of a malfunction.

Did you know that...
...the reduced power consumption of Acvatix actuators helps you save 25 percent in energy?

You can find more information on the Internet:

Acvatix valves and actuators

Additional documents:

Brochure Acvatix overview
Brochure Acvatix – the new generation
Brochure Acvatix combi valves
Damper actuators for a broad range of applications
OpenAir™ damper actuators cover all HVAC applications – from recirculated air dampers, outside air dampers and shutoff dampers to variable air volume control and central air handling units. Our product range also includes actuators for fire and smoke protection dampers. These devices are extremely reliable in emergency situations and prevent smoke and flames from spreading to the connected ventilation duct. The compact design of OpenAir products enables you to install them in hard-to-reach and tight areas.

OpenAir – for energy-efficient ventilation

To supply rooms with fresh outdoor air and, depending on the plant, remove exhaust air, many dampers have to be opened and closed in a ventilation system. The OpenAir damper actuators are extremely durable and reliable and hence ideally suited for this purpose.

Conserving energy and supporting energy saving functions
OpenAir products have low-consumption motors which deliver high positioning forces with minimal energy use. The actuators for air volume control further enhance energy efficiency through their highly precise measured value acquisition, which prevents energy losses. You can reduce the energy consumption of your building even further by combining KNX-compatible VAV compact controllers with room thermostats and controllers from the Desigo and Synco 700 product lines or from third-party providers.

Comfortable room climate, convenient operation
Brushless motors, gear trains that have already been run in and precisely mounted technology ensure especially quiet operation of the damper actuators. By quickly and accurately responding to inputs from the building automation system, they add to a comfortable room climate. Self-centering shaft adapters and prewired actuators, for example, make installation and commissioning very convenient. In addition, the actuators are easy to replace because they come in standardized housing sizes, feature universal wiring and installation and have decades-long backward compatibility.

› Safety in case of fire
› Efficiency through demand control
High product quality for a consistently high level of reliability
When you select OpenAir damper actuators, you are choosing a high level of investment protection. Regular functional tests ensure the resilience of the products in continuous operation. Before delivery, every actuator is subjected to thorough functional testing. The robust housings are resistant to the rough conditions often found during transportation, storage and at the construction site. In addition, the actuators meet international standards and are approved for use worldwide. They are manufactured in accordance with the strict ISO 9001 and ISO 14001 standards.

Did you know that...

...in some office buildings ventilation systems account for 30 percent of the electricity consumption?

You can find more information on the Internet:

OpenAir damper actuators

Additional documents:

Brochure OpenAir overview
Modular variable speed drives for all requirements

Whether for commercial or residential applications, the G120P range offers you suitable variable speed drives to efficiently control air and liquid media. It includes models for panel mounting with IP20 protection as well as models for wall mounting with IP54 or IP55 protection.

G120P – more efficiency for fans and pumps

Adapting the performance of fans and pumps in HVAC plants to actual demand can save a considerable amount of energy. The easy-to-use G120P variable speed drives are the right tool for this job.

Modular variable speed drives for all requirements

Whether for commercial or residential applications, the G120P range offers you suitable variable speed drives to efficiently control air and liquid media. It includes models for panel mounting with IP20 protection as well as models for wall mounting with IP54 or IP55 protection.
With their modular design, these variable speed drives can be precisely tailored to your needs. In addition, the individual components, i.e. control unit, power module and operator panel or blanking cover, can be conveniently replaced as necessary.

**Reducing energy consumption and costs**

G120P variable speed drives help you save energy and reduce costs. For example, pumps and fans can be controlled very efficiently in ECO mode, which automatically optimizes the power usage of the motor to suit the actual load. Other features of G120P variable speed drives that add to cost and energy savings include bypass mode and Low Harmonics Technology. These features offer energy savings of up to 60 percent and lower costs. Fast and easy commissioning and maintenance further reduce costs.

**Compatible with the SINAMICS Support app**

You can use the SINAMICS Support app to convert the frequency (Hz) of a variable speed drive to the desired speed of the motor (RPM) and vice versa. When an error code is generated by the variable speed drive, the app explains what the code means and how to correct the error.

› More on the SINAMICS Support app
Quiet operation and safety for room and workplace comfort

G120P drives offer low-noise control of fans and pumps. Through motor speed control you benefit from lower background noise and less noise-induced interference in sensitive equipment, such as computers and communication modules. To ensure increased safety in case of fire, the variable speed drives switch to essential service mode (ESM) in order to provide smoke-free escape routes during fire control situations.

A savvy investment decision

G120P variable speed drives are a sound investment. The soft starts and stops, as well as the minimized mains harmonics, reduce motor wear and extend the service life of pumps and fans. Because the G120P prevents torque and load surges, it helps protect the entire system and limits repair and maintenance costs. In addition, the G120P amortizes in just a few months through energy savings and an efficiency of 98 percent.

Did you know that...

... in 85 percent of cases the actual demand is lower than the rated output of the HVAC plant?

You can find more information on the Internet:

- G120P variable speed drives
- Youtube playlist G120P

Additional documents:

- Brochure G120P overview
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. The document contains a general product overview. Availability can vary by country. For detailed product information, please contact the company office or authorized partners.

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